

PHILIPS

Smart Display

82x8 Series

User Manual

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1. Home Screen

1.1. Introduction

To enjoy the benefits of your Google Display, connect the display 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 display. 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 favorite 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**, **Films**, **Display Shows**, **Apps** and **Library**, 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.

Apps

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

See also www.support.google.com/googletv

1.2. Dashboard and Settings

Dashboard

The Dashboard is a side panel in Google Display 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 display 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**: quick link to adjust picture settings.
- **Notifications**: to provide you the messages about the Google Display 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 common menu items in the Philips display Menu, which can be invoked directly from the remote control.

1.3. Google display and Basic Mode

Difference of feature

You can set your display to **Google Display** mode or **Basic Mode**.

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

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

https://support.google.com/googletv/answer/10408998?hl=en&ref_topic=10050480#zippy=%2Cwhat-you-can-do-in-basic-tv%2Cwhat-you-cant-do-in-basic-tv

Difference of Home screen

The Home screen of Basic Mode has only two rows and without tabs. The first **Home** row contains **Watch display**, **Display Guide**, **Sources** and **Dashboard** icons for display 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 Full Mode 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.

1.4. 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.

2. Setting Up

2.1. Read the Safety Instructions

Please read the safety instructions before you use the display.

To read the instructions, in **Help > User manual**, press the color key  **Keywords** and look up **Safety Instructions**.

2.2. Display Stand and Wall Mounting

Display Stand

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

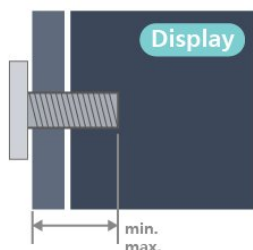
Use the product type number of the display to look for the **Quick Start Guide** to download.

Wall Mounting

Your display 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 display.

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



- 50PUH82x8
100x200, M6 (min.: 10mm, max.:20mm)
- 55PUH82x8
200x300, M6 (min.: 13mm, max.:20mm)
- 65PUH82x8

300x300, M6 (min.: 16mm, max.:20mm)

- 70PUH82x8

300x300, M8 (min.: 12mm, max.:20mm)

Caution

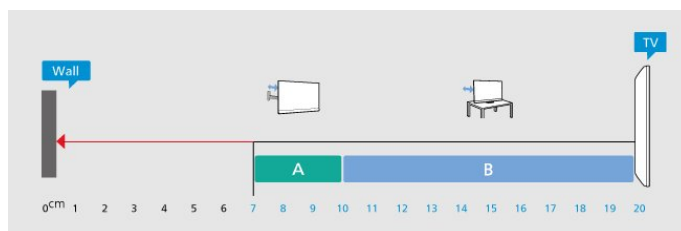
Wall mounting the display requires special skills and should only be performed by qualified personnel.

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

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

2.3. Tips on Placement

- Position the display where light does not shine directly on the screen.
- The ideal distance to watch display is 2 to 5 times its diagonal screen size. When seated, your eyes should be level with the centre of the screen.
- Recommended distance to the wall:
 - A. When wall mounted, position the display from 7 to 10 cm away from the wall.
 - B. When display is with stand, position the display from 10 to 20 cm away from the wall depends on the size of stand.

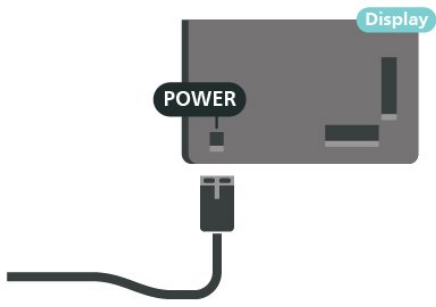


Note:

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

2.4. Power Cable

- Insert the power cable into the **POWER** connector on the back of the display.
- 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.



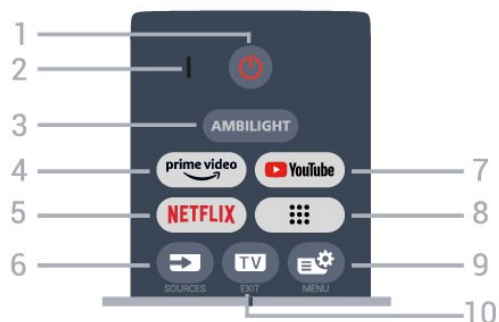
Although this display has a very low standby power consumption, unplug the power cable to save energy if you do not use the display for a long period of time.

