

# Panasonic<sup>®</sup>

## OPERATING INSTRUCTIONS

**TX-32MS480B**

**TX-32MS490B**

LED TV

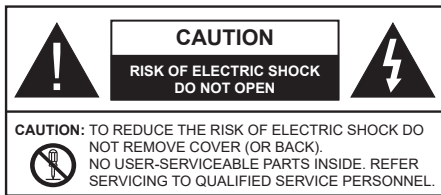
**e-MANUAL**

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/Menu** button and then **Info** button.

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## Safety Information



In extreme weather (storms, lightning) and long inactivity periods (going on holiday) disconnect the TV set from the mains.

The mains plug is used to disconnect TV set from the mains and therefore it must remain readily operable. If the TV set is not disconnected electrically from the mains, the device will still draw power for all situations even if the TV is in standby mode or switched off.

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

### IMPORTANT - Please read these instructions fully before installing or operating

**WARNING:** This device is intended to be used by persons (including children) who are capable / experienced of operating such a device unsupervised, unless they have been given supervision or instruction concerning the use of the device by a person responsible for their safety.

- Use this TV set at an altitude of less than 5000 meters above the sea level, in dry locations and in regions with moderate or tropical climates.
- The TV set is intended for household and similar indoor use but may also be used in public places.
- For ventilation purposes, leave at least 5cm of free space around the TV.
- The ventilation should not be impeded by covering or blocking the ventilation openings with items, such as newspapers, table-cloths, curtains, etc.
- The power cord plug should be easily accessible. Do not place the TV, furniture, etc. on the power cord. A damaged power cord/plug can cause fire or give you an electric shock. Handle the power cord by the plug, do not unplug the TV by pulling the power cord. Never touch the power cord/plug with wet hands as this could cause a short circuit or electric shock. Never make a knot in the power cord or tie it with other cords. When damaged it must be replaced, this should only be done by qualified personnel.
- Do not expose the TV to dripping or splashing of liquids and do not place objects filled with liquids, such as vases, cups, etc. on or over the TV (e.g., on shelves above the unit).

- Do not expose the TV to direct sunlight or do not place open flames such as lit candles on the top of or near the TV.
- Do not place any heat sources such as electric heaters, radiators, etc. near the TV set.
- Do not place the TV on the floor and inclined surfaces.
- 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.
- Do not dispose of the batteries in fire or with hazardous or flammable materials.

### WARNING

- Batteries must not be exposed to excessive heat such as sunshine, fire or the like.
- Excessive sound pressure from earphones or headphones can cause hearing loss.

**ABOVE ALL - NEVER let anyone, especially children, push or hit the screen, push anything into holes, slots or any other openings in the case.**

Caution	Serious injury or death risk
Risk of electric shock	Dangerous voltage risk
Maintenance	Important maintenance component

### 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.

## 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.

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## Warning Stability Hazard

A television may fall, causing serious personal injury or death. Many injuries, particularly to children, can be avoided by taking simple precautions such as:

- ALWAYS use cabinets or stands or mounting methods recommended by the manufacturer of the television set.
- ALWAYS use furniture that can safely support the television set.
- ALWAYS ensure the television set is not overhanging the edge of the supporting furniture.
- ALWAYS educate children about the dangers of climbing on furniture to reach the television set or its controls.
- ALWAYS route cords and cables connected to your television so they cannot be tripped over, pulled or grabbed.
- NEVER place a television set in an unstable location.
- NEVER place the television set on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the television set to a suitable support.
- NEVER place the television set on cloth or other materials that may be located between the television set and supporting furniture.
- NEVER place items that might tempt children to climb, such as toys and remote controls, on the top of the television or furniture on which the television is placed.
- The equipment is only suitable for mounting at heights  $\leq 2$  m.

If the existing television set is going to be retained and relocated, the same considerations as above should be applied.

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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)

## 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

- Using other wall-hanging brackets, or installing a wall-hanging bracket by yourself have the risk of personal injury and product damage. In order to maintain the unit's performance and safety, be absolutely sure to ask your dealer or a licensed contractor to secure the wall-hanging brackets. Any damage caused by installing without a qualified installer will void your warranty.
- Carefully read the instructions accompanying optional accessories, and be absolutely sure to take steps to prevent the TV from falling off.
- Handle the TV carefully during installation since subjecting it to impact or other forces may cause product damage.
- Take care when fixing wall brackets to the wall. Always ensure that there are no electrical cables or pipes in the wall before hanging bracket.
- To prevent fall and injury, remove the TV from its fixed wall position when it is no longer in use.

Figures and illustrations in this user manual are provided for reference only and may differ from the actual product appearance. Product design and specifications may be changed without notice.

## Maintenance

First, remove the mains plug from the mains socket.

### Display panel, Cabinet, Pedestal

#### Regular care:

Gently wipe the surface of the display panel, cabinet, or pedestal by using a soft cloth to remove dirt or fingerprints.

#### For stubborn dirt:

1. First clean the dust from the surface.
2. Dampen a soft cloth with clean water or diluted neutral detergent (1 part detergent to 100 parts water).
3. Wring out the cloth firmly. (Please note, do not let liquid enter the TV inside as it may lead to product failure.)
4. Carefully wipe moisten and wipe away the stubborn dirt.
5. Finally, wipe away all the moisture.

#### Caution

Do not use a hard cloth or rub the surface too hard, otherwise this may cause scratches on the surface.

- Take care not to subject the surfaces to insect repellent, solvent, thinner or other volatile substances. This may degrade surface quality or cause peeling of the paint.
- The surface of the display panel is specially treated and may be easily damaged. Take care not to tap or scratch the surface with your fingernail or other hard objects.
- Do not allow the cabinet and pedestal to make contact with a rubber or PVC substance for a long time. This may degrade surface quality.

### Mains plug

Wipe the mains plug with a dry cloth at regular intervals.

Moisture and dust may cause fire or electrical shock.

## Assembling / Removing the pedestal

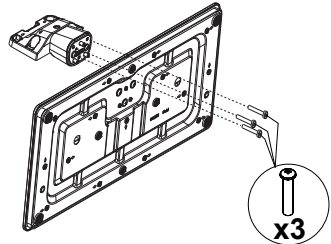
### Preparations

Take out the pedestal(s) and the TV from the packing case and put the TV onto a work table with the screen panel down on the clean and soft cloth (blanket, etc.)

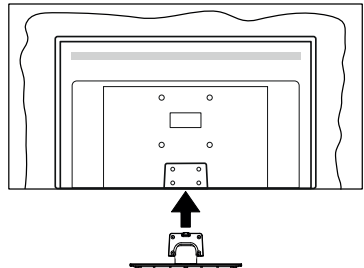
- Use a flat and firm table bigger than the TV.
- Do not hold the screen panel part.
- Make sure not to scratch or break the TV.

### Assembling the pedestal

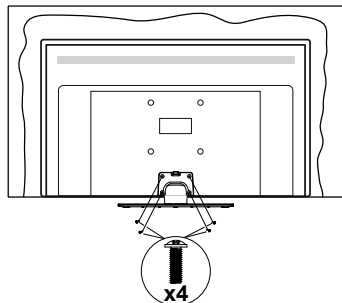
1. The stand of the TV consists of two pieces. Install these pieces together.



2. Place the stand(s) on the stand mounting pattern(s) on the rear side of the TV.



3. Insert the screws (M4 x 12) provided and tighten them gently until the stand is properly fitted.



## Removing the pedestal from the TV

Be sure to remove the pedestal in the following way when using the wall-hanging bracket or repacking the TV.

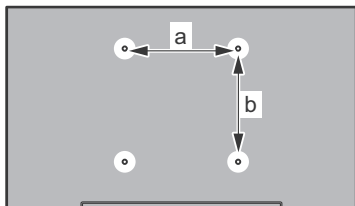
- Put the TV onto a work table with the screen panel down on the clean and soft cloth. Leave the stand(s) protruding over the edge of the surface.
- Unscrew the screws that fixing the stand(s).
- Remove the stand(s).

### When using the wall-hanging bracket

Please contact your local Panasonic dealer to purchase the recommended wall-hanging bracket.

Holes for wall-hanging bracket installation;

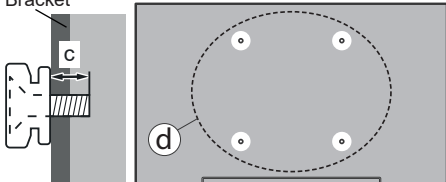
### Rear of the TV



a (mm)	75
b (mm)	75

### View from the side

VESA  
Bracket



(d)	Depth of screw (c)	min.	9 mm
		max.	10 mm
	Diameter		M4

**Note:** The screws for fixing the TV onto the wall-hanging bracket are not supplied with the TV.

## Introduction

Thank you for choosing our product. You'll soon be enjoying your new TV. 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.

## Accessories Included

- Remote Control
- Batteries: 2 x AAA
- Operating Instructions
- Power Cord
- Detachable stand
- Stand mounting screws (M4 x 12)

## Features

- Remote controlled colour TV
- Android™ operating system
- Google Cast
- Voice Search
- Fully integrated digital terrestrial/cable/satellite TV (DVB-T-T2/C/S-S2)
- HDMI inputs to connect other devices with HDMI sockets
- USB input
- Composite inputs for external devices (such as DVD Players, PVR, video games, etc.)
- Stereo sound system
- Teletext
- Headphone connection
- Automatic programming system
- Manual tuning
- Sleep timer
- On/Off timer
- Switch off timer
- Picture off function
- No signal auto power off function
- VGA input
- Ethernet (LAN) for Internet connectivity and service
- 802.11 a/b/g/n/ac built in WLAN Support
- HbbTV

## High Dynamic Range (HDR) / Hybrid Log-Gamma (HLG)

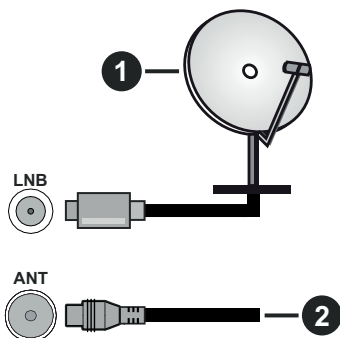
Using this feature the TV can reproduce greater dynamic range of luminosity by capturing and then combining several different exposures. HDR/HLG

promises better picture quality thanks to brighter, more realistic highlights, more realistic colour and other improvements. It delivers the look that filmmakers intended to achieve, showing the hidden areas of dark shadows and sunlight with full clarity, colour and detail. HDR/HLG contents are supported via native and market applications, HDMI, USB inputs and over DVB broadcasts.

## Antenna Connection

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

### Rear side of the TV






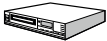

























1. Satellite
2. Aerial or cable



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

## Other Connections

 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
	YPbPr Video Connection (back)	 VGA to YPbPr Connection Cable	
	HDMI Connection (back&side)		
	VGA Connection (back)		
AUDIO IN 	VGA/YPbPr Audio Connection (back)	 YPbPr/VGA Audio Cable	
SPDIF 	SPDIF (Optical Out) Connection (back)		
AV 	AV (Audio/Video) Connection (back)	 Audio Video Cable	
HEADPHONE 	Headphone Connection (side)		
	USB Connection (side)		
	CI Connection (side)		
LAN 	Ethernet Connection (back)	 LAN / Ethernet Cable	

To enable VGA/YPbPr audio, you will need to use the back audio inputs with a VGA/YPbPr audio cable for audio connection. When using the wall mounting kit (contact your dealer to purchase one, 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 USB inputs on the TV support devices up to 500mA. Connecting devices that have current value above 500mA may damage your TV. When connecting equipment using a HDMI cable to your TV, to guarantee sufficient immunity against parasitic frequency radiation and trouble-free transmission of high definition signals, such as 4K content, you have to use a high speed shielded (high grade) HDMI cable with ferrites.

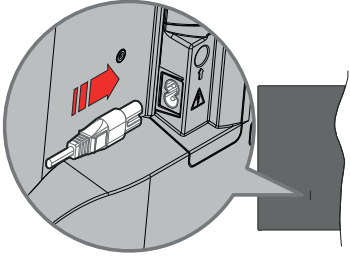


## Turning On/Off the TV

### Connect power

**IMPORTANT:** The TV set is designed to operate on 220-240V AC, 50 Hz socket.

After unpacking, allow the TV set to reach the ambient room temperature before you connect the set to the mains.



Plug one end (the two-hole plug) of the supplied detachable power cord into the power cord inlet on the rear side of the TV as shown above. Then plug the other end of the power cord into the mains socket outlet. The TV will switch on automatically.

