JVC

Google TV

INSTRUCTION MANUAL

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Safety Information

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

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 metres 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 TV).

- 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 or inclined surfaces.

- To avoid danger of suffocation, keep plastic bags out of the reach of 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.

- Disposal of a battery in a fire or a hot oven, or mechanically crushing or cutting a battery, can result in an explosion; a battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.

- 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 TV.

⚠️ 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.

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

Warnings

- 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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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 ≤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

- 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 falling. Do not over-tighten the screws.

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

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.

Ultra HD (UHD)

The TV supports Ultra HD (Ultra High Definition - also known as 4K) which provides resolution of 3840 x 2160 (4K:2K). It equals 4 times the resolution of Full HD TV by doubling the pixel count of the Full HD TV both horizontally and vertically. Ultra HD content is supported via native and market applications, HDMI, some of the Over-the-Top (OTT) services, USB inputs and over DVB-T2 and DVB-S2 broadcasts.

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 content is supported via native and market applications, HDMI, USB inputs and over DVB-S broadcasts. When HDMI input is used, set the **HDMI EDID version** option as **EDID 2.0**, **EDID 2.1**, or **Auto EDID** in order to watch HDR/HLG content, if the HDR/HLG content is received through an HDMI input. The source device should also be at least HDMI 2.0a compatible in this case.

Dolby Vision

Dolby Vision™ delivers a dramatic visual experience, astonishing brightness, exceptional contrast, and vivid colour, that brings entertainment to life. It achieves this stunning image quality by combining HDR and wide colour gamut imaging technologies. By increasing the brightness of the original signal and using a higher dynamic colour and contrast range, Dolby Vision presents amazing true-to-life images with stunning detail that other post-processing technologies in the TV aren't able to produce. Dolby Vision is supported via native and market applications, HDMI and USB inputs. When HDMI input is used, set the **HDMI EDID version** option as **EDID 2.0**, **EDID 2.1**, or **Auto EDID** in order to watch HDR/HLG content, if the HDR/HLG content is received through an HDMI input. The source device should also be at least HDMI 2.0a compatible in this case.

In the **Picture Mode** menu four predefined picture modes will be available if Dolby Vision content is detected: **Dolby Vision Bright**, **Dolby Vision Dark**, **Dolby Vision Vivid**, and **Dolby Vision Game**. All allow the user to experience the content in the way the creator originally intended with different ambient lighting conditions. To change the **Picture Mode** setting press the **Menu** button while watching the Dolby Vision content and go to **Picture** menu. While watching Dolby Vision Content via an application, except YouTube, Netflix and Multi Media Player, you will not be able to access the **Picture** menu and set the **Picture Mode**.

Accessories Included

- Remote Control
- Batteries: 2 x AAA
- Operating Instructions
- Quick Start Guide
- Power Cord

(**) Only for limited models

Stand Installation & Wall Mounting

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 a 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. Place the pedestal(s) on the mounting pattern(s) on the rear/bottom side of the TV.

2. Insert the screws provided and tighten them gently until the pedestal(s) is/are properly fitted.

Removing the pedestal from the TV

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

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

When using the wall mount bracket

Your TV is also prepared for a VESA-compliant wall mount bracket. If it is not supplied with your TV, contact your local dealer to purchase the recommended wall mount bracket.

Holes and measurements for the wall mount bracket installation: For details, see the quick start guide

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-left side of the TV.

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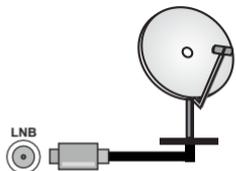
> If you want to connect a device to the TV, make sure that both the TV and the device are turned off before making any connection. After the connection is done, you can turn on the units and use them.

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
	HDMI Connection		
SPDIF	**SPDIF (Optical Out) Connection**		
HEADPHONE	**Headphone Connection**		
	USB Connection		
	CI Connection		
LAN	**Ethernet Connection**	LAN / Ethernet Cable	
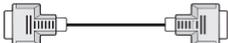
When using the wall mounting kit (contact your dealer to purchase one, if not supplied), we recommend that you plug in all cables before mounting the TV on the wall. Insert or remove the CI module only when the TV is SWITCHED OFF. You should refer to the module instruction manual for details of the settings. 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.
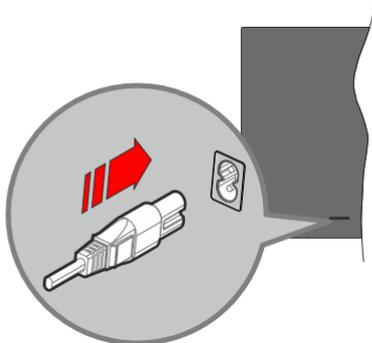
Plug one end (the two-hole plug) of the supplied detachable power cord into the power cord inlet. Then plug the other end of the power cord into the mains socket outlet.

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 control button on the TV.

The TV will then switch on.

To switch the TV into standby

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.

Note: The TV cannot be switched into standby mode via control button.

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 the control button on the TV.

Press the control button again to go back to operating mode.

Note: Your TV continues to operate in the quick standby mode state, as it regularly checks for updates. This is not a malfunction, it meets the requirements for energy consumption. In order to minimise energy consumption switch your TV into standby mode as explained above.

To switch off the TV

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

TV Control & Operation

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 the **Home** button to display or return to the Home Screen of your 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 **Back/Return** 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 Dashboard, 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.

Operation via your phone

You can control your TV using the Google TV app, which is available for Android and iOS devices.

Android

iOS

Operation with the Control button
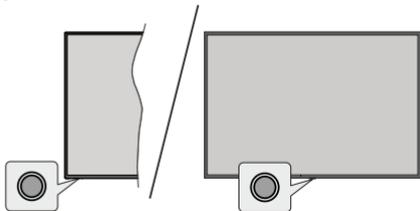
The control button allows you to control the Quick Standby / On function of the TV.

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

To turn the TV off (Quick Standby): Press the control button to turn the TV into quick standby mode.

Note: The TV cannot be switched into standby mode via control button.

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

Note: Live TV settings menu in Live TV mode cannot be displayed via the control button.

Remote Control

(*) Optional, depends on the model

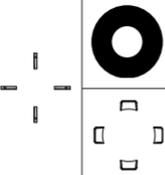|	
⏻	**Standby:** Quick Standby / Standby / On Press and hold the **Standby** button on the remote control. **Power off** dialogue will appear on the screen. Highlight **OK** and press the **OK** button. The TV will switch into standby mode. Press briefly and release to switch the TV into quick standby mode or to switch on the TV when in quick standby or standby mode
⊡	**Source:** Shows all available broadcast and content sources
1 2 3 4 5 6 7 8 9 0	**Numeric buttons:** Switches the channel in Live TV mode, enters a number in the text box on the screen
LANG. 🗨 LANG.	**Language (*):** Switches among sound modes (analogue TV), displays and changes audio language (digital TV, where available)
TEXT TXT	**Text (*):** Opens and closes teletext (where available in Live TV mode)
🗨	**Subtitles (*):** Turns subtitles on and off (where available)
	Closed Captions (*): Switches among available closed caption services (where available)
🎤	**Microphone (*):** Activates the microphone on the remote if the remote is paired with the TV previously. Otherwise pressing this button will start the search for accessories where you can pair your remote with the TV
Google Play Google Play	**Google Play (*):** Launches the Google Play Store application
🔇	**Mute:** Completely turns off the volume of the TV
⌂	**Home:** Opens the Home Screen. Press and hold to open the Dashboard
Live Tv	Live TV (*): Switches to last set Live TV source
⚙	**Settings:** Opens the Dashboard
MENU ≡	**Menu:** Displays the main settings menu or opens the Dashboard (depending on the current source), displays available settings such as sound and picture
+ V −	**Volume +/-:** Increases/decreases the volume level
︿ P ﹀	**Programme +/-:** Increases/decreases channel number in Live TV mode

