

PHILIPS

AMBILIGHT tv

OLED950 Series

User Manual

65OLED950
77OLED950

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1. OLED Screen Care

OLED Display is state of the art technology and combined with our Picture Quality Engine it has won an outstanding number of awards. To ensure that your TV always offers the best possible performance, it will sometimes perform a display clean-up process while in standby. OLED TV shall be always placed in location without direct sunlight shining on the screen.

If you never put your TV in standby, you will regularly be notified by on screen messages that the display needs to execute this clean-up process. Please always follow those instructions. Repeatedly postponing this process may result in image retention, which may void your warranty.

Your TV should be left in standby in order to execute the cleaning process in the background. We also recommend that you avoid continuously displaying static images or static parts in moving images (like news ticker bar, soccer scores, game HUDs...).

TV Display refreshing

To protect the screen, OLED TV need refreshing process over time.

There are 2 types of refreshing process:

- Normal refreshing: This will take place automatically and it takes a few minutes with TV in standby mode.
- Deep refreshing: This will take a few minutes and need to be triggered by consumer.

To allow OLED TV to perform refreshing properly, please adhere to the following:

- For normal refreshing process to take place automatically, always use remote control to switch off TV and keep the TV power plugged.
- When normal refreshing message is shown on TV screen, follow the onscreen recommended instructions.
- For deep refreshing process, it can be activated manually via **Settings > Display and sound > Screen > OLED SCREEN SETTINGS > Clear residual image**. A reminder message can also be shown on TV to request user to perform deep refreshing, please follow instructions and keep TV power plugged to allow the whole process complete. It will take a few minutes. The deep refreshing process shall only be done when residual image is seen on screen even after 8 hours standby. Manually performing Clear residual image too often may reduce OLED display life time. However, it is important to allow the refresh cycles, when requested by the TV.
- Do not touch or apply pressure on TV screen during the refreshing process.
- Always use remote control to switch off TV and keep

the TV power plugged on when refreshing is triggered.

* Note: In order to enjoy the best picture quality this process is essential. If the unit demonstrably did not have the chance to complete a refreshing process on a regular basis, we cannot accept any returns, repairs, exchanges or warranty claims on behalf of image residual phenomenon within and/or out of the warranty period. This is also the case when the TV is used predominantly for gaming with static content on the screen, the TV is only used for watching news channels (with static news ticker bars) or other similar use cases that implication-wise bear an increased risk for sustaining burn-in effects. This is not in scope of the warranty.

Special Care for OLED TV

Organic LED (OLED) may experience on-screen image retention (due to the characteristics of the material), when an image is continuously displayed for a long period of time or the same image is repeatedly displayed. So it is strongly recommended to follow the instructions to take care of OLED TV:

- Do not display any still image continuously or display the same image for more than 10 minutes.
- Recommend to use ECO, HDR ECO or Dolby Vision Filmmaker as picture style in normal home viewing condition.
- Recommend to use OLED Contrast setting 50 or below in picture settings when playing Game or watching TV programs with logos or clocks on any parts of the screen.
- Switch off On Screen Display (e.g. the home menus) of TV application program when not used.
- Switch off On Screen Display from connected external video devices (e.g. DVD player). For details, refer to the instruction manuals for the connected devices.
- Avoid displaying video with bright colours (including white), text, clocks or logos on any parts of the screen for a long time.
- Use Wide screen or Fill screen as picture format option (see TV picture settings).
- Always watch video in full screen instead of a small window on TV screen. (e.g. video in internet browser page)
- Do not attach any sticker or label on the OLED panel to reduce the chance of image residual phenomenon.
- Organic LED (OLED) displays are extremely sensitive to hostile climate and external factors, like placing these straight under the sunlight and/or ultraviolet illumination as well as improper ambient temperature, resulting in a decrease of luminosity, brightness and lifetime of the OLED displays, pixel reduction and irreparable harm and/or failure of the display. Please note that the warranty does not apply to problems that result, directly or indirectly, from the usage which is not in conformity with these product instructions.

Displaying a still image for a prolonged period of time may cause an image sticking. This phenomenon is normal character for OLED panel and does not represent a defect of the TV. Avoid displaying a fixed image on the TV screen for an extended length of time.

Screen saver

To reduce the chances of residual images on the TV screen, the screen saver (moving logo) will be triggered in such circumstances.

- when static setting menu elements are shown on screen for more than 2 minutes.
- when static setting menu elements of Apps are shown on screen for more than 2 minutes.
- when Teletext is being displayed for more than 2 minutes.

The screen saver may not be triggered in such circumstances.

- pausing playback on an external source (e.g. HDMI), as the TV is not displaying static setting menu elements.

Once the screen saver is active, it can be closed by pressing any remote control button. Other actions like inserting a USB stick or casting content will execute in the background, but these activities will not interrupt the screen saver.

Philips TV is equipped with the following to take care of OLED screen:

- **Automatic refreshing process**

Perform screen refreshing process when necessary.

- **Automatic screen brightness control**

Gradually reduce the screen brightness when still image is displayed for a long time.

- **Screen Saver**

Display screen saver when still image is displayed on screen over a longer period of time.

2. Home Screen

2.1. Introduction

To enjoy the benefits of your Google TV, connect the TV to the Internet. Press **HOME** on your remote control to get your Home screen. Like on your Android smartphone or tablet, the Home screen is the centre of your TV. From the Home screen you can decide what to watch by browsing entertainment options from app and live TV.

The Home screen is organized in rows to let you discover great contents from your favourite apps. You can also add additional rows or find new apps to get more contents. Apps may populate their recommendation (if available) according to their own choice as an individual rows in the home screen.

Highlights on your home screen

With multiple tabs* like Search, For you, Movies, Shows, Apps, Library and Philips, you can discover movies and shows from your services and popular apps. Sign in to your Google Account to get personalised recommendations from your streaming services based on what you have watched and what interests you. You can also trigger Google search with voice or text input in Search tab.

* The tabs on your home screen are vary depending on you location and language setting of your TV.

Apps

The Apps tab of Home screen contains all installed Apps that come with the TV and the Apps you have installed from Google Play™ Store. You can also install and add more apps as favourite from the Apps tab.

Navigation

Decide what to watch next with easy-to-use navigation. Browse your personalised recommendations, pick up where you left off, or quickly find a certain app using the new tab system.

Discover personalised recommendations

Browse shows and movies that you will love on all your favourite media services. Sign in to your Google Account to get started.

Get recommendations across Google

Your services are saved to your Google Account so you can get better recommendations across Google.

All about your Philips TV

The Philips tab includes the information of your Philips TV. Smart TV Collection row to list the apps that

designed for your TV or guide you to register your TV. How to... row to introduce the tips of common operations on your TV. Help row to help you to access the user manual, perform the TV diagnose or Self-diagnose to check your TV status.

See also www.support.google.com/googletv

2.2. Dashboard and Settings

Dashboard

The Dashboard is a side panel in Google TV that provides access to Settings, device controls, notifications and more.

The Dashboard can be accessed in three ways as follows:

- 1 - Navigating to the profile icon in the upper right of the home screen.
- 2 - Press **DASHBOARD** key on the remote control.
- 3 - Long press **HOME** key on the remote control.

The dashboard contains following features.

- **Profile:** to display current user profile icon or to add new user profile
- **Settings:** to access all setting menus for adjusting the TV settings.
- **Clock and screensaver:** to indicate the system clock and press to activate screen saver immediately.
- **Sources:** to launch the input source list for switching to any of the connected devices.
- **Picture / Wi-Fi / Accessibility / Bluetooth®:** quick link to adjust Picture / Wi-Fi / Accessibility / Bluetooth® settings.
- **Notifications:** to provide you the messages about the Google TV system; press Clear all to dismiss all notifications.

Adjust settings

You can access Settings menu via the dashboard at the top right corner. Alternately, you can access the Frequent settings menu and Quick Menu items in the Philips TV Menu, which can be invoked directly from the remote control.

2.3. Google TV and Basic Mode

Difference of feature

You can set your TV to Google TV mode or Basic Mode.

Basic Mode contains only Live TV and External devices (e.g. HDMI) features. Google TV requires you to login with your Google account and Internet connection. With Google TV, you can have all Basic Mode features and more Google's personalised services. For example, movies and TV shows from your favourite streaming apps, personalised recommendations, and Google Assistant to search and control your TV with your voice.

Some features are not available in Basic Mode. For more information, please refer to Google support page.




Difference of Home screen

The Home screen of Basic Mode has only two rows and without tabs. The first Home row contains Watch TV, TV Guide, Sources and Dashboard icons for TV feature operations. The second App row contains all pre-installed Apps. The Dashboard on Basic Mode does not include personal profile and can only perform setting change and displaying system notifications.

The Home screen of Google TV has multiple tabs like Home, Apps, Library and Search. Each tab contains rows of apps, movies and shows from your services and popular apps. You can get personalised recommendations from your streaming services based on what you have watched and what interests you. You can also trigger Google search with voice or text input in Search tab.

2.4. Open the Home Screen

To open the Home screen and open an item:

- 1 - Press  HOME.
- 2 - Select an item and press OK to open or start it.
- 3 - Press  Back continuously or press  HOME can go back to Home screen.

When opening the Home screen, the background application/content playback will stop. You have to select the application or content from the Home screen to resume.

3. Setting Up

3.1. Read the Safety Instructions

Please read the safety instructions before you use the TV.

To read the instructions, check on Help > User manual > Safety and Care.

3.2. TV Stand and Wall Mounting

TV Stand

You can find the instructions for mounting the TV stand in the Quick Start Guide that came with the TV. In case you lost this guide, you can download it from www.philips.com/TVsupport.

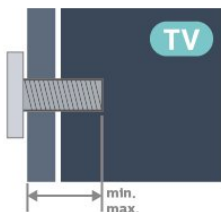
Use the product type number of the TV to look for the Quick Start Guide to download.

Wall Mounting

Your TV is also prepared for the wall mount bracket (sold separately).

The wall mount size may vary depending on different type of back cases; refer to the Quick Start Guide in your product package to see which size is applied to your TV.

Use the following wall mount dimension when purchasing the wall mount.



- 65OLED950
300x300, M6 (min.: 10 mm, max.: 15 mm)
- 77OLED950
400x300, M6 (min.: 10 mm, max.: 22 mm)

Caution

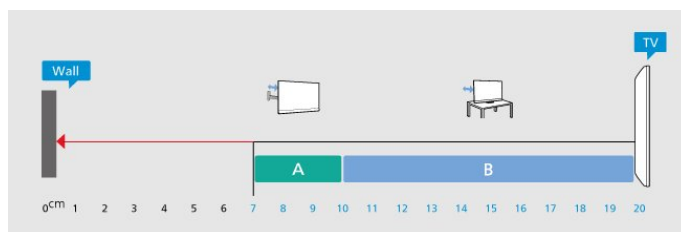
Wall mounting the TV requires special skills and should only be performed by qualified personnel. The TV wall

mounting should meet safety standards according to the TV's weight. Also read the safety precautions before positioning the TV.

TP Vision Europe B.V. bears no responsibility for improper mounting or any mounting that results in accident or injury.

3.3. Tips on Placement

- Position the TV where light does not shine directly on the screen.
- Dim lighting conditions in the room for best Ambilight effect.
- The ideal distance to watch TV is 2 to 5 times its screen height. When seated, your eyes should be level with the centre of the screen.
- Recommended distance to the wall:
 - A. When wall mounted, position the TV from 7 to 10 cm away from the wall.
 - B. When TV is with stand, position the TV from 10 to 20 cm away from the wall depends on the size of stand.

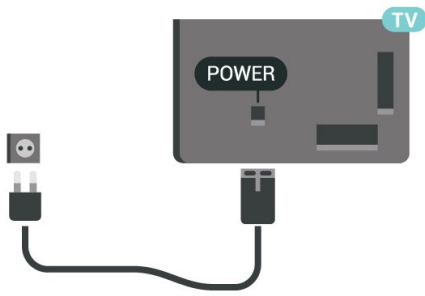


Note:

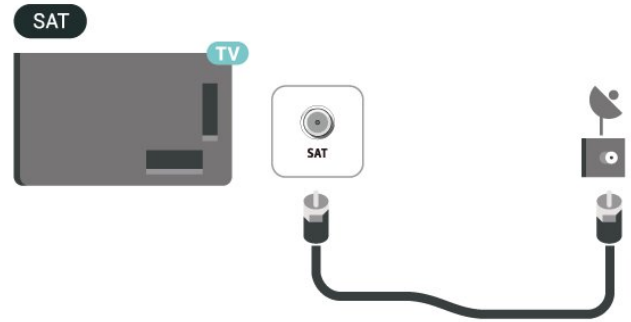
Please keep the TV away from dust-producing sources such as stoves. It is suggested to clean the dust regularly to avoid getting dust into the TV.

3.4. Power Cable

- Insert the power cable into the POWER connector on the back of the TV.
- Make sure the power cable is securely inserted in the connector.
- Make sure that the power plug, in the wall socket, is accessible at all times.
- When you unplug the power cable, always pull the plug, never pull the cable.



Although this TV has a very low standby power consumption, unplug the power cable to save energy if you do not use the TV for a long period of time.

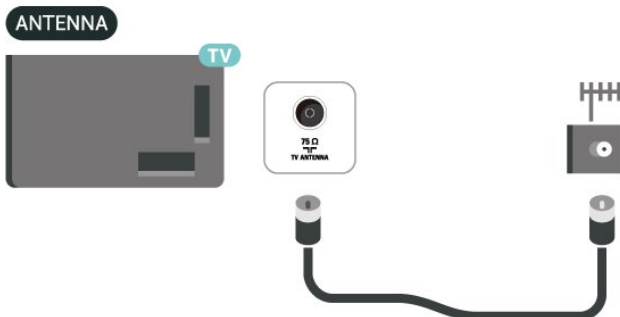


3.5. Antenna Cable

Insert the antenna plug firmly into the Antenna socket at the back of the TV.

You can connect your own antenna or an antenna signal from an antenna distribution system. Use an IEC Coax 75 Ohm RF antenna connector.

Use this antenna connection for DVB-T and DVB-C input signals.



3.6. Satellite Dish

Attach the satellite F-type connector to the satellite connection SAT at the back of the TV.

4. Remote Control

4.1. Key Overview

Top

Special features of remote control

There are some special features embedded with the remote control. Motion sensing to detect the remote control motion and turn on the backlight. Hidden keys to extend more control functions while pressing the 123 key. Charging the battery by USB type-c connector.

Motion sensing

The remote control has built-in Motion sensor, when you pick up the remote control normally and tilt the remote control keys towards you, the backlight will turn on for few seconds. The default for motion sensing feature is on, you can turn it off by long pressing OK and Colour key ■ for 3 seconds. To turn on the feature again, long press OK and Colour key ■ key for 3 seconds.

Hidden keys

There is a 123 key on the middle of remote control, which is used to turn on/off hidden keys mode. When hidden key mode is turned on by pressing the 123 key, the number keys 0 to 9 and media play control keys will appear with backlight and trigger the functions. When hidden key mode is turned off by pressing 123 key again or automatically turned off, the remote control will work with normal keys.

Wired and Wireless charging the remote control

The remote control is without replaceable battery, you can charge the remote control with the USB type-c connector in front of the remote control. Alternately, you can charge the remote control by Qi wireless charger*.

* Note: Wireless charging device/pad is not included in product package.

⚠ Warning

Choking Hazard! This TV remote control contains small parts, not suitable for children under 5 years old.



1 - (Standby / On)

To switch the TV on or back to Standby. Long press for three seconds to reboot the TV.

2 - VOICE microphone

3 - AMBILIGHT

To select one of the Ambilight style.

4 - (SOURCES)

To open or close the Sources menu.

5 - (DASHBOARD)

To launch Dashboard on side of screen to access Settings, device controls, notifications and more.

6 - (Google Voice Search)

To start the Google Voice Search.

Middle



1 - TV Guide ()

To open or close the TV Guide.

2 - OK key

To confirm a selection or setting. To open the channel list while watching TV.

3 - Arrow / navigation keys

To navigate up, down, left or right.

4 - OPTIONS (+)

To open or close the options menu. Long press to open programme info.

5 - ⬅ (Back)

To switch back to the previous channel you selected.

To return to previous menu.

To go back to the previous App/Internet page.

6 - Volume / 🔊 (Mute)

Move down or up to adjust the volume level. Press the middle of key to mute the sound or to restore it.

7 - 123 key

To turn on or off the hidden function keys and switch the keys between different sets of operations.

8 - Quick Menu / MENU (☰)

To open the Quick Menu with typical TV functions.

9 - Number keys (hidden keys, available after 123 key is pressed)

To select a channel directly.

10 - SUBTITLE

To open Subtitle page. Long press to open Text/Teletext.

11 - TV (📺) / EXIT

To switch back to watch TV or to stop an interactive TV application. However, it might not work on some applications; behaviour is dependent on third party TV apps.

This key will be changed to Number key 0 after 123 key is pressed.

12 - 🏠 (HOME)

To open the Home menu. Long press to access the Dashboard.

13 - ≡ (Channel)

Move down or up to switch to the next or previous channel in the channel list. To open the next or previous page in Text/Teletext. Press the middle of key to open the channel list.

Bottom



1 - ■ ■ ■ ■ Colour keys

Direct selection of options. Press Blue key ■ to open the Help.

2 - NETFLIX

- If you have a Netflix membership subscription, you can enjoy Netflix on this TV. Your TV must be connected to the Internet.

- To launch the Netflix, press **NETFLIX** to open Netflix immediately with the TV switched on or from standby. www.netflix.com

3 - prime video

To launch the Amazon prime video App.

4 - 🌿 Eco / Green key

Press to invoke a message to remind you to enter the Eco settings menu; long press to invoke the Eco settings menu directly. Once the Eco settings menu is triggered via long press the key few times, the message will no longer to show.

5 - Playback (hidden keys, available after 123 key is pressed)

- Play ▶, to playback.
- Pause ⏸, to pause playback
- Rewind ⏮, to rewind
- Fast forward ⏭, to go fast forward

6 - YouTube

To launch the YouTube App.

7 - 📱 (Apps) / Public Value* / IVI**

To launch Your apps page to display the list of Apps that are pre-installed, or installed by user.

* When the country is set to France, the key will be the quick key to launch Public Value tab on Home screen.

** When the country is set to Russia, the key will be the quick key to launch the IVI app.

4.2. Pair Your Remote Control to TV

This remote control uses both Bluetooth® and IR (infrared) to send its commands to the TV.


- You can use this remote control via IR (infrared) for most operations.
- To use advanced operation like voice search, you need to pair (link) the TV with the remote control.

When you start the initial TV installation, the TV invites you to press Home + Back key to pair the remote control. It is suggested to complete the pairing during the first TV installation.

Note:

- 1 - Once the remote control has entered pairing mode successfully, the LED indicator around the microphone on the front side of the remote control starts blinking.
- 2 - The remote control must be kept close to the TV (within 1m distance) during pairing in order to ensure

success.


3 - If the TV does not launch the voice control field when press , pairing was unsuccessful.

4 - It is advisable to wait until the set has fully started up and launched all background processes before pairing mode is entered as the toast message containing further instructions may appear too late, thereby negatively impacting the pairing procedure.

Pairing or pairing again


If the pairing with the remote control was lost, you can pair the TV with the remote control again.

You can press Home + Back key (approximate for 3 seconds) for pairing.


Alternatively, go to  Settings > Remote and accessories > Remote control settings > Pair remote control, then follow the on-screen instructions.

A message appears when the pairing is successful.

Remote Control Software

 Settings > Remote and accessories > Remote control settings > Remote control info

Once the remote control is paired, you can check the current remote control software version.

 Settings > Remote and accessories > Remote control settings > Update remote control software


Check available remote control software for updates.


4.3. Voice Search

You can search for videos, music or anything else on the Internet by simply using your voice. You can speak into the microphone on the remote control.

You need to pair the remote control to the TV before use voice search.

To use Voice:

1 - Press and hold the  key on remote control, the blue light on the remote control lights up and the search field opens, the microphone is active.

2 - Speak out what you are looking for with clear pronunciation. Once the voice input is done, release the  key to start the search. It might take some time for the results to appear.

3 - In the list of search results, you can select the item you want.

4.4. IR Sensor

The TV can receive commands from a remote control that uses IR (infrared) to send commands. If you use such a remote control, always make sure you point the remote control at the infrared sensor on the front of the TV.

Warning

Do not put any objects in front of IR sensor of the TV, it may block the IR signal.

4.5. Charging and Cleaning

Wired and Wireless charging the remote control

Refer to the Quick Start Guide in your product package for detailed information about charging the remote control.

If the TV does not react on a key press on the remote control or charging notification is received on TV, you can charge the remote control with the USB type-c connector in front of the remote control.

To charge the remote control, connect it with the USB cable that come with your remote control to your USB power supply device. The input power of the remote control is 5.0V 0.5A, please check the power voltage before connecting to charge.

When the remote control is charging, the microphone LED indicator on top of remote control will blink or turn on:

- White LED at microphone hole will be glowing during charging.
- White LED at microphone hole turns on at full charge.
- No LED blinking if any charging fault detected.

Wireless charging coil is located at the Philips logo at the reverse side of the remote control. Using a compatible Qi wireless charger, the remote control can be charged by placing it on the wireless charging device/pad*. If the remote control is not aligned properly with the wireless charger, the white LED may blink rapidly.

* Note: Wireless charging device/pad is not included in product package.

Cleaning

Your remote control is treated with a scratch-resistant coating.

To clean the remote control, use a soft damp cloth.
Never use substances such as alcohol, chemicals or household cleaners on the remote control.

4.6. Simple Setup App for Set Top Box

Simple Setup app will allow user to control their set top box using the TV remote control (via IR control to the set top box).

Setup via App for connected set top box

- 1 - Connect a set top box via HDMI to TV.
- 2 - Launch Simple Setup app on TV
- 3 - To setup for a new set top box, select the brand and model for your set top box.

Simple Setup app on TV will send set top box IR code database via Bluetooth® to TV remote control.

Control of set top box using TV remote control


- 1 - When user is watching TV source, TV remote control will be in TV mode and sending TV IR codes.
- 2 - When Simple Setup app is running on TV, it will detect when user switch to HDMI input for set top box and trigger TV remote control to switch to send set top box IR codes during key press.

5. Switching On and Off


5.1. On or Standby

Make sure the TV is connected to the mains AC power. Connect the supplied power cord to the AC in connector at the back of the TV. The indicator light at the bottom of the TV lights up.


Switch on

Press  on the remote control to switch the TV on. You can also press the small joystick key on the bottom of the TV to switch the TV on in case you can't find the remote control or its batteries are empty.

Reboot

Long press  on the remote control for three seconds to reboot the TV.

Switch to standby

To switch the TV to standby, press  on the remote control. You can also press the small joystick key on the back of the TV.



In standby mode, the TV is still connected to the mains power but consumes very little energy.





To switch off the TV completely, disconnect the power plug.


When disconnecting the power plug, always pull the power plug, never the cord. Ensure that you have full access to the power plug, power cord and outlet socket at all times.

5.2. Keys on TV

If you lost the remote control or its batteries are empty, you can still do some basic TV operations.

To open the basic menu:

- 1 - With the TV switched on, press the joystick key on the back of the TV to bring up the basic menu.
- 2 - Press left or right to select  Volume,  Channel or  Sources. Select  Demo, to start a demo movie.
- 3 - Press up or down to adjust the volume or tune to the next or previous channel. Press up or down to go through the list of sources, including the tuner selection. Press the joystick key to start the demo movie.
- 4 - The menu will disappear automatically.

To switch the TV on standby, select  and press the joystick key.



6. Channel Installation

6.1. Satellite Installation

About Installing Satellites

Up to 4 Satellites

You can install up to 4 satellites (4 LNBs) on this TV. Select the exact number of satellites you wish to install at the start of the installation. This will speed up the installation.

Unicable


You can use a Unicable system* to connect the antenna dish to the TV. You can select Unicable for up to 4 satellites at the start of the installation.

* Note: supports Unicable 1 (EN50494) and Unicable 2 (EN50607/JESS).

Start the Installation

Make sure your satellite dish is connected correctly and is perfectly aligned before you start the installation.

To start the satellite installation:

- 1 - Select  **Settings** > **Channels and inputs** > **Channels** > **Satellite Installation** and press OK. Enter your PIN code if necessary.
- 2 - Select **Search for Satellite** and press OK.
- 3 - Select **Search** and press OK. TV will search for satellites.
- 4 - Select **Install** and press OK. The TV shows the current satellite installation setup.
If you want to change this setup, select **Settings**.
If you don't want to change the setup, select **Search**. Go to step 5.
- 5 - In **Installation System**, select the number of satellites you want to install or select one of the Unicable systems. When you select Unicable, you can choose the User Band Numbers and enter the User Band Frequencies for each tuner. In some countries, you can adjust some expert settings for each LNB in **More Settings**.
- 6 - The TV will search for the satellites available on the alignment of your antenna dish. This may take a few minutes. If a satellite is found, its name and reception strength are shown on screen.
- 7 - When the TV found the satellites you need, select **Install**.
- 8 - If a satellite offers **Channel Packages**, the TV will


show the available packages for that satellite. Select the package you need. Some packages offer a **Quick** or **Full** install for their available channels, select one or the other. The TV will install the satellite channels and radio stations.