*Note: The position of the power cord inlet may differ depending on the model.*

### To switch on the TV from standby

If the TV is in standby mode the standby LED lights up. To switch on the TV from standby mode either:

- Press the **Standby** button on the remote control.
- Press the centre of the joystick on the TV in.

### To switch the TV into standby

The TV cannot be switched into standby mode via joystick. Press and hold the **Standby** button on the remote control. **Power off** dialogue will appear on the screen. Highlight **OK** and press the **OK** button. The TV will switch into standby mode.

### To switch off the TV

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

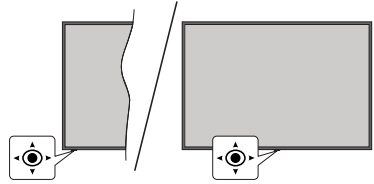
### Quick standby mode

In order to switch the TV into quick standby mode either;

- Press the **Standby** button on the remote.  
Press again to go back to operating mode.
- Press and hold the center of the joystick on the TV.  
Press again to go back to operating mode.

*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.*

## TV Control & Operation



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

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

**To change volume:** With the front side of the TV facing you, push the joystick right to increase the volume and push it left to decrease the volume.

**To change channel in Live TV mode:** Scroll through the stored channels by pushing the joystick forwards or pulling it towards yourself.

**To change source in Live TV mode:** Press the centre of the joystick in, the **TV options** menu will be displayed. Highlight **Source** option and press the centre of the joystick in again, the **Inputs** list will appear on the screen. Select the desired source by pushing the joystick forwards or pulling it towards yourself and press the centre of the joystick in.

**To turn the TV off (Quick Standby):** Press the centre of the joystick in and hold it down for a few seconds, the TV will turn into quick standby mode.

**To turn the TV off (Standby):** The TV cannot be switched into standby mode via joystick.

**To turn on the TV:** Press the centre of the joystick in, the TV will turn on.

### Operation with the Remote Control

Press the **Menu** button on your remote control to display Live TV settings menu when in Live TV mode. Press **Home** button to display or return to the Home Screen of the Android TV. Use the directional buttons to move the focus, proceed, adjust some settings and press **OK** to make selections in order to make changes, set your preferences, enter a sub-menu, launch an application etc. Press **Return/Back** to return to the previous menu screen.

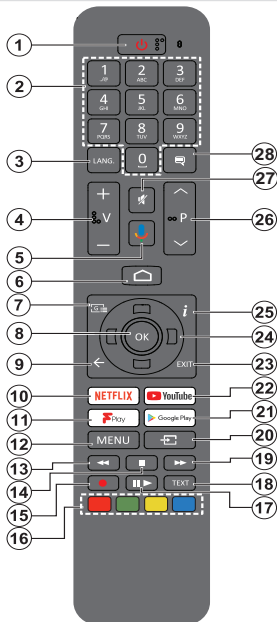
### Input Selection

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 or use the directional buttons and then press the **OK** button to switch to different sources when in Live TV mode. Or enter the **Inputs** menu on the Home Screen, select the desired source from the list and press **OK**.

### Changing Channels and Volume

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

# Remote Control



**Note:** Other Panasonic devices cannot be operated with this remote.

## Inserting the Batteries into the Remote

Remove the screw that secures the battery compartment cover on the back side of the remote control first. Lift the cover gently. Insert two 1.5V - 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. Then screw the cover back on again.

## To pair remote with the TV

When TV is turned on for the first time, a search for accessories will be performed after the initial setup starts. You will need to pair your remote control with your TV at this point.

Press and hold the **Source** button on the remote until the LED on the remote starts to blink, then release the **Source** button. That means the remote is in pairing mode.

Now you will wait for the TV to find your remote. Select the name of your remote and press **OK** when it appears on the TV screen.

When the pairing process is successful, the LED on the remote will go off. If the pairing process fails the remote will enter sleep mode after 30 seconds.

In order to pair your remote later on, you can go to **Settings** menu, highlight **Remotes & Accessories** option and press **OK** to start a search for accessories.

1. **Standby:** Quick Standby / Standby / On
2. **Numeric buttons:** Switches the channel in Live TV mode, enters a number or a letter in the text box on the screen
3. **Language:** Switches among sound modes (analogue TV), displays and changes audio language (digital TV, where available)
4. **Volume +/-**
5. **Microphone:** Activates the microphone on the remote
6. **Home:** Opens the Home Screen
7. **Guide:** Displays the electronic programme guide in Live TV mode
8. **OK:** Confirms selections, enters to sub-menus, views channel list (in Live TV mode)
9. **Back/Return:** Returns to previous menu screen, goes one step back, closes open windows, closes teletext (in Live TV-Teletext mode)
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. **Menu:** Displays Live TV Settings menu (in Live TV mode), displays available setting options such as sound and picture
13. **Rewind:** Moves frames backwards in media such as movies
14. **Stop:** Stops the media being played
15. No function
16. **Coloured Buttons:** Follow the on-screen instructions for coloured button functions
17. **Pause:** Pauses the media being played  
**Play:** Starts to play selected media
18. **Text:** Opens and closes teletext (where available in Live TV mode)
19. **Fast forward:** Moves frames forward in media such as movies
20. **Source:** Shows all available broadcast and content sources, closes the Home Screen and switches to last set source, is also used in pairing process of the remote.
21. **Google Play:** Launches the Google Play Store application
22. **YouTube:** Launches the YouTube application
23. **Exit:** Closes and exits from Live TV Settings menus, closes the Home Screen, exits from any running application or menu or OSD banner, switches to last set source
24. **Directional buttons:** Navigates menus, setting options, moves the focus or cursor etc. and displays the subpages in Live TV-Teletext mode when pressed Right or Left. Follow the on-screen instructions

**Note:** Directional buttons are positioned on the circle around the OK button.

25. **Info:** Displays information about on-screen content
26. **Programme +/-:** Increases/Decreases channel number in Live TV mode
27. **Mute:** Completely turns off the volume of the TV
28. **Subtitles:** Turns subtitles on and off (where available)

## Standby Button

Press and hold the **Standby** button on the remote control. **Power off** dialogue will appear on the screen. Highlight **OK** and press the **OK** button. The TV will switch into standby mode. Press briefly and release to switch the TV into quick standby mode or to switch on the TV when in quick standby or standby mode.

## Initial Setup Wizard

**Note:** Follow the on-screen instructions to complete the initial setup process. Use the directional buttons and the **OK** button on the remote to select, set, confirm and proceed.

When turned on for the first time, a welcome screen will be displayed. Select your language and press **OK**. Follow the on-screen instructions to setup your TV and install channels. The installation wizard will guide you through the setup process. You can perform initial setup anytime using the **Reset** option in the **Settings>Device Preferences** menu. You can access the **Settings** menu from the Home screen or from the **TV options** menu in Live TV mode.

### 1. Welcome Message and Language Selection

"Welcome" message will be displayed along with the language selection options listed on the screen. Select the desired language from the list and press **OK** to continue.

### 2. Initial Setup

After the language selection you can start the initial setup wizard. Highlight **Continue** and press **OK** to proceed. You will not be able to go back and change the language once you proceed. If you need to change the language after this step you will have to switch the TV into standby mode so the setup process starts from the beginning when you next switch on the TV. In order to do this, press and hold the **Standby** button. A dialogue will be displayed. Highlight **OK** and press **OK**.

### 3. Search for accessories

A search for accessories will be performed after the initial setup has started. Follow the on-screen instructions to pair your remote control (depends on the model of the remote control) and other wireless accessories with your TV. Press **Back/Return** button to end adding accessories and proceed.

### 4. Quick Setup

If you didn't priorly connect your TV to the internet via Ethernet a screen will be displayed where you can transfer your Android phone's WLAN network and Google Account to your TV. Highlight **Continue** and press **OK** to proceed. Follow the on-screen instructions on your TV and your phone to complete the process. You can also skip this step by selecting **Skip** option. Some steps may be skipped depending on the settings made in this step.

If you did priorly connect your TV to the internet via Ethernet a message will be displayed stating that you are connected. You can choose to continue with wired connection or change the network. Highlight **Change network** and press **OK** if you want to use wireless connection instead of wired connection.

## 5. Network Connection

You will be directed to the next step automatically, if you connect your TV to internet via Ethernet at this point. If not, available wireless networks will be searched and listed on the next screen. Select your WLAN network from the list and press **OK** to connect. Enter the password using the virtual keyboard if the network is password protected. Select the **Other network** option from the list, if the network that you want to connect has hidden SSID.

If you prefer not to connect to the internet at this point you can skip this step by selecting **Skip** option. You can connect to internet later using the **Network & Internet** menu options in the **Settings** menu from the Home Screen or from the **TV options** menu in Live TV mode.

This step will be skipped if internet connection has been established in the previous step.

### 6. Sign in to your Google account

If connection succeeds, you can sign in to your Google account on the next screen. You need to be signed in to a Google account in order to use Google services. This step will be skipped if no internet connection has been established in the previous step or if you already signed in to your Google account in Quick Setup step.

By signing in, you will be able to discover new apps for videos, music and games on Google Play; get personalised recommendations from apps like YouTube; buy or rent the newest movies and shows on Google Play Movies & TV; access your entertainment and control your media. Highlight **Sign In** and press **OK** to proceed. Sign-in options are as following:

- **Use your phone or computer:** You can use a browser on your phone or computer to sign in. Highlight this option and press **OK** button. A code will be displayed on the TV screen. Make sure your phone or computer is on the same network as your TV. Open the given website (androidtv.com/setup, follow on-screen instructions for the up-to-date website url) in your phone's or computer's browser and enter the code you see on your TV screen into the related entry field. Then follow the instructions on your device and complete the process.
- **Use your remote:** Using this option you can sign in to your Google account by entering your e-mail address or phone number and your password.

If you prefer not to sign in to your Google account at this point you can skip this step by selecting **Skip** option.

### 7. Terms of Service

Terms of Service screen will be displayed next. By continuing, you will agree to the Google Terms of Service, the Google Privacy Policy and the Google Play Terms of Service. Highlight **Accept** and press **OK** on the remote to confirm and proceed. You can

also view **Terms of Service, Privacy Policy and Play Terms of Service** on this screen. To display the content an internet connection is needed. A message will be displayed mentioning the web site address on which this information can also be viewed, in case internet access is not available.

## 8. Location

On the next screen, you can allow or disallow Google and third party apps to use your TV's location information. Select **Yes** to confirm and press **OK**. To skip this step without confirmation, select **No** and proceed by pressing the **OK** button. You can change this setting later using the **Settings>Device Preferences>Location** menu on the Home Screen.

## 9. Help improve Android

Automatically send diagnostic information to Google, like crash reports and usage data from your device and apps. This information won't be used to identify you. Select **Yes** to confirm and press **OK**. To skip this step without confirmation, select **No** and proceed by pressing the **OK** button. You can change this setting later using the **Settings>Device Preferences>Usage & Diagnostics** menu on the Home Screen.

Information on Google services and some features of your TV will be displayed next. You can turn on personal results for Assistant by choosing the related option when prompted. Press **OK** consecutively to proceed.

## 10. Country

In the next step select your **Country** from the list and press **OK** to continue.

## 11. Password

Depending on the country selection you made in the previous step you may be asked to define a password (PIN) at this point. Press **OK** to proceed. The selected PIN cannot be 0000. This PIN will be required in order to access some menus, contents or to release locked channels, sources etc. You will have to enter it if you are asked to enter a PIN for any menu operation later.

## 12. Select TV Mode

In the following step of the initial setup, you can set the TV's operation mode either as **Home** or as **Store**. **Store** option will configure your TV's settings for store environment. This option is intended only for store use. It is recommended to select **Home** for home use.

## 13. Chromecast built-in always available

Select your chromecast availability preference. If set as **On** your TV will be detected as a Google Cast device and allow Google Assistant and other services to wake your TV up to respond to Cast commands, even when on standby mode and the screen is off.

## 14. Tuner Mode

*Note: If you don't want to perform a tuner scan, select one of the available options anyway. You can skip the scan at some later stage of the installation wizard. If you skip this step you*

*can perform a channel search later using the related **Channels** menu options.*

The next step is the selection of the tuner mode. Select your tuner preference to install channels for Live TV function. **Antenna, Cable** and **Satellite** options are available. Highlight the option that corresponds to your environment and press **OK** or **Right** directional button to proceed.

### Antenna

If **Antenna** option is selected, the TV will search for digital terrestrial and analogue broadcasts. On the next screen highlight **Scan** option and press **OK** to start the search or select **Skip Scan** to continue without performing a search.