NETFLIX		**Netflix:** Launches the Netflix application
YouTube / **YouTube**		**YouTube:** Launches the YouTube application
prime video		**Prime Video (*):** Launches the Amazon Prime Video application
DISNEP+		**Disney+ (*):** Launches the Disney+ application
tabii		**Tabii (*):** Launches the tabii application
Play		**Freeview Play (*):** Opens the Freeview Play's mini guide platform where you can access available catch-up TV services
G		**Guide:** Displays the electronic programme guide for Live TV channels
i		**Info (*):** Displays information about on-screen content
		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
OK	⬤	**OK:** Confirms selections, enters sub-menus, views channel list (in Live TV mode)
←	↩	**Back/Return:** Returns to previous menu screen, goes one step back, selects tab options, closes open windows, closes teletext (in Live TV-Teletext mode), is also used in pairing process of the remote
EXIT	✖	**Exit:** Closes and exits the main settings menus, Home Screen, any running application and switches to last set Live TV source
		MyButton1 (*): Opens the picture mode setting menu on available sources
		Depending on the model of the remote control this button may be assigned as a hotkey for an application. Press and hold the button, available applications will be displayed on the screen. Highlight one and press **OK**
▬▬▬▬ / ⬤⬤⬤⬤		**Coloured Buttons (*):** Follow the on-screen instructions for coloured button functions
▌▌▌▌		**Virtual remote (*):** Opens the virtual remote
◄◄		**Rewind (*):** Moves frames backwards in media such as movies
❚❚ ►	··❚❚/►··	**Pause/Play:** Pauses the media being played / Resumes playing the paused media
►►		**Fast Forward (*):** Moves frames forward in media such as movies
■		**Stop (*):** Stops the media being played

Initial Setup Wizard

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. The installation wizard will guide you through the setup process.

You can perform initial setup anytime using the **Factory reset** option in the **Settings>System>About>Reset** menu.

Note: Some steps of the initial setup process may differ or be skipped depending on the selected options in each step.

1. Pair the remote control

A search for the remote control will be performed when the TV is turned on for the first time. Follow the on-screen instructions to pair your remote control (depends on the model of the remote control) with your TV. If the pairing process is successful, a check mark will be displayed on the screen.

If you don't want to pair your remote with the TV at this point, you can press the **Back/Return** button to skip.

2. 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.

3. Region/country

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

4. Quickly set up with your phone

If you want to set up your TV using your phone, follow the on-screen instructions.

We recommend skipping this step and setting up the TV using the remote control. Select **Manual setup** (with TV remote) on TV, then press **OK** to continue.

5. 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**.

Note: Store mode is intended only for displaying the product in a store.

Select **Home**, press **OK** to continue.

6. Network connection

If you did priorly connect your TV to the Internet via Ethernet a message will be displayed stating that you are connected. You can continue with wired connection by pressing **OK**. If you want to use wireless connection instead of wired connection, disconnect the Ethernet cable. Available wireless networks will be searched and listed. Then proceed as explained in the following.

If the Internet connection has not been established via Ethernet before, 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 (network name).

If you connect to a network with an Internet connection and sign in to your Google account in the next step, the TV will carry out the setup with the Google services included (Google TV setup). Otherwise, Google services will not be included (basic TV setup). You can start the Google TV setup later from the Home Screen once the initial setup is complete.

If you prefer not to connect to the Internet at this point you can skip this step by selecting the **Skip** option. You can connect to the Internet later using the **Network and Internet** menu options in the **Settings** menu. Refer to the **Settings** section for more information.

7. Sign in to your Google account

If the network connection is successfully established, you will have to sign in to your Google account on the next screen. You need to be signed in to a Google account in order to use all Google services. This step will be skipped if no internet connection has been established.

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. You can sign in to your Google account by entering your e-mail address or phone number and your password, or create a new account.

8. Terms and policy

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

9. Google services

Select each service to find out more about it, such as how to turn it on or off later. Data will be used according to Google's Privacy Policy. Highlight **Accept** and press **OK** to confirm your selection of these Google services settings. Some services will not be available if you are not signed in to a Google account.

Help improve Google TV

Automatically send diagnostic information to Google, like crash reports and usage data from your device and

apps. Highlight **Help improve Google TV** and press **OK** to view detailed information and turn this feature on or off. You can change this setting later using the **Settings>Privacy>Usage & diagnostics** menu.

Google Home

Manage homes and rooms in the Google Home app. Highlight **Google Home** and press **OK** to view detailed information. You can manage the settings later via the Google Home mobile app.

Recommendations & ads

Google TV uses your account info and your activity on Google TV and other Google products and services to improve recommendations, and to personalise ads (when personalised ads are on) (*). This info and activity will also be used to improve recommendations and personalise ads on other Google products. You can view and control ads personalisation and data shared between Google products, and learn more about personalised recommendations. Highlight **Recommandations and ads** and press **OK** to view detailed information.

(*) Ads are not personalised if the age associated with the signed-in account is under 18 years old.

Location

You can allow or disallow Google and third party apps to use your TV's location information. Highlight **Location** and press **OK** to view detailed information and turn this feature on or off. You can change this setting later using the **Location status** option in the **Settings>Privacy>Location** menu.

Updates & apps

Automatically download and install updates and apps from Google and your device's manufacturer. Some of these apps may offer in-app purchases. You can remove these apps at any time. Highlight **Updates and apps** and press **OK** to view detailed information. You can manage the app settings later using the **Manage Updates** option in the **Settings>Privacy** menu.

10. Search across all your TV apps

If you have signed in to your Google account in the previous steps, you can allow Assistant to search across all your TV apps. Highlight **Allow** or **No, thanks** and press **OK** to continue.

11. Choose your services

In this step of the initial setup, you can choose which services and applications to install during the setup. Your choices will be saved and used for recommendations. Highlight the services and apps and press **OK** to select or unselect. When you are done, highlight **Confirm** and press **OK** to continue.

12. Choose your energy mode

In the following step of the initial setup, you can select the energy mode based on your preferences.

13. Network privacy policy

Network privacy policy screen will be displayed next. Read the related explanations displayed on the screen. You can use Up and Down directional buttons to scroll through and read the entire text. Press **OK** to confirm and proceed. You can read the network privacy policy later using the related option in the **Settings>Network and Internet** menu.

14. Parental controls

Depending on the country selection you made in the earlier steps, the parental controls screen may be displayed. Highlight the desired parental restriction option and press **OK** to select and proceed. The TV will get the maturity information from the broadcast and if this maturity level is disabled, will prohibit access to the broadcast. You can highlight **Off** and press **OK**, if you don't want to activate parental restrictions.

15. Tuner mode

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** to proceed. If you don't want to perform a tuner scan highlight **Next step** and press **OK**.

Antenna/Aerial

If the **Antenna/Aerial** option is selected, you can choose to search for digital terrestrial and analogue broadcasts. On the next screen highlight the option you prefer and press **OK** to start the search.

While the search continues you can press the **Back/Return** button to stop the search. The channels that have already been found will be stored in the channel list.

Note: If the country selected does not have analogue broadcasts, analogue channels may not be searched.

Cable

If the **Cable** option is selected, you can choose to 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** to proceed. On the next screen highlight the option you prefer and press **OK** to start the search. If one of the digital channel search options is selected, a configuration screen will be displayed next. **Scan mode**, **Frequency (KHz)**, and **Network ID** options may need to be set. To perform a full scan set the **Scan mode** as **Full** or **Advanced** if available. Depending on the selected operator and/or the **Scan mode** setting, some options may not be available to be set.