9 - To store the satellite setup and installed channels and radio stations, select **Finish**.

Satellite Installation Settings


The satellite installation settings are preset according to your country. These settings determine how the TV searches and installs satellites and its channels. You can always change these settings.

To change the satellite installation settings:

- 1 - Start the satellite installation.
- 2 - On the screen where you can start searching for satellites, select **Configure** and press OK.
- 3 - Select the number of satellites you want to install or select one of the Unicable systems. When you select Unicable, you can choose the User Band Numbers and enter the User Band Frequencies for each tuner.
- 4 - When you're done, select **Next** and press OK.
- 5 - On the **Settings** menu, press  **Back** to return to the screen to start searching for satellites.

Homing Transponder and LNB

In some countries, you can adjust the expert settings for homing transponder and each LNB. Only use or change these settings when a normal installation fails. If you have non-standard satellite equipment, you can use these settings to overrule the standard settings. Some providers might give you some transponder or LNB values which you can enter here.

 **Back**

Satellite CAMs

If you use a CAM – a Conditional Access Module with a smart card – to watch satellite channels, we recommend to do the satellite installation with the CAM inserted in the TV.

Most CAMs are used to descramble channels.

Newest generation CAMs can install all the satellite channels by themselves on your TV. The CAM will invite you to install its satellite(s) and channels. These CAMs not only install and descramble the channels but also handle regular channel updates.

Channel Packages

Satellite operators can offer channel packages that bundle free channels (free-to-air) and offer a sorting that suits a country. Some satellites offer subscription packages - a collection of channels you pay for.

If you choose a subscription package, the TV might ask you to select a Quick or Full installation. Select Quick to install the channels of the package only or select Full to install the package and all other available channels too. We recommend a Quick installation for subscription packages. If you have additional satellites that are not part of your subscription package, we recommend a Full installation. All installed channels are put in the channels list All.

Unicable Setup

The Unicable System

You can use a Single Cable system or Unicable system* to connect the antenna dish to the TV. A Single Cable system uses one cable to connect the satellite dish to all satellite tuners in its system. A Single Cable system is typically used in apartment buildings. If you use a Unicable system, the TV will ask you to assign a user band number and corresponding frequency during the installation. You can install up to 4 satellites with Unicable on this TV.

If you notice some missing channels after a Unicable installation, another installation might have been done at the same moment on the Unicable system. Do the installation again to install the missing channels.

* Note: supports Unicable 1 (EN50494) and Unicable 2 (EN50607/JESS).

User Band Number

In a Unicable system, each connected satellite tuner must be numbered (e.g. 0, 1, 2 or 3, etc.).

You can find the available user bands and their number on the Unicable switchbox. User band is sometimes shortened as UB. There are Unicable switchboxes that offer 4 or 8 user bands. If you select Unicable in the settings, the TV will ask you to assign the unique user band number for each built-in satellite tuners. A satellite tuner cannot have the same user band number as another satellite tuner in the Unicable system.

User Band Frequency


Next to the unique user band number, the built-in satellite receiver needs the frequency of the selected user band number. These frequencies are mostly shown

next to the user band number on a Unicable switchbox.

Manual Channel Update

You can always start a channel update yourself.

To start a channel update manually:

- 1 - Select  Settings > Channels and inputs > Channels > Satellite Installation and press OK.
- 2 - Select Search for Channels and press OK.
- 3 - Select Update Channels and press OK. The TV will start updating. The update may take a few minutes.
- 4 - Follow the instructions on screen. The update may take a few minutes.
- 5 - Select Finish and press OK.




Manual Installation

Manual Installation is intended for expert users.

You can use Manual Installation to quickly add new channels from a satellite transponder. You need to know the frequency and polarisation of the transponder. The TV will install all channels of that transponder. If the transponder was installed before, all its channels - the former and the new ones - are moved to the end of the channel list All.

You cannot use Manual installation if you need to change the number of satellites. If this is needed, you have to do a complete installation with Install Satellites.

To install a transponder:

- 1 - Select  Settings > Channels and inputs > Channels > Satellite Installation and press OK.
- 2 - Select Manual Installation and press  (right) to enter the menu.
- 3 - If you have more than 1 satellite installed, select LNB for which you want to add channels.
- 4 - Set the Polarisation you need. If you set the Symbol Rate Mode to Manual, you can enter the symbol rate in Symbol Rate manually.
- 5 - Press the Arrow / navigation keys to adjust the frequency, and select Done.
- 6 - Select Search and press OK. The signal strength is shown on screen.
- 7 - If you want to store the channels of a new transponder, select Store and press OK.
- 8 - Press  (left) repeatedly if necessary, to close the menu.

Homing Transponder and LNB

In some countries, you can adjust the expert settings for homing transponder and each LNB. Only use or change these settings when a normal installation fails. If you have non-standard satellite equipment, you can use these settings to overrule the standard settings. Some providers might give you some transponder or LNB values which you can enter here.

LNB Power

By default, LNB Power is set to Automatic.

22 kHz Tone

By default, the Tone is set to Automatic.

Low LO Frequency / High LO Frequency

The local oscillator frequencies are set to standard values. Adjust the values only in case of exceptional equipment that needs different values.

Problems

The TV cannot find the satellites I want or the TV installs the same satellite twice

- Make sure that the correct number of satellites is set in Settings at the start of the installation. You can set the TV to search for One, Two or 3/4 satellites.

A dual head LNB cannot find a second satellite

- If the TV finds one satellite but cannot find a second one, turn the dish a few degrees. Align the dish to get the strongest signal on the first satellite. Check the signal strength indicator of the first satellite on screen. With the first satellite set at the strongest signal, select Search again to find the second satellite.
- Make sure the settings are set to Two Satellites.

Changing the installation settings did not solve my problem

- All settings, satellites and channels are only stored at the end of the installation when you finish.

All satellite channels are gone

- If you use a Unicable system, make sure you assigned two unique user band numbers for both built-in tuners in the Unicable settings. It might be that another satellite receiver in your Unicable system is using the same user band number.

Some satellite channels seem to have disappeared from the channel list

- If some channels seem to be gone or displaced, the broadcaster might have changed the transponder location of these channels. To restore the channel positions in the channel list, you can try an update of

the channel package.

I cannot remove a satellite

- Subscription packages do not allow removing a satellite. To remove the satellite, you have to do a complete installation again and select another package.

Sometimes the reception is poor

- Check if the satellite dish is solidly mounted. Strong winds can move the dish.
- Snow and rain can degrade the reception.

Operator Apps

HD+ OpApp

HD+ OpApp

HD+ OpApp* is an app provided by HD+ for Germany users that can run a virtual set-top box on TV. The app has the applications and features that you previously needed a physical set-top box to access.

You need internet connection and accept the Philips Terms of Use, the Privacy Policy and Smart TV Terms of Use to install the HD+ OpApp. You can install the App either using the Apps Screen or the Search for satellites option in the Settings Menu.

If the HD+ OpApp cannot be downloaded or installed, you may try to download again later. If problem persists, please contact HD+.

Once the HD+ OpApp has been installed successfully, you can start the free period. Please switch the source to Watch Satellite after the installation. If you have been using a CAM Module for HD+ before, you can remove it now. If a CICAM is inserted in the TV, it will not be used to descramble the signal when you are watching a satellite channel.

After HD+ OpApp is installed, there are some features will be affected.

- Recording and reminder functionalities are not allowed for satellite channels.
- Favourite list is only available in Antenna/Cable.
- The channel selection, TV Guide, channel information are replaced by the OpApp user interface
- Satellite channels renaming and cloning will be disabled.

* Note: HD+ OpApp is only available for HD+ subscriber and the country setting is Germany.

M7 TV App

M7 TV App

M7 TV App* is an app provided by M7 subscribers that can run a virtual set-top box on TV. The app has the

applications and features that you previously needed a physical set-top box to access.

You need internet connection and accept the Philips Terms of Use, the Privacy Policy and Smart TV Terms of Use to install the M7 TV App. You can install the App either using the Apps Screen or the Search for satellites option in the Settings Menu.

If the M7 TV App cannot be downloaded or installed, you may try to download again later. If problem persists, please contact M7.

Once the M7 TV App has been installed successfully, you can start to receive additional commercial channels in HD and UHD quality. Please switch the source to Watch Satellite after the installation. If you have been using a CAM Module for M7 before, continue to use it to descramble the signal when you are watching a satellite channel.

After M7 TV App is installed, there are some features will be affected.

- Recording and reminder functionalities are not allowed for satellite channels.
- Favourite list is only available in Antenna/Cable.
- The channel selection, TV Guide, channel information are replaced by the TV App user interface
- Satellite channels renaming and cloning will be disabled.

* Note: M7 TV App is only available for M7 subscriber of certain countries only.

6.2. Antenna Installation

Update Channels

Automatic Channel Update

If you receive digital channels, you can set the TV to automatically update these channels.

Once a day, at 7 AM, the TV updates the channels and stores new channels. New channels are stored in the Channels List and are marked with a ★. Channels without a signal are removed. The TV must be in standby to automatically update channels. You can switch off Automatic Channel Update.

To switch off the automatic update:

- 1 - Select ⚙ Settings > Channels and inputs > Channels > Antenna/Cable Installation or Antenna Installation and press OK.
- 2 - Enter your PIN code if necessary.
- 3 - Select Automatic Channel Update and press OK.
- 4 - Select Off and press OK.
- 5 - Press ⬅ (left) to go back one step or press ⬅ Back to close the menu.

When new channels are found or if channels are updated or removed, a message is shown at TV start up. To avoid this message to appear after every channel update, you can switch it off.

To switch off the message:

- 1 - Select ⚙ Settings > Channels and inputs > Channels > Antenna/Cable Installation or Antenna Installation and press OK.
- 2 - Enter your PIN code if necessary.
- 3 - Select Channel Update Message and press OK.
- 4 - Select Off and press OK.
- 5 - Press ⬅ (left) to go back one step or press ⬅ Back to close the menu.

In certain countries, the Automatic channel update is done while watching TV or on any moment when the TV is in standby.

Manual Channel Update

You can always start a channel update yourself.

To start a channel update manually:

- 1 - Select ⚙ Settings > Channels and inputs > Channels > Antenna/Cable Installation or Antenna Installation and press OK.
- 2 - Enter your PIN code if necessary.
- 3 - Select Search for Channels and press OK.
- 4 - Select Start and press OK.
- 5 - Select Update Digital Channels, select Next and press OK.
- 6 - Select Start and press OK to update the digital channels. This can take a few minutes.
- 7 - Press ⬅ (left) to go back one step or press ⬅ Back to close the menu.

Reinstall Channels

Reinstall All Channels

You can reinstall all channels and leave all other TV settings untouched.

If a PIN code is set, you will need to enter this code before you can reinstall channels.

To reinstall channels:

- 1 - Select ⚙ Settings > Channels and Inputs > Channels > Antenna/Cable Installation or Antenna Installation and press OK.
- 2 - Enter your PIN code if necessary.
- 3 - Select Search for Channels and press OK.
- 4 - Select Start and press OK.
- 5 - Select Advanced channel reinstall and press OK.
- 6 - Select the type of installation you want, Antenna (DVB-T) or Cable (DVB-C) and press OK.
- 7 - Select the type of channels you want, Digital and Analogue* Channels or Only Digital Channels and

press OK.

8 - Select **Start** and press OK to reinstall channels. This can take a few minutes.

9 - Press ◀ (left) to go back one step or press ⬅ Back to close the menu.

* Note: Analogue channel support is not available for countries that have completed analogue switched off.

Factory reset

You can redo a full TV installation. The TV is completely reinstalled.

To redo a full TV installation:

1 - Select ⚙ **Settings** > **System** > **About** > **Reset** > **Factory reset** and press OK.

2 - Enter your PIN code if necessary.

3 - The TV will reinstall completely. All settings will be reset and installed channels will be replaced. The installation can take a few minutes.

4 - Press ◀ (left) to go back one step or press ⬅ Back to close the menu.

DVB Settings

DVB-T or DVB-C Reception

During the channel installation, just before you search for channels, you selected Antenna (DVB-T) or Cable (DVB-C). Antenna DVB-T searches for terrestrial analogue channels and digital DVB-T/T2 channels. Cable DVB-C searches for analogue and digital channels available from a cable DVB-C operator.

DVB-C Channel Installation

For ease of use, all DVB-C settings are set to automatic. If your DVB-C operator gave you specific DVB-C values, the network ID or network frequency, enter these values when the TV asks for them during installation.

Channel Number Conflicts

In some countries, different TV channels (broadcasters) might have the same channel number. While installing, the TV shows the list with channel number conflicts. You need to select which TV channel you want to install on a channel number with multiple TV channels.

Network Frequency Mode

If you intend to use the fast **Quick Scan** method in **Frequency Scan** to search for channels, select **Automatic**. The TV will use 1 of the predefined network frequencies (or HC - homing channel) as used by most cable operator in your country.

If you received a specific network frequency value to search for channels, select **Manual**.

Network Frequency

With the **Network Frequency Mode** set to **Manual**, you can enter the network frequency value received from your cable operator here. To enter the value, use the number keys.

Frequency Scan

Select the method of searching for channels. You can select the faster **Quick Scan** method and use the predefined settings used by most cable operator in your country.

If this results in having no channels installed or if some channels are missing, you can select the extended **Full Scan** method. This method will take more time to search for and install channels.

Frequency Step Size

The TV searches for channels in steps of **8 MHz**.

If this results in having no channels installed or if some channels are missing, you can search in smaller steps of **1 MHz**. Using the 1MHz steps will take more time to search for and install channels.

Digital Channels

If you know your cable operator is not offering digital channels, you can skip searching for digital channels.

Analogue Channels

If you know your cable operator is not offering analogue channels, you can skip searching for analogue channels.

Free / Scrambled


If you have a subscription and a CAM - Conditional Access Module for pay TV services, select **Free + Scrambled**. If you did not subscribe to pay TV channels or services, you can select **Free Channels Only**.

Reception Quality

You can check the quality and signal strength of a digital channel. If you have your own antenna, you can reposition the antenna to try and improve the reception.

To check the reception quality of a digital channel:

1 - Tune to the channel.

- 2 - Select  **Settings** > **Channels and inputs** > **Channels** > **Antenna/Cable Installation** or **Antenna Installation** and press OK. Enter your PIN code if necessary.
- 3 - Select **Digital: Reception Test** and press OK.
- 4 - Select **Search** and press OK. The digital frequency is shown for this channel.
- 5 - Select **Search** again and press OK to check the signal quality of this frequency. The test result is shown on screen. You can reposition the antenna or check the connections to possibly improve the reception.
- 6 - You can also change the frequency yourself. Select the frequency number one by one and use the **Arrow / navigation keys** to change the value. Select **Search** and press OK to test the reception again.
- 7 - Press **◀** (left) repeatedly if necessary, to close the menu.

6.3. Channel List Copy

Introduction

Channel List Copy is intended for dealers and expert users.


With Channel List Copy, you can copy the channels installed on one TV onto another Philips TV of the same range. With Channel List Copy, you avoid the time-consuming channel search by uploading a predefined channel list on a TV. Use a USB flash drive of minimum 1 GB.

Conditions


- Both TVs are from the same year range.
- Both TVs have the same hardware type. Check the hardware type on the TV type plate on the back of the TV.
- Both TVs have compatible software versions.
- For the Netherlands or any of these cable operators (Switzerland:Sunrise / Austria:Magenta / Poland:UPC / Romania:Vodafone / Hungary:Vodafone / Ireland:VirginMedia), the channel list copy is limited to satellite channel list copy. The terrestrial and cable channels list will not be copied or erased.

Current channel version

To check the current version of the channel list:


- 1 - Select  **Settings** > **Channels and inputs** > **Channels** and select **Channel List Copy**.
- 2 - Check the version information from **Current Version**.

Current software version

You can go to  **Settings** > **System** > **About** > **SW version** to view the version number of current TV software.

Copy a Channel List


To copy a channel list:

- 1 - Switch on the TV. This TV should have channels installed.
- 2 - Plug in a USB flash drive.
- 3 - Select  **Settings** > **Channels and inputs** > **Channels** > **Channel List Copy** and press OK.
- 4 - Select **Copy to USB** and press OK. You might be asked to enter the Child Lock PIN code to copy the channel list.
- 5 - When copying is done, unplug the USB flash drive.
- 6 - Press **◀** (left) repeatedly if necessary, to close the menu.

Now you can upload the copied channel list onto another Philips TV.

Channel List Version

Check the current version of the channel list:


- 1 - Select  **Settings** > **Channels and inputs** > **Channels** and press **▶** (right) to enter the menu.
- 2 - Select **Channel List Copy** and select **Current Version**, then press OK.
- 3 - Press **◀** (left) repeatedly if necessary, to close the menu.

Upload a Channel List to TV

To not Installed TVs

Depending on whether your TV is already installed or not, you must use a different method to upload a channel list.

To a TV that is not yet installed


- 1 - Plug in the power plug to start the installation and select language and country. You can skip the channel search. Finish the installation.
- 2 - Plug in the USB flash drive that holds the channel list of the other TV.
- 3 - To start the channel list upload, select  **Settings** > **Channels and inputs** > **Channels** > **Channel List Copy** > **Copy to TV** and press OK. Enter your PIN code if necessary.
- 4 - The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB flash drive.

To Installed TVs

Depending on whether your TV is already installed or not, you must use a different method to upload a channel list.

To an already installed TV

1 - Plug in the USB flash drive that holds the channel list of the other TV.

2 - To start the channel list upload, select  Settings > Channels and inputs > Channels > Channel List Copy > Copy to TV and press OK. Enter your PIN code if necessary.


3 - The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB flash drive.

* Note: The country of the TV will be changed to that of the source (USB) after the cloning has completed.

6.4. Internet Channel Installation

Search and Update Internet Channels

Search Internet channels

 Settings > Channels and inputs > Channels > Internet channel installation > Search for channels

1 - Select Search for channels and press OK.

2 - Select Update channels to update the installed internet channel list.


Select Reinstall channels to do a full re-installation which takes you through each step.

Select Install new channels will install new internet channel list. You can install up to 3 internet channel lists.

Select Uninstall channels will uninstall the selected internet channel list.

3 - Press OK to search channels. This can take a few minutes.

Automatic channel update for Internet channels

 Settings > Channels and inputs > Channels > Internet channel installation > Automatic channel update

Turn on to set the TV to automatically update the Internet channels.

Automatic channel update

Once a day, at 6 AM, the TV updates the channels and stores new channels. New channels are stored in the All channels list but also in the New channels list. Empty channels are removed.

If new channels are found or if channels are updated or removed, a message is shown at TV start up. The TV must be in standby to automatically update channels.

7. Channels

7.1. Install Channels

For more information about how to install channels, check on Help > User manual > Channel Installation.

7.2. Channel Lists

About Channel Lists

After a channel installation, all channels appear on the All channel list. The channels displayed in All Channel list is listed based on genre*. For example: Premium, Premium News, Premium Local, Children, Sport, etc. The Premium genre are top broadcast channels positioned with market share above 3%. Channels are shown with their name and logo if this information is available.

With a channel list selected, press the arrows **▲** (up) or **▼** (down) to select a channel, then press **OK** to watch the selected channel. You only tune to the channels in that list when using **≡ +** or **≡ -** keys.

* Note: The listed by genre function is only apply to Germany.

Channel icons

After an Automatic Channel Update of the channel list, newly found channels are marked with a **★** (star). If you lock a channel, it will be marked with a **🔒** (lock).

Radio stations

If digital broadcasting is available, digital radio stations are installed during installation. Switch to a radio channel just like you switch to a TV channel.

This TV can receive digital television standard DVB. TV may not work properly with some operators of digital television, non-compliance with requirements of the standard in full.

Open a Channel List

Next to the list with all channels, you can select a filtered list or you can select one of the favourite lists you created.

To open the current channel list:

- 1 - Press **TV**, to switch to TV.
- 2 - Press **OK*** to open the current channel list.

3 - Alternately, long press **≡** TV Guide to open the channel list.

4 - Press **←** Back to close the channel list.

* The operation may not work when **OK** key is occupied by HbbTV.

To select one of the channel lists:

- 1 - With a channel list open on screen, press **+ OPTIONS**.
- 2 - Select **Select Channel List** and press **OK**.
- 3 - In the list menu, select one of the available channel lists and press **OK**.

Alternatively, you can select the list name at the top of the channel list and press **OK** to open the list menu.

Search for a Channel

You can search for a channel to find it in a long list of channels.

The TV can search for a channel within one of the main channel lists - the Satellite, Antenna or Cable channel list.

To search for a channel:

- 1 - Press **TV**.
- 2 - Press **OK** to open the current channel list.
- 3 - Press **+ OPTIONS**.
- 4 - Select **Select Channel List** and press **OK**.
- 5 - Select **Filter Antenna Channels** or **Filter Cable Channels** and press **OK**.
- 6 - Select **Search Channel** and press **OK** to open a text field. You can use the remote control keyboard (if available) or the on-screen keyboard to enter text.
- 7 - Enter a name or part of a name and select **Apply** and press **OK**. The TV will search for matching channel names in the list you selected.

Search results are listed as a channel list – see the list name at the top. The search will return the matching channel name with the result arranged in alphabetical order. The search results disappear once you select another channel list or close the list with search results.

7.3. Channel List sorting

You can do channel list sorting with all channels. You can set the channel list to show only TV channels or only Radio stations. For Satellite/Antenna/Cable channels you can set the list to show the Free-to-Air or the Scrambled channels.

To set a filter on a list with all channels:

- 1 - Press **TV**.
 - 2 - Press **OK** to open the current channel list.
 - 3 - Press **+ OPTIONS**.
 - 4 - Select **Select Channel List** and press **OK**.
 - 5 - Select **Filter Antenna Channels** or **Filter Cable Channels** according to the list you want to filter, and press **OK**.
 - 6 - In the **Options** menu, select the filter you want and press **OK** to activate. The name of the filter appears as part of the channel list name on top of the channel list.
 - 7 - Press **◀** (left) to go back one step or press **←** to close the menu.
-

7.4. Watching channels

Tune to a Channel

To start watching TV channels, press **TV**. The TV tunes to the channel you last watched.

Switch Channels

To switch channels, press **≡ +** or **≡ -**.

If you know the channel number, type in the number with the number keys. Press **OK** after you entered the number to switch immediately.

If the information is available from the Internet, the TV shows the current programme name and details followed by the next programme name and details.

Previous channel

To switch back to the previously tuned channel, press **← Back**.

You can also tune to channels from a **Channel List**.

Lock a Channel

Lock and Unlock a Channel

To prevent children from watching a channel, you can lock a channel. To watch a locked channel, you must enter the 4 digit **Child Lock** PIN code first. You cannot lock programmes from connected devices.

To lock a channel:

- 1 - Press **TV**.
- 2 - Press **OK** to open the channel list. If necessary change the channel list.
- 3 - Select the channel you want to lock.
- 4 - Press **+ OPTIONS** and select **Lock Channel** and press **OK**.
- 5 - Enter your 4 digit PIN code if the TV asks for it. A locked channel is marked with a **🔒** (lock).
- 6 - Press **◀** (left) to go back one step or press **← Back** to

close the menu.

To unlock a channel:

- 1 - Press **TV**.
- 2 - Press **OK** to open the channel list. If necessary change the channel list.
- 3 - Select the channel you want to unlock.
- 4 - Press **+ OPTIONS** and select **Unlock Channel** and press **OK**.
- 5 - Enter your 4 digit PIN code if the TV asks for it.
- 6 - Press **◀** (left) to go back one step or press **← Back** to close the menu.

If you lock or unlock channels in a channel list, you only have to enter the PIN code just once until you close the channel list.

Parental Rating

To prevent children from watching a programme not suitable for their age, you can set an age rating.

Digital channels can have their programmes age rated. When the age rating of a programme is equal to or higher than the age you have set as age rating for your child, the programme will be locked. To watch a locked programme, you must enter the **Parental Rating** (only available for certain countries) code first.

To set an age rating:

- 1 - Select **⚙ Settings > System > Child Lock > Parental Rating** and press **OK**.
- 2 - Enter a 4-digit Child lock code. If you did not set a code yet, select **Set Code** in **Child Lock**. Enter a 4-digit Child lock code and confirm. Now you can set an age rating.
- 3 - Back in **Parental Rating**, select the age and press **OK**.
- 4 - Press **◀** (left) repeatedly if necessary, to close the menu.

To switch off the parental age rating, select **None**. However, in some countries you must set an age rating.

For some broadcasters/operators, the TV only locks programmes with a higher rating. The parental age rating is set for all channels.

Channel Options

Open Options

While watching a channel, you can set some options.