*Note: If the country selected does not have analogue broadcasts, the analogue search option may not be available.*

### Cable

If **Cable** option is selected, the TV will search for digital cable and analogue broadcasts. If any, available operator options will be listed on the **Select Operator** screen. Otherwise this step will be skipped. You can select only one operator from the list. Highlight the desired operator and press **OK** or the **Right** directional button to proceed. On the next screen select **Scan** option to start a search or select **Skip Scan** to continue without performing a search. If **Scan** is selected a configuration screen will be displayed next. **Scan Mode, Frequency(KHz), Modulation, Symbol Rate(Ksym/s), Network ID** options may need to be set. To perform a full scan set the **Scan Mode** as **Full/Advance** if available. Depending on the selected operator and/or **Scan Mode** some options may not be available to be set.

*Note: If the country selected does not have analogue broadcasts, the analogue search option may not be available.*

Once you are done with setting available options, press the **Right** directional button to proceed. The TV will start to search available broadcasts.

### Satellite

If **Satellite** option is selected, **Satellite Type** screen will be displayed next. **Preferred Satellite** and **General Satellite** options will be available. Select one and press **OK** to proceed.

*Note: Preferred Satellite and General Satellite options may not be available depending on the selected country. In this case the DVBS Configuration Setting screen will be displayed after selecting the tuner mode as Satellite.*

If **Preferred Satellite** option is selected, next screen will be **Select Operator** screen. You can select only one operator from the list. Highlight the desired operator and press **OK** or the **Right** directional button to proceed. Some of the following options may be preset depending on the selected operator in this step. Check the parameters before proceeding and adjust if necessary.

**DVBS Configuration Setting** screen will be displayed next. First **Antenna type(\*)** should be set. **Universal, Single Cable** and **Jess Singlecable** options are available. Set the **Antenna Type** as **Universal** for Direct and DiSEqC satellite systems. If you set the antenna type as **Universal**, press the **Right** directional button to proceed to the next step. If the antenna type is set as **Single Cable** or **Jess Singlecable**, there will be three more additional options on the **DVBS Configuration Setting** screen: **Tuner, Band frequency** and **User Defined**. **User Defined** option will be available if the **Band frequency** is set as **User Defined**. Set these options if available and press the **Right** directional button to proceed.

*(\*) This option may be named as **Satellite type** depending on the country selection.*

Depending on the country and satellite type selections you made in the earlier steps of the initial setup process, **Load Preset List** screen may be displayed next. Highlight **Load Preset List** and press **OK** or the **Right** directional button to proceed with the SatcoDX installation. You can also skip this step by selecting **Skip** option.

After the parameters on the **DVBS Configuration Setting** screen are configured according to your environment and preset list installation preference is selected the next step may be **Select Satellite** screen. You may be able to set up different satellites depending on the selected antenna type and operator in the previous steps. Highlight the desired satellite option and press **OK** to set the parameters(\*). The **Satellite Status** of the first satellite option will be set as **On**. In order to configure other settings of the satellite and to enable scan this option should be set as **On** first. Press **Back** button and select next satellite you want to set. After you completed the configuration changes, press the **Right** directional button to proceed.

*(\*) If you have a Direct satellite system, **DiSEqC Set** option should be set as **DiSEqC A**.*

If **Load Preset List** option is selected in the previous step next steps will be skipped and the preset channel list installation will start. If the correct satellite has not been selected for SatcoDX installation, a warning dialogue will be displayed on the screen. The satellite/s that can be selected will be listed. Press **OK** to close the dialogue and then set the satellite accordingly.

**Channel Scan** screen will be displayed next. Select **Scan** and press **OK** or the **Right** directional button to proceed with the scanning configurations. Select **Skip Scan** to proceed without performing a scan and complete the initial setup.

**DVBS Scan Configure** screen will be displayed next if **Scan** option is selected. Following options will be available: **Scan Mode** and **Channels**. You can choose to perform a full scan or a network scan. Set the **Scan Mode** accordingly. If you are going to perform a

network scan, make sure that you have adjusted the **Frequency, Symbol Rate (Ksym/s)** and **Polarisation** parameters under the **Transponder** option accurately on the **Satellite Setup** screen. You may not be able to change the **Scan mode** setting depending on the previous selections. If the **Channels** option is set as **Free** encrypted channels will not be installed. Additional options may also be available depending on the selected operator, configure these settings according to your preferences. Once you are done with setting the available options, press the **Right** directional button to start scan while **Scan Mode** or **Channels** is highlighted. While the search continues you can press the **Back** button to cancel the search. The channels that have already been found will be stored in the channel list.

When the initial setup is completed results will be displayed. Press **OK** to finish the setup.

Next, you will 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. Highlight **Accept** and press **OK** on the remote to confirm and proceed. Highlight **Skip** and press **OK** to proceed without confirmation. For further requirements for Freeview Play services refer to the **Freeview Play Platform** section.

Home Screen will be displayed. You can highlight **Live TV** app and press **OK** to switch to Live TV mode and watch TV channels.

## Home Screen

To enjoy the benefits of your Android TV, your TV must be connected to the Internet. Connect the TV to a home network with a high-speed Internet connection. You can connect your TV wirelessly or wired to your modem/router. Refer to the **Network & Internet** and **Connecting to the Internet** sections for further information on how to connect your TV to the internet.

The Home menu is the centre of your TV. Press the **Home** button to display Home Screen. From the Home menu you can start any application, switch to a TV channel, watch a movie or switch to a connected device. Depending on your TV setup and your country selection in the initial setup the Home menu may contain different items.

The available options of the Home Screen are positioned in rows. To navigate through the Home Screen options use the directional buttons on the remote. Apps, YouTube, Google Play Movies & TV, Google Play Music and Google Play related rows and rows of the applications you have installed might be available. Select a row then move the focus to the desired item in the row. Press **OK** button to make a selection or to enter a sub-menu.

On the upper left of the screen, search tools will be located. You can choose either to type a word to start

a search via the virtual keyboard or try voice search option if your remote has a built-in microphone. Move the focus to the desired option and press **OK** to proceed.

On the upper right of the screen, **Notifications, Inputs, Network & Internet** (will be named as **Connected** or **Not Connected** according to the current connection status), **Settings** and the current time will be displayed. You can configure your date and time preferences using the **Date & time** menu options from the **Settings>Device Preferences** menu.

First row will be the **Apps** row. **Live TV** and **Multi Media Player** apps will be available alongside with other apps. Highlight **Live TV** and press **OK** to switch to Live TV mode. If the source was set to an option other than **TV** previously, press the **Source** button and set as **TV** in order to watch live TV channels. Highlight **Multi Media Player** and press **OK** to browse the connected USB devices and play/display the installed media content on the TV. The audio can be played through the speakers of the TV or through the speaker systems connected to the TV. You can configure your sound output preference from the **Speakers** option in the **Settings>Device Preferences>Sound** menu. To browse the internet, you will need an internet browser application. Make a search or launch the Google Play app, find a browser and download it.

For some countries, the Home Screen will be organised into several tabs. **Home, Discover** and **Apps** tabs will be available. You can scroll through the tabs using the directional buttons. Each tab will have a featured content row at the top. In the **Home** tab, there will be rows for favourite apps, recent Live TV programmes and recommendations from streaming apps. In the **Discover** tab recommendations from streaming services will be displayed. In the **Apps** tab, all the apps installed on your TV will be displayed and you can install more from Play Store using the related option. Depending on your TV setup and your country selection in the initial setup, the tabs on the Home Screen may contain different items.

## Live TV Mode Menu Content

Switch the TV to Live TV mode first and then press the **Menu** button on the remote to see Live TV menu options. To switch to Live TV mode you can either press the **Exit** button or highlight the **Live TV** app from the **Apps** row on the Home Screen and press **OK**. For some countries, the **Live TV** app will be situated in the **Home** tab on the Home Screen and the row with this app will be named as **Favourite Apps**.

### Channels

**Add to My Favourites:** Add the channel that is currently being watched to the previously selected favourite list.

**Programme Guide:** Open the electronic programme guide. Refer to the **Programme Guide** section for detailed information.

**New Channels Available:** Start a search for new channels. Select the channel source application or tuner. Then make the settings according to your environment and preferences if necessary. You can use the **Channel** menu options to search for broadcast channels. Refer to the **Channel** section for more information. When complete highlight **Done** and press **OK**.

## TV Options

**Source:** Display the list of input sources. Select the desired one and press **OK** to switch to that source.

**Picture Mode:** Set the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: **User, Standard, Vivid, Sport, Movie** and **Game**. You can use **User** mode to create customised settings. Go to **Settings>Device Preferences>Picture** for detailed setting options.

**Display Mode:** Set the aspect ratio of the screen. Select one of the predefined options according to your preference.

**Speakers:** To hear the TV audio from the connected compatible audio device set as **External Audio System**. Set as **TV Speakers** to use the speakers of your TV for sound output.

**Power:** This menu has the same options as in **Settings>Device Preferences>Power** menu. Check the **Timer** and **Screen Saver** options in **Settings>Device Preferences** menu and **Auto Sleep** option in **TV Options>Advanced Options** menu for more power related functions.

**Picture off:** Select this option and press **OK** to turn the screen off. Press a button on the remote or on the TV to turn the screen on again. Note that you can not turn the screen on via the **Volume +/-, Mute** and **Standby** buttons. These buttons will function normally.

**No Signal Auto Power Off:** Set the behaviour of the TV, when no signal is detected from the currently set input source. Define a time after which you want your TV to turn itself off or set as **Off** to disable.

**CI Card:** Display available menu options of the CI card in use. This item may not be available depending on the input source setting.

### Advanced Options

**Audio Language:** Set your language preference for audio. This item may not be available depending on the input source setting.

**Blue Mute:** Turn this function on/off according to your preference. When turned on, blue background



will be displayed on the screen when no signal is available.

**Default Channel:** Set your default startup channel preference. When the **Select Mode** is set as **User Select**, **Show Channels** option will become available. Highlight and press **OK** to see channel list. Highlight a channel and press **OK** to make a selection. Selected channel will be displayed, every time the TV is turned back on from any standby mode. If the **Select Mode** is set as **Last Status**, the last watched channel will be displayed.

**Interaction Channel:** Turn the Interaction Channel function on or off. This feature is useful in the UK and Ireland only.

**MHEG PIN Protection:** Turn the MHEG PIN protection function on or off. This setting enables or disables access some of the MHEG applications. Disabled applications can be released by entering the right PIN. This feature is useful in the UK and Ireland only.

## HBTV Settings

**HBTV Support:** Turn the HBTV function on or off.

**Do Not Track:** Set your preference regarding the tracking behaviour for HBTV services.

**Cookie Settings:** Set your cookie setting preference for HBTV services.

**Persistent Storage:** Turn the Persistent Storage function on or off. If set as **On** cookies will be stored with an expiry date in the persistent memory of the TV.

**Block Tracking Sites:** Turn the Block Tracking Sites function on or off.

**Device ID:** Turn the Device ID function on or off.

**Reset Device ID:** Reset the device ID for HBTV services. Confirmation dialogue will be displayed. Press **OK** to proceed, **Back** to cancel.

**FreeviewPlay Settings:** Press **OK** to display the terms and conditions for Freeview Play services. You can accept or decline using the related options on the side of the screen. Refer to **Freeview Play Platform** section for more information.

## Subtitle

**Analogue Subtitle:** Set this option as **Off**, **On** or **Mute**. If **Mute** option is selected, the analogue subtitle will be displayed on the screen but the speakers will be muted simultaneously.

**Digital Subtitle:** Set this option as **Off** or **On**.

**Subtitle Tracks:** Set your subtitle track preference, if any available.

**Digital Subtitle Language:** Set one of the listed language options as first digital subtitle language preference.

**Second Digital Subtitle Language:** Set one of the listed language options as second digital subtitle language preference. If the selected language in the **Digital Subtitle Language** option is not available, the subtitles will be displayed in this language.

**Subtitle Type:** Set this option as **Normal** or **Hearing Impaired**. If **Hearing Impaired** option is selected, it provides subtitle services to deaf and hard of hearing viewers with additional descriptions.

## Teletext

**Digital Teletext Language:** Set the teletext language for digital broadcasts.

**Decoding Page Language:** Set the decoding page language for teletext display.

**BISS Key:** "Click To Add Biss Key" message will be displayed. Press **OK** button to add a biss key. **Frequency, Symbol Rate (KSym/s), Polarisation, Programme ID** and **CW Key** parameters will be available to be set. Once you are done with the settings highlight **Save Key** and press **OK** to save and add the biss key. This option will not be available if the **Channel Installation Mode** under the **Settings>Channel** menu is not set as **Preferred Satellite, General Satellite** or **Satellite**. Available options will differ depending on the selected country during the initial setup process.

**Auto Sleep:** Define an idle time after which you want your TV to enter sleep mode automatically. **4 Hours, 6 Hours** and **8 Hours** options are available. Set as **Never** to disable.