Note: If the country selected does not have analogue broadcasts, analogue channels may not be searched.

Once you are done with setting available options, highlight **Scan** and press **OK** to proceed. The TV will start to search available broadcasts.

While the search continues you can press the **Back/Return** button to stop the search. The channels that have already been found will be stored in the channel list.

Satellite

If the **Satellite** option is selected, the **Antenna type** screen will be displayed next. If you have a Direct satellite system, you can proceed to the next step quickly by selecting the **Next step** option here. Highlight **More** and press **OK** to set the antenna type manually. **Single**, **Tone Burst**, **DiSEqC**, and **Unicable** options are available. Highlight the antenna type that corresponds to your satellite system and press **OK** to proceed to the next step.

Next screen may be the **Select channel list** screen. Available operators will be listed. You can select only one operator from the list. Highlight the desired operator and press **OK** to proceed. Some of the options in the following steps may be preset and/or additional steps may be added or some steps may be skipped depending on the selected operator in this step. Check the parameters in each step before proceeding and adjust if necessary. You can highlight **General** and press **OK** to proceed with normal satellite installation.

LNB list screen will be displayed next. You may be able to set up different satellites depending on the selected country, 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 enable channel scan on the satellite, this option should be set as **On** first.

Following satellite parameters will be available. You may not be able to change all settings depending on the previous selections.

Satellite status: Set the status option to **On** to enable channel search on the selected satellite.

Satellite selection: Select the satellite on which you want to perform a channel search.

Scan mode: Set your scan mode preference. **Network** and **Full** options will be available. 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.

Scan type: You can perform a scan for free or encrypted channels only. If the **Free** option is selected, encrypted channels will not be installed. Select **All** to scan all channels.

Store type: You can select to store TV channels (referred to as 'digital channels' in the menu) or radio channels only. Select **All** to store all channels.

Transponder: Adjust the **Frequency**, **Symbol rate (Ksym/s)**, and **Polarisation** parameters for the selected satellite if necessary.

LNB configurations: Set the parameters for LNB. For DiSEqC antenna type select the correct DiSEqC port corresponding to your satellite system. Set other parameters in accordance with your satellite system if necessary.

Signal level: The signal level status is displayed as a percentage on the left side of the screen.

Signal quality: The signal quality status is displayed as a percentage on the left side of the screen.

Press the **Back/Return** button and select next satellite you want to set. After you completed the configuration changes, highlight **Next step** on the **LNB list** screen and press **OK** to proceed.

Channel scan screen will be displayed next. The **Scan** option will be highlighted. Press **OK** to start the search. While the search continues you can press the **Back/Return** button to stop the search. The channels that have already been found will be stored in the channel list.

When the channel scan with the selected tuner is completed, the installation wizard will bring you back to the tuner mode selection step. In case you want to continue scanning channels with another tuner, you can proceed as explained above. Otherwise, highlight **Next step** and press **OK** to proceed.

16. JVC Disclaimer

The Disclaimer screen will be displayed next. Read the text on the screen for detailed information. The **Accept** option will be highlighted. Press **OK** to proceed.

17. Manufacturer Usage & Diagnostics

In the following step, you will be asked to consent to the collection of your connection data by the manufacturer to ensure the proper operation of your TV. Read the text on the screen for detailed information. Highlight **Accept** and press **OK** to give your consent and proceed. To skip without giving your consent, select **Decline**. You can change this setting later using the **Settings>System>About>Legal information>Manufacturer Usage & Diagnostics** menu.

18. Setting up your Google TV

Once you have finished setting up your Google TV, the Home screen will appear. Press the **EXIT** button on your remote to switch to the Live TV app and watch your tuned channels.

Note: Due to continuous development, the individual steps of the initial installation may differ from the procedure described here.

Home Screen

The Home menu is the centre of your TV. From the Home menu, you can start any application, switch to a TV channel, watch a movie, or switch to a connected device. Press the **Home** button to display Home Screen. You can also select the **Google TV Home** option from the **Inputs** menu to switch to Home Screen.

Highlight the **Live TV** app and press **OK** or press the **Exit** button on the remote to watch your tuned channels. If the source was set to an option other than **Antenna**, **Cable**, **Satellite**, or **ATV** previously, press the **Source** button and set one of these options to watch live TV channels. Highlight the **Multi Media Player** app 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.

Google TV Home Screen

The Home Screen will be organised into several tabs. **Home**, **Apps**, and **Library** tabs will be available. The available options of these tabs are positioned in rows. To navigate through the Home Screen options use the directional buttons on the remote. Select a tab and then a row, move the focus to the desired item in the row. Press **OK** to make a selection or to enter a sub-menu.

On the upper right of the Home Screen, search tool 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 search tool and press **OK** or just press the **Microphone** button on the remote and talk to proceed.

On the upper left of the Home Screen, the logo of the active account will be seen, if you have priorly logged into a Google account.

To display the Dashboard, press the **Settings** button or press and hold the **Home** button on the remote or press the Right directional button consecutively on the Home Screen. On the Dashboard there will be options for the settings menu (gear wheel icon), your Google TV account (logged in account icon), **Screensaver**, **Inputs**, **Display**, **Sound**, **Wi-Fi**, **Bluetooth**, **Accessibility**, and notifications available. You can also see the date and time data on the Dashboard.

Note: Due to continued development, the appearance, menus, and options of the home screen may vary.

Live TV app

Channel List

Press **OK** to display the channels list. Use the Up/Down directional buttons on the remote control to browse the channel list. Use the Left/ Right directional button to scroll up/down the list page by page.

Press **OK** to switch to the selected channel.

You can use the colour buttons (see help at the bottom of the channel list) to make changes in the list.

Channel Management (Red button): You can edit the channels and the channel list using the options of this menu.

Note: Available options may change or the menu may become inactive depending on the selected input source, operator, and whether the channel installation is completed.

Channel Skip: Set channels to be skipped when switching the channels via the **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 can press the Yellow button and enter the number of the channel you want to select. Then highlight **OK** and press **OK** to go to that 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, you can press the Blue button and the first selected channel will be moved to the position of that channel. When the confirmation dialogue appears, highlight **Continue** and press **OK** to proceed. You can press the Yellow button and enter the number of the channel you want to select. Then highlight **OK** and press **OK** to go to that channel.

Channel Edit: Edit channels in the channel list. Edit the name and channel number **(*)** of the selected channel and display information related to that channel if available. Depending on the channel other options may also be editable. Press **OK** or the Yellow button to edit the highlighted channel. You can press the Blue button to delete the highlighted channel.

(*) The selected channel number should not be used for another channel in the channel list.

Channel Delete: Highlight the desired channel/s on the list and press **OK** or the Yellow button to select/unselect. Then press the Blue button to delete the selected channel/s. When the confirmation

dialogue appears, highlight **Continue** and press **OK** to proceed.

Channel Re-sort: Reorder the channels in the channel list. You can perform a channel scan to restore the original channel order. When the confirmation dialogue appears, highlight **Continue** and press **OK** to proceed.

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

Channel Operation (Green button): You can sort the channel list or find a specific channel using the options in this menu.

Sort: To sort the channels, highlight Sort and press the **OK** button. Then select one of the available sorting options and press **OK** again. The channels will be sorted according to your selection.

Find: To find a channel, highlight Find and press the **OK** button. Virtual keyboard will be displayed. Enter all or a portion of the name or number of the channel you want to find, highlight the check mark symbol on the keyboard and press **OK**. Matching results will be listed.