Depending on the type of channel you are watching (analogue or digital) or depending on the TV settings you made, some options are available. For example, the **Screen off** option is only available for radio channels. It is suggested to turn off the TV screen for saving energy and protecting the screen.

To open the options menu:

- 1 - While watching a channel, press **+** **OPTIONS**.
- 2 - Press **+** **OPTIONS** again to close.

Subtitles

Switch On

Digital broadcasts can have subtitles for their programmes.

To show the subtitles:

Press **+** **OPTIONS** and select **Subtitles**.

You can switch subtitles **On** or **Off**. Alternatively you can select **Automatic**.

Automatic

If language information is part of the digital broadcast and the broadcasted programme is not in your language (the language set on TV), the TV can show subtitles automatically in one of your preferred subtitle languages. One of these subtitle languages must also be part of the broadcast.

You can select your preferred subtitle languages in **Subtitle Language**.

Subtitles from Text

If you tune to an analogue channel, you need to make the subtitles available for each channel manually.

- 1 - Switch to a channel and press **TEXT** to open Text.
- 2 - Enter the page number for subtitles.
- 3 - Press **TEXT** again, to close Text.

If you select **On** in the Subtitle menu when watching this analogue channel, subtitles will be shown if available.

To know if a channel is analogue or digital, switch to the channel and open **Information** in **+** **OPTIONS**.

Subtitle Language

Preferred Subtitle Languages

A digital broadcast can offer several subtitle languages for a programme. You can set a preferred primary and secondary subtitle language. If subtitles in one of these languages are available, the TV will show the subtitles you selected.

To set the primary and secondary subtitle language:

- 1 - Go to **⚙ Settings > Channels and inputs > Channels**.
- 2 - Select **Primary Subtitles** or **Secondary Subtitles**.
- 3 - Select the language you need and press **OK**.
- 4 - Press **⬅** (left) to go back one step or press **⬅ Back** to close the menu.

Select a Subtitle Language

If none of the preferred subtitle languages are available, you can select another subtitle language if available. If no subtitle languages are available, you cannot select this option.

To select a subtitle language when none of your preferred languages are available:

- 1 - Press **+** **OPTIONS**.
- 2 - Select **Subtitle Language** and select one of the languages as subtitles temporarily.

Audio Language

Preferred Audio Language

A digital broadcast can offer several audio languages (spoken languages) for a programme. You can set a preferred primary and secondary audio language. If audio in one of these languages is available, the TV will switch to the audio language.

To set the primary and secondary audio language:

- 1 - Go to **⚙ Settings > Channels and inputs > Channels**.
- 2 - Select **Primary Audio** or **Secondary Audio**.
- 3 - Select the language you need and press **OK**.
- 4 - Press **⬅** (left) to go back one step or press **⬅ Back** to close the menu.

Select an Audio Language

If none of the preferred audio languages are available, you can select another audio language if available. If no audio languages are available, you cannot select this option.

To select an audio language when none of your preferred languages are available:

- 1 - Press **+** **OPTIONS**.
- 2 - Select **Audio Language** and select one of the languages as audio temporarily.

Universal Access

⚙ Settings > Channels and inputs > Channels > Universal access.

With Universal Access switched on, the TV is prepared for use for the deaf, hard of hearing, blind or partially sighted people.

Universal access for hearing impaired people

⚙ Settings > Channels and inputs > Channels > Universal access > Hearing impaired.

- Some digital TV channels broadcast special audio and subtitles adapted for the hard of hearing or deaf people.
- Switched on, the TV automatically switches to the adapted audio and subtitles, if available.

Universal access for blind or partially sighted people

⚙ **Settings > Channels and inputs > Channels > Universal access > Audio description.**

Digital TV channels can broadcast special audio commentary describing what is happening on screen.

⚙ **Settings > Channels and inputs > Channels > Universal access > Audio description > Mixed volume, Audio effects, Speech.**

- Select **Mixed volume**, you can mix the volume of the normal audio with the audio commentary.
- Switch **Audio effects** on for extra audio effects in the commentary audio, like stereo or fading sound.
- Select **Speech** to set speech preference, **Descriptive** or **Subtitles**.

Dialogue enhancement

⚙ **Settings > Channels and inputs > Channels > Universal access > Dialogue enhancement.**

Increase the intelligibility of dialogue and commentary, if available. Only available when sound setting **Clear dialogue** is **On** and audio stream is **AC-4**.

HbbTV and Operator Apps Settings

View or adjust the settings for HbbTV and Operator Apps.

Switch on or off HbbTV

⚙ **Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > HbbTV.**

If you want to avoid access to HbbTV pages on a specific channel, you can block the HbbTV pages for this channel only.

Switch off History Tracking

⚙ **Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > Tracking.**

If switched on, you have no personal preference regarding the tracking. If switched off, you do not allow the tracking by HbbTV and Operator Apps (if applicable) pages.

Remove Cookies

⚙ **Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > Cookies.**

Switch the storage of cookies from HbbTV and Operator Apps (if applicable) pages on or off.

Clear approved app listing

⚙ **Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > Clear approved app listing.**

To clear all User's approved applications.

HbbTV Device ID reset

⚙ **Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > HbbTV Device ID reset.**

You can reset your TV unique device identifier. A new identifier will be created. This will replace your Device ID with a new identifier.

Common Interface

If you installed a CAM in the Common Interface slot, you can view the CAM and operator information or do some CAM related settings.

To view the CAM information:

- 1 - Press **SOURCES**.
- 2 - Select the channel type you are using the CAM for **Watch TV**.
- 3 - Press **+ OPTIONS** and select **Common Interface**.
- 4 - Select the TV operator of the CAM and press **OK**. The following screens come from the TV operator.

CAM Settings

Set profile name for installed CI+/CAM

⚙ **Settings > Channels and inputs > Channels > CAM settings > CAM profile name.**

Select the type of CI+/CAM

⚙ **Settings > Channels and inputs > Channels > CAM settings > CAM interface.**

Select **USB** to enable the USB CAM, then the **PCMCIA** CAM will be disabled. Select **PCMCIA** to enable the **PCMCIA** CAM, then the **USB** CAM will be disabled.

Programme Info

View programme details

To call up the details of the selected programme:

- 1 - Tune to the channel.
- 2 - Press **+** **OPTIONS**, select Programme Info and press **OK**.
- 3 - To close this screen, press **OK**.

View programme information from channel list

To call up the programme information from channel list:

- 1 - Tune to the channel, press **OK** or **≡** Channel list to open the channel list.
- 2 - Press **+** **OPTIONS**, select Programme Info and press **OK** to view general information of the programme.
- 3 - To close this screen, press **←** Back to go back to channel list.

Mono / Stereo

You can switch the sound of an analogue channel to Mono or Stereo.

To switch to Mono or Stereo:

- 1 - Tune to an analogue channel.
- 2 - Press **+** **OPTIONS**, select Mono/Stereo and press **➤** (right).
- 3 - Select Mono or Stereo and press **OK**.
- 4 - Press **◀** (left) to go back one step or press **←** Back to close the menu.

7.5. Favourite Channels

About Favourite Channels

In a favourite channel list, you can collect the channels you like.

You can create 4 different lists* of favourite channels for easy channel zapping. You can name each Favourites List individually. Only in a Favourites List you can reorder channels.

With a Favourites List selected, press the arrows **▲** (up) or **▼** (down) to select a channel, then press **OK** to watch the selected channel. You only tune to the channels in that list when using **TV** **+** or **TV** **-** keys.

* Note: If your installation country is UK or Italy, the Antenna/Cable channels are only stored in first 2 favourite lists; Satellite/third party app channels are

only stored in last 2 favourite lists.

Create a Favourites List

To create a favourite channels list:

- 1 - Press **TV**, to switch to TV.
- 2 - Press **OK** to open the current channel list.
- 3 - Press **+** **OPTIONS**.
- 4 - Select Create Favourites List and press **OK**.
- 5 - In the list at the left, select a channel you want as a favourite and press **OK**. Channels come in the list at the right in the order you add them. To undo, select the channel in the list at the left and press **OK** again.
- 6 - If necessary, you can go on selecting and adding channels as favourites.
- 7 - To finish adding channels, press **←** Back.

The TV will ask to rename the Favourites List. You can use the on-screen keyboard.

- 1 - Use the on-screen keyboard to delete the current name and enter a new name.
- 2 - When done, select Close and press **OK**.

The TV will switch to the newly created Favourites List.

You can add a range of channels in one go or start a Favourites List by duplicating the channel list with all channels and removing the channels you do not want.

The channels in the Favourites List are renumbered.

Edit Favourites

To add a consecutive range of channels to a Favourites List in one go, you can use Edit favourites.

To add a range of channels:

- 1 - Open the Favourites List where you want to add a range of channels.
- 2 - Press **+** **OPTIONS**, select Edit favourites and press **OK**.
- 3 - In the list at the left select the first channel of the range you want to add and press **OK**.
- 4 - Press **▼** (down) to select the last channel of the range you want to add. The channels are marked at the right.
- 5 - Press **OK** to add this range of channels and confirm.

You can also start creating a Favourites List from Edit favourites.

Rename a Favourites List

To rename a Favourites List:

- 1 - Open the Favourite List you want to rename.
- 2 - Press **+** **OPTIONS**, select Rename Favourites List and press OK.
- 3 - Use the on-screen keyboard to delete the current name and enter a new name.
- 4 - When done, select Close and press OK.
- 5 - Press **←** Back to close the channel list.

Remove a Favourites List

To remove a Favourites List:

- 1 - Open the Favourites List you want to remove.
- 2 - Press **+** **OPTIONS**, select Remove Favourites List and press OK.
- 3 - Confirm to remove the list.
- 4 - Press **←** Back to close the channel list.

Duplicate Channel List

To duplicate a Favourites List:

- 1 - Open the Favourites List you want to duplicate.
- 2 - Press **+** **OPTIONS**, select Duplicate channel list and press OK.
- 3 - Confirm to duplicate the list.
- 4 - Press **←** Back to close the channel list.

Reorder Channels

Only in a Favourites List you can change the sequence of channels (reorder)*.

To change the sequence of channels:

- 1 - Open the Favourites List you want to reorder.
- 2 - Press **+** **OPTIONS**, select Reorder Channels and press OK.
- 3 - In the Favourites List, select the channel you want to reorder and press OK.
- 4 - With the **▲** (up) or **▼** (down) keys move the channel where you want it.
- 5 - Press OK to confirm the new location.
- 6 - You can reorder channels with the same method until you close the Favourites List with the **←** Back key.

* **Note:** The reorder operation is not available if country setting is UK or Italy.

7.6. Text / Teletext

Text Pages

If your remote control is with TEXT key, you can press TEXT to open Text/Teletext while you are watching TV channels. To close Text, press TEXT key again.

If your remote control is not with TEXT key, press **+** **OPTIONS** while you are watching TV channels, select Teletext to open Text/Teletext.

Select a Text page

To select a page:

- 1 - Enter the page number with the number keys.
- 2 - Use the arrow keys to navigate.
- 3 - Press a colour key to select a colour-coded subject at the bottom of the screen.

Text sub-pages

A Text page number can hold several subpages. The subpage numbers are shown on a bar next to the main page number.

To select a subpage, press **◀** or **▶**.

T.O.P. Text pages

Some broadcasters offer T.O.P. Text. To open T.O.P. Text pages within Text, press **+** **OPTIONS** and select T.O.P. Overview.

Text from a connected device

Some devices that receive TV channels can also offer Text.

To open Text from a connected device:

- 1 - Press **➤** **SOURCES** select the device and press OK.
- 2 - While watching a channel on the device, press **+** **OPTIONS**, select Show Device Keys and select the **⌨** key and press OK.
- 3 - Press **←** Back to hide the device keys.
- 4 - To close Text, press **←** Back again.

Digital Text (UK only)

Some digital broadcasters offer dedicated Digital Text or interactive TV on their digital TV channels. This includes normal Text using the number, colour and arrow keys to select and navigate.

To close Digital Text, press **←** Back.

* The teletext can only be reached when the channels are installed directly on the TV's internal tuner and the set is on TV mode. If a set-top box is being used, the teletext will be unavailable via TV. In that case, the set-top box's teletext can be used instead.

Text Options

In Text/Teletext, press **+** **OPTIONS** to select the following:

- **Freeze page / Unfreeze page**
To start or stop the automatic rotation of subpages.
- **Dual screen / Full screen**
To show the TV channel and Text alongside each other.
- **T.O.P. overview**
To open T.O.P. Text.
- **Enlarge / Normal view**
To enlarge the Text page for comfortable reading.
- **Reveal**
To unhide hidden information on a page.
- **Language**
To switch the group of characters that Text uses to display correctly.

Text Setup

Text language

Some digital TV broadcasters have several Text languages available.

To set your primary and secondary Text language:

- 1 - Select **⚙ Settings > Channels and inputs > Channels**.
- 2 - Select **Primary Text** or **Secondary Text** and press **OK**.
- 3 - Select your preferred Text languages.
- 4 - Press **⬅** (left) repeatedly if necessary, to close the menu.

7.7. Interactive TV

About iTV

With interactive TV, some digital broadcasters combine their normal TV programme with information or entertainment pages. On some pages, you can respond to a programme or vote, do online shopping or pay for a video-on-demand programme.

HbbTV

Broadcasters use various interactive TV systems e.g., HbbTV (Hybrid Broadcast Broadband TV). Interactive TV is sometimes referred to as Digital Text or Red button. But each system is distinct.

Visit the broadcaster's Internet website for more information.

What You Need

Interactive TV is only available on digital TV channels. To enjoy the full benefits of Interactive TV, you need a high-speed (broadband) Internet connection to the TV.

HbbTV

If a TV channel offers HbbTV pages, you must first switch on HbbTV in the TV settings to view the pages.

⚙ Settings > Channels and inputs > Channels > HbbTV and Operator Apps settings > HbbTV > On.

Use iTV

Open iTV pages

Most channels that offer HbbTV or iTV invite you to press the colour key **■** (red) or **OK** key to open their interactive programme.

Navigate iTV pages

You can use the arrow and colour keys, the number keys and the **⬅ Back** key to navigate the iTV pages. You can also use the playback keys on remote control to watch videos within iTV pages.

Digital Text (UK only)

To open Digital Text, press **TEXT**. To close, press **⬅ Back**.

Close iTV pages

Most iTV pages inform you which key to use to close. To force an iTV page to close, switch to the next TV channel and press **⬅ Back**.

8. TV Guide

8.1. TV Guide Data

With the TV Guide you can view a list of the current and scheduled TV programmes of your channels. Depending on where the TV guide information (data) is coming from, analogue and digital channels or only digital channels are shown. Not all channels offer TV Guide information. The TV can collect TV Guide information for the channels that are installed on the TV. The TV cannot collect the TV Guide information from channels viewed from a digital receiver or decoder.

8.2. Using the TV Guide

Open the TV Guide

To open the TV Guide, press **TV GUIDE**. The TV Guide shows the channels of the selected tuner.

Press **TV GUIDE** again to close.

The first time you open the TV Guide, the TV scans all TV channels for programme information. This may take several minutes. TV Guide data is stored on TV.

Tune to a Programme

From the TV Guide, you can tune to a current programme.

To switch to the programme (channel), select the programme and press OK.

View programme details

To call up the details of the selected programme:

- 1 - Press **+ OPTIONS**, select Programme Info and press OK.
- 2 - Press **← Back** to close.

Search by Genre

If the information is available, you can look up scheduled programmes by genre like movies, sports, etc.

To search for programmes by genre:

- 1 - Press **TV GUIDE**.
- 2 - Press **+ OPTIONS**.
- 3 - Select Search by genre and press OK.
- 4 - Select the genre you want and press OK. A list with the found programmes appears.
- 5 - Press **← Back** to close the menu.

* Note: The Search by genre function is only available for certain countries.

9. Connect Devices

9.1. About Connections

Connectivity Guide

Always connect a device to the TV with the highest quality connection available. Also, use good quality cables to ensure a good transfer of picture and sound.

When you connect a device, the TV recognizes its type and gives each device a correct type name. You can change the type name if you wish. If a correct type name for a device is set, the TV automatically switches to the ideal TV settings when you switch to this device in the Sources menu.

Antenna port

If you have a Set-top box (a digital receiver) or Recorder, connect the antenna cables to run the antenna signal through the Set-top box and/or Recorder first before it enters the TV. In this way, the antenna and the Set-top box can send possible additional channels to the Recorder to record.

HDMI ports

HDMI Quality

An HDMI connection has the best picture and sound quality. One HDMI cable combines video and audio signals. Use an HDMI cable for High Definition (HD) TV signals.

For best signal quality transfer, use an Ultra High Speed certified HDMI cable and do not use an HDMI cable longer than 5 m.

If a device connected with HDMI is not working correctly, check if a different HDMI Ultra HD setting can solve this problem.

Copy protection

HDMI ports support HDCP (High-bandwidth Digital Content Protection). HDCP is a copy protection signal that prevents copying content from a DVD disc or Blu-ray Disc. Also referred to as DRM (Digital Rights Management).

HDMI ARC and eARC

Only HDMI 2 on the TV supports HDMI ARC (Audio Return Channel) and HDMI eARC.

If the device, typically a Home Theatre System (HTS), soundbar or AV receiver, also has the HDMI ARC connection, connect it to HDMI 2 on this TV. With the HDMI ARC connection, you do not need to connect the extra audio cable that sends the sound of the TV picture to the HTS. The HDMI ARC connection combines both signals.

HDMI eARC (Enhanced Audio Return Channel) is an advancement over the previous ARC. It covers all ARC features but with higher bandwidth and speed. eARC supports high quality audio transmission up to 192kHz, 24-bit, uncompressed 5.1 and 7.1, and 32-channel uncompressed audio.

Note: HDMI eARC is only available on HDMI 2. Use Ultra High-speed HDMI cable for eARC. Only one eARC device is available at a time.



HDMI CEC - EasyLink

Connect HDMI CEC-compatible devices to your TV, you can operate them with the TV remote control. EasyLink HDMI CEC must be switched on on the TV and the connected device.

Switch on EasyLink

⚙ Settings > Channels and inputs > External Inputs > EASYLINK > EasyLink > On.

Operate HDMI CEC-compatible devices with TV remote control

⚙ Settings > Channels and inputs > External Inputs > EASYLINK > EasyLink remote control > On.

To turn on or off the EasyLink remote control function. Please note that you can always control the volume of connected HDMI CEC-compatible devices irrespective of this setting.

Power off HDMI devices with the TV

⚙️ Settings > Channels and inputs > External Inputs > EASYLINK > EasyLink auto device off.

Select On to allow TV to turn the HDMI devices to standby. Select Off to disable this function.

Power on the TV with HDMI devices

⚙️ Settings > Channels and inputs > External Inputs > EASYLINK > EasyLink auto TV on.

Select On to allow HDMI devices to wake up the TV from standby status. Select Off to disable this function.

Power on the HDMI sound system with TV

⚙️ Settings > Channels and inputs > External Inputs > EASYLINK > EasyLink auto ARC on.

Select On to allow TV to wake up the connected HDMI sound system from standby status. Select Off to disable this function.

Note:

- EasyLink might not work with devices from other brands.
- The HDMI CEC functionality has different names on different brands. Some examples are: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink and Viera Link. Not all brands are fully compatible with EasyLink. Example HDMI CEC branding names are property of their respective owners.

HDMI Ultra HD

This TV can display Ultra HD signals. Some devices - connected with HDMI - do not recognise a TV with Ultra HD and might not work correctly or show distorted picture or sound.

TV will automatic detect HDMI video device connected and make TV adjustment to the best matching configuration. In case you still face black screen or distorted screen or sound, you can adjust HDMI Ultra HD setting to Standard for legacy devices.

Set the signal quality for each HDMI connectors

⚙️ Settings > Channels and inputs > External Inputs > HDMI (port) > HDMI Ultra HD > Standard, Optimal, or Optimal (Auto Game xxxHz Pro) / Automatic.

Ultra High Speed certified HDMI cable is highly recommended for all HDMI connections. To change the settings, switch to the HDMI source first. Select Automatic to enable TV automatically matching your HDMI device. Select Optimal to enable the highest quality HDMI signal for 4K program or movie watching

(such as Ultra HD 4K set top box, 4K Blu-ray player or streaming box).

- The setting **Optimal** allows maximum up to Ultra HD (100Hz# or 120/144Hz#) RGB 4:4:4 or YCbCr 4:4:4/4:2:2/4:2:0 signals.
- The setting **Standard** allows maximum up to Ultra HD (50Hz or 60Hz) YCbCr 4:2:0 signals.

Maximum supported video timing format for HDMI Ultra HD options:

- Resolution: 3840 x 2160
- Frame rate (Hz): 50Hz, 59.94Hz, 60Hz, 100Hz#, 120Hz#, 144Hz^
- Video data sub-sampling (bit-depth)
 - 8 bit: YCbCr 4:2:0, YCbCr 4:2:2*, YCbCr 4:4:4*, RGB 4:4:4*
 - 10 bit: YCbCr 4:2:0*, YCbCr 4:2:2*, RGB 4:4:4*
 - 12 bit: YCbCr 4:2:0*, YCbCr 4:2:2*

* Supported only when HDMI Ultra HD is set to Optimal or Optimal (Auto Game xxxHz Pro).

Note:

4K2K 100Hz is only supported when HDMI Ultra HD is set to Optimal in HDMI 1 and HDMI 2.

4K2K 120Hz is only supported when HDMI Ultra HD is set to Optimal or Optimal (Auto Game xxxHz Pro) in HDMI 1 and HDMI 2.

^ 4K2K 144Hz is only supported when HDMI Ultra HD is set to Optimal (Auto Game xxxHz Pro) in HDMI 1 and HDMI 2.

Select Standard if the picture or sound are distorted.

Select Optimal (Auto Game xxxHz Pro) to enable TV to support all gaming features including HDMI Variable Refresh Rate* / FreeSync Premium* (HDMI 1 and HDMI 2) / G-Sync* video (on some models only). This option also enables TV to automatically set Picture style to Game whenever it is informed by the HDMI device connected to TV.

* With HDMI Variable Refresh Rate / FreeSync Premium / G-Sync supported, the TV changes its refresh rate in real time according to the frame rate signal to synchronize with every picture. It is applied to reduce the lag, judder and frame tearing for better gaming experience.

Note: G-Sync compatible is supported using Nvidia GTX 30 or 40 series Graphics card only.

Note:

To watch HDR10+ or Dolby Vision content from HDMI source, you may need to power off your player and power on again when the player connected to TV playing such content for the first time. HDR10+ content is supported only when HDMI Ultra HD is set to Optimal or Optimal (Auto Game xxxHz Pro). Dolby Vision content is supported only when HDMI Ultra HD is set to Optimal (Auto Game xxxHz Pro).

When selecting this option, you may need to power off your game computer or game console and power on again to complete the first time setup.

9.2. Home Theatre System - HTS

Connect with HDMI ARC/eARC

Use an HDMI cable to connect a Home Theatre System (HTS) to the TV. You can connect a Philips Soundbar or an HTS with a built-in disc player.

HDMI ARC

Only HDMI 2 on the TV can offer the Audio Return Channel (ARC) signal. Once you have connected the Home Theatre System, the TV can only send the ARC signal to this HDMI connection. With HDMI ARC, you do not need to connect the extra audio cable. The HDMI ARC connection combines both signals.

HDMI eARC

HDMI eARC (Enhanced Audio Return Channel) is an advancement over the previous ARC. It supports the latest high-bitrate audio formats up to 192kHz, 24-bit, and uncompressed 5.1 and 7.1, and 32-channel uncompressed audio. HDMI eARC is only available on HDMI 2.

Audio to video synchronisation (sync)

If the sound does not match the video on screen, you can set a delay on most Home Theatre Systems with a disc player to match the sound with the video.

Problems with HTS sound

Sound with loud noise

If you watch a video from a plugged in USB flash drive or connected computer, the sound from your Home Theatre System might be distorted. This noise is heard when the audio or video file has DTS sound but the Home Theatre System has no DTS sound processing. You can fix this by setting the Digital Out Format of the TV to Stereo.

Select **Settings > Display and sound > Audio out > Digital out format**.

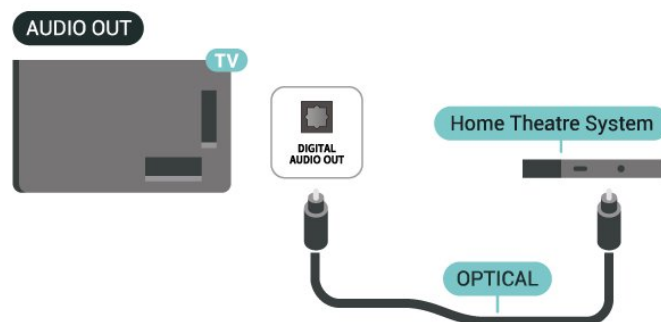
No sound

If you cannot hear the sound from the TV on your Home Theatre System, check if you connected the HDMI cable to an HDMI ARC/eARC connection on the Home Theatre System. HDMI ARC/eARC is only available on HDMI 2.

9.3. Digital Audio Out - Optical

Audio Out - Optical is a high quality sound connection.