For more information, in **Help**, press the color key **Keywords** and look up **Switching On** for more information on switching the display on or off.

3. Remote Control

3.1. Key Overview

Top



1 - (Standby / On)

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

2 - VOICE microphone

3 - AMBILIGHT

Not support.

4 - prime video

To launch the Amazon prime video App.

5 - NETFLIX

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

- To launch the Netflix, press **NETFLIX** to open Netflix immediately with the display switched on or from standby.

www.netflix.com

6 - (SOURCES)

To open or close the Sources menu.

7 - YouTube

To launch the YouTube App.

8 - Apps

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

9 - (Quick Menu/MENU)

To open the Quick Menu with typical display functions. Hold the **MENU** key to show the Gaming control bar when game signal detected and game mode enabled.

10 - (EXIT)

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

Middle



1 - OK key

To confirm a selection or setting. To open the program list while watching display.

2 - (Back)

To switch back to the previous program you selected.

To return to previous menu.

To go back to the previous App/Internet page.

3 - (OPTIONS) / (INFO)

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

4 - Color keys

Direct selection of options. Blue key , opens **Help**.

5 - Arrow / navigation keys

To navigate up, down, left or right.

6 - (Google Assistant™)

To launch the Google Assistant™.

7 - (HOME)

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

8 - Playback

- Play , to playback.
- Pause , to pause playback
- Stop , to stop playback
- Rewind , to rewind
- Fast forward , to go fast forward

Bottom



1 - (Guide) / (List)

To open or close the Display Guide. Long press to open the program list.

2 - (Volume)

Press + or - to adjust the volume level.

3 - Number keys

To select a program directly.

4 - AD

To access the Audio Description and toggle to switch on and off.

5 -

Press + or - to switch to the next or previous in the list. To open the next or previous page in Text/Teletext.

6 - (Mute)

To mute the sound or to restore it.

7 - (DASHBOARD)

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

3.2. Pair Your Remote Control to Display

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

- 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 display with the remote control.

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

Note:

- 1 - Once the remote control has entered pairing mode successfully, the blue LED indicator ring around the microphone on the front side of the remote control starts blinking.
- 2 - The remote control must be kept close to the display

(within 1m distance) during pairing in order to ensure success.

3 - If the display 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 display with the remote control again.

You can press **Home + Back** key or long press the **PAIR (SOURCES)** key (approximate for 3 seconds) for pairing.

Alternatively, go to **Settings > Remote & 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 & accessories > Remote control settings > Remote control info

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

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

Check available remote control software for updates.

3.3. 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 display 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.

3.4. IR Sensor

The display 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 display.

Warning

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

3.5. Batteries and Cleaning

Replace batteries

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

If the display does not react on a key press on the remote control, the batteries might be empty.

To replace the batteries, open the battery compartment on the back of the remote control.

1 - Slide the battery door in the direction shown by the arrow.

2 - Replace the old batteries with new batteries. Make sure the + and the - ends of the batteries line up correctly.

3 - Reposition the battery door and slide it back until it clicks.

- Remove the batteries if you are not using the remote control for a long time.
- Safely dispose of your old batteries according to the end of use directions.

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. Switching On and Off


4.1. On or Standby

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


Switch on

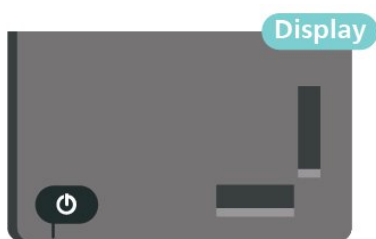
Press  on the remote control to switch the display on. You can also press the small joystick key on the bottom of the display to switch the display on in case you can't find the remote control or its batteries are empty.

Reboot

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

Switch to standby

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



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

To switch off the display 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.

4.2. Keys on Display

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

To open the basic menu:

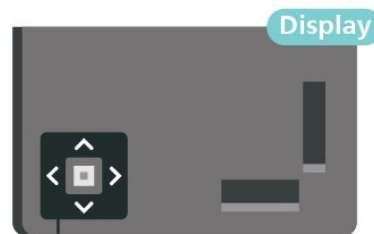
1 - With the display switched on, press the joystick key on the bottom of the display to bring up the basic menu.

2 - Press left or right to select  Volume,  Program or  Sources. Select  Demo, to start a demo movie.