Select Type (Yellow button): You can filter the channels using the options in this menu.

Select among **Digital**, **Radio**, **Free**, **Satellite** (depends on the model of your TV), **Encrypted**, and **Favourites1-4** options to filter the channel list or select the **All channels** option to see all installed channels in the channel list. Available options may differ depending on the operator selection.

*Note: If any option except **All channels** is selected, you can only scroll through the channels currently listed in the channel list using the **Programme +/-** buttons on the remote.*

Add favourite (Blue button): You can create four different lists of your favourite channels. These lists include only the channels that are specified by you.

To add a channel to one of the favourite lists, select that channel in the channel list and press the Blue button. Favourite list selection menu will be displayed. Highlight the list/s you want the channel to be added to and press **OK**. The channel will be added to the selected favourite list/s.

To remove a channel from a favourite list, select that channel in the channel list and press the Blue button. Favourite list selection menu will be displayed. Highlight the list/s you want the channel to be removed from and press **OK**. The channel will be removed from the selected favourite list/s.

EPG (Programme Guide)

Press **Guide** to display the electronic programme guide.

Use the directional buttons to navigate through the programme guide. You can use the Up/Down directional buttons or **Programme +/-** buttons to switch to previous/next channel on the list and Right/ Left directional buttons to select a desired event of the currently highlighted channel. If available, the full name, start-end time and date, genre of the highlighted event and a brief information about it will be displayed on the screen.

Press the Blue button to filter the events. Due to the large variety of filter options you can find events of the desired type quicker. Press the Yellow button to see detailed information on the highlighted event. You can also use the Red and Green buttons to see events of previous day and next day. The functions will be assigned to the coloured buttons on the remote when they are available. Follow the on-screen information for accurate button functions.

HBBTV

Note: HbbTV can only be watched if the TV is connected to the internet.

If HbbTV is available on the channel, a red button symbol/icon appears on the screen. Press the red button to start HbbTV viewing.

*Note: You can enable/ disable this feature from the **TV Options>Advanced Options>HBBTV Settings** menu.*

TV Options

Press **Menu** to display the TV Options.

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

Picture: Open the **Picture** menu. Refer to the **Display and Sound** section for detailed information.

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

Sound: Open the **Sound** menu. Refer to the **Display and Sound** section for detailed information.

Parental Controls

(*) To enter this menu, you must first enter the PIN. Use your Google account PIN or the device PIN that you have created during the initial setup or factory reset process. If you didn't create a device PIN during the initial setup or factory reset, or if you haven't signed in to your Google account, you will need to create a device PIN to access this menu. Some options may not be available or vary depending on the country selection during the initial setup or factory reset. The content of this menu may not be displayed if the channel installation is not completed and no channels are installed.

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 broadcasted with them. You can turn on or off restrictions, set rating systems, age limits, and block unrated programmes using the options of this menu.

Tuner Inputs Blocked: Prevent access to the selected tuner 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.

Note: Some options may not be available depending on the selected input source.

CI Card: Display available menu options of the CAM (Conditional Access Module) in use. This item may not be available depending on the input source setting.

Advanced Options

The options of this menu may change and/or appear as greyed out depending on the selected input source.

Audio

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

2nd Audio Language: Set one of the listed language options as second audio language preference.

Sound Tracks: Set your sound track preference, if any available.

Audio Type: Set your audio type preference.

Visually Impaired: Set the **Audio Type** option to **Audio Description** to enable this option. 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 route 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 your audio preference 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**).

Subtitle

Analogue Subtitle: Turn the subtitles for analogue broadcasts on or off. If the **Mute** option is selected, the analogue subtitle will be displayed on the screen but the speakers will be muted simultaneously.

Digital Subtitle: Turn the subtitles for digital broadcasts on or off. If the **Hearing Impaired** option is selected, it provides subtitle services to deaf and hard of hearing viewers with additional descriptions.

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.

2nd 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.

Teletext

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

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

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.

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.

Default Channel: Set your default startup channel preference. When the **Select Mode** is set as **User Select**, the **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.

HBBTV Settings

HBBTV Support: Turn the HBBTV function on or off.

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

Cookie Settings: Set your cookie setting preference for HBBTV services.

Persistent Storage: Turn the Persistent Storage function on or off. If turned 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 HBBTV services. Confirmation dialogue will be displayed. Press **OK** to proceed, **Back** to cancel.

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

Open Source Licences: Display Open Source Software licence information.

Settings: Open the **Settings** menu. Refer to the **Settings** section for detailed information.

App Installation

IMPORTANT! All apps are developed by third parties. The TV manufacturer cannot influence the availability or functionality of apps. The TV manufacturer is not responsible for any issues with third-party apps.

Select the **Apps** tab on the Home screen, enter the name of the app in the app search window, and press the search button. Select the desired app and press the **OK** button. In the new window, select Install and press the **OK** button.

Reorder Your apps

On the Home screen, in the **Your apps** section, move to the right end, to the **Reorder** icon, and press **OK**. Select the app you want to move, then press the **OK** button. Use the Left/Right directional button to move the app. Press the **OK** button to save the position.

Multimedia playback

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.

USB/HDD Playback

Note: FAT32, exFAT and NTFS formatted storage devices are supported, with a maximum capacity of 2 TB. Files larger than 4 GB are not supported. Connect the storage devices directly to the TV, do not use any USB extension cables.

Launch MultiMediaPlayer (MMP) or another multimedia player (e.g., VLC) that you have installed. The player will display the files stored on the connected storage device. Select the desired file and start playing it.

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.

Playback from network storage

To play files from network storage, use a media player that supports such playback (e.g., VLC).

Settings

Suggestions and general setting options are displayed in the **Settings** menu. You can use the Right and Left directional buttons, **OK**, and **Back/Return** buttons to navigate through the menu tree.

You can access the **Settings** menu from the Dashboard or, if you are in Live TV mode, from the **TV options** menu. To display the Dashboard, press the **Settings** button or press and hold the **Home** button on the remote.

Channels and Inputs

The content of this menu may change depending on the selected input source and whether the channel installation is completed.

Channels

Analogue

Channel Scan: Start a scan for analogue channels. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit. 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. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit.

Analogue Manual Scan: Start a channel scan manually. First, enter the start frequency for the scan. Then highlight the scanning direction and press **OK** or the Right directional button to start scan. The found channels will be stored in the channel list. You can press **OK** or the **Back/Return** button to cancel the scan and exit.

Antenna

Channel Scan: Start a scan for digital terrestrial channels. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit. 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. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit.

Single RF Scan: Set the **RF Channel** option by using the Right/Left directional buttons. To enter a value directly, press **OK** and then use the virtual remote. **Signal Level** and **Signal Quality** of the selected channel will be shown. Highlight **Scan** and press **OK** to start scan on the selected RF channel. Previously added channels will not be deleted, and any newly found channels will be stored in the channel list. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit.

Manual Service Update: Start a service update manually. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit. Previously added channels will be deleted.

Channel Scan Type: Set your scan type preference.

Channel Store Type: Set your store type preference.

Auto Channel Update: Turn the auto channel update function on or off.

Channel Update Message: Turn the channel update message function on or off.

Cable

Channel Scan: Start a scan for digital cable channels. If available, operator options will be listed. Select the desired one and press **OK**. **Scan Mode**, **Frequency**, and **Network ID** options may be available. The options may vary depending on the operator and the **Scan Mode** selections. If you don't know how to set other options, set the **Scan Mode** to **Full** (if available). Highlight **Scan** and press **OK** or the Right directional button to start the scan. You can press **OK** or the **Back/Return** button to cancel the scan. Then press **OK** or the **Back/Return** button again to exit. 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** or the Right directional button to start the scan. The found channels will be stored in the channel list.