**System Information:** Display detailed system information on the current channel such as **Signal Level, Signal Quality, Frequency** etc.

**Version Info:** Display system information such as **Model Name** and **Version**.

**Settings:** Refer to **Settings** section for detailed information.

## Settings

You can access the **Settings** menu from the Home Screen or from the **TV options** menu in Live TV mode.

## Network & Internet

You can configure your TV's network settings using the options of this menu. You can also highlight the **Connected/Not Connected** icon on the Home screen and press **OK** to access this menu.

**Wi-Fi:** Turn the wireless LAN (WLAN) function on and off.

## Available networks

When the WLAN function is turned on, available wireless networks will be listed. Highlight **See all** and press **OK** to see all networks. Select one and press **OK** to connect. You may be asked to enter a password to connect to the selected network, in case the network is password protected.

## Other options

**Add new network:** Add networks with hidden SSID's.

**Scanning always available:** You can let the location service and other apps scan for networks, even when WLAN function is turned off. Press **OK** to turn it on and off.

**Wow:** Turn this function on and off. This function allows you to turn on or awaken your TV via wireless network.

**Wol:** Turn this function on and off. This function allows you to turn on or awaken your TV via network.

## Ethernet

**Connected/Not connected:** Displays the status of the internet connection via Ethernet, IP and MAC addresses.

**Proxy settings:** Set a HTTP proxy for browser manually. This proxy may not be used by other apps.

**IP settings:** Configure your TV's IP settings.

## Channel

### Channels

Options of this menu may change or become inactive depending on the **Channel Installation Mode** selection.

#### Channel Installation Mode - Antenna

**Automatic Channel Search:** Start a scan for analogue and digital channels. You can press the **Back** button to cancel the scan. The channels that have already been found will be stored in the channel list.

**Update Scan:** Search for updates. Previously added channels will not be deleted, but any newly found channels will be stored in the channel list.

**Analogue Manual Scan:** Start a manual scan for analogue channels. Enter the **Start Frequency** and then select **Scan Up** or **Scan Down**. When a channel is found the scan will be completed and the found channel will be stored in the channel list.

**Single RF Scan:** Select the **RF Channel** by using the Right/Left directional buttons. **Signal Level** and **Signal Quality** of the selected channel will be shown. Press **OK** to start scan on the selected RF channel. The found channels will be stored in the channel list.

**Manual Service Update:** Start a service update manually.

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

**Channel Scan Type:** Set your scan type preference.

**Channel Store Type:** Set your store type preference.

**Favourite Network Select:** Select your favourite network. This menu option will be active, if more than one network is available.

**Channel Skip:** Set channels to be skipped when switching the channels via **Programme +/-** buttons on the remote. Highlight the desired channel/s on the list and press **OK** to select/unselect.

**Channel Swap:** Replace the positions of the two selected channels in the channel list. Highlight the desired channels on the list and press **OK** to select. When the second channel is selected, the position of this channel will be replaced with the position of the first selected channel. You should set the **LCN** option to **Off** or **Default** in order to enable this feature.

**Channel Move:** Move a channel to the position of another channel. Highlight the channel you want to move and press **OK** to select. Then do the same for a second channel. When the second channel is selected, the first selected channel will be moved to the position of that channel. You should set the **LCN** option to **Off** or **Default** in order to enable this feature.

**Channel Edit:** Edit channels in the channel list. Edit the name and channel number of the selected channel and display **Network Name**, **Frequency**, **Colour System** and **Sound System** information related to that channel if available. Depending on the channel other options may also be editable. You can press the **Blue** button to delete the highlighted channel.

**Analogue Channel Fine-tune:** Fine-tune an analogue channel. A list of available analogue channels will be displayed. Select the desired one from the list and press **OK** button. Then change the frequency of the channel by pressing Left/Right directional buttons. Press **OK** to store the new frequency for that channel. Press **Back** to cancel. This item may not be visible, depending on whether or not the last watched channel was analogue.

**Clear Channel List:** Delete all channels stored in the channel list of the selected channel installation mode. A dialogue will be displayed for confirmation. Highlight **OK** and press **OK** button to proceed. Highlight **Cancel** and press **OK** to cancel.

#### Channel Installation Mode - Cable

**Automatic Channel Search:** Start a scan for analogue and digital cable channels. If available, operator options will be listed. Select the desired one and press **OK**. **Scan Mode**, **Channel Scan Type**, **Frequency** and **Network ID** options may be available. The options



may vary depending on the operator and the **Scan Mode** selections. Set the **Scan Mode** as **Full** if you don't know how to set up other options. Highlight **Scan** and press **OK** to start the scan. You can press the **Back** button to cancel the scan. The channels that have already been found will be stored in the channel list.

**Single RF Scan:** Enter the **Frequency** value. **Signal Level** and **Signal Quality** of the selected **Frequency** will be shown. Highlight the **Scan** option and press **OK** to start scan. The found channels will be stored in the channel list.

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

**Channel Scan Type:** Set your scan type preference.

**Channel Store Type:** Set your store type preference.

**Favourite Network Select:** Select your favourite network. This menu option will be active, if more than one network is available. This option may not be available depending on the selected country during the initial setup process.

**Channel Skip:** Set channels to be skipped when switching the channels via **Programme +/-** buttons on the remote. Highlight the desired channel/s on the list and press **OK** to select/unselect.

**Channel Swap:** Replace the positions of the two selected channels in the channel list. Highlight the desired channels on the list and press **OK** to select. When the second channel is selected, the position of this channel will be replaced with the position of the first selected channel. You should set the **LCN** option to **Off** or **Default** in order to enable this feature.

**Channel Move:** Move a channel to the position of another channel. Highlight the channel you want to move and press **OK** to select. Then do the same for a second channel. When the second channel is selected, the first selected channel will be moved to the position of that channel. You should set the **LCN** option to **Off** or **Default** in order to enable this feature.

**Channel Edit:** Edit channels in the channel list. Edit the name and channel number of the selected channel and display **Network Name**, **Frequency**, **Colour System**, **Sound System**, **Modulation** and **Symbol Rate** information related to that channel. Depending on the channel other options may also be editable. You can press the **Blue** button to delete the highlighted channel.

**Analogue Channel Fine-tune:** Fine-tune an analogue channel. A list of available analogue channels will be displayed. Select the desired one from the list and press **OK** button. Then change the frequency of the channel by pressing Left/Right directional buttons. Press **OK** to store the new frequency for that channel. Press **Back** to cancel. This item may not be visible,

depending on whether or not the last watched channel was analogue.

**Clear Channel List:** Delete all channels stored in the channel list of the selected channel installation mode. A dialogue will be displayed for confirmation. Highlight **OK** and press **OK** button to proceed. Highlight **Cancel** and press **OK** to cancel.

### Channel Installation Mode - Preferred/General Satellite/Satellite

**Satellite Re-scan:** Start a satellite scan beginning with the operator selection screen for the **Preferred Satellite** channel installation mode or with the satellite selection screen for the **General Satellite** or **Satellite** channel installation mode. When this scanning option is preferred, some scanning configurations will not be available and thus the preferences you made during the initial setup process may not be changed.

**Satellite Add:** Add satellite and perform a satellite scan.

**Satellite Update:** Search for any updates by repeating the previous scan with the same settings. You will also be able to configure these settings before the scan. If **Channel Installation Mode** is set to **Preferred Satellite** this option may be named differently depending on the available services. Highlight the satellite and press **OK** button to configure detailed satellite parameters. Press the **Right** directional button to proceed.

**Satellite Manual Tuning:** Start a manual satellite scan.

**Favourite Network Select:** Select your favourite network. This menu option will be active, if more than one network is available. This option may not be available depending on the selected country during the initial setup process.

**Channel Skip:** Set channels to be skipped when switching the channels via **Programme +/-** buttons on the remote. Highlight the desired channel/s on the list and press **OK** to select/unselect.

**Channel Swap:** Replace the positions of the two selected channels in the channel list. Highlight the desired channels on the list and press **OK** to select. When the second channel is selected, the position of this channel will be replaced with the position of the first selected channel.

**Channel Move:** Move a channel to the position of another channel. Highlight the channel you want to move and press **OK** to select. Then do the same for a second channel. When the second channel is selected, the first selected channel will be moved to the position of that channel.

**Channel Edit:** Edit channels in the channel list. Edit the name and channel number of the selected channel and display **Network Name**, **Frequency**, **Colour System** and **Sound System** information related to that channel if available. Depending on the channel other options

may also be editable. You can press the **Blue** button to delete the highlighted channel.

**Clear Channel List:** Delete all channels stored in the channel list of the selected channel installation mode. A dialogue will be displayed for confirmation. Highlight **OK** and press **OK** button to proceed. Highlight **Cancel** and press **OK** to cancel.

*Note: Some options may not be available and appear as grayed out depending on the operator selection and operator related settings.*

### Channel Installation Mode

Set this option as **Antenna, Cable, Preferred Satellite, General Satellite** or **Satellite**.

### Auto Channel Update

Turn the auto channel update function on or off.

### Channel Update Message

Turn the channel update message function on or off. This item may not be visible, depending on the **Channel Installation Mode** selection.

### Parental Controls

*(\*) To enter this menu PIN should be entered first. Default PIN is set to 1234. If you have defined a new PIN after the initial setup process use the PIN that you have defined. Some options may not be available or vary depending on the country selection during the initial setup.*

**Channels Blocked:** Select channel/s to be blocked from the channel list. Highlight a channel and press **OK** to select/unselect. To watch a blocked channel PIN should be entered first.

**Programme Restrictions:** Block programmes according to the age rating information that is being broadcast with them. You can turn on or off restrictions, set rating systems, restriction levels and age limits using the options of this menu.

**Inputs Blocked:** Prevent access to the selected input source content. Highlight the desired input option and press **OK** to select/unselect. To switch to a blocked input source PIN should be entered first.

**Change PIN:** Change the default PIN. Highlight this option and press **OK**. You will need to enter the old PIN first. Then new PIN entry screen will be displayed. Enter the new PIN twice for confirmation.

### Audio Channel

Set the audio channel preference, if available. This item may not be visible, depending on whether or not the last watched channel was analogue.

### Audio Language

Set one of the listed language options as first audio language preference. This item may not be visible, depending on whether or not the last watched channel was digital.

### Second Audio Language

Set one of the listed language options as second audio language preference. If in the **Audio Language** setting selected language option is not supported, this language preference will be considered. This item may not be visible, depending on whether or not the last watched channel was digital.

### Open Source Licenses

Display Open Source Software license information.

### Version

Displays system version number.

### Accounts & Sign In

**Google:** This option will be available if you have signed in to your Google account. You can configure your data syncing preferences or remove your registered account on the TV. Highlight a service listed in the **Choose synced apps** section and press **OK** to enable/disable data sync. Highlight **Sync now** and press **OK** to sync all enabled services at once.

**Add account:** Add a new one to available accounts by signing in to it.

### Apps

Using the options of this menu, you can manage the apps on your TV.

### Recently opened apps

You can display recently opened apps. Highlight **See all apps** and press **OK** to see all the apps installed on your TV. The amount of storage space that they needed will also be displayed. You can see the version of the app, open or force to stop the running of the app, uninstall a downloaded app, see the permissions and turn them on/off, turn on/off the notifications, clear the data and cache etc. Highlight an app and press **OK** to see available options.

### Permissions

Manage the permissions and some other features of the apps.

**App permissions:** The apps will be sorted by permission type categories. You can enable/disable permissions for the apps from within these categories.

**Special app access:** Configure some app features and special permissions.

**Security & restrictions:** Using the options of this menu;

- You can allow or restrict installation of apps from sources other than the Google Play Store.
- Set the TV to disallow or warn before installation of apps that may cause harm.

## Device Preferences

**About:** Check for system updates, change the device name, restart the TV and display system information such as network addresses, serial numbers, versions etc. You can also display legal information, manage advertisements, display your advertising ID, reset it and turn on/off the personalised advertisements based on your interests.

**Netflix ESN:** Display your ESN number. ESN number is a unique ID number for Netflix, created especially to identify your TV.

**Date & time:** Set the date and time options of your TV. You can set your TV to automatically update the time and date data over the network or over the broadcasts. Set corresponding to your environment and preference. Disable by setting as **Off** if you want to manually change the date or time. Then set date, time, time zone and hour format options.

### Timer

**Power On Time Type:** Set your TV to turn on by itself. Set this option as **On** or **Once** to enable a power on timer to be set, set as **Off** to disable. If set as **Once** the TV will turn on only once at the defined time in **Auto Power On Time** option below.

**Auto Power On Time:** Available if the **Power On Time Type** is enabled. Set the desired time for your TV to come on from standby using the directional buttons and press **OK** to save the new set time.