This optical connection can carry 5.1 audio channels. If your device, typically a Home Theatre System (HTS), has no HDMI ARC connection, you can use this connection with the Audio In - Optical connection on the HTS. The Audio Out - Optical connection sends the sound from the TV to the HTS.



9.4. CAM with Smart Card - CI+

CI+

This TV is ready for the CI+ Conditional Access.

With CI+ you can watch premium HD programmes, like movies and sports, offered by digital TV operators in your region. These programmes are scrambled by the TV operator and descrambled with a prepaid CI+ module.

Digital TV operators provide a CI+ module (Conditional Access Module - CAM) and an accompanying smart card, when you subscribe to their premium programmes. These programmes have a high level of copy protection.

With the support of CI+ 2.0, this TV can accept the CAM in both PCMCIA and USB form factor (for all of USB ports).

Contact a digital TV operator for more information on terms & conditions.



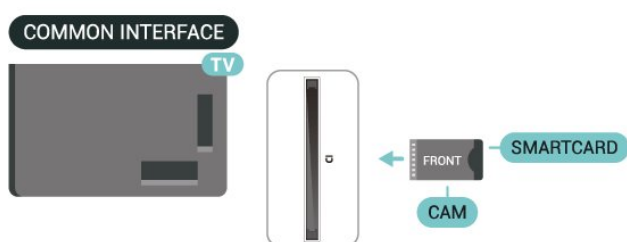
Smart Card

Digital TV operators provide a CI+ module (Conditional Access Module - CAM) and an accompanying smart card, when you subscribe to their premium programmes.

Insert the smart card into the CAM module. See the instruction you received from the operator.

To insert the CAM in the TV:

- 1 - Look on the CAM for the correct method of insertion. Incorrect insertion can damage the CAM and TV.
- 2 - While looking at the back of the TV, with the front of the CAM facing towards you, gently insert the CAM into the slot **COMMON INTERFACE**.
- 3 - Push the CAM in as far as it will go. Leave it in the slot permanently.



When you switch on the TV, it may take a few minutes before the CAM is activated. If a CAM is inserted and subscription fees are paid (subscription methods can differ), you can watch the scrambled channels supported by the CAM smart card.

The CAM and smart card are exclusively for your TV. If you remove the CAM, you will no longer be able to watch the scrambled channels supported by the CAM.

Passwords and PIN codes

For some CAMs, you must enter a PIN code to watch its channels. When you set the PIN code for the CAM, we recommend you to use the same code you are using to unlock the TV.

To set the PIN code for the CAM:

- 1 - Press **SOURCES**.
- 2 - Select the channel type you are using the CAM for Watch TV.
- 3 - Press **+ OPTIONS** and select **Common Interface**.
- 4 - Select the TV operator of the CAM. The following screens come from the TV operator. Follow the on-screen instruction to look up the PIN code setting.

9.5. Smartphones and Tablets


To connect a smartphone or tablet to the TV, you can use a wireless connection. For a wireless connection, on your smartphone or tablet download the Philips Smart TV app from your favourite app store.

9.6. Blu-ray Disc Player


Use an Ultra High speed HDMI cable to connect the Blu-ray Disc player to the TV.

If the Blu-ray Disc player has EasyLink HDMI CEC, you can operate the player with the TV remote control.

9.7. Headphones

You can connect a set of headphones to the  connection on the back of the TV. The connection is a mini-jack 3.5mm. You can adjust the volume of the headphones separately.

To adjust the volume:

- 1 - Press  **Volume**, select the headphones icon by arrows **<** (left) or **>** (right).
- 2 - Press the arrows **^** (up) or **v** (down) to adjust the volume.

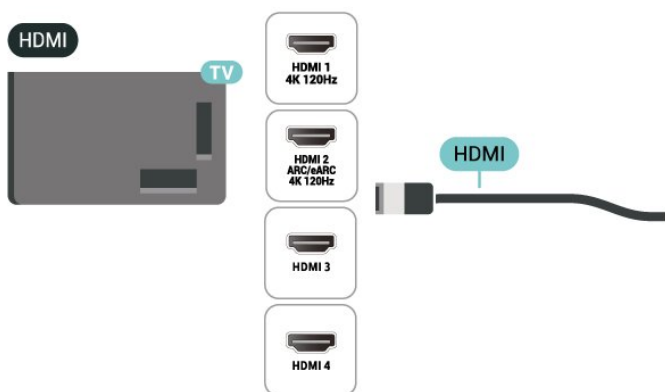


9.8. Game Console

HDMI

For best quality, connect the game console with an Ultra High speed HDMI cable to the HDMI 1 or HDMI 2 on TV.

If external audio system with HDMI ARC/eARC support is used together with TV and game console, recommended connection is: connecting game console device's HDMI output to TV HDMI 1 port and connecting TV HDMI 2 to external audio system's HDMI input with another Ultra high speed HDMI cable. To have best gaming audio effect matching video, you can set TV Audio output to Multichannel (bypass) here: ⚙ Settings > Display and sound > Audio output > Digital out format.



9.9. USB Keyboard

Connect

Connect a USB keyboard (USB-HID type) to enter text on your TV.

Use one of the USB connections to connect.

Configure

Install the keyboard

To install the USB keyboard, switch on the TV and connect the USB keyboard to one of the USB connections on the TV. When the TV detects the keyboard for the first time, you can select your keyboard lay-out and test your selection. If you select a Cyrillic or Greek keyboard layout first, you can select a

secondary Latin keyboard layout.

To change the keyboard layout setting when a layout was selected:

- 1 - Select ⚙ Settings > System > Keyboard.
- 2 - Select USB Keyboard Settings, and press OK to start the keyboard setup.

Special Keys

Keys for entering text

- Enter key = OK
- Backspace = delete character before cursor
- Arrow keys = navigate within a text field
- To switch between keyboard layouts, if a secondary layout is set, press the Ctrl + Spacebar keys simultaneously.

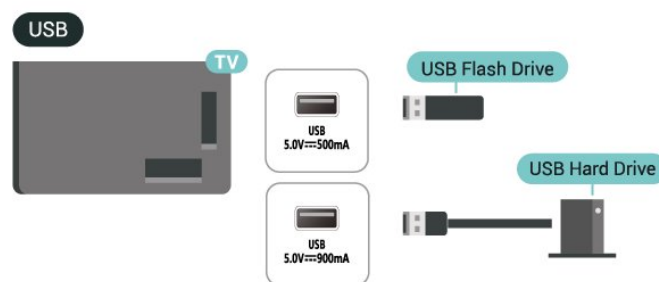
Keys for apps and Internet pages

- Tab and Shift + Tab = Next and Previous
- Home = scroll to the top of the page
- End = scroll to the bottom of the page
- Page Up = jump one page up
- Page Down = jump one page down
- * = fit the web page to the screen width

9.10. USB Storage Device

You can view photos or play your music and videos from a connected USB flash drive or USB hard drive.

Insert a USB storage device in one of the USB connections on the TV while the TV is switched on.



The TV detects the device and opens a list showing its content.

If the contents list does not appear automatically, press ➡ SOURCES and select USB.

To stop watching the USB storage device content, press TV EXIT or select another activity.

To remove the USB storage device safely:

- 1 - Press **HOME**.
- 2 - Select the **USB** drive under Dashboard > Notifications from top-right corner and press OK.
- 3 - Select your device and press OK.
- 4 - Select **Eject** and press OK.
- 5 - Wait until the eject procedure is finished and then pull out the USB storage device.

Ultra HD on USB

You can view photos in Ultra HD resolution from a connected USB storage device. The TV will downscale the resolution to Ultra HD if the resolution of the photo is higher.

9.11. Photo Camera

To view photos stored on your digital photo camera, you can connect the camera directly to the TV.

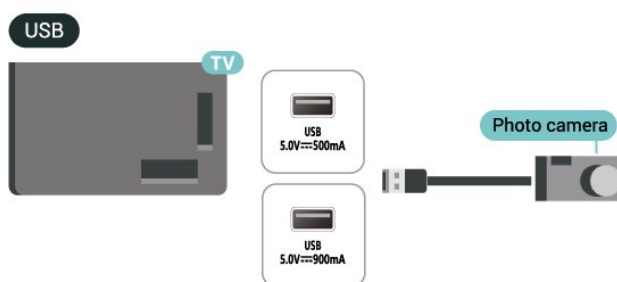
Use one of the USB connections on the TV to connect. Switch on the camera after you made the connection.

If the contents list does not appear automatically, press **SOURCES**, and select **USB**.

Your camera might need to be set to transfer its content with PTP (Picture Transfer Protocol). Read the user manual of the digital photo camera.

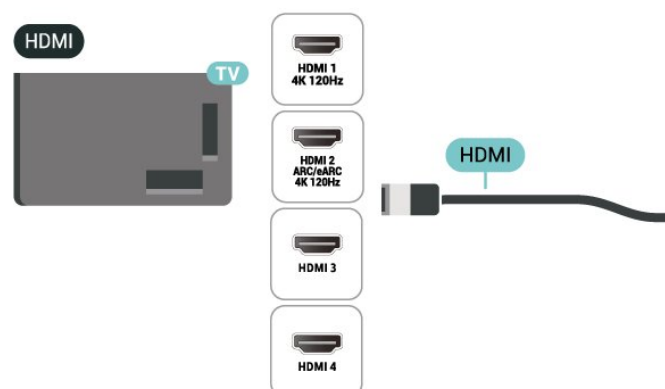
Ultra HD on USB

You can view photos in Ultra HD resolution from a connected USB device or flash drive. The TV will downscale the resolution to Ultra HD if the resolution of the photo is higher. You cannot play a video with native resolution higher than Ultra HD on any of the USB connections.



9.12. Camcorder

For best quality, use an HDMI cable to connect the camcorder to the TV.



9.13. Computer

You can connect your computer to the TV using an Ultra High Speed certified HDMI cable and use TV as a PC monitor.

* Note for Nvidia Graphics card users:

If you connect your computer to TV via HDMI, Nvidia card may automatically output Variable Refresh Rate (VRR) video to TV when TV's HDMI Ultra HD setting is Automatic or Optimal (Auto Game xxxHz Pro). Please always ensure to turn off VRR function in graphics card before you change TV's HDMI Ultra HD to Optimal or Standard, the TV UI selection Optimal or Standard will turn off VRR support in TV.

* Note for AMD Graphics card users:

If you connect your computer to TV via HDMI, please ensure following settings in graphics card used to have proper performance.

- If graphics card output video is 4096 x 2160p or 3840 x 2160p and RGB pixel format is used, RGB 4:4:4 pixel format studio (limited RGB) shall be set in computer graphic card.

- If graphics card output video is 2560 x 1440p 120Hz and RGB pixel format is used, RGB 4:4:4 Pixel Format PC Standard (Full RGB) shall be set in computer graphic card.

10. Connect Your TV

10.1. Network and Internet

Home Network

To enjoy the full capabilities of your Philips Google TV, your TV must be connected to the Internet.

Connect the TV to a home network with a high-speed Internet connection. You can connect your TV wirelessly or wired to your network router.

Connect to Network

Wireless Connection

What You Need

To connect the TV to the Internet wirelessly, you need a Wi-Fi router with a connection to the Internet.

Use a high-speed (broadband) connection to the Internet.



Turn Wi-Fi On or Off

⚙️ Settings > Network and Internet > Wi-Fi > On/Off.

Make the Connection

⚙️ Settings > Network and Internet > Wi-Fi > On/Off

1 - In the list of found networks, select on your wireless network. If your network is not in the list because the network name is hidden (you switched off the SSID broadcast of the router), select Add New Network to enter the network name yourself.

2 - Depending on the type of router, enter your encryption key - WPA2 or WPA3. If you entered the encryption key for this network before, you can select OK to make the connection immediately.

3 - A message will be shown when the connection is successful.

Problems

Wireless network not found or distorted

- Microwave ovens, DECT phones or other Wi-Fi devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the TV's wireless connection.
- If the wireless network does not work properly in your home, try the wired network installation.

Internet does not work

- If the connection to the router is OK, check the router connection to the Internet.

The PC and Internet connection are slow

- Look in your wireless router's user manual for information on indoor range, transfer rate and other factors of signal quality.
- Use a high-speed (broadband) Internet connection for your router.

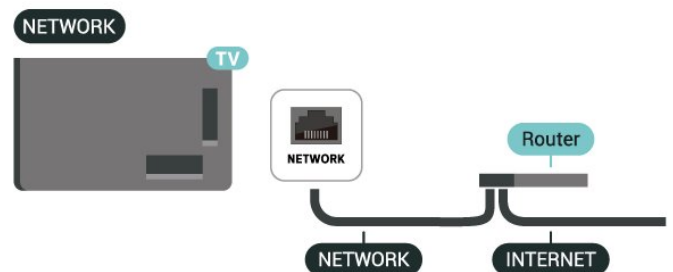
DHCP

- If the connection fails, you can check the DHCP (Dynamic Host Configuration Protocol) setting of the router. DHCP should be switched on.

Wired Connection

What You Need

To connect the TV to the Internet, you need a network router with a connection to the Internet. Use a high-speed (broadband) connection to the Internet.



Network and Internet Settings

View Network Settings

⚙️ Settings > Network and Internet > View network settings.

You can view all current network settings here. The IP and MAC address, signal strength, speed, encryption method, Address/Netmask/Gateway/DNS of IPv4 or IPv6, etc.

Switch On with Wi-Fi (WoWLAN)

⚙️ Settings > Network and Internet > Switch On with Wi-Fi (WoWLAN).

You can switch this TV on from your smartphone or tablet if the TV is in Standby. The setting Switch On with Wi-Fi (WoWLAN) must be switched on.

Switch on with Chromecast

⚙️ Settings > Network and Internet > Switch on with Chromecast.

Set it On to allow this TV to be switched on from a Chromecast app on your mobile device. Power consumption of the TV in standby status will be higher when switched this on. The Wi-Fi (WoWLAN) setting should be turned on firstly before you can change the setting of Switch on with Chromecast.

Digital Media Renderer - DMR

⚙️ Settings > Network and Internet > Digital Media Renderer - DMR.

If your media files do not play on your TV, make sure that the Digital Media Renderer is switched on. As a factory setting, DMR is switched on.

Quick Connect

Quick connect to your Wi-Fi

⚙️ Settings > Network and Internet > Quick connect.

Quick connect helps you to quickly connect to your Wi-Fi by scanning QR code on your TV screen.

Join a Wi-Fi by scanning the QR code with an Android Phone and follow the instructions. On the Android Phone, go to Settings > Network and Internet > Wi-Fi > Select a Wi-Fi > Advanced > Add device and then scan the QR code. Your TV will join the Wi-Fi quickly by the assistance from your Android Phone.

TV Control with Matter

Connect your TV to Matter smart home network

⚙️ Settings > Network and Internet > TV Control with Matter.

Matter is the foundation for connected things and a protocol to connect compatible devices and systems. You can add your TV to a Matter smart home network by scanning the QR code or enter the setup code.

Connects with Control4®

Switch to enable to connect with Control4®

⚙️ Settings > Network and Internet > Connects with Control4.

Control4® is the provider of personalised automation and control solutions, helping to control multiple devices in your home. To join your Philips Smart TV to Control4®, please make sure your Control4® environment and devices are properly set.

10.2. Google Account

Sign In

To enjoy the full capabilities of your Philips Google TV, you can sign in to Google with your Google Account.

By signing in you will be able to play your favourite games across phone, tablet and TV. You will also get customised video and music recommendations on your TV home screen as well as access to YouTube, Google Play and other apps.

Sign In

Use your existing Google Account to sign in to Google on your TV. A Google Account consists of an email address and a password. If you don't have a Google Account yet, use your computer or tablet to create one (accounts.google.com). If you did not sign in during the first TV installation, you can always sign in later.

To sign in after you did the TV installation:

- 1 - Select ⚙️ Settings > Account and sign-in and press OK.
- 2 - Select Sign In and press OK.
- 3 - Select Use your remote and press OK.
- 4 - With the on-screen keyboard, enter your email address and press OK.
- 5 - Enter your password and press OK to sign in.
- 6 - Press ◀ (left) repeatedly if necessary, to close the menu.

Kids Profile

Once you have signed a Google account, you may like to create a Kids profile for your kids. Kids Profile allows parents to grant their kids access to both general audience TV apps and apps intended for kids. Parents select which apps to install, and can configure bedtime reminders and screen time limits.

Under Kids profile, only granted apps can be accessed and only HDMI connections are allowed to select as

external sources.

Create a Kids profile

You may use your existing Google Account to sign in to your TV or add an account to create Kids profile.

1 - Select the Profile icon via the Dashboard at the top right corner of Home screen.

2 - Select an existed account if you already created accounts, or select + Add account and follow the instructions to add a new account.

3 - Select Add a kid to create a personalised space for your kid.

4 - During the on boarding process into Kids Profiles, parents select which apps to install in Kids Profile from the apps on the Play Store that are rated for all ages.

10.3. Internet

Start Internet

You can browse the Internet on your TV. You can view any Internet website but most of them are not prepared for a TV screen.

- Some plug-ins (e.g. to view pages or videos) are not available on your TV.
- You cannot send or download files.
- Internet pages are shown one page at a time and full screen.

To start the Internet browser:

1 - Press **HOME**.

2 - Select Your apps > WEB BROWSER (second row of icons in Basic mode) and press OK.

3 - Enter an Internet address and select to confirm.

4 - To close Internet, press **Back**, and then confirm to leave on message screen.

* Note: If WEB BROWSER is not on Your Apps row, you can add the app manually.

11. Sources

11.1. Switch to a device

From the list of Sources, you can switch to any of the connected devices. You can switch to a tuner to watch TV or open the content of a connected USB storage device. You can switch to your connected devices to watch their programme, a digital receiver or a Blu-ray Disc player.

To switch to a connected device:

- 1 - Press **SOURCES** to open the Sources menu.
- 2 - Select one of the item in the source list and press OK. The TV will show the programme or content of the device.

* Note: HDMI device listed in Source list as Unregistered cannot be controlled with the TV's remote control as communication protocol is limited.

the technology identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Use of the Works with Apple AirPlay badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards.

Apple, AirPlay and Apple Home, HomeKit are trademarks of Apple Inc., registered in the U.S. and other countries and regions.

11.2. Apple AirPlay and HomeKit

Streaming contents via AirPlay

You can stream the media files from Apple devices to your TV via AirPlay. Go to **Settings > Channels and inputs > Apple AirPlay and HomeKit** to enter AirPlay and HomeKit Settings page and make sure AirPlay is turned On. Your Apple device must be connected to the same Wi-Fi home network as your TV to stream contents.

Add your TV to Apple HomeKit

To add your TV to HomeKit and control your TV via Apple devices:





- 1 - Go to **Settings > Channels and inputs > Apple AirPlay and HomeKit** to enter AirPlay and HomeKit Settings page.
- 2 - Select **Set UP** under HomeKit section to generate a QR code on your TV.
- 3 - On your Apple device, open the Home app and tap **Add +** and then scan the QR code on TV.
- 4 - Follow the instructions on your Apple device and join your TV to HomeKit.

Use of the Works with Apple badge means that an accessory has been designed to work specifically with

12. Quick Menu and Frequent Settings

In the Quick Menu and Frequent settings, you will find a quick way to access TV functions or setting menus.

To open Quick Menu / Frequent settings and open an item:

- 1 - Press  Quick Menu / MENU to open Quick Menu.
- 2 - Press the arrows  (Left) or  (right) to switch between Quick Menu and Frequent settings.
- 3 - Select an item and press OK to open or start it.
- 4 - Press  Back to close Quick Menu or Frequent settings without starting anything.

You can press **OPTIONS** to enable or disable the items from the list of Frequent settings.

13. Display and Sound

13.1. Picture

Picture Settings

About Picture Settings Menu

The picture setting menu provides an easy flow to access multi-level picture settings from general to advanced. For some picture settings, values can be changed by breakaway menu to let you view all the setting values and preview the effects that will be applied.

On the first level of Picture setting menu, you can always select an item and press OK key to go to next level options. If a breakaway menu is appeared, you can slide or tick to select the setting values and preview the effect and then press OK to confirm the change. If there is other setting options on same level, you can press **▲** (up) or **▼** (down) key to scroll to other setting options and continue the setting without leaving from the breakaway menu. Once all setting changes are done, you can keep pressing **←** Back key to leave or close the setting menus.

AI Picture Style

Select a style

⚙ Settings > Display and sound > Picture > AI Picture style.

Alternately, press ⚙ (DASHBOARD) on remote control and select Picture > AI Picture style.

For easy picture adjustment, you can select a preset picture style.

- Personal - The picture preferences you set during the first start up.
- Crystal Clear - Ideal for daylight viewing.
- Home Cinema - Ideal for daily movie home entertainment experience.
- ECO - Most energy conscious setting
- Filmmaker Mode - Ideal for watching movies with original studio effect.
- Game* - Ideal for playing games.
- Monitor** - Ideal for computer application display. Original video is displaying with minimum processing.
- Calman - For Calman colour Calibration

* Picture style - Game is only available in HDMI video and streaming video apps application.

** Picture style - Monitor is only available when HDMI

source video is applicable for PC application.

When TV receives HDR signal (Hybrid Log Gamma, HDR10 and HDR10+), select a picture style below:

- HDR Personal
- HDR Crystal Clear
- HDR Home Cinema
- HDR ECO
- HDR Filmmaker Mode
- HDR IMAX Enhanced
- HDR Game
- HDR Monitor
- HDR Calman - For Calman colour Calibration

When TV receives Dolby Vision HDR signal, select a picture style below:

- HDR Personal
- HDR Crystal Clear
- Dolby Vision Bright
- Dolby Vision Filmmaker
- Dolby Vision Game

Restore Picture style

⚙ Settings > Display and sound > Picture > Restore picture style.

Select to restore the picture style.

Auto Film Picture style

Preferred Film Picture style

⚙ Settings > Display and sound > Picture > Auto Film Picture style > Preferred Film Picture style.

You can select which AI Picture style will be automatically set when film contents is detected. The preferred Film Picture style option is depending on the availability of ⚙ Settings > Display and sound > Picture > AI Picture style.

*Note: To automatically detect film content and set your preference AI Picture style, you need to switch on the Auto Film Picture style from ⚙ Settings > Display and sound > Picture > Auto Film Picture style > Auto Film Picture style.

Switch on/off Auto Film Picture style

⚙ Settings > Display and sound > Picture > Auto Film Picture style > Auto Film Picture style.

Switch on or off to detect film content automatically and set your preference in the ⚙ Settings > Display and sound > Picture > Auto Film Picture style > Preferred Film Picture style.

Film detection method

⚙ Settings > Display and sound > Picture > Auto Film Picture style > Film detection method.

The TV will automatically set to your preferred AI Picture style when film content is detected. You can set the film detection method by Using AI or Using content signalling.

Ambient Intelligence

Light level optimisation

⚙ Settings > Display and sound > Picture > Light level optimisation.

Switch on to automatically reduce eye strain under different ambient light conditions.

Dark detail optimisation

⚙ Settings > Display and sound > Picture > Dark detail optimisation.

Select on to automatically enhance dark details based on the ambient light conditions.

Colour temperature optimisation

⚙ Settings > Display and sound > Picture > Colour temperature optimisation.

Select on to automatically optimise the colour temperature based on the ambient light conditions.

HDR optimisation

⚙ Settings > Display and sound > Picture > HDR optimisation.

Select on to automatically optimise the HDR tone mapping effect based on the ambient light conditions.

More Picture Settings

Contrast

Brightness

Ambient Light Level Optimisation

⚙ Settings > Display and sound > Picture > Contrast > Brightness > Ambient light level optimisation.

Switch on to adjust the picture settings automatically to the lighting conditions of the room.

OLED Contrast

⚙ Settings > Display and sound > Picture > Contrast > Brightness > OLED contrast.

Adjust the contrast value of the picture. You can decrease contrast value to reduce power consumption.

Peak Light Boost

⚙ Settings > Display and sound > Picture > Contrast > Brightness > Peak light boost.

Switch on to temporarily boost the display brightness depending on content (AI Adaptive).

⚙ Settings > Display and sound > Picture > Contrast > Brightness > Peak light.

If the Peak light boost is not turned on, you can select Off, Minimum, Medium or Maximum to set the TV automatically reduces the contrast, for best power consumption or for best picture experience.

Video Level

⚙ Settings > Display and sound > Picture > Contrast > Brightness > Video level.

Adjust the video contrast level.

Dark Details

Ambient Dark Detail Optimisation

⚙ Settings > Display and sound > Picture > Contrast > Dark details > Ambient dark detail optimisation.

To automatically enhance dark details based on the ambient light conditions.

Gamma

⚙ Settings > Display and sound > Picture > Contrast > Dark details > Gamma.

To set a non-linear setting for picture luminance and contrast.

Note: Not available on some models when Ambient dark detail optimisation or Dark detail optimisation is set to On.

Black Level

⚙ Settings > Display and sound > Picture > Contrast > Dark details > Black level.

To set the black level of picture.