Channel Scan Type: Set your scan type preference.

Channel Store Type: Set your store type preference.

Auto Channel Update: Turn the auto channel update function on or off.

Channel Update Message: Turn the channel update message function on or off.

Satellite

Channel Installation Mode: Set this option as **Preferred Satellite** or **General Satellite**. The channel list will also change depending on the selected option here. In order to watch the channels on the satellite you want, this option should be selected accordingly. Set to **Preferred Satellite** to watch operator channels, if you have performed an operator installation. Set to **General Satellite** to watch other satellite channels, if you have performed a normal installation.

Satellite Re-scan: Start a satellite scan beginning with the antenna selection screen. When this scanning option is preferred, some scanning configurations will not be available and thus the preferences you made during the initial setup or factory reset process may not be changed.

For the **General Satellite** channel installation mode the **SatcoDX Scan** option may also be available here. For standard installation select **Normal scan**. For SatcoDX installation select **SatcoDX Scan** and copy the relevant sdx file into the root directory of an USB storage device and connect it to your TV. Highlight this option and press **OK** or the Right directional button. The **Download SatcoDX** option will be highlighted, press **OK** or the Right directional button to continue. Select the sdx file from the connected USB storage device and press **OK**. Satellite selection screen will be displayed. The status of the first satellite option will appear as **On**. Highlight that satellite option and press **OK**. Set the parameters corresponding to your system and correct satellite and press the **Back/Return** button to return to the satellite selection screen. Highlight **Next Step** and press **OK** to proceed with the SatcoDX channel list installation. If the selected satellite is not correct 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 press **OK** or the **Back/Return** button to return to satellite selection screen. Then set the satellite accordingly.

Satellite Add: Add satellite/s on which you want to perform a channel scan. This menu option will be active, if **Channel Installation Mode** is set to **General Satellite**.

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. Depending on the **Channel Installation Mode** setting, this option may not be available or named differently depending on the available services. Highlight the satellite and press **OK** to configure detailed satellite parameters. Then press the **Back/Return** button to return to the satellite selection screen. Highlight **Next Step** and press **OK** to proceed.

Satellite Manual Tuning: Start a manual satellite scan. Highlight the satellite and press **OK** to

configure detailed satellite parameters. Then highlight **Next Step** and press **OK** to proceed.

Auto Channel Update: Turn the auto channel update function on or off.

Channel Update Message: Turn the channel update message function on or off.

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

Inputs

Show or hide an input, edit the input name, set the **PIN lock**, set the **HDMI EDID version,** and configure options for the Consumer Electronic Control (HDMI CEC) function.

Consumer Electronic Control (HDMI CEC)

Highlight the HDMI control option and press **OK** to enable/disable.

Global CEC control: When enabled, the TV and the connected devices can control each other.

Allow TV to turn off connected devices: When enabled, powering off the TV will also power off the connected devices.

Allow connected devices to turn on TV: When enabled, powering on the connected devices will also power on the TV.

Display and Sound

Picture

Picture Mode: Set the picture mode to suit your preference or requirements. Picture mode can be set to one of these options: **Standard**, **Vivid**, **Sports**, **Movie**, and **Game**.

Dolby Vision Modes: If Dolby Vision content is detected Dolby Vision Bright, Dolby Vision Dark, Dolby Vision Vivid, and Dolby Vision Game picture mode options will be available instead of other picture modes.

Energy Saving: Set your energy saving preference. **Off**, **Maximum**, **Medium**, **Minimum**, and **Auto** options will be available.

Backlight, **Brightness**, **Contrast**, **Colour**, **HUE, Sharpness** settings will be adjusted according to the selected picture mode.

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.

Advanced Settings

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.

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. When one of these values is changed manually, the **Colour Temperature** option will change to **User**, if it is not already set to **User**.

Dolby Vision Notification: Set your notification appearance preference for Dolby Vision content. When turned on, Dolby Vision logo will be displayed on the screen when Dolby Vision content is detected.

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

MPEG NR: MPEG Noise Reduction cleans up block noise around outlines and noise on the background. Set your MPEG NR preference as **Low**, **Medium**, **Strong** or turn it off by setting as **Off**.

Max Vivid: Manipulates contrast and colour perception, basically converts Standard Dynamic Range picture to High Dynamic Range picture. Set as **On** to enable.

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**.

Local Contrast Control: Local contrast control divides each frame to defined small regions and provides ability to apply independent contrast setting for each region. This algorithm improves fine details and provides better contrast perception. It makes higher depth impression by enhancing dark and bright areas without any detail loss. Set your Local Contrast Control preference as **Low**, **Medium**, **High** or turn it off by setting as **Off**.

Filmmaker Mode (optional): Filmmaker mode and **Auto switch** options will be available. To enable or disable an option, highlight and press **OK**.

Dynamic Colour Booster: Adjusts the dynamic colour booster feature preference. Set to **Low**, **Medium**, or **High** to enable. Set as **Off** to disable.

Flesh Tone: Adjusts the skin tone brightness. Set your preference as **Low**, **Medium**, or **High** to enable. Set as **Off** to disable.

DI Film Mode: It is the function for 3:2 or 2:2 cadence detection for 24 fps film content 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 function on or off.

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

Game: This 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 function on or off.

Note: The game mode can not be used for Netflix and YouTube. If you want to use the game mode for Multi Media Player or HDMI source, you need to set the MJC option to Off.

ALLM (optional): ALLM (Auto Low Latency Mode) function allows the TV to activate or deactivate low latency settings depending on playback content. Highlight this option and press **OK** to turn the 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 function on or off.

De-Contour (optional): Decreases the contour effects in low-resolution content and auto streaming services. Set your preference as **Low**, **Middle**, or **High** to enable. Set as **Off** to disable.

MJC: Optimises the TV's video settings for motional images to acquire a better quality and readability. Highlight this option and press **OK** to see available options. **Effect**, **Deblur**, **Dejudder**, **Demo Partition**, and **Demo** options will be available. Set the **Effect** option to **Low**, **Middle**, **High**, or **User** to enable the MJC function. Highlight **Deblur** and **Dejudder** slider options and adjust using the Left and Right directional buttons. Highlight **Demo Partition** and use the Left and Right directional buttons to set your preference. **All**, **Right** and **Left** options will be available. Highlight **Demo** and press **OK** to activate the demo mode. While the demo mode is active, the screen will be divided into two sections, one displaying the MJC activity, the other displaying the normal settings for the TV screen. If the **Demo Partition** option is set to **All**, both sides will display the MJC activity.

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 Space: You can use this option to set the range of colours displayed on your TV screen. When set as **On**, colours are set according to the source signal. When set as **Auto**, the TV decides to set this function as on or off dynamically, according to source signal type. When set as **Off**, the TV's maximum colour capacity is used by default.

Low Blue Light: Electronic device screens emit blue light that can cause eye strain and may lead to eye problems over time. To reduce the effect of blue light set your preference as **Low**, **Middle**, or **High**. Set as **Off** to disable.

Dolby Vision PQ Calibration (optional): Highlight this option and press **OK** to see available options. **View Mode** and **End User Calibration** options will be available. You can also view the last modified time information here.

Light Sense (optional): Turn the light sense feature on or off.

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.

VRR (optional): The refresh rate (Hz) represents the number of times per second your TV can update the picture you see. VRR, or 'variable refresh rate', is a key feature for getting a smooth, artefact-free picture when gaming – ensuring a clean image for games. Turn this option on/off by pressing **OK**.

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.

Screen

Set the aspect ratio of the screen. Select one of the predefined options according to your preference.