**Power Off Time Type:** Set your TV to turn off by itself. Set this option as **On** or **Once** to enable a power off timer to be set, set as **Off** to disable. If set as **Once** the TV will turn off only once at the defined time in **Auto Power Off Time** option below.

**Auto Power Off Time:** Available if the **Power Off Time Type** is enabled. Set the desired time for your TV to go to standby using the directional buttons and press **OK** to save the new set time.

**Language:** Set your language preference.

**Keyboard:** Select your keyboard type and manage keyboard settings.

**Inputs:** Show or hide an input terminal, change the label for an input terminal, and configure the options for HDMI CEC(Consumer Electronic Control) function and display the CEC device list.

**Power:** This menu has the same options as in **TV Options>Power** menu. Check the **Timer** and **Screen Saver** options in **Settings>Device Preferences** menu and **Auto Sleep** option in **TV Options>Advanced Options** menu for more power related functions.

**Picture off:** Select this option and press **OK** to turn the screen off. Press a button on the remote or on the TV to turn the screen on again. Note that you can not turn the screen on via the **Volume +/-**,

**Mute** and **Standby** buttons. These buttons will function normally.

**No Signal Auto Power Off:** Set the behaviour of the TV, when no signal is detected from the currently set input source. Define a time after which you want your TV to turn itself off or set as **Off** to disable.

### Picture

**Picture Mode:** Set the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: **User**, **Standard**, **Vivid**, **Sport**, **Movie** and **Game**. You can use **User** mode to create customised settings.

**Backlight**, **Brightness**, **Contrast**, **Colour**, **Hue**, **Sharpness** settings will be adjusted according to the selected picture mode. If one of these settings is changed manually, **Picture Mode** option will be changed to **User**, if not already set as **User**.

**Auto Backlight:** Set your auto backlight preference. **Off**, **Low**, **Middle** and **Eco** options will be available. Set as **Off** to disable.

**Backlight:** Adjust the backlight level of the screen manually. This item will not be available if the **Auto Backlight** is not set as **Off**.

**Brightness:** Adjust the brightness value of the screen.

**Contrast:** Adjust the contrast value of the screen.

**Colour:** Adjust the colour saturation value of the screen.

**Hue:** Adjust the hue value of the screen.

**Sharpness:** Adjust the sharpness value for the objects displayed on the screen.

**Gamma:** Set your gamma preference. **Dark**, **Middle** and **Bright** options will be available.

**Colour Temperature:** Set your colour temperature preference. **User**, **Cool**, **Standard** and **Warm** options will be available. You can adjust red, green and blue gain values manually. If one of these values is changed manually, **Colour Temperature** option will be changed to **User**, if not already set as **User**.

**Display Mode:** Set the aspect ratio of the screen. Select one of the predefined options according to your preference.

**HDR:** Turn the HDR function on or off. This item will be available if HDR content is detected.

### Advanced Video

**DNR:** Dynamic Noise Reduction (DNR) is the process of removing noise from digital or analogue signal. Set your DNR preference as **Low**, **Medium**, **Strong**, **Auto** or turn it off by setting as **Off**.

**MPEG NR:** MPEG Noise Reduction cleans up block noise around outlines and noise on the back-

ground. Set your MPEG NR preference as **Low**, **Medium**, **Strong** or turn it off by setting as **Off**.

**Adaptive Luma Control:** Adaptive Luma control adjusts contrast settings globally according to content histogram in order to provide deeper black and brighter white perception. Set your Adaptive Luma Control preference as **Low**, **Medium**, **Strong** or turn it off by setting as **Off**.

**DI Film Mode:** It is the function for 3:2 or 2:2 cadence detection for 24 fps film contents and improves the side effects (like interlacing effect or judder) which are caused by these pull down methods. Set your DI Film Mode preference as **Auto** or turn it off by setting as **Off**. This item will not be available if Game Mode or PC Mode is turned on.

**Blue Stretch:** Human eye perceives cooler whites as brighter white, Blue Stretch feature changes White balance of mid-high grey levels to cooler colour temperature. Turn the Blue Stretch function on or off.

**Game Mode:** Game mode is the mode which cuts down some of the picture processing algorithms to keep up with video games that have fast frame rates. Turn the Game Mode function on or off.

**PC Mode:** PC Mode is the mode which cuts down some of the picture processing algorithms to keep signal type as it is. It can be usable especially for RGB inputs. Turn the PC Mode function on or off.

**HDMI RGB Range:** This setting should be adjusted according to input RGB signal range on HDMI source. It can be limited range (16-235) or full range (0-255). Set your HDMI RGB range preference. **Auto**, **Full** and **Limit** options will be available. This item will not be available, if the input source is not set as HDMI.

**Colour Tuner:** Colour saturation, hue, brightness can be adjustable for red, green, blue, cyan, magenta, yellow and flesh tone (skin tone) for having more vivid or more natural image. Set the **Hue**, **Colour**, **Brightness**, **Offset** and **Gain** values manually. Highlight **Enable** and press **OK** to turn this function on.

**11 Point White Balance Correction:** White balance feature calibrates TV's colour temperature in detailed grey levels. By visually or measurement, grey scale uniformity can be improved. Adjust the strength of the **Red**, **Green**, **Blue** colours and **Gain** value manually. Highlight **Enable** and press **OK** to turn this function on.

**Reset to Default:** Reset the video settings to factory default settings.

*Note: Depending on the currently set input source some menu options may not be available.*

## Sound

**System Sounds:** System sound is the sound played when navigating or selecting an item on the TV screen. Highlight this option and press **OK** to turn this function on or off.

**Sound Style:** For easy sound adjustment, you can select a preset setting. **User**, **Standard**, **Vivid**, **Sport**, **Movie**, **Music** or **News** options will be available. Sound settings will be adjusted according to the selected sound style. Some other sound options may become unavailable depending on the selection.

**Balance:** Adjust the left and right volume balance for speakers and headphones.

**Equaliser Detail:** Adjust the equaliser values according to your preferences.

**Speakers:** To hear the TV audio from the connected compatible audio device set as **External Audio System**. Set as **TV Speakers** to use the speakers of your TV for sound output.

**Digital Output:** Set the digital sound output preference. **Auto**, **Bypass**, **PCM**, **Dolby Digital Plus** and **Dolby Digital** options will be available. Highlight the option you prefer and press **OK** to set.

**SPDIF Delay:** Adjust the SPDIF delay value.

**Auto Volume Control:** With Auto Volume Control, you can set the TV to automatically level out sudden volume differences. Typically at the beginning of adverts or when you are switching channels. Turn this option on/off by pressing **OK**.

**Downmix Mode:** Set your preference to convert multi-channel audio signals to two-channel audio signals. Press **OK** to see the options and set. **Stereo** and **Surround** options will be available. Highlight the option you prefer and press **OK** to set.

**Dolby Audio Processing:** With Dolby Audio Processing, you can improve the sound quality of your TV. Press **OK** to see the options and set. Some other sound options may become unavailable and appear as grayed out depending on the settings made here.

**Dolby Audio Processing:** Highlight this option and press **OK** to turn this function on/off.

**Sound Mode:** If the **Dolby Audio Processing** option is turned on **Sound Mode** option will be available to set. Highlight the **Sound Mode** option and press **OK** to see the preset sound modes. **Smart**, **Movie**, **Music** and **News** options will be available. Highlight the option you prefer and press **OK** to set.

**Reset to Default:** Resets the sound settings to factory defaults.

**Storage:** View the total storage space status of the TV and connected devices if available. To see detailed in-

formation on the usage details highlight and press **OK**. There will also be options for ejecting and formatting the connected storage devices.

**Home screen:** Customise your Home Screen. Select channels which will be displayed on the Home Screen, enable/disable video and audio previews. Organise apps and games, change their order or get more of them. Display open source licences.

For some countries, the Home Screen will be organised into several tabs and this menu will contain additional options to customise the content of these tabs. Highlight **Set up** and press **OK** to sign in to a Google account, so you can browse personalised recommendations for that account in the **Discover** tab on the Home Screen. After signing in, using the related options in this menu, you can view your account activity controls and permissions, customise services and define content preferences to get better recommendations.

**Store mode:** Highlight **Store mode** and press **OK**. Highlight **Continue** and press **OK** if you want to proceed. Then highlight **On** to activate or **Off** to deactivate and press **OK**. In store mode your TV's settings will be configured for store environment and the supported features will be displayed on the screen. Once activated, **Store messaging** setting will become available. Set according to your preferences. It is recommended not to activate store mode for home use.

**Google Assistant:** Select your active account, view permissions, select which apps to include in search results, activate safe search filter, activate offensive word blocking and view open source licenses.

**Screen saver:** Set screensaver and sleep mode options for your TV. You can choose a screensaver, set wait time for the screensaver, set when the TV goes into sleep mode or start the screensaver mode.

**Location:** You can allow the use of the wireless connection to estimate the location, see the recent location requests and allow or restrict the listed apps to use your location information.

**Usage & Diagnostics:** Automatically send usage data and diagnostic information to Google. Set according to your preference.

**Manufacturer Usage & Diagnostics:** If you accept, your TV will send diagnostic information (such as MAC address, country, language, software and firmware versions, bootloader versions and the source of the TV) and anonymous usage data from your device to a server located in Ireland. We are not able to identify you and are only collecting and storing this diagnostic information and anonymous usage data to ensure your device operates properly.

**Accessibility:** Configure **Visually Impaired**, **Captions** settings and/or turn **Audio Description**, **Hearing**

**Impaired**, **Spoken subtitle**, **High contrast text** on/off. Some of the caption settings may not be applied.

**Visually Impaired:** Digital TV channels can broadcast special audio commentary describing on-screen action, body language, expressions and movements for people with visual disabilities.

**Speaker:** Turn this option on if you want to hear the audio commentary through the TV speakers.

**Headphone:** Turn this option on if you want to tune the sound of the audio commentary to the TV's headphone output.

**Volume:** Adjust the volume level of the audio commentary.

**Pan and Fade:** Turn this option on if you want to hear the audio commentary more clearly, when it is available through broadcast.

**Audio for the Visually Impaired:** Set the audio type for visually impaired. Options will be available depending on the selected broadcast.

**Fader Control:** Adjust the volume balance between the main TV audio (**Main**) and audio commentary (**AD**).

**Reset:** Reset all TV settings to the factory default. Highlight **Reset** and press **OK**. A confirmation message will be displayed, select **Erase everything** to proceed with resetting. The TV will switch off/on first and the initial setup will start. Select **Cancel** to exit.

**Note:** You may be asked to enter a PIN to proceed with the reset operation. Enter the PIN you have defined during the first time installation. If you didn't set a PIN during the first time installation, you can use the default PIN. The default PIN is **1234**.

## Remote & Accessories

You can use wireless accessories, such as your remote control (depends on the model of the remote control), headphones, keyboards or game controllers with your Android TV. Add devices to use them with your TV. Select this option and press **OK** to start searching available devices in order to pair them with your TV. If available highlight **Add accessory** option and press **OK** to start the search. Set your device to pairing mode. Available devices will be recognized and listed or pairing request will be displayed. Select your device from the list and press **OK** or highlight **OK** and press **OK** to start pairing.

Connected devices will also be listed here. To unpair a device, highlight it and press **OK**. Then highlight **Unpair** option and press **OK**. Then select **OK** and press **OK** again to unpair the device from the TV. You can also change the name of an connected device. Highlight the device and press **OK**, then highlight **Change name** and press **OK** again. Press **OK** again to use the virtual keyboard to change the name of the device.

## Channel List

The TV sorts all stored channels in the **Channel List**. Press the **OK** button to open the **Channel List** in Live TV mode. You can press the **Red** button to scroll up the list page by page, or press the **Green** button to scroll down.

Several channel list options will be available. Press the **Right** and **Left** directional buttons to switch from one list to another. **Favourites**, **HD channels**, **Interactive channels**, **IP app channels**, **Radio channels** and **All channels** options can be selected. Switch to **All channels** option to see all installed channels in the channel list.

*Note: If any option except **All channels** is selected in the channel list, you can only switch to the channels that are currently listed in the channel list.*

If you press the **Yellow** button the Freeview Play's mini guide will be opened and the integrated on demand applications will be displayed. Now you can press **Blue** button to search events, **Green** button to see the recommendations and **Red** button to see what is on TV now. The functions of the coloured buttons will change depending on the selected option. Follow the instructions on the screen for current button functions.

### Editing the Channels and the Channel List

You can edit the channels and the channel list using the **Channel Skip**, **Channel Swap**, **Channel Move** and **Channel Edit** options under the **Settings>Channel>Channels** menu. You can access the **Settings** menu from the Home Screen or from the **TV options** menu in Live TV mode.