Note: Setting of black level much away from reference value (50) may result lower contrast (dark detail disappear or black picture become grey).

Contrast Enhancement

⚙ Settings > Display and sound > Picture > Contrast > Contrast enhancement > Contrast optimiser.

Contrast optimiser improves the contrast and brightness impression to create HDR effect for standard sources. Select **Off** to turn off the optimisation or select **Basic** to perform the Contrast enhancement. Alternatively, you can select **AI Adaptive** to automatically adjust the contrast enhancement based on video content.

⚙ Settings > Display and sound > Picture > Contrast > Contrast enhancement > Dynamic range.

When Contrast optimiser is set to **AI Adaptive**, you can choose the style of automatic Contrast enhancement by selecting **Subtle**, **High dynamic range**, or **Balanced**.

HDR Control

⚙ Settings > Display and sound > Picture > Contrast > HDR control > Ambient HDR optimisation.

Enable TV automatically overrules HDR settings to adapt to bright ambient light conditions.

⚙ Settings > Display and sound > Picture > Contrast > HDR control > HDR tone mapping.

Set the method used in HDR tone mapping processing. **Off/HGiG** is to disable TV internal tone mapping or follow HGiG (HDR Gaming Interest Group) gaming HDR standard to match gaming device. You can adjust the method to **Static** (when HDR10 signal detected), **Dynamic** (when HDR10+ signal detected) or **AI Adaptive** to have different effect.

Note: Available when HDR10 or HDR10+ signal detected and Ambient HDR optimisation is off.

⚙ Settings > Display and sound > Picture > Contrast > HDR control > HDR10 effect / HDR10+ effect / HLG effect.

When HDR10 / HDR10+ / HLG signal detected, HDR tone mapping is not set to **Off** or **Off/HGiG** and Ambient HDR optimisation is off, you can adjust the HDR effect level to **More details**, **Balanced** or **More brightness** for each type of HDR contents.

⚙ Settings > Display and sound > Picture > Contrast > HDR control > Specular highlight.

When HDR10 / HDR10+ / HLG signal detected, you can enable this to further enhance the sparkle highlight details.

Colour

⚙ Settings > Display and sound > Picture > Colour.

Saturation

⚙ Settings > Display and sound > Picture > Colour > Saturation.

To adjust the value of saturation for the colours.

Note: not available when picture style is **Monitor** or **HDR Monitor**.

Gamut optimiser

⚙ Settings > Display and sound > Picture > Colour > Gamut optimiser.

The gamut optimiser allows TV to display a wider range of colours. Select **Off** to turn off the optimisation or select **Basic** for a wider range of colours rendered. Alternatively, you can select **AI Adaptive** to automatically set the gamut based on video content.

Colour content adaptation

⚙ Settings > Display and sound > Picture > Colour > Colour content adaptation.

When Gamut optimiser is set to **AI Adaptive**, you can choose the style of colour content adaptation by selecting **Natural**, **Vibrant** or **Balanced**.

Adjust colour temperature

⚙ Settings > Display and sound > Picture > Colour > Colour temperature > Ambient colour temperature optimisation.

Set to automatically optimize the colour temperature based on the ambient light conditions.

⚙ Settings > Display and sound > Picture > Colour > Colour temperature > Whitepoint.

Select **Warm**, **Normal**, **Cool** or **Custom** to set the colour temperature for your preference.

⚙ Settings > Display and sound > Picture > Colour > Colour temperature > 2 whitepoint alignment or 20 whitepoint alignment.

Customise the whitepoint alignment based on the selected colour temperature of the picture.

Colour control

⚙ Settings > Display and sound > Picture > Colour > Colour control.

Colour control setting is only available when Gamut optimiser is set to Off. To adjust or reset to default value of Hue, Saturation and Intensity for the colour Red, Yellow, Green, Cyan, Blue and Magenta respectively. If you want to reset all value to default, select Reset all to default.

Sharpness

Enhancement

⚙ Settings > Display and sound > Picture > Sharpness > Enhancement.

To adjust the sharpness value of the picture.

Texture enhancement

⚙ Settings > Display and sound > Picture > Sharpness > Texture enhancement.

Switch on to have a superior sharpness in line edges and details. Not available when Picture format is set to Fill Screen.

Picture Noise

Noise reduction

⚙ Settings > Display and sound > Picture > Picture noise > Noise reduction.

Select Off, Maximum, Medium, or Minimum to set the level for removing the noise in video content. Noise is mostly visible as small moving dots in on-screen picture.

Artefact Reduction

⚙ Settings > Display and sound > Picture > Picture noise > Artefact Reduction.

Select Off, Maximum, Medium, or Minimum to have different degrees of smoothing the artefact in digital video content. Artefact is mostly visible as small blocks or jagged edges in on-screen images.

Picture noise is not available when Picture style/AI Picture style is Game, HDR Game, Dolby Vision Game, Monitor or HDR Monitor.

Motion

Motion styles

⚙ Settings > Display and sound > Picture > Motion > Motion styles.

Motion styles provides optimised motion setting modes for different video content.

Select one of the motion styles to have different viewing experience on motion video. (Off, Pure Cinema, Movie, Standard, Smooth, Personal)

Not available for below cases:

- ⚙ Settings > Display and sound > Picture > Picture style/AI Picture style > Monitor
- ⚙ Settings > Display and sound > Picture > Picture style/AI Picture style > Game
- Video source is variable refresh rate
- Video source frame rate is 120Hz or higher

Game motion styles

⚙ Settings > Display and sound > Picture > Motion > Game motion styles.

Game motion styles provides optimised motion setting modes for different game contents.

Select one of the Game motion styles to have different viewing experience on motion video. Available setting options for Game motion style are Off (lowest latency), Smooth and Personal.

Only available for below cases:

- Picture style/AI Picture style is Game, HDR Game, Dolby Vision Game, Monitor, or HDR Monitor style
- Video source is not variable refresh rate
- Video source frame rate is not more than 60Hz

Sports optimisation

⚙ Settings > Display and sound > Picture > Motion > Sports optimisation.

Turn on to improves motion when sports content is identified (AI Adaptive). Only available on specific models.

Smoothness

⚙ Settings > Display and sound > Picture > Motion > Smoothness.

To make picture movement smooth by minimizing judder.

Select from 0 to 10 to have different degrees for reducing the motion judder, visible in movies on TV. Select 0 when noise appears in playing moving picture on-screen.

Note: Only available when Motion styles / Game motion styles set to Personal.

Blur reduction

⚙ Settings > Display and sound > Picture > Motion > Blur reduction.

To reduce the blur to makes picture movement clear and sharp.

Select from 0 to 10 to have different degress for reducing motion blur. Visible in movies on TV. Select 0 when noise appears in playing moving picture on-screen.

Note: Only available when Motion styles / Game motion styles set to Personal.

Quick Picture Setting

During the first installation, you did some picture settings in a few easy steps. You can redo these steps with Quick Picture Setting.

To set the picture in a few easy steps:

- 1 - Select ⚙ Settings > Display and sound > Picture.
- 2 - Select Quick Picture Setting*, and press OK.
- 3 - Use the navigation keys to select your preferable P5/P5 AI processing picture taste matching the ambient viewing light condition.
- 4 - Select Finish or press ◀ (left) repeatedly if necessary, to close the menu.

* Quick Picture Setting is not available when Picture style is set to Monitor/HDR Monitor/Game.

13.2. Screen

Picture Format

If the picture is not filling the whole screen, if black bars are showing on the top or bottom or at both sides, you can adjust the picture to fill the screen completely.

To select one of the basic settings to fill the screen:

- 1 - Press ⚙ Settings > Display and sound > Screen > Picture format > Fill Screen, Fit to Screen, Wide Screen and Original, and press OK.
 - 2 - Press ◀ (left) repeatedly if necessary, to close the menu.
- **Fill Screen** – automatically enlarges the picture to fill the screen. Picture distortion is minimal, subtitles remain visible. Not suitable for PC input. Some extreme picture content can still show black bars. Picture content aspect ratio may change.
 - **Fit to Screen** – automatically zooms in the picture to

fill the screen without distortion. Black bars may be visible. Not suitable for PC input.

- **Wide Screen** – automatically zooms in the picture to 16:9 full screen. Picture content aspect ratio may change.
- **Original** – automatically zooms in the picture to fit the screen with original aspect ratio. No content lost visible.

To format the picture manually:

- 1 - Press ⚙ Settings > Display and sound > Screen > Picture format > Advanced and press OK.
 - 2 - Use Shift, Zoom, and Stretch to adjust the picture.
 - 3 - Or select Undo to return to the setting the picture had when you opened Picture Format.
- **Shift** – Select on the arrows to shift the picture. You can only shift the picture when it is zoomed in.
 - **Zoom** – Select on the arrows to zoom in.
 - **Stretch** – Select on the arrows to stretch the picture vertically or horizontally.
 - **Undo** – Select to return to the picture format you started with.

Some Picture format setting selections may not be available in some conditions. For example, in video streaming, Android app application, gaming mode, etc.

OLED Screen Settings

Enhanced local image protection

⚙ Settings > Display and sound > Screen > Enhanced local image protection.

Set the level of protection when local still image is displayed.

Displaying a still image for a prolonged period of time may cause an image sticking. This phenomenon is normal character for OLED panel. Avoid displaying a fixed image on the TV screen for an extended length of time.

Auto pixel shift

⚙ Settings > Display and sound > Screen > Auto pixel shift.

Switch on to shift pixel position to reduce pixel stress. This is for protection of OLED screen from displaying still image.

Clear residual image

⚙ Settings > Display and sound > Screen > Clear residual image.

When you encounter image residual on the TV, you can clear such image retention on-screen by activating this function.

- 1 - Select ⚙ Settings > Display and sound > Screen.

2 - Select Clear residual image.

3 - Select Confirm.

The TV will be switched off until the process is completed.

If you turn the TV on during the process, it will be stopped and will be restarted automatically when the TV switches to standby at a later time.

While processing, a white line may appear on the screen. This is normal when clearing on-screen image retention.

Clear residual image is a deep refreshing process, it is not for residual image prevention. It shall be manually operated only when residual image is seen on screen even after TV is in standby mode for at least 8 hours.

13.3. Sound

Sound Style

Select a style

⚙ Settings > Display and sound > Sound > Sound style.

For easy sound adjustment, you can select a preset setting with sound style.

- AI mode - There are ideal styles for watching movies, listening to music or playing a game. Select AI mode for intelligent switching of sound style base on audio content.
- Original - Most neutral sound setting
- Entertainment - Ideal for watching movies
- Music - Ideal for listening to music
- Spatial Music - Ideal for gaming
- Dialogue - Ideal for speech
- Personal - Access to a more in depth sound settings.

Customise personal settings

1 - Set the sound style to Personal.

2 - Go to ⚙ Settings > Display and sound > Sound > Personal settings to change personal sound settings.

Restore personal settings

⚙ Settings > Display and sound > Sound > Personal settings > Restore personal mode.

Select to restore personal sound settings.

Personal Settings

Speaker virtualizer

⚙ Settings > Display and sound > Sound > Personal settings > Speaker virtualizer.

Select On or Auto (Dolby Atmos) to enable Dolby Atmos which can add height dimension in sound. With

height dimension, sound can be precisely placed and moved in three-dimensional space. Select Off to turn the function off.

Clear dialogue

⚙ Settings > Display and sound > Sound > Personal settings > Clear dialogue.

Select On to get an improved sound quality for speech programme.

AI Equalizer

⚙ Settings > Display and sound > Sound > Personal settings > AI Equalizer.

Select On to enable intelligent equalizer adjustment based on audio content and custom settings.

Custom AI Equalizer

⚙ Settings > Display and sound > Sound > Personal settings > Custom AI Equalizer.

Press the Arrow / navigation keys to adjust the level of AI Equalizer.

Restore personal settings

⚙ Settings > Display and sound > Sound > Personal settings > Restore personal mode.

Select to restore personal sound settings.

TV Placement

TV placement

⚙ Settings > Display and sound > Sound > TV placement.

Select On a TV stand or On the wall to have best sound reproduction according to the setting.

DTS Play-Fi

Setup DTS Play-Fi

DTS Play-Fi

⚙ Settings > Display and sound > Sound > DTS Play-Fi.

With DTS Play-Fi on your Philips TV, you can connect to compatible speakers to stream audio wirelessly to other rooms in your house.

Note: Settings for Multiroom TV Audio are not available when connected to the DTS Play-Fi Headphones app or

playing music from the DTS Play-Fi app.

To stream audio wirelessly to speakers, you will need:

- Philips Smart TV that supports DTS Play-Fi
- DTS Play-Fi compatible device
- DTS Play-Fi app on your Philips TV
- Mobile device such as your phone or tablet
- Philips Sound app installed on your phone or tablet
- Wi-Fi network

Setup to connect DTS Play-Fi compatible device

- 1 - Download Philips Sound app and install the App on your phone or tablet.
- 2 - Use Philips Sound app to search and setup DTS Play-Fi compatible device. Make sure the DTS Play-Fi device is connected with same Wi-Fi network of your TV.
- 3 - On your Philips TV, open the pre-installed DTS Play-Fi app and select **Connect Speakers** to search DTS Play-Fi compatible devices.
- 4 - When the DTS Play-Fi devices is successfully connected with your TV, you can select the devices from device list and adjust the volume.
- 5 - Now you can start to stream audio from your TV to multiple DTS Play-Fi devices.

DTS Play-Fi Home Theater

Experience immersive home theater audio with Play-Fi wireless subwoofers, soundbars, front speakers, surround speakers, or a Play-Fi receiver that powers home theater speakers.

Play-Fi Speakers as Front TV Speakers

- You may output TV audio to a pair of Play-Fi speakers such as the TAW6205, TAW6505 or TAFW1.
- TV speakers will be muted when connected to Play-Fi speakers.
- Use the Play-Fi app on TV to set up the Play-Fi speakers.

1 - Select **Play-Fi Wireless Home Theatre**

2 - Select **Two** as the Front Speakers

3 - Follow the setup wizard to complete the setup.

Setup Home Theater system with your TV and Play-Fi Speakers

1 - On Play-Fi app, select **DTS Play-Fi Home Theater > Setup > Connect Speakers** to connect all of your Play-Fi devices. If the devices are already connected, you can select **My speakers are connected...** to go to next step.

2 - Setup to assign the **Front Speaker, Surround Speakers, Subwoofer** to connected Play-Fi devices. The graphic on left side will show the positions of the speakers.

3 - Suggest to use **TV+ Two** as it provides dedicated center channel for dialog clarity.

4 - Once the devices are assigned, select **Continue...** to complete the Home Theater system setup.

On **Settings** menu of Home Theater system. You can

select **Distance To Speakers** to choose proper distance or select **Disable Home Theater, Disband Setup** if necessary.

Note:

1. Wireless surround/Stereo pair should proceed under **Play-Fi Home Theater**.
2. The features depend on TV model and Play-Fi speakers in use.

EasyLink 2.0

Control the sound settings of the HDMI sound system via EasyLink 2.0

⚙ **Settings > Display and sound > Sound > EasyLink 2.0.**

You can adjust the individual sound settings of the HDMI sound system via **Frequent settings** or **Display and sound > Sound**. This is only applicable with EasyLink 2.0 compliant HDMI sound system. To switch on the control, make sure the **EasyLink 2.0 sound control** menu item is set to **On** under **Channels and inputs > External Inputs**.

Select sound style

⚙ **Settings > Display and sound > Sound > EasyLink 2.0 > Sound style.**

Switch between the preset sound styles. There are ideal styles for watching movies, listening to music, or other sound contents.

- **Movie** - Ideal sound style for watching movie.
- **Music** - Optimised for listening to music.
- **Voice** - Enhanced the dialog in the vocals.
- **Stadium** - Gives a feel of a large open-air stadium.
- **Custom** - Personalised sound mode. The setting is only available when connected device is compatible with TV for the feature.

Adjust bass level

⚙ **Settings > Display and sound > Sound > EasyLink 2.0 > Bass.**

Press the **Arrow / navigation** keys to adjust the level of bass.

Adjust treble level

⚙ **Settings > Display and sound > Sound > EasyLink 2.0 > Treble.**

Press the **Arrow / navigation** keys to adjust the level of treble.

Custom Equaliser

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > Custom Equaliser.

Adjustable frequency bands when the Sound style is set to Custom. Press Arrow / navigation keys to adjust the level of AI Equalizer. The setting is only available when connected device is compatible with TV for the feature.

Surround Sound

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > Surround Sound.

Select a surround effect from the preset types.

- Upmix - Upmix to take full advantage of all speakers.
- Standard - Speakers output follow the original channels.
- Surround AI - Optimum surround effect using AI analysis.

DRC

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > DRC.

Select the preferred Dynamic Range Control (DRC).

- Auto - Dynamic range is automatically adjusted.
- On - Optimize the dynamic range.
- Off - Turn off dynamic range adjustment.

Height speakers

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > Height speakers.

Select the preferred height speakers movement. The setting is only available when connected device is compatible with TV for the feature.

- Auto - Dynamic movement follow contents.
- On - Always elevated.
- Off - Flat position.

Select sound stage

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > Sound stage.

Select a listening experience. The setting is only available when connected device is compatible with TV for the feature.

- Auto - Dynamic setting follow contents.
- On - Immersive Sound Stage, good for watching movies.
- Off - Crystal Sound Stage, good for listening to music and dialogue.

Reset all to default

⚙ Settings > Display and sound > Sound > EasyLink 2.0 > Reset all to default.

Reset all the EasyLink 2.0 sound settings back to the original factory settings.

There are more setting options may available if your HDMI sound system supports the options:

Subwoofer level adjustment

Dolby Atmos adjustment

Height level adjustment

DTS Virtual X enable/disable

TRUE Volume enable/disable

Night mode enable/disable

Auto volume setting

Display enable/disable

Room Calibration

Room calibration

⚙ Settings > Display and sound > Sound > Room calibration.

This calibration will allow the TV to determine the acoustics in your room and provide optimized sound quality on the TV speakers that best match the acoustics.

You need to pair your remote control with the TV before starting the setup and make sure the TV Audio out setting is TV speakers. For a more accurate result, please keep the room quiet.

To start the room calibration:

- 1 - Hold your remote control at the listening position and point it towards the TV during the tuning process.
- 2 - Select **Calibrate now** or **Calibrate again** to start the calibration.
- 3 - A test sound will be played and measured through your remote control. Hold your remote control and point it towards the TV, this can take several seconds.
- 4 - Once your TV speakers are successfully calibrated, select **Test** to listen to the sound before and after the TV speakers are calibrated. Select **Apply** to accept the setting or select **Try again** to redo the calibration.
- 5 - When room calibration setup is successful and applied, TV shall return to the Settings menu. Now go to ⚙ Settings > Display and sound > Sound > Room calibration and select **Apply** calibration to tune the audio output from TV speakers.

Hearing Profile

Hearing profile settings

⚙ Settings > Display and sound > Sound > Hearing profile.

Personalise your TV speakers sound

Hearing profile setting is for creating a personal profile based on your hearing abilities by taking a hearing test. You can choose your preferred sound, so that hear more and experience better sound, thereby enhancing the TV viewing experience.

How do I test my hearing and set up my hearing profile?

Start the hearing test from ⚙ Settings > Display and sound > Sound > Hearing profile > Configure. Create your own hearing profile with a short hearing test.

Before the test, you need to switch your current audio out to TV speakers as the setup affects TV speakers only. The hearing test works best when carried out in silence, make sure your environment is quiet when testing.

Select **Let's start** and enter a profile name to start the test.

During the test:

- You will hear an increasing beep sound.
- Press OK button when you hear the beep sound.
- Then, you will hear a decreasing beep sound.
- Press OK button when you don't hear the beep sound.
- The test will repeat 5 times for different tones.

Once the test is completed, your hearing test results will be presented and then select **Save and exit** to store the profile. You can apply current profile or create other profiles by maximum 3 profiles. You can also **Rename** profile or **Remove** profile when needed.

Advanced Sound Settings

Volume Control

Auto volume

⚙ Settings > Display and sound > Sound > Advanced > Auto volume.

Select **On** or **Off** to switch on or off the auto volume adjustment.

Select **Night Mode** for a more comfortable quiet listening experience.

Delta volume

⚙ Settings > Display and sound > Sound > Advanced > Delta volume.

The Delta volume setting can be used to adjust to balance the sound level difference between the TV channel and the HDMI source input. Press the **Arrow / navigation** keys to adjust the delta value for TV speaker volume.

* Note: Delta volume is available when the input source is set to HDMI or Analogue sources and the Audio out is set to TV speakers or HDMI sound system.

Centre speaker volume

⚙ Settings > Display and sound > Sound > Advanced > Centre speaker volume.

Adjust the loudness level of TV centre speaker if the centre speaker is available on your TV.

Dolby Atmos for Headphone

⚙ Settings > Display and sound > Sound > Dolby Atmos for Headphone.

Switch **On** or **Off** the Dolby Atmos for Headphone when Dolby Atmos content is available. Select **Wired headphones** from **Speakers** setting or connect a Bluetooth® device to enjoy the Dolby Atmos sound experience with your headphones.

13.4. Audio Output

Speakers and eARC

Audio output

⚙ Settings > Display and sound > Audio output > Speakers.

Set the TV to play the sound on TV or on the connected audio system.

You can select where you want to hear the TV sound and how you want to control it.

- If you select **TV speakers**, the TV speakers are always on.
- If you select **Wired headphones**, the sound will be played through headphones.
- If you select **Optical**, the TV speakers are switched off and Digital output/Optical is turned on.

With an audio device connected with HDMI CEC, select **HDMI sound system**. The TV will switch off the TV speakers when the device is playing the sound.

When the DTS Play-Fi compatible device is configured correctly and switched on, you can select **Play-Fi**

Wireless Home Theater to set it as audio out device.

eARC

⚙ Settings > Display and sound > Audio output > eARC.

Set eARC mode to Automatic or Off.

Digital Output Settings

Digital output settings are available for optical and HDMI ARC sound signals.

Digital out format

⚙ Settings > Display and sound > Audio output > Digital out format.

Set the audio out signal of the TV to fit the sound capabilities of the connected Home Theatre System.

- **Stereo (uncompressed):** If your audio playback devices have no multichannel sound processing, select to only output stereo content to your audio playback devices.
- **Multichannel:** Select to output multichannel audio content (compressed multichannel sound signal) or stereo audio content to your audio playback devices.
- **Multichannel (bypass):** Select to output Dolby Digital Plus or DTS content to your audio playback devices or Home theatre system.

- Make sure your audio playback devices support Dolby Atmos feature.

- SPDIF output (DIGITAL AUDIO OUT) will be enabled when streaming Dolby Digital Plus content.

Digital out levelling

⚙ Settings > Display and sound > Audio output > Digital out levelling.

Adjust the loudness level of the HDMI sound system.

- Select More to have louder volume.
- Select Less to have softer volume.

Digital out delay

⚙ Settings > Display and sound > Audio output > Digital out delay.


For some Home Theatre Systems you might need to adjust the audio sync delay to synchronise the audio to the video. Select Off if a sound delay is set on your Home Theatre System.

Digital out offset (Only available when Digital out delay set to On)



⚙ Settings > Display and sound > Audio output > Digital out offset.

If you cannot set a delay on the Home Theatre System, you can set the TV to sync the sound. You can set an offset that compensates for the time necessary for the Home Theatre System to process the sound of the TV picture. You can set the value in steps of 5ms. Maximum setting is 60ms.

13.5. Multi View

The  Multi View allows two video sources to share the same screen simultaneously. Videos can be Side by Side or one video in a small window overlaying other videos (Picture in Picture mode).

Activation and deactivation

Press  (Quick Menu/MENU) to open Quick Menu and select Multi View to open Multi View settings menu. You can also press  HOME, move to Your apps row and open Multi View app to link to Multi View settings menu. To deactivate the Multi View, select Exit Multi View on top of Multi View settings menu.

Multi View settings

On Multi View setting menu, you can manage the video source for View 1 (Main view) and View 2 (Sub view), change the view mode between Side by Side or Picture in Picture, enable/disable Dual sound to output the audio from both sources, adjust the sound balance when Dual sound is enabled and select Exit Multi View to deactivate the Multi View. Multi View setting menu will be dismissed if there is no user interaction after few seconds.

Select source for main view and sub view

Multi View has two views, which are View 1 (Main view) and View 2 (Sub view). Both position and size of Main view and Sub view are predefined. From the Multi View setting menu, the view mode can be switched between Side by Side (equal size) or Picture in Picture (a small Sub view overlaying Main view).

The video sources of Main view and Sub view can be installed Satellite channels, installed Antenna/Cable channels and input video from HDMI/USB ports. When the video source is not set from Multi View setting menu, the default priority to show on View 1 and View 2 are installed Satellite channels, Installed Antenna/Cable channels and then HDMI/USB videos.