Sound

Sound Style: For easy sound adjustment, you can select a preset setting. **User**, **Smart**, **Stadium**, **News**, **Music**, **Movie**, and **Game** 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.

Basic settings

*Note: To enable these settings, you need to set the **Dolby Audio Processing** option to **Off**.*

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

Bass: Adjust the bass level using the Left and Right directional buttons.

Treble: Adjust the treble level using the Left and Right directional buttons.

Surround Sound: Turn the surround sound feature on or off.

Equaliser Detail: Adjust the equalizer values according to your preferences.

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**.

Dolby Audio Processing: With Dolby Audio Processing, you can improve the sound quality of your TV. Press **OK** to see the options and set.

Dolby Audio Processing Settings

Sound Mode (optional): 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. **Game**, **Movie**, **Music**, **News**, **Stadium**, **Smart** and **User** options will be available. Highlight the option you prefer and press **OK** to set. Some options may not be available if this option is not set to **User**.

Volume Leveler: Allows you to balance the sound levels. In this way, you are minimally affected by abnormal sound rises and falls. Turn this feature on/off by pressing **OK**.

Surround Virtualiser: Turn the surround virtualiser feature on or off.

Dolby Atmos: Your TV supports Dolby Atmos technology. By means of this technology the sound moves around you in three-dimensional space, so you feel like you're inside the action. You will have best experience if input audio bitstream is Atmos. Turn this option on/off by pressing **OK**.

Speakers: Turn this option on if you want to hear the sound through the TV speakers.

Speaker Delay: Adjust the delay value for speakers.

eARC: Set your eARC preference. **Off** and **Auto** options will be available. Set as **Off** to disable.

Downmix Mode: Set your preference to convert multi-channel audio signals to two-channel audio signals. **Stereo** and **Surround** options will be available.

DTS DRC (optional): Dynamic Range Control provides gain adjustment of the source to maintain suitable audible range at both low and high playback levels. Turn this option on/off by pressing **OK**.

Dialogue Enhancer: This feature provides sound postprocessing options for speech-gated dialogue enhancement. **Off**, **Low**, **Medium** and **High** options will be available. Set according your preference.

Note: This feature has an effect only if input audio format is AC-4 or dolby audio processing is enabled. This effect only applies to TV loudspeaker output.

Dolby Atmos Notification (optional): Set your notification appearance preference for Dolby Atmos content. When turned on, Dolby Atmos logo will be displayed on the screen when Dolby Atmos content is detected.

DTS Virtual:X (optional): This feature will enhance your sound experience by providing a virtualisation of surround speakers through your TV's speakers. Highlight **Virtual:X** and press **OK**. The **TruBass** option will become available. TruBass manages and enhances low frequency signals. Highlight this option and press **OK** to turn it on or off. Some other options may become unavailable and appear as greyed out depending on the setting made here. This item will not be available if Dolby Audio Processing is turned on.

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

Audio 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.

Digital Output Delay: Adjust the digital output delay value.

Bluetooth Delay: Adjust the bluetooth device delay value.

Audio Output Device: Set the sound output preference. **Auto**, **TV Speaker**, **HDMI ARC**, **HDMI eARC**, **BT**, **HP**, and **SPDIF** options will be available. Highlight the option you prefer and press **OK** to set.

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

Network & Internet

You can configure your TV's network settings using the options of this menu. The menu content may differ depending on the current connection status.

Wi-Fi

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

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. Additionally you can add new networks by using the related options.

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.

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.

Others

Hotspot & tethering: Wi-Fi hotspot setting.

Network Priority: Select network priority, **Ethernet** or **Wifi**.

Network Privacy Policy: Display network privacy policy**.** You can use Up and Down directional buttons to scroll through and read the entire text. Highlight **Accept** and press **OK** to give your consent.

Accounts & sign-in

You can highlight the logo of the active account, if you have priorly logged in, on the upper left of the Home Screen or on the Dashboard and press **OK** to open the screen where you can switch between accounts.

Following options will be available if you have signed into your Google account.

Google TV Accounts

You can manage the settings of the active account or remove a registered account using the available options.

Add an account: Add a Google account so you can switch between accounts whenever you want. Follow on-screen instructions to complete.

Children's Accounts

You can manage the settings of the active account or remove a registered account using the available options. You will need to enter the PIN you defined during adding the child account in order to access the settings.

Add a child: Create a personalised space for your child with access to content and tools of your choice to help you in control. Follow on-screen instructions to complete.

Privacy

Device Settings

Location

Location status: You can allow the use of the wireless connection to estimate the location.

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.

Recent Location Requests: You can see the recent location requests and allow or restrict the listed apps to use your location information.

Microphone: When the **Microphone access** option is turned on, all apps and services that are allowed to use the microphone will be able to access it. When turned off, no apps or services will be able to access the microphone. But you may still be able to talk to Google Assistant by pressing the **Microphone** button on your remote.

You can also view the apps or services that are recently accessed the microphone here.

To open the **Microphone permissions** menu, highlight the **App access to microphone** option and press **OK**. You can manage the application access and view allowed and denied requests using the options in this menu.

Camera: When the **Camera access** option is turned on, all apps and services that are allowed to use the microphone will be able to access it. When turned off, no apps or services will be able to access the microphone.

You can also view the apps or services that are recently accessed the camera here.

To open the **Camera permissions** menu, highlight the **App access to camera** option and press **OK**. You can manage the application access and view allowed and denied requests using the options in this menu.

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

Ads: Manage your ads settings, such as resetting your advertising ID.

Account Settings

Google Assistant: Manage your Google Assistant settings, such as turning on or off voice control.

Payment and purchases: To prevent unauthorised purchases, you can require authentication for all purchases, including in-app purchases, made through your Google Play account on this TV.

App Settings

Manage Updates: Manage application updates. You can enable or disable automatic updates, view available updates and recently updated applications, free up storage space, update applications, or uninstall previously installed updates.

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: Allow the Play Protect to scan your device and warn you about harmful apps. You can also improve harmful app detection by allowing your device to send unknown apps to Google.

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** or the Right directional button to see the available options.

If an application is not used for a month, its permissions and temporary files are removed. Highlight **Unused Apps** and press **OK** to see these applications.

Permissions

Manage the permissions and some other features of the apps.

Manage Updates: Manage application updates. You can enable or disable automatic updates, view available updates and recently updated applications, free up storage space, update applications, or uninstall previously installed updates.

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: Allow the Play Protect to scan your device and warn you about harmful apps. You can also improve harmful app detection by allowing your device to send unknown apps to Google.

System

Ambient Screensaver: When your TV isn't being used, Google TV Ambient Screensaver can transform the blank screen into a series of photos to brighten your space.

Power and Energy

Energy Modes: Set an energy saving mode for when the TV is in standby mode. **Low**, **Optimised**, and **Increased** options are available. Set according to your using habits and needs.

Shut-Off Timer: Set timers to turn the TV off automatically to save energy.

Power on behaviour: Set your TV's power on behaviour. Depending on your selection, the TV will return to the Google TV home screen or the last used input when it is turned on.

Scheduled power on/off

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.

Advanced settings

Standby Light: Normally, the standby LED is lit when the TV is in standby mode. If you turn this

option off, it will not light up when the TV is in standby mode.

About: Check for system updates, change the device name, reset the TV to the factory defaults and view system information such as network addresses, serial numbers, versions, etc. You can also view legal information and TV Life time.

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

Netflix ESN: Displays your ESN number. ESN number is an unique ID number for Netflix, created especially to identify your TV.

Date and 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.

Language: Set your language preference.

Keyboard: Select your keyboard type and manage keyboard settings.