*Note: The options **Channel Swap**, **Channel Move** and **Channel Edit** may not be available and appear as grayed out depending on the operator selection and operator related settings. You can turn off the **LCN** setting in the **Settings>Channel** menu, as it prevents channel editing. This option might be set to **On** by default depending on the selected country during the initial setup process.*

### Managing Favourite Channel List

You can create a list of your favourite channels. This list will include only the channels that are specified by you. To add a channel to your favourite list highlight the desired channel in the channel list and press the **Blue** button on the remote. The channel will be added to your favourite list. To remove that channel from the list, highlight the channel and press **Blue** button.

If you want to list only your favourite channels, press the **Left** or **Right** directional button to switch to **Favourites** channel list option while channel list is displayed.

## Programme Guide

By means of Electronic Programme Guide (EPG) 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.

In order to access the Electronic Programme Guide you can launch the **TV Guide** application in the Freeview Play's **TV Guide** row on the Home Screen or press the **Guide** button on the remote. Electronic Programme Guide is also available in Live TV mode. You can switch to Live TV mode by either launching the **Live TV** application on the Home Screen or selecting **Freeview Live TV** input source from the **Inputs** menu on the Home Screen. To access the programme guide while in Live TV mode, press the **Guide** button on your remote.

Use the directional buttons to navigate through the programme guide. You can use the Up/Down directional buttons to switch to previous/next channel on the list, **Programme +/-** buttons to scroll up or down the list page by page and Right/Left directional buttons to select a desired event of the currently highlighted channel. If available, the full name, start-end time and duration of the highlighted event and a brief information about it will be displayed on the top of the screen. Press **Info** button to see additional information on the highlighted event. Press **Back/Return** button to go back to guide screen.

Press **Blue** button to search events. Press **Yellow** button to see available on demand player applications. Press **Green** button to see the recommendations. You can also press **Red** button to open the schedule. Using the schedule you can see events of the current day, previous or next 7 days. Highlight the day and then the time and press **OK** to see the available events. New functions may also be assigned to the coloured buttons on the remote when they are available. Follow the on-screen information for accurate button functions.

The guide can not be displayed if TV input source is blocked from the **Settings>Channel>Parental Controls>Inputs Blocked** menu in Live TV mode or on Home Screen.

### 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 press **Red** button to open the schedule and then use the directional buttons to select day and time and press **OK**. You will see contents of the selected time on the guide. 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.



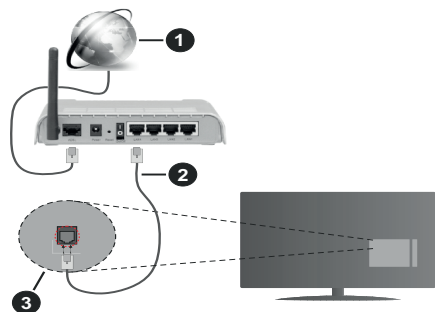
## Connecting to the Internet

You can access the Internet via your TV, by connecting it to a broadband system. It is necessary to configure the network settings in order to enjoy a variety of streaming content and internet applications. These settings can be configured from **Settings>Network & Internet** menu. You can also highlight the **Connected/Not Connected** icon on the Home screen and press **OK** to access this menu. For further information refer to **Network & Internet** section under the title of **Settings**.

### Wired Connection

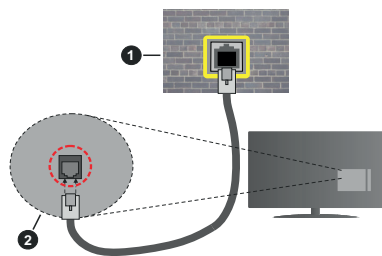
Connect your TV to your modem/router via an Ethernet cable. There is a LAN port on the rear side of your TV.

The status of the connection under the **Ethernet** section in the **Network & Internet** menu will change from **Not connected** to **Connected**.



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

You might be able to connect your TV to a network wall socket depending on your network's configuration. In that case, you can connect your TV directly to the network using an Ethernet cable.

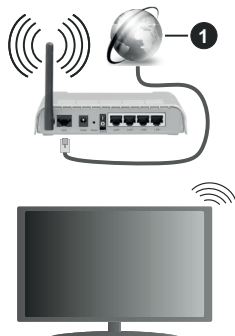


1. Network wall socket
2. LAN input on the rear side of the TV

### Wireless Connection

A wireless LAN modem/router is required to connect the TV to the Internet via wireless LAN.

Highlight **Wi-Fi** option in the **Network & Internet** menu and press **OK** to enable wireless connection. Available networks will be listed. Select one and press **OK** to connect. For more information refer to **Network & Internet** section under the title of **Settings**.



1. Broadband ISP connection

A network with hidden SSID can not be detected by other devices. If you want to connect to a network with hidden SSID, highlight the **Add new network** option under the **Settings>Network & Internet** menu on the Home Screen and press **OK**. Add the network by entering its name manually using the related option.

Some networks may have an authorisation system that requires a second login as such in a work environment. In this case, after connecting to the wireless network you want to connect to, highlight **Notifications** situated on the upper right of the **Home Screen** and press **OK**. Then highlight the **Sign in to Wi-Fi network** notification and press **OK**. Enter your credentials to log in.

A Wireless-N router (IEEE 802.11a/b/g/n/ac) 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.

Use a LAN connection for quicker data transfer between other devices like computers.

The transmission speed differs depending on the distance and number of obstructions between the transmission products, the configuration of these products, the radio wave conditions, the line traffic and the products that you use. The transmission may also be cut off or may get disconnected depending on the radio wave conditions, DECT phones or any other WLAN 11b appliances. The standard values of the transmission speed are the theoretical maximum

values for the wireless standards. They are not the actual speeds of data transmission.

The location where the transmission is most effective differs depending on the usage environment.

The Wireless feature of the TV supports 802.11 a,b,g,n & ac 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.

A stable connection speed is required to play back streaming content. Use an Ethernet connection if the wireless LAN speed is unstable.

## Multi Media Player

On the Home Screen scroll to **Apps** row, select **Multi Media Player (MMP)** and press the **OK** button to launch. For some countries, the **Multi Media Player** app will be situated in the **Home** tab on the Home Screen and the row with this app will be named as **Favourite Apps**.

Select the media type on the main media player screen. On the next screen, you can press the **Menu** button to access a list of menu options while the focus is on a folder or a media file. Using the options of this menu you can change the media type, sort the files, change the thumbnail size and turn your TV into a digital photo frame. You will also be able to copy, paste and delete the media files using the related options of this menu, if a FAT32 formatted USB storage device is connected to the TV. Additionally you can switch the viewing style by selecting either **Normal Parser** or **Recursive Parser**. In **Normal Parser** mode the files will be displayed with folders if any available. So only the selected type of media files in the root folder or in the selected folder will be displayed. If there isn't any media files of the selected type, the folder will be assumed as empty. In **Recursive Parser** mode the source will be searched for all available media files of the selected type and the found files will be listed. Press the **Back/Return** button to close this menu.

In order to activate photo frame feature select **Photo** as the media type. Then press the **Menu** button, highlight **Photo Frame** and press **OK**. If you select **One Photo mode** option and press **OK** the image that you set as photo frame image earlier will be displayed when photo frame feature is activated. If you select the USB storage device option the first file (in **Recursive Parser** mode) will be displayed. To set the photo frame image press the **Menu** button while the photo file of your choice is displayed, highlight **Photo Frame Image** and press **OK**.

While browsing for the video files a preview of the highlighted video will be displayed in a small window on the left side of the screen if the view style is set to List View. Press the **Blue** button to switch between the List View and Grid View. You can also use **Programme +/-** buttons to jump directly to the first and last folder or file if the view style is set to Grid View.

### Video Files

Press **OK** to play back the highlighted video file.

**Info:** Display the info bar. Press twice to display the extended information and the next file.

**Play/pause:** Pause and resume the playback.

**Rewind:** Start reverse playback. Press consecutively to set the rewind speed.

**Fast Forward:** Start fast forward playback. Press consecutively to set the forward playback speed.

**Stop:** Stop the playback and return to the media player screen.

**Programme +:** Switch to next file.

**Programme -:** Switch to previous file.

**Back/Return:** Return to the media player screen.

### Music Files

Press **OK** to play back the highlighted music/audio file.

**Info:** Display the extended information and the next file.

**Play/pause:** Pause and resume the playback.

**Rewind:** Press and hold to rewind.

**Fast Forward:** Press and hold to fast forward.

**Stop:** Stop the playback.

**Programme +:** Switch to next file.

**Programme -:** Switch to previous file.

**Back/Return:** Return to the media player screen.

If you press **Back/Return** button without stopping the playback first the playback will continue while you are browsing in the multimedia player. You can use the media player buttons to control the playback. The playback will stop if you exit the media player or switch the media type to **Video**.

### Photo Files

Press **OK** to display the highlighted photo file. When you press the **Play** button slide show will start and all photo files in the current folder or in the storage device, depends on the viewing style, will be displayed in order. If the **Repeat** option is set to **None** only the files between the highlighted one and the last listed one will be displayed. The slide show will stop after the last listed file is displayed.

**Info:** Display the info bar. Press twice to display the extended information.

**Play/pause:** Pause and resume the slide show.



**Green button (Rotate/Duration):** Rotate the image / Set the interval between the slides.

**Yellow button (Zoom/Effect):** Zoom in on the image / Apply various effects to the slide show.

**Programme +:** Switch to next file.

**Programme -:** Switch to previous file.

**Back/Return:** Return to the media player screen.

#### Text Files

When you press the **OK** button slide will start and all text files in the current folder or in the storage device, depends on the viewing style, will be displayed in order. If the **Repeat** option is set to **None** only the files between the highlighted one and the last listed one will be displayed. The slide show will stop after the last listed file is displayed.

**Info:** Display the info bar. Press twice to display the extended information.

**Play/pause:** Pause and resume the slide show.

**Programme +:** Switch to next file.

**Programme -:** Switch to previous file.

**Directional buttons (Down or Right / Up or Left):** Switch to next page. / Switch to previous page.

**Back/Return:** Stop the slide show and return to the media player screen.

#### Menu Options

Press the **Menu** button to see available options while playing back or displaying media files. The content of this menu differs depending on the media file type.

**Pause/Play:** Pause and resume the playback or the slide show.

**Repeat:** Set the repeat option. Highlight an option and press **OK** to change the setting. If **Repeat One** option is selected the current media file will be repeatedly played back or displayed. If the **Repeat All** option is selected all media files of the same type in the current folder or in the storage device, depends on the viewing style, will be repeatedly played back or displayed.

**Shuffle On/Off:** Turn the shuffle option on or off. Press **OK** to change the setting.

**Duration:** Set the interval between the slides. Highlight an option and press **OK** to change the setting. You can also press the **Green** button to set. This option will not be available if the slide show is paused.

**Rotate:** Rotate the image. The image will be rotated 90 degrees clockwise each time you press **OK**. You can also press the **Green** button to rotate. This option will not be available if the slide show is not paused.

**Effect:** Apply various effects to the slide show. Highlight an option and press **OK** to change the setting. You can also press the **Yellow** button to set. This option will not be available if the slide show is paused.

**Zoom:** Zoom in on the image that is currently being displayed. Highlight an option and press **OK** to change the setting. You can also press the **Yellow** button to zoom in. This option will not be available if the slide show is not paused.

**Font:** Set the font options. Size, style and colour can be set according to your preferences.

**Show Info:** Display the extended information.

**Photo Frame Image:** Set the currently displayed image as photo frame image. This image will be displayed if the **One Photo mode** is selected instead of the connected storage device while activating the photo frame feature. Otherwise all files will be played back as a slide show when photo frame feature is activated.

**Hide/Show Spectrum:** Hide or show the spectrum if available.

**Lyric Options:** Display lyric options if available.

**Picture Off:** Open the power menu of your TV. You can use the **Picture off** option here to turn the screen off. Press a button on the remote or on the TV to turn the screen on again.

**Picture Settings:** Display the picture settings menu.

**Sound Settings:** Display the sound settings menu.

**Audio Settings:** Set the soundtrack option if more than one available.

**Last Memory:** Set to **Time** if you want to resume the playback from the position where it was stopped next time you open the same video file. If set to **Off** the playback will start from the beginning. Highlight an option and press **OK** to change the setting.

**Seek:** Jump to a specific time of the video file. Use the numeric and directional buttons to enter the time and press **OK**.

**Subtitle:** Set your subtitle preference if any available. Set to **Off** to turn the subtitles off.

**Subtitle Encoding:** Display subtitle encoding options if available.

## From USB Connection

**IMPORTANT!** Back up the files on your USB 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 disk formatting. FAT32 formatted devices with a storage capacity larger than 192TB are not supported.