Control mode

In **MANAGE VIEW** setting menu, after a source is selected, you can enter the Control mode by selecting **Control** for more settings. The Control mode is available for Satellite/Antenna/Cable channels and USB sources. The Control mode for Satellite/Antenna/Cable channels includes **Subtitles**, **Subtitle language** and **Audio language** setting options. For USB sources, the Control mode can adjust the settings of **Select USB** (USB devices), **Browse** (Videos), **Play All/Once**, **Subtitles**, **Subtitle language**, **Character set** and **Audio language**.

Press **OPTIONS** key on remote control will exit from Control mode.

Dual sound

The audio from View 1 (Main view) is always enabled and the audio from View 2 (Sub view) is turned off by default. Switch on the Dual sound will turn on the audio from View 2 and the TV output sound will be mixed sound from both View 1 audio and View 2 audio. You can also adjust the sound balance between View 1 and View 2 by **Dual sound balance** slider.

Independent Listening

The **Sound on Bluetooth®** device under the **MANAGE VIEW** settings of View 2 allows TV to send View 2 audio to a Bluetooth® audio device for independent listening. When entering **Sound on Bluetooth®** device menu, select one of paired Bluetooth® audio device from the list to output the View 2 audio. Once a Bluetooth® audio device is assigned for View 2 audio, the TV output sound will not be mixed sound when the Dual sound is enabled. The View 1 audio will be output to TV speakers and the View 2 audio will be output to Bluetooth® audio device.

13.6. Ambilight

Turn Ambilight On or Off

Turn on Ambilight

Press **AMBILIGHT** to turn on, or you can turn on by selecting **Settings > Display and sound > Ambilight > Ambilight style > Enable**.

To switch off Ambilight:

- 1 - Press **AMBILIGHT**.
- 2 - Press **OK** on **Enable** option to switch on or off the Ambilight.
- 3 - Press **←** (left) to go back one step or press **← Back** to close the menu.

Ambilight Style

AI Ambilight style

Settings > Display & sound > Ambilight > Ambilight style > AI Ambilight style.

When AI Ambilight style is enabled, the TV will automatically adjust the Ambilight styles for different use cases.

Select a Ambilight style manually

Settings > Display and sound > Ambilight > Ambilight style.

When AI Ambilight style is disabled, you can manually select a preset Ambilight style.

- **Standard** - Ideal for day to day TV watching.
- **Sports** - Ideal for sports programme.
- **Cinema** - Ideal for movie and home entertainment experience.
- **Gaming** - Ideal for playing games.
- **Music** - Listening music and follow the dynamics of the sound.
- **Fixed colour** - Select a static colour of your choice.

When Ambilight style is set to **Fixed colour**, you can customise the style:

- **Fixed colour selection** - Select your preferred static colour from the colour palette and tune it via colour sliders to your preference.
- **Dynamic effects** - Add dynamic effects to the selected colour.

When Ambilight style is set to **Music**, you can select predefined Ambilight music profiles from **Music style** selection:

- **Lumina** - Ideal for watching music video.
- **Disco** - Ideal for listening to loud retro music.
- **Rhythm** - Ideal for listening to rhythmic music.

Follow App

Follow App setting is available when you control Ambilight with Philips Smart TV app.

Ambilight personalisation

Settings > Display and sound > Ambilight > Ambilight personalisation / Ambilight personalisation (current selected style).

You can customise the current style to your preference.

- **Eco room adaptive** - Enable or disable automatic brightness adjustment linked to room conditions.

- Brightness - To set the level of Ambilight brightness.
- Saturation - To set the level of Ambilight saturation.
- Dynamics - To set the speed of Ambilight dynamic effect.
- Ambilight on dark content - Select the minimum brightness of Ambilight while dark content is being displayed.
- Restore to default - Select to restore the Ambilight style.

Advanced Ambilight Settings

Ambilight bottom side

⚙ Settings > Display and sound > Ambilight > Advanced > Ambilight bottom side.

Switch Ambilight bottom side on or off.

Brightness bottom side

⚙ Settings > Display and sound > Ambilight > Advanced > Brightness bottom side.

If Ambilight bottom side is turned on, select to adjust the level of brightness of Ambilight bottom side.

Neutralise the influence of a coloured wall on the Ambilight colours

⚙ Settings > Display and sound > Ambilight > Advanced > Wall colour behind the TV.

Select the colour of the wall behind the TV and the TV will modify the Ambilight colours to appear as they are intended.

Set Ambilight to turn off immediately or slowly fade out when you switch off the TV

⚙ Settings > Display and sound > Ambilight > Advanced > Fade out to off.

Set the fade out to off time in seconds or select Immediate to turn off the Ambilight immediately.

Ambilight animation

⚙ Settings > Display and sound > Ambilight > Advanced > Ambilight animation.

Enable or disable to display Ambilight animation during TV wake-up from mains on.



Lounge light autostart

⚙ Settings > Display and sound > Ambilight > Advanced > Lounge light autostart.

Switch on to allow lounge light mode activated when TV is on standby.

Ambilight Suite

Introduction

Ambilight Suite is an integrated control centre to utilize whole Ambilight feature in your daily life. Press  Quick Menu / MENU key on the remote control to find the Quick Menu, select Ambilight Suite and press OK to enter the control centre. Alternatively, you can go to ⚙ Settings > Display and sound > Ambilight > Ambilight Suite and press  to launch Ambilight Suite.

The Ambilight Suite can switch among Lounge, Sleep and Sunrise styles for different scenarios; each style has its own quick setting items to adjust the settings for you need.

Lounge

Lounge mode

The Lounge mode of your TV allows you to switch on the Ambilight when the TV is in standby. So you can light up your room with Ambilight. You can select a theme from the bottom icons with different preset Ambilight colour or personalise your own to mood up your room and chill.

Select one of preset colours from bottom icons and press OK to adjust detailed settings of selected colour.

Start now

To start the Lounge mode immediately with selected Ambilight colour.

Colour

The option is only available when selecting Personal colour. You can select your preferred Lounge light colour from the colour palette and tune it via colour sliders to your preference.

Dynamic effects

Activate dynamic effects for your selected Ambilight colour.

Brightness

Lounge light brightness level selection.

Duration

Set the duration (in minutes) of Lounge mode.

Set as default

Set current selected Ambilight colour and related settings as default setting of Lounge mode.

Sleep

Sleep mode

Sleep mode simulates sunset to help you unwind before you fall asleep. At the end of simulation, the TV will automatically switch to standby. You can select a theme with Ambilight colour and nature sound or personalise your own to lull yourself to sleep.

Select one of preset themes from bottom icons and press OK to adjust detailed settings of selected theme.

Start now

To start the Sleep mode immediately with selected theme.

Colour

Adjust the Ambilight colour of selected theme.

Dynamic effects

Activate dynamic effects for your selected Ambilight colour.

Brightness

Set the starting brightness of Sleep mode.

Duration

Set the duration (in minutes) of Sleep mode.

Set as default

Set current selected theme and related settings as default setting of Sleep mode.

Sunrise

Sunrise alarm

Sunrise alarm uses Ambilight, music and weather information for a new wake up experience.

- TV wakes up at selected time and day set by you.
- Lights up Ambilight with fade-in coloured screen and music.
- Slowly transit to weather forecast with matching backdrop.

From the bottom icons, select **Add alarm** icon to set a new alarm, select **Settings** icon to adjust alarm settings, select an already set alarm to check the setting details.

Set alarm

To enable or disable the alarm.

Time

Set the alarm time.

Repeat

Set to trigger the alarm repeatedly.

Backdrop theme

Set to indicate the weather forecast or select from photo categories.

Music

Set the music track to play during wake up.

Switch on volume


Set the music volume during wake up.

Preview

Preview the wake up effect.

If TV is in standby and alarm time is reached, TV shall wake up from standby. Wake-up screen fade-in, Ambilight is On, music fade-in and then show weather information with backdrop.

To exit Sunrise alarm, press  **Standby / On**,  **Back** or  **(Home)** key on remote control.

-  **Standby / On**: exits the Sunrise alarm and switch TV to standby.

- **← Back**: exits the Sunrise alarm and switch to last viewed TV source.
- **🏠 (Home)**: exits the Sunrise alarm and switch to launcher.
- If Sunrise alarm is not exited to other application after 30 min since Sunrise wake-up, TV shall auto shutdown to standby.

Note:

Keep the network connection alive for Sunrise alarm to function properly. Sunrise alarm cannot operate when the TV clock mode is set to manual. Go to the settings menu and change the clock mode to automatic. Alarm will not work if Location is set to Shop.

Aurora

Aurora App is an application that enhances ambience of the TV living space with showpieces and colourful Ambilight. Aurora make use of imageries, animation, audio and Philips signature Ambilight to augment the living area to suit your new lifestyle.

To launch Aurora app:

- 1 - Press **⌂ Quick Menu / MENU** to open Quick Menu, select Aurora and press OK to open.
- 2 - Alternately, press **🏠 HOME** to go to Home screen. Select Aurora app from Your apps row and press OK to open.

Categories

There are four categories of themes: Ambience, Scenes, Gallery, and Clocks. You can download more themes when your TV connected to the internet. Use the navigation keys to browse horizontally / vertically on the menu. Press OK on a theme to start the playback. Press OK on Play all to play all items in this category list, starting with the first item. Press **← Back** to exit the Aurora application.

Put the TV to standby

You can set the duration of Aurora theme playback, the TV will go to standby when the time limit reached.

To put the TV to standby:

- 1 - When the Aurora app is activated, press **+ OPTIONS**.
- 2 - Select 1 hour, 2 hours, or 4 hours to put the TV to standby.
- 3 - At two minutes before timer expiry, TV will show a dialogue to provide the options to go to standby immediately or postpone it to 1 or 2 hours later. The timer set to countdown or postpone cannot exceed the maximum allowed 4 hours.

Dynamic Gaming Effect

Your TV comes with the newest and exclusive Ambilight feature for the best gaming experience. The advanced Ambilight gaming effect will only activate and visible on TV settings when you start to play certain games. Once the Dynamic gaming effect is activated, Ambilight will react to certain events happening or some activities performed in the game.

An "Achievements unlocked!" pop up will appear when you start to play certain games in HDMI source. The message is to inform you have found a free, new and exclusive Ambilight feature. In certain games, you will experience special Ambilight effects, depending on what is happening in the game or how you are performing.

After the feature is unlocked, you can go to **⚙ Settings > Display and sound > Ambilight** to switch on/off this Dynamic gaming effect feature.

14. Apps

14.1. About Apps

You can find your favorite Apps on Your apps row in the Home menu.

Like apps on your smartphone or tablet, the apps on your TV offer specific functions for an enriched TV experience. You can use the **WEB BROWSER** app to surf the Internet.

Apps can come from the Google Play™ Store. To get you started, some practical apps are pre-installed on your TV.

To install apps from the Google Play™ Store, the TV must be connected to the Internet. You must sign in with a Google Account to use the Google Play apps and Google Play™ Store. Select the app you want to install and select **Install** button to start the installation. Once the app installation is done, you can select **Open** button to open the app, or **Uninstall** button to uninstall the app.

14.2. Google Play

Movies and TV

With Google TV app, you can rent or buy movies and TV shows to watch on TV.

What You Need

- your TV must be connected with the Internet
- you must sign in with your Google Account on TV
- add a credit card to your Google Account to purchase movies and TV shows

To rent or buy a movie or TV show:

- 1 - Press **HOME** and select **Apps** tab.
- 2 - Select **Google TV** app and open it.
- 3 - Select a movie or TV show and press **OK**.
- 4 - Select the purchase you want and press **OK**. You will be taken through the purchase procedure.

To watch a rented or bought movie or TV show:

- 1 - Press **HOME** and select **Apps** tab.
- 2 - Select **Google TV** app and open it.
- 3 - Select the movie or TV show from your library in the app, select the title and press **OK**.
- 4 - You can use the **Stop**, **Pause**, **Rewind** or **Fast forward** keys on the remote control.
- 5 - To stop the **Movies & TV** app, press **Back** repeatedly

or press **TV EXIT**.

* Note: If **Google TV** is not on Your Apps row, you can search it in search field to **Open** or **Install** it.

Find more information on
www.support.google.com/googletv

Music

With **YouTube Music**, you can play your favourite music on TV.

You can buy new music on your computer or mobile device. Or, on your TV, you can sign up for **All Access**, the Google Play Music subscription. Alternatively, you can play the music you already own, stored on your computer.

What You Need

- your TV must be connected with the Internet
- you must sign in with your Google Account on TV
- add a credit card to your Google Account to take a music subscription

To start **YouTube Music**:

- 1 - Press **HOME** and select **Apps** tab.
- 2 - Select **YouTube Music** app and open it.
- 3 - Select the music you want and press **OK**.
- 4 - To stop the **Music** app, press **Back** repeatedly or press **TV EXIT**.

* Note: If **YouTube Music** is not on Your Apps row, you can search it in search field to **Open** or **Install** it.

Find more information on
www.support.google.com/googletv
or support.google.com/youtubemusic

Games

With **Google Play Games**, you can play games on TV. Online or offline.



You can see what your friends are playing currently or you can join the game and compete. You can track your achievements or start wherever you left off.

What You Need

- your TV must be connected with the Internet
- you must sign in with your Google Account on TV
- add a credit card to your Google Account to purchase new games

Start the **Google Play Games** app to select and install new game apps on your TV. Some games are free of charge. A message appears if a particular game needs a gamepad to play the game.

To start or stop a **Google Play Game**:

- 1 - Press  HOME and select Apps tab.
 - 2 - Select Google Play Games app and open it.
 - 3 - Select a game to play or select a new game to install and press OK.
 - 4 - When done, press Back repeatedly or press  EXIT or stop the app with its dedicated exit/stop button.
- * Note: If Google Play Games is not on Your Apps row, you can search it in search field to Open or Install it.

Find more information on
www.support.google.com/googletv



Google Play Store

From the Google Play Store you can download and install new apps. Some apps are free of charge.

What You Need

- your TV must be connected with the Internet
- you must sign in with your Google Account on TV
- add a credit card to your Google Account to purchase apps



To install a new app:

- 1 - Press  HOME and select Apps tab.
- 2 - Select Google Play Store app and open it.
- 3 - Select the app you want to install and press OK.
- 4 - To close the Google Play Store, press Back repeatedly or press  EXIT.

Parental controls

In the Google Play Store, you can hide apps according to users/buyers maturity. You need to enter a PIN code to select or change the level of maturity.

To set the parental control:

- 1 - Press  HOME and select Apps tab.
- 2 - Select Google Play Store app and open it.
- 3 - Select Settings > Parental controls.
- 4 - Select the level of maturity you want.
- 5 - On request, enter the PIN code.
- 6 - To close the Google Play Store, press Back repeatedly or press  EXIT.

* Note: If Google Play Store is not on Your Apps row, you can search it in search field to Open or Install it.

Find more information on
www.support.google.com/googletv

Payments

To make a payment on Google Play on TV, you must add a form of payment - a credit card (outside the United States) - to your Google Account. When you purchase a movie or TV show, you will be charged on this credit card.





To add a credit card:

- 1 - On your computer, go to accounts.google.com and sign in with the Google Account you will use with Google Play on TV.
- 2 - Go to wallet.google.com to add a card to your Google Account.
- 3 - Enter your credit card data and accept the terms and conditions.

14.3. Start or Stop an App

You can start an app from the Home screen.

To start an app:

- 1 - Press  HOME.
- 2 - Move to Your apps row, select the app you want and press OK.
- 3 - You can also search the app in search field to Open or Install it.
- 4 - Alternately, you can go to  Settings > Apps > See all apps or Show system apps to select an app to open.
- 5 - To stop an app, press  Back or press  EXIT or stop the app with its dedicated exit/stop button.

14.4. Manage Apps

Settings > Apps.

If you stop an app and return to the Home menu, the app is not really stopped. The app is still running in the background to be readily available when you start it again. To run fluently, most apps need to save some data in the cache memory of the TV. It might be good to stop an app completely or clear the cache data of a particular app to optimise the overall performance of apps and to keep memory usage low on your TV. Also, it is best to uninstall apps that you are not using anymore. You can select Apps > See all apps or Unused apps to list your installed or used apps.

For each installed app, you can also set the permissions for Manage updates, App permissions, Special app access and Security.

Find more information on
www.support.google.com/googletv

15. System

15.1. About


System Software Update

Update from Internet



If the TV is connected to the Internet, you may receive a message to update the TV software. You need a high-speed (broadband) Internet connection. If you receive this message, we recommend you to carry out the update.

With the message on screen, select **Update** and follow the instructions on-screen.

You can also look for a software update yourself.

During the software update, there is no picture and the TV will switch off and on again. This might happen several times. The update can take a few minutes. Wait until the TV picture comes back up. Do not press the power switch  on the TV or on the remote control during the software update.

To look for a software update yourself:


- 1 - Select  **Settings > System > About > System update > Internet (recommended)** and press **OK**.
- 2 - The TV will look for an update on the Internet.
- 3 - If an update is available, you can update the software right away.
- 4 - A software update can take several minutes. Do not press the  key on the TV or remote control.
- 5 - When the update is done, the TV will return to the channel you were watching.

Update from USB

It might be necessary to update the TV software.

You need a computer with a high-speed Internet connection and an USB flash drive to upload the software on the TV. Use an USB flash drive with at least 2Gb free space. Make sure that write protection is switched off.

To update the TV software:

- 1 - Select  **Settings > System > About > System update**.
- 2 - Select **USB** and press **OK**.


Identify the TV

- 1 - Insert the USB flash drive into one of the USB connections of the TV.
- 2 - Select **Write to USB** and press **OK**. An identification file is written on the USB flash drive.

Download the software

- 1 - Insert the USB flash drive into your computer.
- 2 - On the USB flash drive, locate the file **update.htm** and double click it.
- 3 - Click **Send ID**.
- 4 - If new software is available, download the .zip file.
- 5 - After the download, unzip the file and copy the file **autorun.upg** onto the USB flash drive. Do not place this file in a folder.

Update the TV software



- 1 - Insert the USB flash drive into the TV again. The update starts automatically.
- 2 - A software update can take several minutes. Do not press the  key on the TV or remote control. Do not remove the USB flash drive.
- 3 - When the update is done, the TV will return to the channel you were watching.

If a power cut occurs during the update, never remove the USB flash drive from the TV. When the power returns, the update will continue.

To prevent an accidental update of the TV software, delete the **autorun.upg** file from the USB flash drive.

Automatic Software Update

To switch on Automatic software update to update your TV software automatically. Leave the TV in standby.

- 1 - Select  **Settings > System > About > System update > Automatic Software Update**.
- 2 - Follow the on-screen instruction.
- 3 - Press  (left) repeatedly if necessary, to close the menu.


When the setting is enabled, the upgrade gets downloaded when the TV is powered ON and installed 15min after the TV has gone to standby (as long as there are no alarms scheduled).

When the setting is disabled, the "Upgrade Now" / "Later" OSD will be shown.

View Software Update History

Display the list of software versions that are successfully update on the TV.

To view the software update history:

- 1 - Select  **Settings > System > About > System update > View software update history**.
- 2 - The software update history on this TV will be listed.

Reset

Rinstall TV

⚙ Settings > System > About > Reset > Factory reset.

Reset and redo the complete TV installation.

Reset all settings value to original TV settings

⚙ Settings > System > About > Reset > Factory settings.

Reset all settings to factory settings.

Status

Display TV status information

⚙ Settings > System > About > Status.

To display the TV status about IP address, Device MAC address, Bluetooth® address, Serial Number, etc.

Legal Information

Open Source Software

This television contains open source software. TP Vision Europe B.V. hereby offers to deliver, upon request, a copy of the complete corresponding source code for the copyrighted open source software packages used in this product for which such offer is requested by the respective licences.

This offer is valid up to three years after product purchase to anyone in receipt of this information. To obtain the source code, please write in English to... open.source@tpv-tech.com

Open Source License

About Open Source License

README for the source code of the parts of TP Vision Europe B.V. TV software that fall under open source licenses.

This is a document describing the distribution of the source code used on the TP Vision Europe B.V. TV, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain copies of this software can be found in the Directions For Use.

TP Vision Europe B.V. MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING

THIS SOFTWARE. TP Vision Europe B.V. offers no support for this software. The preceding does not affect your warranties and statutory rights regarding any TP Vision Europe B.V. product(s) you purchased. It only applies to this source code made available to you.

System Information

To view the current TV software version:

- 1 - Select ⚙ Settings > System > About > Model, Android TV OS version, Android TV OS security patch level, Kernel version, Android TV OS build, Software version, Netflix ESN, Nagra Unique Device.
- 2 - The version, release notes and creation date are shown. Also, the Netflix ESN Number and other information are shown if available.
- 3 - Press ◀ (left) repeatedly if necessary, to close the menu.

15.2. Date and Time

⚙ Settings > System > Date and Time.

Automatic date and time

⚙ Settings > System > Date and Time > Automatic date and time.

Set to use network-provided time or Off to use system time.

Set date

⚙ Settings > System > Date and Time > Set date.

Set current date.

Set time

⚙ Settings > System > Date and Time > Set time.

Set current time.

Set time zone

⚙ Settings > System > Date and Time > Set time zone.

Set current time zone.

Use 24-hour format

⚙ Settings > System > Date and Time > Use 24-hour format.

Set to use 24-hour format to display the time.

15.3. Language

Change the language of the TV menu and messages

⚙ Settings > System > Language.

Select the language to display TV menu and messages.

15.4. Keyboard

Settings for the connected keyboard and virtual keyboards

⚙ Settings > System > Keyboard.

Connect the USB keyboard to one of the USB connections on this TV. When the TV detects the keyboard for the first time, you can select your keyboard lay-out and test your selection. You can also manage the settings of connected keyboard and virtual keyboards.

15.5. Storage

Internal shared storage

You can see how much storage space - the internal TV memory - you are using for your apps, videos, music, etc. You can see how much free space you still have available for installing new apps. Check your storage if apps start to run slow or in case of app trouble.

Select ⚙ Settings > System > Storage to see how much storage you are using.

15.6. Ambient Mode

Settings for Ambient mode

⚙ Settings > System > Ambient Mode.

Ambient mode is the screen saver to avoid displaying still images for a longer period of time. You can set the photo source, display weather or time information, adjust the speed of slideshow.

15.7. Power and Energy

Set Shut-off timer

⚙ Settings > System > Power and Energy > Shut-off timer.

Set the time to turn off TV display automatically to save energy. The time setting can be set for **When inactive** or **When watching**. When inactive, you can set the time to **Never**, 15/20/30 minutes or 1/4/8/12/24 hours. When watching, you can set the time to 4/6/8 hours or **Never**.

Set the Power on behavior

⚙ Settings > System > Power and Energy > Power on behavior.

Set the TV stay on Google TV home screen or on Last used input when power on the TV.

Set the TV to switch to Standby automatically after a preset time

⚙ Quick Menu / MENU > Frequent Settings > Sleep timer.

Alternatively, go to ⚙ Settings > System > Power and Energy > Sleep timer.

TV switches to standby mode automatically after a preset time. You can set the time to 10/20/30/40/50/60 minutes. If set to **Off**, the sleep timer is switched off. You may stop the timer when the notification pop-up at last one minutes.

Set screen off to save energy consumption

⚙ Quick Menu / MENU > Frequent Settings > Screen off.

Alternatively, go to ⚙ Settings > System > Power and Energy > Screen off. You can also press **+ OPTIONS** key to access Screen off under TV and HDMI sources.

Select **Screen off**, the TV screen is switched off. To switch the TV screen back on, press any key (except **AMBILIGHT**, **Volume +** or **-**, **123** key and navigation keys) on the remote control.

Set TV switch off timer

MENU > Eco settings > Switch off timer.

Alternatively, go to ⚙ Settings > System > Power and Energy > Switch off timer.

Set the switch off timer, the TV switches off automatically to save energy. You can set the time

to 30/60/90/120/150/180/210/240 minutes. If set to Off, the timer is disabled.

- The TV is automatically switched off when there is no user interaction for the time set.
- If the TV is used as a monitor or using a digital receiver to watch TV, and you do not use the remote control of the TV, you should deactivate this automatic switch off.

Set no signal timer

MENU > Eco settings > No signal timer.

Alternatively, go to ⚙ Settings > System > Power and Energy > No signal timer.

Set the no signal timer, the TV switches off automatically if not receiving the signal from TV source or HDMI source for the time set. You can set the time to 10/15/20 minutes.

15.8. Cast

What You Need

If an app on your mobile device has Google Cast, you can cast your app on this TV. On the mobile app, look for the Google Cast icon. You can use your mobile device to control what's on TV. Google Cast works on Android and iOS.

* Note: The Google Cast functionality works only in Google TV Mode and not in Basic TV mode.

Your mobile device must be connected to the same Wi-Fi home network as your TV.

Apps with Google Cast

New Google Cast apps come available every day. You can already try it with YouTube, Chrome, Netflix, Photowall... or Big Web Quiz for Chromecast. See also google.com/cast

Some Google Play products and features aren't available in all countries.

Find more information on www.support.google.com/googletv

Cast to Your TV

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 - Press play on your smartphone or tablet. What you selected should start playing on TV.

15.9. System Sounds

Settings for system sound

⚙ Settings > System > System sounds.