3 - Press up or down to adjust the volume or go through the list of sources. Press the joystick key to start the demo movie.

4 - The menu will disappear automatically.

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



5. Connect Devices

5.1. About Connections

Connectivity Guide

Always connect a device to the display 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 display 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 display automatically switches to the ideal display settings when you switch to this device in the Sources menu.

Internet

Data input from the Internet.

LAN transfer rate:

Supports networks with a speed up to 100/10 Mbps.

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) display 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. In Help, press the color key **Keywords** and look up **HDMI Ultra HD**.

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

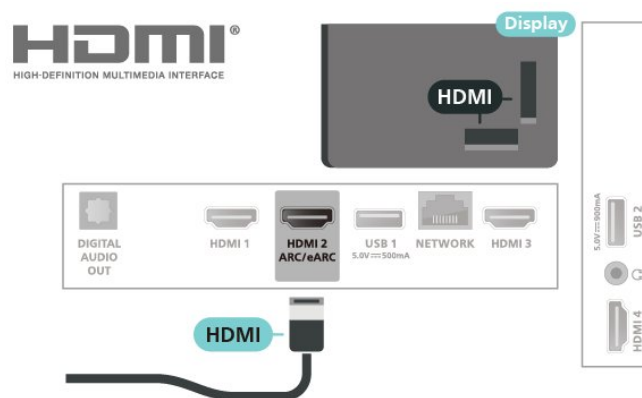
Only **HDMI 2** on the display supports **HDMI ARC** (Audio Return Channel) and **HDMI eARC**.

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 display. With the HDMI ARC connection, you do not need to connect the extra audio cable that sends the sound of the display picture to the HTS. The HDMI ARC connection combines both signals.

You can use any HDMI connection on this display to connect the HTS but ARC is only available for 1 device/connection at a time.

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 display, you can operate them with the display remote control. EasyLink HDMI CEC must be switched on on the display and the connected device.

Switch on EasyLink

Settings > Channels & Inputs > Inputs > EasyLink > EasyLink > On.

Operate HDMI CEC-compatible devices with display remote control

Settings > Channels & Inputs > 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 display

⚙ **Settings > Channels & Inputs > Inputs > EasyLink > EasyLink auto device off.**

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

Power on the display with HDMI devices

⚙ **Settings > Channels & Inputs > Inputs > EasyLink > EasyLink auto display on.**

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

Power on the HDMI sound system with display

⚙ **Settings > Channels & Inputs > Inputs > EasyLink > EasyLink auto ARC on.**

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

EasyLink 2.0 sound control

⚙ **Settings > Channels & Inputs > Inputs > EasyLink > EasyLink 2.0 sound control.**

Select **On** to control the sound settings of the HDMI sound system. You can adjust these settings via **Frequent settings** or ⚙ **Settings > Display & Sound > Sound**. This is only applicable with EasyLink 2.0 compliant HDMI sound system.

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

To avoid the malfunctioning of such a device, you can adjust **HDMI Ultra HD** setting when display is in the HDMI source. Recommended setting for legacy device is **Standard**.

Set the signal quality for each HDMI connectors

⚙ **Settings > Channels & Inputs > Inputs > INPUT DEVICES > HDMI (port) > HDMI Ultra HD > Standard, Optimal, or Optimal (Auto Game) / Optimal (Auto Game xxxHz Pro).**

To change the settings, switch to the HDMI source first. 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 (50Hz or 60Hz) 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
- 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**, **Optimal (Auto Game)**, or **Optimal (Auto Game 120Hz Pro)**.

Select **Standard** if the picture or sound are distorted.

• Set **Optimal (Auto Game)** to enable display to support the HDMI Variable Refresh Rate* and FreeSync Premium* video (on some models only) and set **Sound** style to **Game** whenever it is informed by the HDMI device connected to display.

• Select **Optimal (Auto Game xxxHz Pro)** to enable HDR10+ gaming and 120Hz high frame rate gaming (including 48-120Hz variable refresh rate) with maximum input resolution up to 3840 x 2160p (**HDMI 1** and **HDMI 2** only) and 1920 x 1080p. When video input frame rate is more than 60Hz (include max frame rate 120Hz VRR video), the display will automatically set **Ultra motion clarity** enabled. In this mode, display supports high refresh rate with effective display vertical resolution limited to 1080p. It is recommended to use with new gaming computer or console.