You can view your photos, text documents or play your music and video files installed on a connected USB storage device on the TV. Plug in the USB storage device to one of the USB inputs on the TV.

On the main media player screen select the desired media type. On the next screen, highlight a file name from the list of available media files and press the **OK**

button. Follow the on-screen instructions for more information on other available button functions.

**Note:** 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.

## From a Mobile Device via DMR

Make sure that your mobile device is connected to the same network as your TV. On the TV, scroll to **Apps** row on the Home Screen, select **Multi Media Player (MMP)** and press the **OK** button to launch. For some countries, the **Multi Media Player** app will be situated in the **Home** tab on the Home Screen and the row with this app will be named as **Favourite Apps**. Select the media type on the main media player screen. On the next screen, press the **Blue** button to switch the List View layout. Then press the **Back** button. **DMR** (Digital Media Renderer) option will appear among the media type options. Highlight the **DMR** option and press the **OK** button. The TV is ready to receive the media file sent from your mobile device. On the mobile device, open the file you want to share and tap on the sharing icon or on the related option from the options menu of your mobile device. Available devices will be listed. Select your TV from the list. You can get the device name of your TV from the **Settings>Device Preferences>About** menu on the Home screen. If desired, the name of the TV can also be changed by either selecting one of the predefined names or entering a custom name using the options of the **Device name** menu. If the connection is successfully established the selected media file will be played/displayed on your TV.

## CEC

With CEC function of your TV you can operate a connected device with the TV remote control. This function uses HDMI CEC (Consumer Electronics Control) to communicate with the connected devices. Devices must support HDMI CEC and must be connected with an HDMI connection.

In order to make use of the CEC functionality the related option in the menu should be switched on. To check, switch on or off the CEC function, do the following:

- Enter the **Settings>Device Preferences>Inputs** menu on the Home Screen or **TV options>Settings>Device Preferences>Inputs** menu in Live TV mode.
- Scroll down to **Consumer Electronic Control (CEC)** section. Check if the **HDMI control** option is switched on.
- Highlight the **HDMI control** option and press **OK** to switch on or off.

Make sure that all CEC settings are properly set up on the connected CEC device. The CEC functionality

has different names on different brands. CEC function might not work with all devices. If you connect a device with HDMI CEC support to your TV, the related HDMI input source will be renamed with the connected device's name.

To operate the connected CEC device, select the related HDMI input source from the **Inputs** menu on the Home Screen. Or press the **Source** button if the TV is in Live TV mode and select the related HDMI input source from the list. To terminate this operation and control the TV via the remote again, press the **Source** button, which will still be functional, on the remote and switch to another source.

The TV remote is automatically able to control the device once the connected HDMI source has been selected. However not all buttons will be forwarded to the device. Only devices that support CEC Remote Control function will respond to the TV remote control.

The TV supports also ARC(Audio Return Channel) feature. This feature is an audio link meant to replace other cables between the TV and the audio system (A/V receiver or speaker system). Connect the audio system to the HDMI2 input on the TV to enable ARC feature.

In order to activate ARC feature the **Speakers** option should be set as **External Audio System**. You can access this option from the **TV options** or **TV options>Settings>Device Preferences>Sound** menu in Live TV mode or from **Settings>Device Preferences>Sound** menu on the Home Screen. When ARC is active, TV will mute its other audio outputs automatically. So you will hear audio from connected audio device only. The volume control buttons of the remote will be directed to connected audio device and you will be able to control the volume of the connected device with your TV remote.

**Note:** ARC is supported only via the HDMI2 input.

## Google Cast

With the built-in Google Cast technology you can cast the content from your mobile device straight to your TV. If your mobile device has Google Cast feature, you can mirror your device's screen to your TV wirelessly. Select Cast screen option on your android device. Available devices will be detected and listed. Select your TV from the list and tap on it to start casting. You can get the network name of your TV from the **Settings>Device Preferences>About** menu on the Home screen. **Device name** will be one of the shown articles. You can also change the name of your TV. Highlight **Device name** and press **OK**. Then highlight **Change** and press **OK** again. You can either select one of the predefined names or enter a custom name.

**To cast your device's screen to the TV screen...**

1. On your android device, go to 'Settings' from the notification panel or home screen
2. Tap on 'Device Connectivity'
3. Tap on the 'Easy projection' and enable 'Wireless projection'. Available devices will be listed
4. Select the TV you would like to cast to

or

1. Slide down the notification panel
2. Tap on 'Wireless projection'
3. Select the TV you would like to cast to

If the mobile app is Cast-enabled, such as YouTube, Dailymotion, Netflix, you can cast your app to your TV. On the mobile app, look for the Google Cast icon and tap on it. Available devices will be detected and listed. Select your TV from the list and tap on it to start casting.

#### To cast an app to the TV screen...

1. On your smartphone or tablet, open an app that supports Google Cast
2. Tap the Google Cast icon
3. Select the TV you would like to cast to
4. The app you selected should start playing on TV

#### Notes:

*Google Cast works on Android and iOS. Make sure that your mobile device is connected to the same network as your TV.*

*The menu options and namings for Google Cast function on your Android device can differ from brand to brand and can change with time. Refer to your device's manual for latest information on Google Cast function.*

## HBBTV System

HbbTV (Hybrid Broadcast Broadband TV) is a standard that seamlessly combines TV services delivered via broadcast with services delivered via broadband and also enables access to Internet only services for consumers using connected TVs and set-top boxes. Services delivered through HbbTV include traditional broadcast TV channels, catch-up services, video-on-demand, electronic programme guide, interactive advertising, personalisation, voting, games, social networking and other multimedia applications.

HbbTV applications are available on channels where they are signalled by the broadcaster.

The HbbTV applications are generally launched with the press of a coloured button on the remote. Generally a small red button icon will appear on the screen in order to notify the user that there is an HbbTV application on that channel. Press the button indicated on the screen to launch the application.

HbbTV applications use the buttons on the remote control to interact with the user. When an HbbTV application is launched, the control of some buttons are owned by the application. For example, numeric

channel selection may not work on a teletext application where the numbers indicate teletext pages.

HbbTV requires AV streaming capability for the platform. There are numerous applications providing VOD (video on demand) and catch-up TV services. The **OK** (play&pause), **Stop**, **Fast forward**, and **Rewind** buttons on the remote control can be used to interact with the AV content.

*Note: You can enable or disable this feature from the **TV Options>Advanced Options>HBBTV Settings** menu in Live TV mode.*

## Freeview Play Platform

Freeview Play platform provides catch-up TV and On Demand 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 after the initial setup. Highlight **Accept** and press **OK** on the remote to confirm and proceed. You can also display the terms and conditions using the **Freeview-Play Settings** option in the **TV Options>Advanced Options** menu in Live TV mode.

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 **Programme Guide** for more information.

### Requirements

The Freeview Play services may only be used if the following requirements are fulfilled:

- Connecting the TV to the internet. A minimum broadband speed of 2Mbps is required for proper operation of catch up and on demand services.
- Agreeing to the terms and conditions of Freeview Play

*Note: Freeview Play platform usage will count towards any monthly broadband data allowance. Only selected channels provide 7-day catch up.*

## Quick Standby Search

If earlier an automatic search is performed, your TV will search for new or missing digital channels at 05:00 am every morning while in quick standby mode.

And if the **Auto Channel Update** option in the **Settings>Channel** menu is enabled the TV will wake up within 5 minutes after it is switched into quick standby mode and search for channels. Standby LED will blink during this process. Once the standby LED stops blinking the search process is completed. Any new found channels will be added to the channel list. If the

channel list is updated, you will be informed on the changes at the next power on.

## Software Update

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

To experience the best use of your TV and benefit from the latest improvements make sure your system is always up to date.

### Software update via internet

On the Home Screen enter the **Settings>Device Preferences>About** menu in order to update your Android system version. Move the focus to the **System update** option and press **OK**. You will be informed about the system status and the time at which the device was last checked for an update will be displayed. The **Check for update** option will be highlighted, press **OK** if you want to check for an available update.

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

## Troubleshooting & Tips

### TV does not switch on

- Make sure the power cord is plugged in securely to power outlet.
- Disconnect the power cable from the power outlet. Wait for one minute then reconnect it.
- Press the **Standby/On** button on the TV.

### TV does not respond to the remote control

- The TV requires some time to start up. During this time, the TV does not respond to the remote control or TV controls. This is normal behaviour.
- Check if the remote control is working by means of a mobile phone camera. Put the phone in camera mode and point the remote control to the camera lens. If you press any key on the remote control and you notice the infra red LED flicker through the camera, the remote control is working. The TV needs to be checked.

If you do not notice the flickering, the batteries may be exhausted. Replace the batteries. If the remote is still not working, the remote control might be broken and needs to be checked.

This method of checking the remote control is not possible with remote controls which are wirelessly paired with the TV.

### No Channels

- Make sure that all cables are properly connected and that the correct network is selected.
- Make sure that the correct channel list is selected.

- Make sure that you have entered the correct channel frequency if you have done manual tuning.

### No picture / distorted picture

- Make sure that the antenna is properly connected to the TV.
- Make sure that the antenna cable is not damaged.
- Make sure that the correct device is selected as the input source.
- Make sure that the external device or source is properly connected.
- Make sure that the picture settings are set correctly.
- Loud speakers, unearthed audio devices, neon lights, high buildings and other large objects can influence reception quality. If possible, try to improve the reception quality by changing the antenna direction or moving devices away from the TV.
- Change to a different picture format, if the picture does not fit the screen
- Make sure that your PC uses the supported resolution and refresh rate.

### No sound / poor sound

- Make sure that the sound settings are correctly set.
- Make sure that all cables are properly connected.
- Make sure that the volume is not muted or set to zero, increase the volume to check.
- Make sure that the TV audio output is connected to the audio input on the external sound system.
- Sound may be coming from only one speaker. Check the balance settings from **Sound** menu.

### Input sources - can not be selected

- Make sure that the device is connected to the TV.
- Make sure that all cables are properly connected.
- Make sure that you select the right input source which is dedicated to the connected device.
- Make sure that the right input source is not hidden from the **Inputs** menu.

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

## AV and HDMI Signal Compatibility

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

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

# Supported File Formats for USB Mode

## Video

Video Codec	Resolution	Bit Rate	Profile	Container
VP9	1920x1080@60fps	40Mbps	Profile0,2	MKV (.mkv) WebM (.webm)
HEVC/H.265	1920x1080@60fps	50Mbps	Main/Main10 Profile, High Tier @Level 4.1	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), MKV (.mkv), WebM (.webm), FLV (.flv), AVI (.avi), H265 (.265)
MPEG1/2	1920x1080@60fps	80Mbps	MP@HL	MPEG program stream (.DAT, .VOB, .MPG, .MPEG), MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), WebM (.webm), ASF (.asf), WMV (.wmv), OGM (.ogm)
MPEG4	1920x1080@60fps	40Mbps	<ul style="list-style-type: none"> <li>Simple Profile</li> <li>Advanced Simple Profile@Level 5</li> <li>GMC is not supported</li> </ul>	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), WebM (.webm), ASF (.asf), WMV (.wmv), FLV (.flv), OGM (.ogm), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)
Sorenson H.263	1920x1080@60fps	40Mbps		FLV (.flv) AVI (.avi)
H.263	1920x1080@60fps	40Mbps		FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), ASF (.asf), WMV (.wmv)
H.264	1920X1080@30fps	62.5Mbps	main and high profile up to level 4.1	FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), WMV (.wmv), AVI (.avi), MKV (.mkv), WebM (.webm), OGM (.ogm), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), H264 (.264)
AVS	1920x1080@60fps	40Mbps	Jizhun profile @ Level 6.0	MPEG transport stream (.ts, .trp, .tp), AVS (.avs)
AVS+	1920x1080@60fps	50Mbps	Broadcasting profile@Level 6.0.1.08.60	MPEG transport stream (.ts, .trp, .tp), AVS (.avs)
WMV3	1920x1080@60fps	40Mbps		ASF (.asf), AVI (.avi), MKV (.mkv), WebM (.webm), WMV (.wmv), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), OGM (.ogm)
VC1	1920x1080@60fps	40Mbps	<ul style="list-style-type: none"> <li>Advanced Profile @Level 3</li> <li>Simple Profile</li> <li>Main Profile</li> </ul>	MPEG transport stream (.ts, .trp, .tp), ASF (.asf), WMV (.wmv), AVI (.avi), MKV (.mkv), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), VC1 (.vc1)