Storage: View the total storage space status of the TV and connected devices if available, create free storage space by deleting cached data and uninstalling priorly installed apps. To see detailed usage information, highlight the internal storage option or a connected device option and press **OK** or the Right directional button. There will also be options for ejecting and setting up the connected USB storage devices as device storage.

Migrate data to this storage: This option will appear if you did priorly format your USB storage device as device storage. You can use this option to migrate some of the data stored on your TV to your USB storage device.

Note: If you move data to your USB storage device, you may need to plug in your storage device to use all your apps and other content.

Eject: To keep your content safe, eject your USB storage device before you unplug it from your TV.

Erase and format (Set up) as device storage: You can use the connected USB storage device to extend the storage capacity of your TV. After doing this, that device will only be usable with the TV. Follow the on-screen instructions and read the information displayed on the screen before proceeding.

Note: Formatting the connected storage device will erase all data installed on it. Back up the files that you want to keep before you proceed with formatting the device.

Erase and format (Set up) as removable storage: If you did priorly format your USB storage device as device storage, it will only be usable with your TV. You can use this option to format it again in order to use it with other devices. Before proceeding with the formatting, you may consider backing up the data on your device to your TV's internal storage or to another USB storage device using the **Back up apps** option. Follow the on-screen instructions and read the information displayed on the screen before proceeding.

Note: Formatting the connected storage device will erase all data installed on it. Back up the files that you want to keep before you proceed with formatting the device.

You can also go to the notifications section on the Dashboard after connecting your USB device to your TV to see the available options. Highlight the notification related to your connected USB device and press **OK**.

Cast: Set your remote control notification preference for showing a notification on all Android devices connected to your WLAN and let them control media casting to this device. **Always**, **While casting**, and **Never** options will be available.

Google: Enable/disable automatic installation of System Service Updates.

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.

Store mode: Highlight **Store messaging** and press **OK**. Here you can change your store mode type preference. The **Store mode** option will only be available if it has been enabled during initial setup or factory reset.

Demo video: Demo video is played.

E-POP left/bottom: The supported features of the TV are displayed on the left or bottom of the screen.

None: There will be no video playback and no display of features.

Restart: A confirmation message will be displayed, select **Restart** to proceed with restarting. The TV will switch off/on first. Select **Cancel** to exit.

Accessibility

Configure **TalkBack**, **Text to speech**, **Text scaling**, **Colour correction**, **Accessibility shortcut**, **Time to take action (Accessibility timeout)**, **Switch Access**, **Captions** settings and/or turn **Bold text**, **Audio description**, and **High Contrast Text** on/off.

Remotes & 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 Google TV. Add devices to use them with your TV. Highlight this option in the **Settings** menu and press **OK** to see available options. Highlight the **Pair accessory** option and press **OK** to start searching available devices in order to pair them with your TV. Set your device to pairing mode. Available devices will be recognised and listed or pairing request will be displayed. To start pairing, select your device from the list and press **OK**, or highlight **OK** and press **OK** when the pairing request appears.

Connected devices will also be listed here. To unpair a device, highlight it and press **OK** or the Right directional button. Then highlight the **Forget** option and press **OK**. Then select **Yes** and press **OK** again to unpair the device from the TV. If you have multiple devices paired with your TV, you can use the **Disconnect** option to disconnect the ones you're not using. You can also change the name of a connected device. Highlight **Rename** and press **OK**. Press **OK** again and use the virtual keyboard to change the name of the device.

You can also enable auto pairing for your remote control from the **Remote control settings** menu. Highlight the **Auto Pair** option and press **OK** to switch this feature on or off.

Help and Feedback

You can use the **Send feedback** option to send your product feedback to Google.

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>Channels and inputs>Inputs** menu. Refer to the **Settings** section for more information.

- Scroll down to the **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 Dashboard. Or press the **Source** button 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 eARC (Enhanced Audio Return Channel) feature. Similar to ARC, the eARC feature enables the transfer of the digital audio stream from your TV to a connected audio device via the HDMI cable. eARC is an improved version of ARC. It has a much higher bandwidth than its predecessor. Bandwidth represents the range of frequencies or amount of data that is being transferred at a time. Higher bandwidth translates into a higher amount of data that can be transferred. Higher bandwidth also means that digital audio signal doesn't have to be compressed and is much more detailed, rich, and vibrant.

When eARC is enabled from the sound menu, TV first tries to establish eARC link. If eARC is supported by the connected device, the output turns into eARC mode and the "eARC" indicator can be observed on the connected device's OSD. If an eARC link cannot be established (for example, the connected device is not supporting eARC but supporting ARC only) or if eARC is disabled from the sound menu, then TV initiates ARC.

In order to activate ARC feature the **eARC** option should be set as **Auto**. You can access this option from the **Settings>Display and sound>Sound** menu. Refer to the **Settings** section for more information. When eARC is active, TV will mute its other audio outputs automatically. So you will hear audio from the connected audio device only. The volume control buttons of the remote will be directed to the connected audio device and you will be able to control the volume of the connected device with your TV remote.

For eARC to function properly;

- The connected audio device should also support eARC.

- Some HDMI cables do not have enough bandwidth to carry high-bit-rate audio channels, use an HDMI cable with eARC support (HDMI High Speed Cables with

Ethernet and the new Ultra High Speed HDMI Cable - check hdmi.org/resource/cable for latest info).

Note: eARC 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>System>About** menu on the Dashboard. **Device name** will be one of the shown options. 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.

Quick Standby Search

If the auto channel update function is enabled for a broadcast type from the **Settings>Channels and inputs>Channels** menu, 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 software 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

Your TV will check Google Server to see if any update is available (GOTA). If new software is found, it will be downloaded automatically in the background. When the download is completed, a message indicating the new software will be displayed on the screen for a few seconds and then it will disappear. You can check the notifications section on the Dashboard to see the related information.

The downloaded software will be installed automatically the next time the TV is switched on. You can also go to the **Settings>System>About** menu, highlight **Restart now**, and press **OK** to execute the installation immediately.

To check for an update manually, enter the **Settings>System>About** menu. Move the focus to the **System update** option and press **OK**. The TV will check to see if any update is available. When completed, you will be informed about the current system status and the time at which the device was last checked for an update. The **Check for update** option will be highlighted. Press **OK** if you want to check again.

Note: Do not unplug the power cord during the software upgrade 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 the power outlet.

• Disconnect the power cord from the power outlet. Wait for one minute then reconnect it.

• Press the **Standby** button on the remote.

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.

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

TV Wi-Fi connection issues

• Use your phone to check the functionality of the TV. Create a hotspot on your phone and place it next to the TV. Connect the TV to the phone's hotspot. If everything works without problems, there is a problem with your home Wi-Fi network.

• Make sure that the Wi-Fi network quality in the location where the TV is placed is sufficient.

• Make sure that your home Wi-Fi network is not being interfered with by any nearby Wi-Fi networks. Set your router to a different broadcast channel.

• If you have a choice between a 2.4 GHz and 5 GHz Wi-Fi network, connect your TV to the 2.4 GHz Wi-Fi network.

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 the **Display and 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 **Channels and inputs** menu.