Enable or disable the system sounds.

15.10. Childlock

Set Code and Change Code

Set a new code or reset the change code

⚙ Settings > System > Child lock > Set code / Change code.

The child lock code is used to lock or unlock channels or programmes.

Note:

If you forgot your PIN code, you can override the current one by using the code 8888 and entering a new one.

Lock for Programme

Set a minimum age to watch rated programmes (only available for certain countries)

⚙ Settings > System > Child lock > Parental rating.

15.11. Retail Mode Settings

Home or Shop

Select the location of your TV

⚙ Settings > System > Retail mode settings > Location.

Select Shop, the picture style settings will be restored to default, and can adjust shop settings. Shop mode is for in-store promotion.

Shop Setup

Adjust shop settings

⚙ Settings > System > Retail mode settings > Shop setup.

If the TV is set to Shop, you can set the availability of a specific demo for in store use.

Adjust Picture and audio

⚙ Settings > System > Retail mode settings > Shop setup > Picture and audio.

Select Optimized for shop or Custom for picture and audio settings.

Demo Me autostart

⚙ Settings > System > Retail mode settings > Shop setup > Demo Me autostart.

Turn On/Off the Demo Me autostart.

OLED refreshing process

⚙ Settings > System > Retail mode settings > Shop setup > Refresh OLED (every 4 hours).

Enable to refresh your OLED TV screen every 4 hours. Switching off this process may result in image retention, which may void your warranty.

AI Picture demo autostart

⚙ Settings > System > Retail mode settings > Shop setup > AI Picture demo autostart.

Turn On/Off the AI Picture demo autostart.

On AI Picture demo mode, you can see how AI Picture processing is enhancing the picture quality in real time. The demo mode includes three steps, which will be shown in repeat cycle.

First Step: P5 AI enhanced effect video shown on screen center with live AI measurements and analyzing.

Left side measurement demonstration:

- Small size window view shows sub-sampling of live video.
- Half-moon shape meters to show the status of Sharpness, Noise, Motion, Colour of video and viewing ambient light condition.
- Contrast meter: histogram of video level contribution.

Right side AI analyzing results:

Scene Classification: Output Live AI scene classification category (circle colour filled is proportionally indicating confidence level for each category).

Second Step: Split screen to show live visual effect. Left half screen is original video content with AI picture enhancement turned off; right half screen will have full AI picture settings applied. It tells the differences after AI picture processing.

Third Step: Full screen P5 AI enhanced effect video shown on screen.

POS Sound

⚙ Settings > System > Retail mode settings > Shop setup > POS Sound.

Turn On/Off the POS Sound. This feature is intended for dealers.

15.12. Restart

⚙ Settings > System > Restart

Note:

- Disconnect the external USB hard disc before rebooting.
- Wait for few seconds, the TV restart automatically.

This will remove unnecessary data and information in the memory.

If your TV runs low performance when using Apps, such as the video and audio are not synchronised or the App is running slow, reboot your TV for better performance.

16. Accessibility

⚙ Settings > Accessibility.

With Accessibility switched on, the TV is prepared for use for the deaf, hard of hearing, blind or partially sighted people.

High contrast text

⚙ Settings > Accessibility > High contrast text.

Turn on to make texts displayed with higher contrast for easier reading.

Text to speech

⚙ Settings > Accessibility > Text to speech.

Set to convert the text into speech for blind or partially sighted people.

Accessibility shortcut

⚙ Settings > Accessibility > Accessibility shortcut.

Quick access to Accessibility settings.

There are more services provided by Google, e.g., Captions, TalkBack, Switch Access to help your TV more accessible. To find more information about the services please visit www.support.google.com/googletv/answer/10070337

17. Remote and Accessories



17.1. Bluetooth® On or Off

Pair Accessory

Position the Bluetooth® device within a distance of 5 meters from the TV. Read the user manual of the device for specific information on pairing and on wireless range. Make sure the Bluetooth® setting on TV is switched on.



Once a Bluetooth® device is paired, you can select it to play the TV sound. When a device is paired, you do not need to pair it again unless you remove the device.

To pair a Bluetooth® device with the TV:



- 1 - Switch on the Bluetooth® device and place it within range of the TV.
- 2 - Select  Settings > Remote and accessories > Pair accessory.
- 3 - Select Search and press OK. Follow the instructions on screen. You will pair the device with the TV and the TV will store the connection. You might need to unpair a paired device first if the maximum number of paired devices was reached.
- 4 - Press  (left) repeatedly if necessary, to close the menu.

Device Operation

To connect or disconnect a Bluetooth® device:



- 1 - Select  Settings > Remote and accessories.
- 2 - In the list, select a Bluetooth® device.
- 3 - Select Connect or Disconnect to connect or disconnect a Bluetooth® device.
- 4 - Press  (left) repeatedly if necessary, to close the menu.

To rename a Bluetooth® device:



- 1 - Select  Settings > Remote and accessories.
- 2 - In the list, select a Bluetooth® device.
- 3 - Select Rename to rename a Bluetooth® device.
- 4 - Press  (left) repeatedly if necessary, to close the menu.

You can connect or disconnect a wireless Bluetooth® device. You can also remove a Bluetooth® device further. If you remove a Bluetooth® device, the device will be unpaired.

To remove Bluetooth® device:

- 1 - Select  Settings > Remote and accessories.
- 2 - In the list, select a Bluetooth® device.
- 3 - Select Forget to remove the Bluetooth® device.
- 4 - Press  (left) repeatedly if necessary, to close the menu.

To view the information of Bluetooth® device:


- 1 - Select  Settings > Remote and accessories.
- 2 - In the list, select a Bluetooth® device.
- 3 - The information of Bluetooth® device is listed on the bottom.
- 4 - Press  (left) repeatedly if necessary, to close the menu.

17.2. Remote Control

Pair Remote Control

Pairing or pairing again


When you start the initial TV installation, the TV invites you to press the Home + Back key to pair the remote control. If the pairing with the remote control was lost, you can pair it again by pressing the Home + Back key.

Alternatively, go to  Settings > Remote and accessories > Remote control settings > Pair remote control, then follow the on-screen instructions.

A message appears when the pairing is successful.

Remote Control Info


View the remote control information

 Settings > Remote and accessories > Remote control settings > Remote control info.

You can select Version to check the embedded software version of remote control or select Battery level to see current battery percentage.

Update Remote Control Software

Update remote control software

 Settings > Remote and accessories > Remote control settings > Update remote control software.


Check available remote control software for updates. If a new software update is available for your remote control, you can start the software update. Please install new batteries or fully charge the battery, and then

position your remote control within one meter from TV
for updating software.

18. Eco Settings

Settings for Energy saving

MENU > Eco settings > Energy saving.


Select and confirm to apply the Eco settings on TV. This may reset some picture settings to original and reduce some brightness of the Ambilight*. Please note that TV experience might be affected by this setting. The  green leaf icon will be appended when Eco settings are applied.

* Ambilight setting is only for models which support Ambilight function.

Set screen off to save energy consumption

MENU > Eco settings > Screen off.

Alternatively, you can also press **OPTIONS** key to access Screen off under TV and HDMI sources.

Select Screen off, the TV screen is switched off. To switch the TV screen back on, press any key (except **AMBILIGHT**, ) Volume + or - , and navigation keys) on the remote control.

Set TV switch off timer

MENU > Eco settings > Switch off timer.

Set the switch off timer, the TV switches off automatically to save energy. Press the **Arrow** / navigation keys to adjust the value of time. Select **Off** to deactivate the automatic switch off.

- The TV is automatically switched off when there is no user interaction for the time set.
- If the TV is used as a monitor or using a digital receiver to watch TV, and you do not use the remote control of the TV, you should deactivate this automatic switch off.

Set no signal timer

MENU > Eco settings > No signal timer.

Set the no signal timer, the TV switches off automatically if not receiving the signal from TV source or HDMI source for the time set. Press the **Arrow** / navigation keys to adjust the value of time.

19. Videos, Photos and Music

19.1. From a Computer or NAS

You can view your photos or play your music and videos from a computer or a NAS (Network Attached Storage) in your home network.

The TV and computer or NAS must be in the same home network. On your computer or NAS, you need to install Media Server Software. Your Media Server must be set to share your files with the TV. The TV shows your files and folders as they are organised by the Media Server or as they are structured on your computer or NAS.

The TV does not support subtitles on video streams from a computer or NAS.

If the Media Server supports searching for files, a search field is available.

To browse and play the files on your computer:

- 1 - Press **SOURCES**, select Network and press OK.
- 2 - Select Network Devices and press **➤** (right) to select the device you need.
- 3 - Once a Network device is connected, the Network Devices item will be replaced by connected device name.
- 4 - You can browse and play your files.
- 5 - To stop playing videos, photos and music, press **TV** EXIT.

19.2. Favourites Menu

Add a folder or a file to favourites menu

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and select a folder or a file.
- 3 - Press **OPTIONS** while playing a file and select Mark as favourites to add the file to the favourite menu.

View favourite files

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select **♥ Favourites**.
- 3 - You can view all favourite files in the list.

19.3. From a USB Connection

You can view your photos or play your music and videos from a connected USB flash drive or USB Hard Drive.

With the TV switched on, plug in a USB flash drive or a USB Hard Drive to one of the USB connections. The TV detects the device and will list your media files.

If the list of files does not appear automatically:

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and press **➤** (right) to select the USB device you need.
- 3 - You can browse your files in the folder structure you have organised on the drive.
- 4 - Select Play all to play all files in the USB folder or select Mark as favourite to add the selected file to favourite menu - **♥ Favourites**.
- 5 - To stop playing videos, photos and music, press EXIT.

19.4. Play your Videos

Play Videos

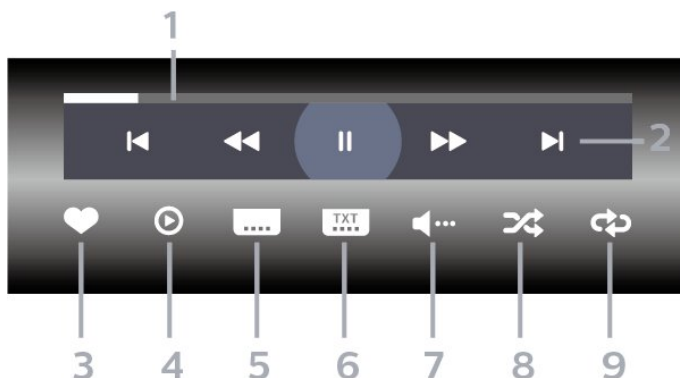
Open video folder

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and press **➤** (right) to select the USB device you need.

Play a video

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and press **➤** (right) to select the USB device you need.
- 3 - Select Videos and select one of video file to play.

Control bar



1 - Progress bar

2 - Playback control bar

- ⏮ : Jump to the previous video in a folder
- ⏭ : Jump to the next video in a folder
- ⏮⏮ : Rewind
- ⏭⏭ : Fast forward
- ⏸ : Pause the playback

3 - Mark as favourites

4 - Play all videos

5 - Subtitle: switch subtitles On, Off or On During Mute.

6 - Subtitle language: select a Subtitle Language

7 - Audio language: select an audio language

8 - Shuffle: play your files in a random order

9 - Repeat: plays all videos in this folder once or continuously

Video Options

Browse video files:

- **Play all** – Play all files in the folder
- **List/Thumbnails** – List or thumbnails views
- **Shuffle** – Play your files in a random order
- **Repeat** – Plays all videos in this folder once or continuously
- **Info** – Show file information

Playing video files:

- **Mark as favourites** – Mark the video as favourites
- **Subtitle setting** – Set subtitle font size, colour, position, etc.
- **Info** – Show file information

19.5. View your Photos

View Photos

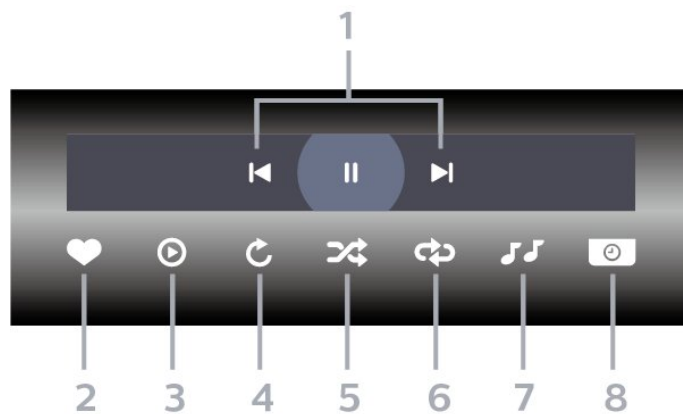
Open photo folder

- 1 - Press **SOURCES**, select **USB** and press OK.
- 2 - Select **USB Devices** and press **➤** (right) to select the USB device you need.

View a photo

- 1 - Press **SOURCES**, select **USB** and press OK.
- 2 - Select **USB Devices** and press **➤** (right) to select the USB device you need.
- 3 - Select **Photos** and select one of photo file to view.

Control bar



1 - Playback control bar

- ⏮ : Jump to the previous photo in a folder
- ⏭ : Jump to the next photo in a folder
- ⏸ : Pause the slideshow playback

2 - Mark as favourites

3 - Start a slideshow

4 - Rotate the photo

5 - Shuffle: play your files in a random order

6 - Repeat: plays all photos in this folder once or continuously

7 - Stop the music playing in the background

8 - Set the speed of the slide show

Photo Options

Browse photo files:

- **Slide show** – If there are several photos in the same folder, select to start a slide show of all photos in this folder.
- **Sort** – Browse your photos by date, timeline or file name
- **List/Thumbnails** – List or thumbnails views
- **Shuffle** – Play your files in a random order
- **Repeat** – Play the slide show once or continuously
- **Stop music** – Stop background music playing
- **Slide Show Speed** – Set the speed of the slide show
- **Info** – Show file information

Playing photo files:

- **Mark as favourites** – Mark the photo as favourites
- **Info** – Show photo information

19.6. Play your Music

Play Music

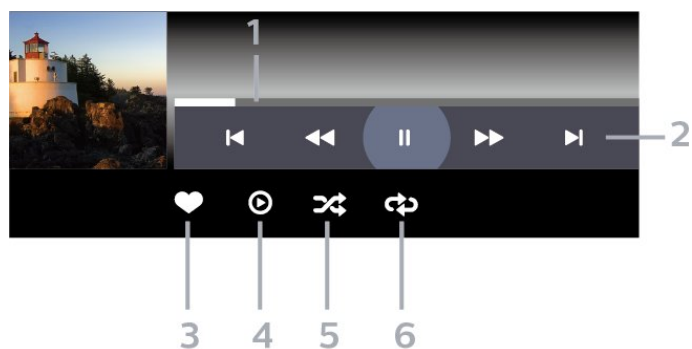
Open music folder

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and press **➤** (right) to select the USB device you need.
- 3 - You can quickly find a music using classification
 - Genres, Artists, Albums, Tracks.

Play music

- 1 - Press **SOURCES**, select USB and press OK.
- 2 - Select USB Devices and press **➤** (right) to select the USB device you need.
- 3 - Select Music and select one of classifications to view music files.
- 4 - Select a music file to play.

Control bar



- 1 - Progress bar
- 2 - Playback control bar
 - **⏮**: Jump to the previous music in a folder
 - **⏭**: Jump to the next music in a folder
 - **⏮⏮**: Rewind
 - **⏭⏭**: Fast forward
 - **⏸**: Pause the playback
- 3 - Mark as favourites
- 4 - Play all music
- 5 - Shuffle: play your files in a random order
- 6 - Repeat: plays all music in this folder once or continuously

Music Options

Browse music files:

- Play all – Play all files in the folder
- List/Thumbnails – List or thumbnails views
- Shuffle – Play your files in a random order.
- Repeat – Plays all songs in this folder once or continuously.

Playing music files:

- Mark as favourites – Mark the music as favourites

20. Smartphones and Tablets

20.1. Philips Smart TV App

The Philips Smart TV on your smartphone or tablet is your new TV buddy. The app lets you switch channels and adjust the volume — just like a remote control.

Download the Philips Smart TV App from your favourite app store today.

The Philips Smart TV App is available for iOS and Android and is free of charge.

Alternatively, you can go **⚙ Settings > Network and Internet > Remote app QR code** and press OK; a QR code will be presented on TV screen. Scan the QR code with your mobile device and follow the instruction to download and install the Philips Smart TV App. When using the app, your mobile device and Philips TV need to connect to the same Wi-Fi network.

Get Connected



www.philips.to/smartTV

The Philips Smart TV app lets you switch channels and adjust the volume - just like a remote control.

21. Games

21.1. What You Need

On this TV, you can play games:

- from the Google Play Store in the Home menu
- from a connected Game Console

Games from the Google Play Store must be downloaded and installed on TV before you can play them. Some games need a gamepad to play.

To install game apps from the Google Play Store, the TV must be connected to the Internet and you need to agree to the Terms of Use to use apps. You must sign in with a Google Account to use the Google Play apps and Google Play Store.

21.2. Gamepads

To play games from the Internet on this TV, you can connect a selected range of wireless Gamepads. The TV can support 2 connected Gamepads at a time. When you connect the Gamepad, you can use it immediately.

21.3. Play a Game From Game Console or Computer

To start a game from a Game Console or Computer on the first time:

- 1 - Connect Game Console or Computer to TV via Ultra High Speed HDMI cable before power on the console or computer.
- 2 - Press **SOURCES** and select a game console or the name of the connection.
- 3 - Set HDMI Ultra HD to Automatic or Optimal (Auto Game xxxHz Pro) for HDMI Variable Refresh Rate gaming (on specific models only).
- 4 - Power on Game Console or Computer.
- 5 - Start the game.

21.4. Gaming Bar

The Game bar is an integrated centre for information display and setting control while playing game. It provides a quick way to change picture, audio and Ambilight* settings. You can also create up to 10 separate game profiles for different type of games for own preference. It is applicable for HDMI source as long as the Picture style is set to Game/HDR Game/Dolby Vision Game.

Toggle to enable or disable from HDMI (ports) > Options > Game bar, or long press the MENU to enable/disable Gaming bar when game signal detected and game mode is enabled.

* Ambilight setting is only for models that support Ambilight function.

Activation and deactivation

When TV auto switch to Game mode (via game detection), the TV will show a message to inform user that Game mode is enabled and the Game bar is available, press OK to activate the Game bar. To deactivate the Game bar, you can press **← Back** or it will be close automatically after 20 seconds without interaction.

Gaming information

Game bar will show the key information for the gaming.

Frame rate: current FPS (frame per second), displayed on top of screen.

Profile name: current applied profile of settings, displayed on top of Game bar.

HDMI information: current HDMI port, speed/mode and HDCP version, displayed under the profile name.

Video source information: displayed on bottom of Game bar.

- VRR type: current type of VRR
- Resolution: video source resolution
- Bit depth and pixel format: data information of current source
- SDR/HDR format: the supported HDR type or SDR of source
- ALLM: to show the HDMI ALLM is supported
- Motion setting: current setting of Motion

Game tools

The Game tools* contains frequently used tools that can improve your gaming experience. Move the cursor to Profile name bar and press OK to enable or disable the game tools. Move the cursor to Game tool icon and

press OK can turn on the green light on icon and enable the tool. Press OK again will disable the tool. Move down to select **•••** under the icon can enter the setting options for the Game tool.

Crosshair: enable/disable to show the dial point. You can adjust **Type, Size, Thickness and Colour** of the crosshair from setting options.

Shadow enhancer: enable dark detail boost to improve shadow detail visibility. You can adjust the type in setting options to apply different enhancement level. Setting 8 is a special mode, which applies reverse effect for brightness and darkness in gaming content.

Colour filter: enable to apply visual filter effect on video based on the colour selected in options. **Single colour** is to filter out other colours and show only selected colour. **Exclude colour** is to filter out only selected colour and keep other colour displayed. If colour filter feature is enabled, **Colour enhancement** and **Colour control** under **Picture > Colour** settings are not accessible.

Centre zoom*: enable to zoom in centre portion of the screen. You can set the **Strength, Size** and transparency of Centre zoom effect from setting options. Not supported for 144Hz input.

Edge enhancer*: enable to strengthen the edge of objects on the screen. You can set the size of **Area**, enable/disable the **Colour mode** or **Blend to original**.

* Depending on your TV model, some tools may not be available on your TV.

Sound style: quick link to adjust the Sound style setting
Profile restore: restore default settings for the current profile.

* Ambilight setting is only for models that support Ambilight function.

Game bar settings

Select the setting icon  on the left side of Game bar and press OK to change following settings:

Profile: the profile stores the settings of the Game bar. You can select a **Standard** profile or create your own profiles. The Game bar settings can be adjusted for different types of Games. When you are satisfied with current settings for specific game or game type, you can go to **Game bar setting > Profile** and select **Add profile** to store current settings and name the profile. Along with the **Standard** profile, there are up to eight customised profiles can be created. Once the customised profile is created, you can press left or right key to switch among the profiles from the **Profile** name bar.

FPS indicator: set to enable/disable and display position for the FPS information.

HDMI Ultra HD: quick link to adjust the HDMI Ultra HD setting.

Motion: quick link to adjust the Motion setting.

HDR tone mapping: quick link to adjust the HDR tone mapping setting.

All picture settings: quick link to adjust All picture settings.

Ambilight* style: quick link to adjust the Ambilight settings.

22. Netflix

If you have a Netflix membership subscription, you can enjoy Netflix on this TV. Your TV must be connected to the Internet. In your region, Netflix might only come available with future software updates.

To open Netflix, press **NETFLIX** to open the Netflix App. You can open Netflix immediately from a TV in standby.

www.netflix.com

Note for Netflix Spatial Audio

Some of Netflix contents provide Spatial Audio sound effect, to support the feature on your TV, please follow the steps:

- 1 - Go to **⚙ Settings > Display and sound > Audio output > Digital out format** and set the option to **Stereo (uncompressed)**.
- 2 - Go to **⚙ Settings > Display and sound > Sound > Sound style** and set the style to **Personal**.
- 3 - Go to **⚙ Settings > Display and sound > Sound > Personal settings > Speaker virtualizer** and select **Off** to turn off the Speaker virtualizer.

23. Alexa

23.1. About Alexa

Your TV supports Amazon Alexa* voice control operations.

About Alexa

Alexa is a cloud-based voice service available on Alexa Echo devices from Amazon and device manufacturers. With Alexa working on your TV, you can switch on/off TV, change channels, change volume and more.

To control your TV with Alexa, you will need:

- Philips Smart TV that supports Alexa
- Amazon Echo device
- Google account
- Mobile device such as your phone or tablet
- Wi-Fi network

About Alexa Skill

Alexa uses the Alexa Skills to extend the voice control operations. Skills add new capabilities that create a more personalised experience with your Alexa enabled TV. "Philips Smart TV Voice Control" skill can be found on Alexa Skills store, it offers various voice control commands to work with your Philips Smart TV.

* Alexa is not available in all languages and countries. Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates.


Note: The supported Ambilight styles may depend on specific TV models. Please refer the user manual of your TV to know the supported Ambilight styles.

23.2. Using Alexa

To use Alexa, you need to first setup the Alexa client service on your Philips Smart TV. Follow the instructions and complete the following steps:

- Select a name for your Smart TV for Alexa to recognize.
- Select a Google account and sign-in.
- Return to this skill in the Alexa App on your phone to enable it, link accounts, and discover your devices.
- Return to your TV to complete setup.

Setup on TV for Alexa

- 1 - Go to  **Settings** > **Network and Internet** > **TV control with Amazon Alexa** to start the setup process.
- 2 - You need Amazon Echo device and Alexa

companion app (on mobile device or web version) be ready to start the setup.

3 - Follow the instructions on screen to accept Privacy Policy terms, name your TV and sign in your Google account. The Google account is needed to pair with Alexa device.

4 - On your mobile device, sign in with the same Google account in the Amazon Alexa companion app.

5 - Complete following steps in the Amazon Alexa companion app. The first is to enable "Philips Smart TV Voice Control" skill. The second is to link your Google account and then the final is to discover devices.

6 - Select **Enable** or **Disable** for the TV switch on setting. You can use Alexa to turn your TV On/Off by voice command.

7 - At the end of setup screen, you can select **Done** to start to use Alexa. Select **Manage TVs** to do the management of Alexa-paired TVs or un-pair the TVs with Alexa.

Go to alexa.amazon.com, click on Skills, and search for "Philips Smart TV Voice Control". The skill will be listed in the results.

24. Specifications

24.1. Environmental

European Energy Label

The European Energy Label informs you on the energy efficiency class of this product. The greener the energy efficiency class of this product is, the lower the energy it consumes.

On the label, you can find the energy efficiency class, the average power consumption of this product in use. You can also find the power consumption values for this product on the Philips website for your country at www.philips.com/TVsupport.

EPREL Registration Number

EPREL registration number

65OLED950 : 2302620

77OLED950 : 2342947

End of Use

Disposal of your old product and batteries

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.



When this crossed-out wheeled bin symbol is attached to a product it means that the product is covered by the European Directive 2012/19/EU.



Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. Correct disposal of your old product helps to prevent potential negative consequences for the environment and human health.

Your product contains batteries covered by the European Regulation (EU) 2023/1542, which cannot be disposed with normal household waste.



Please find out for yourself about the local rules on separate collection of batteries because correct disposal will help to prevent negative consequences for the environment and human health.

24.2. Power

Product specifications are subject to change without notice. For more specification details of this product, see www.philips.com/TVsupport

Power

- Mains power : AC 100-240V
- Ambient temperature : 5°C to 35°C
- Power saving features : Eco mode, Picture mute (for radio), Auto switch-off timer, Eco settings menu.

24.3. Operating System

Android OS :

Android 14

24.4. Reception

- Aerial input : 75 ohm coaxial (IEC75)
- Tuner bands : Hyperband, S-Channel, UHF, VHF
- DVB : DVB-T2, DVB-C (cable) QAM
- Analogue: SECAM, PAL
- Tuner terrestrial signal support
- Digital video playback : MPEG2 SD/HD (ISO/IEC 13818-2), MPEG4 SD/HD (ISO/IEC 14496-10), HEVC
- Digital audio playback (ISO/IEC 13818-3)
- Satellite aerial input : 75 ohm F-type
- Input frequency range : 950 to 2150MHz
- Input level range : 25 to 65 dBm
- DVB-S/S2 QPSK, symbol rate 2 to 45M symbols, SCPC and MCPC
- LNB : DiSEqC 1.0, 1 to 4 LNBs supported, Polarity selection 13/18V, Band selection 22kHz, Tone burst mode, LNB current 300mA max

24.5. Display Type

Diagonal screen size

- 105 cm / 42 inch
- 108 cm / 43 inch
- 121 cm / 48 inch
- 126 cm / 50 inch
- 139 cm / 55 inch
- 164 cm / 65 inch
- 189 cm / 75 inch
- 194 cm / 77 inch
- 215 cm / 85 inch

Display resolution

- 3840 x 2160
-

24.6. Display Input Resolution

Supported Computer/Video resolution

Resolution — Refresh rate

- 640 x 480 - 60Hz
- 576p - 50Hz
- 720p - 50Hz, 60Hz
- 1920 x 1080p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz, 100Hz, 120Hz, 144Hz
- 2560 x 1440p - 60Hz, 120Hz, 144Hz
- 3840 x 2160p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz, 100Hz, 120Hz, 144Hz

* Note:

100Hz is only supported when HDMI Ultra HD is set to Optimal in HDMI 1 and HDMI 2.

120/144Hz (up to 3840 x 2160p) is only supported when HDMI Ultra HD is set to Optimal (Auto Game 144Hz Pro) in HDMI 1 and HDMI 2.

120/144Hz (up to 2560 x 1440p) is only supported when HDMI Ultra HD is set to Optimal (Auto Game 144Hz Pro) in HDMI 3 and HDMI 4.

HDMI Ultra HD settings will be automatically changed to match HDMI device connected if Automatic option is selected.

Supported Video only resolution

Resolution — Refresh rate

- 480i - 60Hz (when HDMI Ultra HD is set to Standard)
- 576i - 50Hz (when HDMI Ultra HD is set to Standard)
- 1080i - 50Hz, 60Hz
- Variable refresh rate video 1080p, 1440p, 2160p with frame rate up to 40-144Hz when HDMI Ultra HD is set to Automatic or Optimal (Auto Game 144Hz Pro).

* Note: Some resolution and frame rate may not be

supported in all input sources.

24.7. Connectivity

TV Side

- Common Interface slot: CI+/CAM
- USB 2 - USB 2.0
- USB 1 - USB 3.0
- Headphones - Stereo mini-jack 3.5mm
- HDMI 4 input - Ultra HD - HDR
- HDMI 3 input - Ultra HD - HDR

TV Bottom

- Satellite tuner
 - Antenna (75 ohm)
 - HDMI 1 input - Ultra HD High Frame Rate - HDR
 - HDMI 2 input - ARC/eARC - Ultra HD High Frame Rate - HDR
 - Digital audio out - Optical Toslink
 - Network LAN - RJ45
-

24.8. Sound

- Output power (RMS) : 70W
 - Dolby MS12
 - Dolby Atmos
 - DTS Play-Fi
 - DTS:X
 - Surround Virtualizer + Height Virtualizer
 - Dolby Bass Enhancement
 - Dolby Dialogue Enhancement
 - Dolby Volume (AVL/Night Mode)
 - AI Sound
 - AI EQ
-

24.9. Multimedia

Connections

- USB 2.0 / USB 3.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11a/b/g/n/ac/ax, Dual Band
- Bluetooth® 5.2

Supported USB file systems

- FAT 16, FAT 32, NTFS

Playback formats

- Containers: PS, TS, M2TS, TTS, AVCHD, MP4, M4V, MKV, ASF, AVI, 3GP, Quicktime
- Video Codecs : AVI, MKV, HEVC, H.264/MPEG-4 AVC, MPEG1, MPEG2, MPEG4, VP9, HEVC (H.265), AV1

- Audio Codecs : MP3, WAV, AAC, FLAC
- Subtitles :
 - Formats : SRT, SMI, SSA, SUB, ASS, TXT
 - Character encodings : UTF-8, Central Europe and Eastern Europe (Windows-1250), Cyrillic (Windows-1251), Greek (Windows-1253), Turkish (Windows-1254), Western Europe (Windows-1252), Hebrew(CP-1255), Arabic(CP-1256), Baltic(CP-1257), Korean(Windows-949)
- Maximum Supported Data Rate :
 - MPEG-4 AVC (H.264) supported up to High Profile @ L5.2 80Mbps
 - H.265 (HEVC) supported up to main 10 high profile L5.1 with 100Mbps
 - AV1 supported up to main profile L5.1 with 80Mbps
- Image Codecs : JPEG, GIF, PNG, BMP, HEIF

Wi-Fi Certified

This TV is Wi-Fi Certified device.

25. Help and Support


25.1. Register your TV

Register your TV and enjoy a range of benefits including full support (including downloads), privileged access to information about new products, exclusive offers and discounts, the chance to win prizes and even participate in special surveys about new releases.

Go to www.philips.com/TVsupport

25.2. Using Help

Open Help

Press the  key (blue) to open Help immediately.

For some activities, like Text (Teletext), the colour keys have specific functions and cannot open Help.

TV Help on your tablet, smartphone or computer

To carry out extended sequences of instructions more easily, you can download the TV Help in PDF format to read on your smartphone, tablet or computer. Alternatively, you can print the relevant Help page from your computer.

To download the Help (user manual) go to www.philips.com/TVsupport

Quick Menu / MENU > Help

You can use more Help functions to diagnose and get more information about your TV.

- **TV information** - View the Model name, Serial number, Software version and Operation hours of your TV.
- **How to** - You can see instructions on how to install channels, sort channels, update TV software, connect external devices and use Smart functions on your TV.
- **TV diagnose** - Run TV diagnose to check the condition of your TV.
- **Self-diagnose** - You can check if the picture, sound, network and other settings are working well.
- **User manual** - Read the user manual for TV information.
- **Troubleshooting** - Find a solution for frequently asked questions.
- **Settings list copy to USB** - Copy the TV settings to a USB Flash Drive.
- **Factory settings** - Reset all settings to factory settings.
- **Reinstall TV** - Reinstall and redo the complete TV

installation.



- **Contact info** - Shows the telephone number or web address for your country or region.
-

25.3. TV Diagnose and Self-diagnose

TV diagnose

You can run the TV diagnose test to check the condition of your TV. At the end of the diagnose, TV will clear the cache memory and close any unused apps to continue the smooth functioning of your TV.



To run the TV diagnose test:

- 1 - Select  Quick Menu / MENU >  Help > TV diagnose and press OK.
- 2 - Select **Start** to run a series of diagnostic tests.
- 3 - When the test completed, you can view the status of following items.
 - Remote control
 - Power
 - Picture
 - Sound
 - External devices
 - Network
 - Tuner
 - Storage
 - Clear cache memory
 - Apps
- 4 - Select **Close** to close the result page and go back to TV diagnose wizard.
- 5 - Select **Done** to exit from TV diagnose, select **Self-diagnose** to do other diagnostic check, select **View results** to view the result page again.

Self-diagnose

Self-diagnose can help you to do troubleshooting of your TV by checking the configurations of the TV.

To run the Self-diagnose:

- 1 - Select  Quick Menu / MENU >  Help > Self-diagnose and press OK.
- 2 - Select following items to check the configurations.
 - **Check the TV** - You can check if the picture, sound and other settings are working fine..
 - **Check the network** - Check the network connection.
 - **Check the HDMI sound system** - Perform this test to verify the sound connection and support of your HDMI sound system with the TV.
 - **Check the remote control** - Perform the test to verify the TV bundled remote control functionality.
 - **View weak signal history** - Display the list of channel numbers that were automatically saved when signal strength was weak.
 - **Optimise internal storage** - Free up space in TV's

internal storage for optimal performance.

- Update software - Check available software updates.

25.4. Troubleshooting

Switch On and Remote Control

The TV does not switch on

- Disconnect the power cable from the power outlet. Wait for one minute then reconnect it.
- Make sure that the power cable is securely connected.

Creaking sound at startup or switch off

When you are switching the TV on, off or to standby, you hear a creaking sound from the TV chassis. The creaking sound is due to the normal expansion and contraction of the TV as it cools and warms up. This does not affect performance.

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.

If the TV continues to be unresponsive to the remote control, you can 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 remote control might be broken or its batteries are low.

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

The standby light keeps on blinking

Disconnect the power cable from the power outlet. Wait 5 minutes before you reconnect the power cable. If the blinking reoccurs, contact Philips TV Consumer Care.

Channels

No digital channels found during the installation

See the technical specifications to make sure that your TV supports DVB-T or DVB-C in your country. Make sure that all cables are properly connected and that the correct network is selected.

Previously installed channels are not in the channel list

Make sure that the correct channel list is selected.

Picture

No picture / distorted picture

- Make sure that the antenna is properly connected to the TV.
- Make sure that the correct device is selected as the display source.
- Make sure that the external device or source is properly connected.

Sound but no picture

- Change to other video sources and then change back to current source, then do picture style restore in Picture settings or do Factory reset in General settings option.

Poor antenna reception

- Make sure that the antenna is properly connected to the TV.
- 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.
- If reception on only one channel is poor, fine-tune this channel with Manual Installation.

Poor picture from a device

- Make sure that the device is connected properly. Make sure the device's output video setting is the highest possible resolution if applicable.
- Restore picture style or change to other picture styles.

Picture settings change after a while

Make sure that Location is set to Home. You can change and save settings in this mode.

A commercial banner appears

Make sure that Location is set to Home.

Picture does not fit the screen

- Change to a different picture format.
- Change Picture format to Original.

Picture position is incorrect

- Picture signals from some devices may not fit the screen correctly. Check the signal output of the connected device.
- Change Picture format to Original.

Computer picture is not stable

Make sure that your PC uses the supported resolution and refresh rate.

Sound

No sound or poor sound quality

If no audio signal is detected, the TV automatically switches the audio output off — this does not indicate malfunction.

- 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.
- Make sure that the TV audio output is connected to the audio input on the Home Theatre System. Sound should be heard from the HTS speakers.
- Some devices may require you to manually enable HDMI audio output. If HDMI audio is already enabled, but you still do not hear audio, try changing the digital audio format of the device to PCM (Pulse Code Modulation). Refer to the documentation accompanying your device for instructions.

HDMI and USB

HDMI

- Note that HDCP (High-bandwidth Digital Content Protection) support can delay the time taken for a TV to display content from an HDMI device.
- If the TV does not recognise the HDMI device and no picture is displayed, switch the source from one device to another and back again.
- If the picture and sound of a device connected to HDMI is distorted, connect the device to another HDMI port on TV and power reboot your source device.
- If the picture and sound of a device connected with HDMI is distorted, check if a different HDMI Ultra HD setting can solve this problem.
- If there are intermittent sound disruptions, make sure that output settings from the HDMI device are correct.
- If you use an HDMI-to-DVI adapter or HDMI-to-DVI cable, make sure that an additional audio cable is connected to AUDIO IN (mini-jack only), if available.

HDMI EasyLink does not work

- Make sure that your HDMI devices are HDMI-CEC compatible. EasyLink features only work with devices that are HDMI-CEC compatible.

HDMI eARC is not working well

- Make sure the HDMI cable is connected to HDMI 2.
- Make sure the Ultra High-speed HDMI cable is used for eARC connection.
- Only one eARC device is available at a time.

No volume icon shown

- When an HDMI-CEC audio device is connected and you use the TV Remote Control to adjust the volume level from the device, this behaviour is normal.

Photos, videos and music from a USB device do not show

- Make sure that the USB storage device is set to Mass Storage Class compliant, as described in the storage

device's documentation.

- Make sure that the USB storage device is compatible with the TV.
- Make sure that the audio and picture file formats are supported by the TV.

Choppy playback of USB files

- The transfer performance of the USB storage device may limit the data transfer rate to the TV which causes poor playback.

Network

Wi-Fi network not found or distorted

- Microwave ovens, DECT phones or other Wi-Fi devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the TV's wireless connection.
- If the wireless network does not work properly in your home, try the wired network installation.

Internet does not work

- If the connection to the router is OK, check the router connection to the Internet.

The PC and Internet connection are slow

- Look in your wireless router's user manual for information on indoor range, transfer rate and other factors of signal quality.
- Use a high-speed (broadband) Internet connection for your router.

DHCP

- If the connection fails, you can check the DHCP (Dynamic Host Configuration Protocol) setting of the router. DHCP should be switched on.

Poor quality when watching streaming video

- The image/sound quality of stream video is depending on the original video content provided by streaming video apps.
- To ensure the best experience of watching streaming videos, a fast and stable network connection is essential. The recommended network connection speed for the streaming videos are as follows:
 - Standard image quality (SD): 5 Mbps
 - High image quality (HD): 10 Mbps
 - 4K/Ultra HD (UHD): 25 Mbps

Bluetooth®

Unable to pair

- Make sure the device is in pairing mode. Read the user manual of the device.
- Keep the wireless speaker as close to the TV as possible.
- Trying to pair several devices with the TV at the same time, may not work.

Bluetooth® lost connection

- Always position the wireless speaker within a range of

5 meters from the TV.






Bluetooth® Audio and Video synchronisation

- Before you purchase a wireless Bluetooth® speaker, inform yourself about its quality of Audio to Video synchronisation, commonly called 'lip sync'. Not all Bluetooth® devices perform correctly. Ask your dealer for advice.






Wrong Menu Language

Wrong menu language

Change the language back to your language in Google TV mode.

- 1 - Press  DASHBOARD key on remote control to launch Dashboard menu.
- 2 - Select  icon and press OK to open Settings menu.
- 3 - Press 6 times  (down) and press OK to enter System menu.
- 4 - Press 3 times  (down) and press OK to enter Language menu
- 5 - Select your language and press OK.
- 6 - Press  Back to close the menu.

Change the language back to your language in Basic Mode.

- 1 - Press  DASHBOARD key on remote control to launch Dashboard menu.
- 2 - Select  icon and press OK to open Settings menu.
- 3 - Press 7 times  (down) and press OK to enter System menu.
- 4 - Press 3 times  (down) and press OK to enter Language menu
- 5 - Select your language and press OK.
- 6 - Press  Back to close the menu.

25.5. Online Help

To solve any Philips TV related problem, you can consult our online support. You can select your language and enter your product model number.

Go to www.philips.com/TVsupport

On the support site you can find your country's telephone number to contact us as well as answers to frequently asked questions (FAQs). In some countries, you can chat with one of our collaborators and ask your question directly or send a question by email. You can download new TV software or the manual to read on your computer.

25.6. Support and Repair

For support and repair, call the Consumer Care hotline in your country. Our service engineers will take care of a repair, if necessary.

Find the telephone number in the printed documentation that came with the TV.

Or consult our

website www.philips.com/TVsupport and select your country if needed.

TV model number and serial number

You might be asked to provide the TV product model number and serial number. Find these numbers on the packaging label or on the type label on the back or bottom of the TV.

Warning

Do not attempt to repair the TV yourself. This may cause severe injury, irreparable damage to your TV or void your warranty.

26. Safety and Care

26.1. Safety

Important

Read and understand all safety instructions before you use the TV. If damage is caused by failure to follow instructions, the warranty does not apply.

Risk of Electric Shock or Fire

- Never expose the TV or the remote control to rain or water. Never place liquid containers, such as vases, near the TV or the remote control. If liquids are spilt on or into the TV, disconnect the TV from the power outlet immediately. Contact Philips TV Consumer Care to have the TV checked before use.
- Never expose the TV, remote control or batteries to excessive heat. Never place them near burning candles, naked flames or other heat sources, including direct sunlight.
- Never insert objects into the ventilation slots or other openings on the TV.
- Never place heavy objects on the power cord.
- Avoid force coming onto power plugs. Loose power plugs can cause arcing or fire. Ensure that no strain is exerted on the power cord when you swivel the TV screen.
- To disconnect the TV from the mains power, the power plug of the TV must be disconnected. When disconnecting the power, always pull the power plug, never the cord. Ensure that you have full access to the power plug, power cord and outlet socket at all times.

Risk of Injury or Damage to the TV

- Two people are required to lift and carry a TV that weighs more than 25 kg or 55 lbs.
- If you mount the TV on a stand, only use the supplied stand. Secure the stand to the TV tightly. Place the TV on a flat, level surface that can support the weight of the TV and the stand.
- When wall mounted, ensure that the wall mount can safely bear the weight of the TV set. TP Vision bears no responsibility for improper wall mounting that results in accident, injury or damage.
- Parts of this product are made of glass. Handle with care to avoid injury or damage.

Risk of damage to the TV !

Before you connect the TV to the power outlet, ensure

that the power voltage matches the value printed on the back of the TV. Never connect the TV to the power outlet if the voltage is different.

Stability Hazards

This product is designed and intended for consumers and personal use in a domestic home environment, unless agreed otherwise with the manufacturer in writing. Failure to follow this recommendation or the instructions provided in the product user manual and the product supportive documentation can cause damage to the product and will void the warranty for such cases.

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

- ALWAYS ensure the television set is not overhanging the edge of the supporting furniture.
- 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 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.

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

Risk of Batteries

- Do not ingest the battery. Chemical burn hazard.
- The remote control 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.

- Risk of fire or explosion if the battery is replaced by an incorrect type.
- Replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types).
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

Risk of Overheating

Never install the TV in a confined space. Always leave a space of at least 10 cm or 4 inches around the TV for ventilation. Ensure curtains or other objects never cover the ventilation slots on the TV.

Lightning Storms

Disconnect the TV from the power outlet and antenna before lightning storms.
During lightning storms, never touch any part of the TV, power cord or antenna cable.

Risk of Hearing Damage

Avoid using earphones or headphones at high volumes or for prolonged periods of time.

Low Temperatures

If the TV is transported in temperatures below 5°C or 41°F, unpack the TV and wait until the TV temperature reaches room temperature before connecting the TV to the power outlet.

Humidity

In rare occasions, depending on temperature and humidity, minor condensation can occur on the inside of the TV glass front (on some models). To prevent this, do not expose the TV to direct sunlight, heat or extreme humidity. If condensation occurs, it will disappear spontaneously while the TV is playing for a few hours. The condensation moisture will not harm the TV or cause malfunction.

26.2. Screen Care

- Never touch, push, rub or strike the screen with any object.
- Unplug the TV before cleaning.
- Clean the TV and frame with a soft damp cloth and wipe gently. Avoid touching the Ambilight* LEDs on the backside of the TV. Never use substances such as alcohol, chemicals or household cleaners on the TV.
- To avoid deformations and colour fading, wipe off water drops as quickly as possible.
- Avoid stationary images as much as possible. Stationary images are images that remain onscreen for extended periods of time. Stationary images include onscreen menus, black bars, time displays, etc. If you must use stationary images, reduce screen contrast and brightness to avoid screen damage.

* Ambilight LED is only for models which support Ambilight function.

27. Terms of Use

27.1. Terms of Use - TV

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This product was brought to the market by TP Vision Europe B.V. or one of its affiliates, hereinafter referred to as TP Vision, which is the manufacturer of the product. TP Vision is the warrantor in relation to the TV with which this booklet was packaged. Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V.

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips N.V. or their respective owners. TP Vision reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The written material packaged with the TV and the manual stored in the memory of the TV or downloaded from the Philips website www.philips.com/TVsupport are believed to be adequate for the intended use of the system.

The material in this manual is believed adequate for the intended use of the system. If the product, or its individual modules or procedures, are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained. TP Vision warrants that the material itself does not infringe any United States patents. No further warranty is expressed or implied. TP Vision cannot be held responsible neither for any errors in the content of this document nor for any problems as a result of the content in this document. Errors reported to Philips will be adapted and published on the Philips support website as soon as possible.

Terms of warranty - Risk of injury, damage to TV or void of warranty!

Never attempt to repair the TV yourself. Use the TV and accessories only as intended by the manufacturer. The caution sign printed on the back of the TV indicates risk of electric shock. Never remove the TV cover. Always contact Philips TV Customer Care for service or repairs. Find the telephone number in the printed documentation that came with the TV. Or consult our website www.philips.com/TVsupport and select your country if needed. Any operation expressly prohibited in this manual, or any adjustments and assembly procedures not recommended or authorised in this manual, shall void the warranty.

Pixel characteristics

This TV product has a high number of colour pixels. Although it has effective pixels of 99.999% or more, black dots or bright points of light (red, green or blue)

may appear constantly on the screen. This is a structural property of the display (within common industry standards) and is not a malfunction. Therefore, please note this is not subjected to repair, exchange or refund within and/or out of the warranty period.

Backlight characteristics

All Philips TV have gone through stringent tests and checks before shipping to you. You can be rest assured that we place the quality of our TVs the utmost importance so that you do not suffer any viewing displeasure while watching your TV. However, please note that backlight bleeding ("Mura effect") and /or unevenness of background light that can only be observed in dark images or in a very dark and dim room are considered to be within TV specifications. Such occurrences do not represent a deterioration nor shall be regarded as a defect of the TV. Hence, we regret that claims of this nature for warranty, free of charge service, replacement or refund cannot be accepted within and/or out of the warranty period.

CE compliance

Hereby, TP Vision Europe B.V. declares that this television is in compliance with the essential requirements and other relevant provisions of Directives 2014/53/EU (RED), 2011/65/EU (RoHS), and ESPR Regulation (EU) 2024/1781 (Regulation (EU) 2019/2021).

UKCA compliance

Hereby, TP Vision Europe B.V. declares that this television is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Regulations 2017, Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019, and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

Compliance with EMF


TP Vision manufactures and sells many products targeted at consumers which, like any electronic apparatus, in general have the ability to emit and receive electromagnetic signals. One of TP Vision's leading business principles is to take all necessary health and safety measures for our products, to comply with all applicable legal requirements and to stay well within the Electro Magnetic Field (EMF) standards applicable at the time of producing the products.

TP Vision is committed to developing, producing and marketing products that cause no adverse health effects. TP Vision confirms that, as long as its products are handled properly for their intended use, they are safe to use according to scientific evidence available today. TP Vision plays an active role in the development of international EMF and safety standards, enabling TP Vision to anticipate further developments in standardisation for early integration in its products.

27.2. Terms of Use - Smart TV

You can view the Terms of use, privacy policy, and also set privacy settings of your Smart TV.

To view the contents or change settings:

- 1 - Go to  Settings > System > About > Legal Information.
- 2 - Select Terms of use or Privacy settings.

28. Copyrights

28.1. Google TV

Google TV is the name of this device's software experience and a trademark of Google LLC. Google, YouTube and other marks are trademarks of Google LLC.



28.2. HDMI

The terms HDMI, HDMI High-Definition Multimedia Interface, HDMI trade dress and the HDMI Logos are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



28.3. HEVC Advance

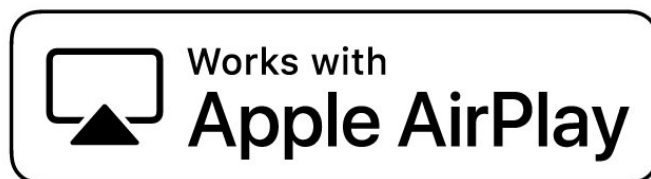
Covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com. Future proof with advanced HEVC decoding.



28.4. Works with Apple AirPlay

Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

Apple, AirPlay and Apple Home, HomeKit are trademarks of Apple Inc., registered in the U.S. and other countries and regions.



28.5. Works with Apple Home

Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

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28.6. NVIDIA G-SYNC

NVIDIA® G-SYNC® make for gamers



28.7. AMD FreeSync Premium

No Stuttering. No Tearing. Fluid Gaming.



28.8. Dolby Vision and Dolby Atmos

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28.13. Kensington

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29. Disclaimer regarding services and/or software offered by third parties

Services and/or software offered by third parties may be changed, suspended, or terminated without prior notice. TP Vision does not bear any responsibility in these sorts of situations.

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