Video Codec	Resolution	Bit Rate	Profile	Container
Motion JPEG	640x480@30fps	10Mbps		AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), MKV (.mkv), WebM (.webm), FLV (.flv), OGM (.ogm)
VP8	1920x1080@60fps	20Mbps		MKV (.mkv), WebM (.webm), FLV (.flv), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), AVI (.avi), OGM (.ogm)
RV30/RV40	1920x1080@60fps	40Mbps		RM (.rm, .rmvb), MKV (.mkv), WebM (.webm)

## Audio

Audio Codec	Sample rate	Channel	Bit Rate	Container	Note
MPEG1/2 Layer1	16KHz ~ 48KHz	Up to 2	32Kbps~448Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), WMV (.wmv), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), WAV (.wav), OGM (.ogm)	
MPEG1/2 Layer2	16KHz ~ 48KHz	Up to 2	8Kbps ~ 384Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), WMV (.wmv), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), WAV (.wav), OGM (.ogm)	
MPEG1/2/2.5 Layer3	8KHz ~ 48KHz	Up to 2	8Kbps ~ 320Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), WMV (.wmv), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), WAV (.wav), OGM (.ogm)	
AC3(DD)	32KHz, 44.1KHz, 48KHz	Up to 5.1	32Kbps ~ 640Kbps	AC3 (.ac3), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WMV (.wmv), ASF (.asf), OGM (.ogm)	
EAC3(DDP)	32KHz, 44.1KHz, 48KHz	Up to 5.1	32Kbps ~ 6Mbps	EAC3 (.ec3), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WMV (.wmv), ASF (.asf), OGM (.ogm)	

Audio Codec	Sample rate	Channel	Bit Rate	Container	Note
AAC-LC, HEAAC	8KHz ~ 48KHz	Up to 5.1	AAC-LC: 12kbps~ 576kbps V1 6kbps ~ 288kbps V2: 3kbps ~ 144kbps	AAC (.aac), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), RM (.rm, .rmvb, .ra), WAV (.wav), WMV (.wmv), ASF (.asf), OGM (.ogm)	
WMA	8KHz ~ 48KHz	Up to 2	128bps ~ 320Kbps	ASF (.asf), WMV (.wma, .wmv), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov)	WMA 7, WMA 8, WMA 9 Standard
WMA 10 Pro M0	8KHz ~ 48KHz	Up to 2	< 192kbps	ASF (.asf), WMV (.wma, .wmv), AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov)	
WMA 10 Pro M1	8KHz ~ 48KHz	Up to 5.1	< 384kbps	ASF (.asf), WMV (.wma, .wmv), AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov)	
WMA 10 Pro M2	8KHz ~ 96KHz	Up to 5.1	< 768kbps	ASF (.asf), WMV (.wma, .wmv), AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov)	
VORBIS	Up to 48KHz	Up to 2		MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), Ogg (.ogg), WMV (.wmv), ASF (.asf), AVI (.avi)	Supports stereo decoding only
DTS	Up to 48KHz	Up to 5.1	< 1.5Mbps (Pure DTS core)	MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WAV (.wav), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), AVI (.avi), OGM (.ogm), DTS (.dts)	
DTS LBR	12KHz, 22KHz, 24KHz, 44.1KHz, 48KHz	Up to 5.1	Up to 2Mbps	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp)	
DTS XLL	Up to 96KHz	Up to 6		MPEG transport stream (.ts, .trp, .tp, .mts, .m2ts), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp)	
LPCM	8KHz ~ 48KHz	Mono, Stereo, 5.1	64Kbps ~ 1.5Mbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), WMV (.wmv), ASF (.asf), FLV (.flv), OGM (.ogm)	
IMA-ADPCM MS-ADPCM	8KHz ~ 48KHz	Up to 2	2Kbps~ 384Kbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), OGM (.ogm)	
G711 A/mu-law	8KHz	1	64Kbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), WebM (.webm), FLV (.flv)	



Audio Codec	Sample rate	Channel	Bit Rate	Container	Note
LBR (cook)	8KHz 11.025KHz, 22.05KHz, 44.1KHz	Up to 5.1	6Kbps ~ 128Kbps	RM (.rm, .rmvb, .ra)	
FLAC	8KHz~96KHz	Up to 7.1	< 1.6Mbps	MKV (.mkv, .mka), WebM (.webm), FLAC (.flac)	
OPUS	8KHz ~ 48KHz	Up to 6	6Kbps ~ 510Kbps	MKV (.mkv, .mka) WebM (.webm)	
AMR-NB	8KHz	1	4.75 ~ 12.2Kbps	3GPP (.3gpp, .3gp) MP4 (.mp4, .mov, m4a)	
AMR-WB	16KHz	1	6.6 ~ 23.85Kbps	3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)	

## Picture

Image	Photo	Resolution (width x height)
JPEG	Base-line	15360x8640
	Progressive	1024x768
PNG		9600x6400
BMP		9600x6400
GIF		6400x4800
WebP		3840x2160
HEIF		4000x3000

## Subtitle

### Internal

File Extension	Container	Subtitle Codec
ts, trp, tp	TS	DVB Subtitle Teletext CC(EIA608) PGS
mp4	MP4	Vobsub PGS TX3G
mkv	MKV	ASS SSA SRT VobSub PGS

## External

File Extension	Subtitle Parser	Remark
.srt	SubRip	
.ssa/ .ass	SubStation Alpha Advanced SubStation Alpha	
.smi	SAMI	
.sub	MicroDVD Subldx (VobSub)	
.txt	TMPlayer	

## Supported DVI Resolutions

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

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

## Specification

<b>TV Broadcasting</b>	PAL BG//DK SECAM BG/DK
<b>Receiving Channels</b>	VHF (BAND I/III) - UHF (BAND U) - HYPERBAND
<b>Digital Reception</b>	Fully integrated digital terrestrial-cable-satellite TV(DVB-T-C-S) (DVB-T2, DVB-S2 compliant)
<b>Number of Preset Channels</b>	12,200
<b>Channel Indicator</b>	On Screen Display
<b>RF Aerial Input</b>	75 Ohm (unbalanced)
<b>Operating Voltage</b>	220-240V AC, 50Hz.
<b>Audio</b>	German+Nicam Stereo
<b>Headphone</b>	3.5mm mini stereo jack
<b>Audio Output Power (WRMS.) (10% THD)</b>	2 x 6 W
<b>Power Consumption (W)</b>	65 W
<b>Networked Standby Power Consumption (W)</b>	< 2
<b>Weight (Kg)</b>	5,5 Kg
<b>TV Dimensions DxLxH (with foot) (mm)</b>	185 x 732 x 479
<b>TV Dimensions DxLxH (without foot) (mm)</b>	78 x 732 x 435
<b>Display</b>	16/9 32"
<b>Operation temperature and operation humidity</b>	0°C up to 40°C, 85% humidity max

For more product information, please visit EPREL:  
<https://eprel.ec.europa.eu>.

EPREL registration number is available on  
<https://eprel.panasonic.eu/product>.

## 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

The Wireless LAN equipment is intended for home and office use in the UK and Northern Ireland (and other countries following the relevant EU and/or UK directive). The 5.15 - 5.35 GHz band is restricted to indoor operations only in the EU countries, in the UK and Northern Ireland.

Country	Restriction
Bulgaria	General authorisation required for outdoor use and public service
Italy	If used outside of its own premises, general authorisation is required. Public use is subject to general authorisation by the respective service provider
Greece	In-door use only for 5470 MHz to 5725 MHz band
Luxembourg	General authorisation 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
Israel	5 GHz band only for 5180 MHz-5320 MHz range

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 5 GHz wireless LAN's.

### Standard

IEEE 802.11.a/b/g/n

### Host Interface

USB 2.0

### Security

WEP 64/128, WPA, WPA2, TKIP, AES, WAPI

## Notice

### DVB / Data broadcasting / IPTV functions

- This TV is designed to meet the standards (as of March 2021) of DVB-T / T2 (MPEG2, MPEG4-AVC(H.264) and HEVC(H.265)) digital terrestrial services, DVB-C (MPEG2, MPEG4-AVC(H.264) and HEVC(H.265)) digital cable services and DVB-S (MPEG2, MPEG4-AVC(H.264) and HEVC(H.265)) digital satellite services.

Consult your local dealer for availability of DVB-T / T2 or DVB-S services in your area.

Consult your cable service provider for availability of DVB-C services with this TV.

- This TV may not work correctly with the signal which does not meet the standards of DVB-T / T2, DVB-C or DVB-S.
- Not all the features are available depending on the country, area, broadcaster, service provider, satellite and network environment.
- Not all CI modules work properly with this TV. Consult your service provider about the available CI module.
- This TV may not work correctly with CI module that is not approved by the service provider.
- Additional fees may be charged depending on the service provider.
- The compatibility with future services is not guaranteed.
- Internet apps are provided by their respective service providers, and may be changed, interrupted, or discontinued at any time.

Panasonic assumes no responsibility and makes no warranty for the availability or the continuity of the services.

- Panasonic does not guarantee operation and performance of peripheral devices made by other manufacturers; and we disclaim any liability or damage arising from operation and/or performance from usage of such other maker's peripheral devices.

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## Disposal of Old Equipment and Batteries



### Only for European Union and countries with recycling systems

These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and batteries, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality.

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

### Note for the battery symbol (bottom symbol):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

## Declaration of Conformity (DoC)

Hereby, Panasonic Marketing Europe GmbH, declares that this TV is in compliance with the essential requirements and other relevant provisions of the Directive 2014/53/EU.

If you want to get a copy of the original DoC of this TV, please visit the following website:

<http://www.ptc.panasonic.eu/compliance-documents>

Authorised Representative:

Panasonic Testing Centre

Panasonic Marketing Europe GmbH

Winsbergring 15, 22525 Hamburg, Germany

Web Site: <http://www.panasonic.com>

## UK Declaration of Conformity (DoC)

Hereby, Panasonic Marketing Europe GmbH declares that this product is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Regulations 2017 No. 1206.

If you want to get a copy of the original DoC of this product, please visit the following website:

<http://www.ptc.panasonic.eu/compliance-documents>

Panasonic Marketing Europe GmbH, Wiesbaden, Germany

Importer for UK:

Panasonic UK, a branch of Panasonic Marketing Europe GmbH

Maxis 2, Western Road, Bracknell, Berkshire, RG12 1RT

## Sales and Support Information

### Customer Communication Centre

- For customers within the UK: **0344 844 3899**
- For customers within Ireland: **01289 8333**
- Monday - Friday 9:00am - 5:00pm, (Excluding public holidays).
- For further support on your product, please visit our website: **[www.panasonic.co.uk](http://www.panasonic.co.uk)**

### Direct Sales at Panasonic UK

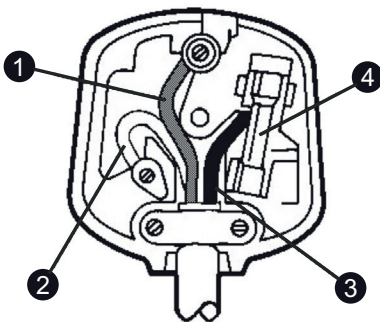
- Order accessory and consumable items for your product with ease and confidence by phoning our Customer Communications Centre Monday - Friday 9:00am - 5:00pm, (Excluding public holidays).
- Or go on line through our Internet Accessory ordering application at **[www.pas-europe.com](http://www.pas-europe.com)**.
- Most major credit and debit cards accepted.
- All enquiries transactions and distribution facilities are provided directly by Panasonic UK.
- It couldn't be simpler!
- Also available through our Internet is direct shopping for a wide range of finished products. Take a browse on our website for further details.

## Important Instruction

For your own safety read following instruction carefully before attempting to connect this unit to the mains supply.

### MAINS (AC) OPERATION

The wires in the mains lead are coloured in accordance with the following code :



1. Green&Yellow (Earth) (if there is earth cable)
2. Blue (Neutral)
3. Brown (Live)
4. Fuse

#### IMPORTANT

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green and yellow must be connected to the terminal which is marked with the letter E, or by the earth symbol, or coloured green or green and yellow.

The wire which is coloured blue or black must be connected to the terminal which is marked with the letter N or coloured Black.

The wire which is coloured brown or red must be connected to the terminal which is marked with the letter L or coloured Red.

For continued protection against risk of fire, replace only with same type and rating of fuse (ASTA approved 5A 250VAC fuse).

#### CAUTION

TO PREVENT ELECTRIC SHOCK DISCONNECT FROM THE MAINS BEFORE REMOVING COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

#### SAFETY PRECAUTION

THIS EQUIPMENT MUST BE DISCONNECTED FROM THE MAINS WHEN NOT IN USE. DO NOT ALLOW THIS UNIT TO BE EXPOSED TO RAIN OR MOISTURE.



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