HDMI Signal Compatibility

Source	Supported Signals	
HDMI	480i	60Hz
	480p	60Hz
	576i, 576p	50Hz
	720p	50Hz,60Hz
	1080i	50Hz,60Hz
	1080p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz
	3840x2160p	24Hz, 25Hz, 30Hz, 50Hz, 60Hz
	4096x2160p	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 Decoder

Video Codec	Resolution	Bit Rate	Profile	Container
VP8	1920x1080@60fps	40Mbps		MKV (.mkv), WebM (.webm), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), AVI (.avi), OGM (.ogm)
VP9	3840x2160@60fps (Max. up to: 4096x2304)	100Mbps	Profile 0 (420 8-bit) @ Level 5.1 Profile 2, (420, 10-bit) @Level 5.1	MKV (.mkv), WebM (.webm)
AV1	3840x2160@60fps (Max. up to: 4096x2304)	100Mbps	Main profile @Level 5.1	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MKV (.mkv), WebM (.webm)
H.263	1408x1152@60fps	60Mbps	Only supports baseline	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), ASF (.asf), WMV (.wmv)
AVC/H.264	3840x2160@60fps (Max. up to: 4096x2304)	135Mbps	Baseline, main, high, high (10-bit) profile up to Level 5.2 For baseline profile, FMO, ASO and redundant slice are not supported	FLV (.flv), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), ASF (.asf), WMV (.wmv), AVI (.avi), MKV (.mkv), OGM (.ogm), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), H264 (.264)
HEVC/H.265	3840x2160@60fps (Max. up to: 4096x2304)	100Mbps	Main (8-bit)/Main10 (10-bit) profile, High tier @Level 5.1	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), MKV (.mkv), FLV (.flv), AVI (.avi), H265 (.265)
VVC/H.266	3840x2160@60fps (Max. up to: 4096x2304)	100Mbps	Main10 (10-bit) profile @Level 5.1	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp)
MPEG1/2	MPEG1: 720x576@30fps MPEG2: 3840x2160@30fps (Max. up to: 4096x2304)	60Mbps	MPEG2: 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), ASF (.asf), WMV (.wmv), OGM (.ogm)
MPEG4	1920x1080@60fps	60Mbps	Simple profile Advanced simple profile @Level 5 GMC only supports one point	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), AVI (.avi), MKV (.mkv), ASF (.asf), WMV (.wmv), OGM (.ogm), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG)
Motion JPEG	1920x1080@60fps	80Mbps	Only supports baseline	AVI (.avi), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), MKV (.mkv), OGM (.ogm), ASF (.asf), WMV (.wmv)
AVS	1920x1080@60fps	60Mbps	Jizhun profile @ Level 6.0.1.08.60	MPEG transport stream (.ts, .trp, .tp), AVS (.avs)
AVS+	1920x1080@60fps	60Mbps	Guangbo profile @ Level 6.0.1.08.60	MPEG transport stream (.ts, .trp, .tp), AVS (.avs)
AVS2	3840x2160@60fps (Max. up to: 4096x2304)	100Mbps	Main (8-bit)/Main10 (10-bit) profile @Level 8.0.60	MPEG transport stream (.ts, .trp, .tp), AVS2 (.avs2)

Video Codec	Resolution	Bit Rate	Profile	Container
WMV3	1920x1080@60fps	60Mbps	Simple profile Main profile	ASF (.asf), AVI (.avi), MKV (.mkv), WMV (.wmv), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), OGM (.ogm)
VC-1	1920x1080@60fps	60Mbps	Advanced profile @ Level 4	MPEG transport stream (.ts, .trp, .tp), ASF (.asf), WMV (.wmv), AVI (.avi), MKV (.mkv), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov), VC1 (.vc1)
RealVideo 8/9/10	1920x1080@60fps	60Mbps		RM (.rm, .rmvb), MKV (.mkv)

Video Encoder

Video Codec	Max Resolution	Max Bit Rate	Profile	Note
H.264	1920x1080@60fps	28Mbps	Main profile, level 4.2 High profile, level 4.2	Hardware video encoder

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), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), OGM (.ogm)	
MPEG1/2 Layer2	16KHz ~ 48KHz	Up to 2	8Kbps ~ 384Kbps	MP3 (.mp3), AVI (.avi), ASF (.asf), WMV (.wmv), MKV (.mkv, .mka), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), 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), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), MPEG transport stream (.ts, .trp, .tp), MPEG program stream (.DAT, .VOB, .MPG, .MPEG), FLV (.flv), OGM (.ogm)	
AC3 (DD)	32KHz, 44.1KHz, 48KHz	Up to 5.1	32Kbps ~ 640Kbps	AC3 (.ac3), AVI (.avi), MKV (.mkv, .mka), 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 7.1 Channels Or 15 Objects +1 LFE Channel	< 3Mbps	EAC3 (.ec3), AVI (.avi), MKV (.mkv, .mka), 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), 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	128Kbps ~ 320Kbps	ASF (.asf), WMV (.wma, .wmv), AVI (.avi), MKV (.mkv, .mka), 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 core	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), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), AVI (.avi), OGM (.ogm), DTS (.dts)	
DTS LBR	44.1KHz, 48KHz	Up to 5.1	< 2Mbps (Pure DTS LBR)	MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MPEG transport stream (.ts, .trp, .tp), MKV (.mkv)	
DTS XLL	Up to 192KHz	Up to 7.1	< 24.537Mbps	MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MKV (.mkv)	
DTS Master Audio	Up to 48KHz	Up to 7.1	< 24.537Mbps	MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MKV (.mkv)	
DTS:X(P1)	48KHz	Up to 7.1.4	< 24.537Mbps	MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MKV (.mkv)	
DTS:X(P2)	48KHz	Up to 5.1.4	< 768Kbps	MPEG transport stream (.ts, .trp, .tp), MP4 (.mp4, .mov), 3GPP (.3gpp, .3gp), MKV (.mkv)	
LPCM	8KHz ~ 48KHz	Mono, stereo, 5.1	64Kbps ~ 1.5Mbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), 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	32Kbps~ 384Kbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), OGM (.ogm)	
G711 A/mu-law	8KHz	1	64Kbps	WAV (.wav), AVI (.avi), MKV (.mkv, .mka), 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 ~ 48KHz	Up to 2	< 1.6Mbps	MKV (.mkv, .mka), FLAC (.flac), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)	
OPUS	8KHz ~ 48KHz	Up to 6	6Kbps ~ 510Kbps	MKV (.mkv, .mka), WebM (.webm), Ogg (.ogg)	
AC4	48KHz	Up to 11 Channels Or 10 Objects	< 3Mbps	MPEG transport stream (.ts, .trp, .tp), 3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a), AC4 (.ac4)	
Fraunhofer MPEG-H TV Audio System Level3	32KHz, 44.1KHz, 48KHz	Up to 16 core channels Up to 5.1 channels output	< 1.2 Mbps	3GPP (.3gpp, .3gp), MP4 (.mp4, .mov, m4a)	
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)	
DRA	8KHz ~ 96KHz	Up to 7.1	< 6Mbps	MPEG transport stream (.ts, .trp, .tp)	

Picture

Image	Photo	Resolution (width x height)
JPEG	Base-line	16383 x 16383
	Progressive	1920 x 1080
PNG		8192 x 4320
BMP		8192 x 4320
GIF		8192 x 4320
WebP		8192 x 4320
HEIF (HEIC)		16383 x 16383
AVIF		4096 x 2304

Subtitle

Internal

File Extension	Container	Subtitle Codec
ts, trp, tp	TS	DVB Subtitle Teletext CC(EIA608) PGS
mp4	MP4	VobSub PGS TX3G

File Extension	Container	Subtitle Codec
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 SubIdx (VobSub)	
.txt	TMPlayer	

Supported DVI Resolutions

When connecting devices to your TV's connectors by using a 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				

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JVC

Disposal Information

[European Union]

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

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

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

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

[Business users]

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

[Other Countries outside the European Union]

These symbols are only valid in the European Union.

Contact your local authority to learn about disposal and recycling.

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

Some collection points accept products free of charge.

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

1. Products

2. Battery

JVC