* With HDMI Variable Refresh Rate and FreeSync Premium supported, the display changes its refresh rate in real time according to the frame rate signal on top of all features supported in **Optimal (Auto Game)** to synchronize with every picture. It is applied to reduce the lag, judder and frame tearing for better gaming experience.

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 display playing such content for the first time. HDR10+ content is supported only when **HDMI Ultra HD** is set to **Optimal** or **Optimal (Auto Game 120Hz Pro)**. Dolby Vision content is supported only when **HDMI Ultra HD** is set to **Optimal**, **Optimal (Auto Game)**, or **Optimal (Auto Game 120Hz Pro)**.

5.2. Home Theatre System - HTS

Connect with HDMI ARC/eARC

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

HDMI ARC

Only **HDMI 2** on the display can offer the Audio Return Channel (ARC) signal. Once you have connected the Home Theatre System, the display 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 display to **Stereo**.

Select **⚙ Settings > Display & Sound > Audio out > Digital out format**.

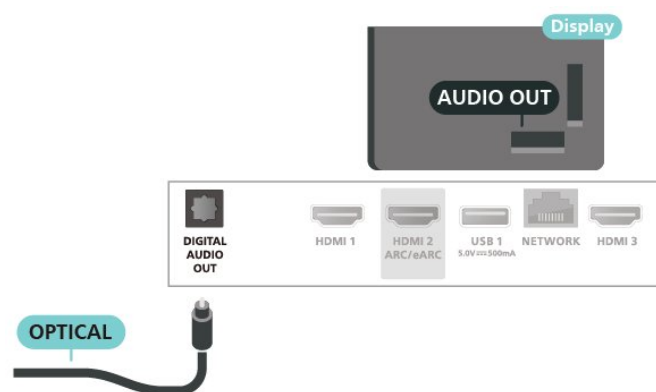
No sound

If you cannot hear the sound from the display 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.

5.3. 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 display to the HTS.



5.4. Smartphones and Tablets

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


5.5. Blu-ray Disc Player

Use a **High speed HDMI** cable to connect the Blu-ray Disc player to the display.






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

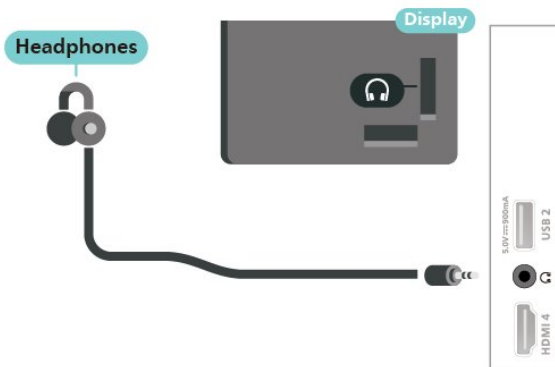
In **Help**, press the color key **— Keywords** and look up **EasyLink HDMI CEC** for more information.

5.6. Headphones

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

To adjust the volume:

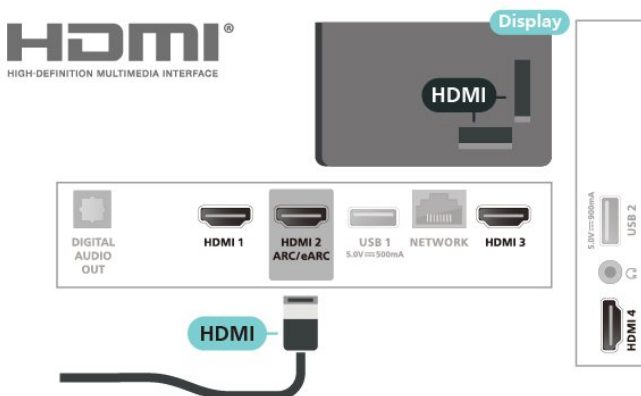
- 1 - Press  **Volume**, select the headphones icon by arrows  (left) or  (right).
- 2 - Press the arrows  (up) or  (down) to adjust the volume.



5.7. Game Console

HDMI

For best quality, connect the game console with a High speed HDMI cable to the display.



5.8. USB Keyboard

Connect

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


Use one of the **USB** connections to connect.

Configure

Install the keyboard

To install the USB keyboard, switch on the display and connect the USB keyboard to one of the **USB** connections on the display. When the display 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

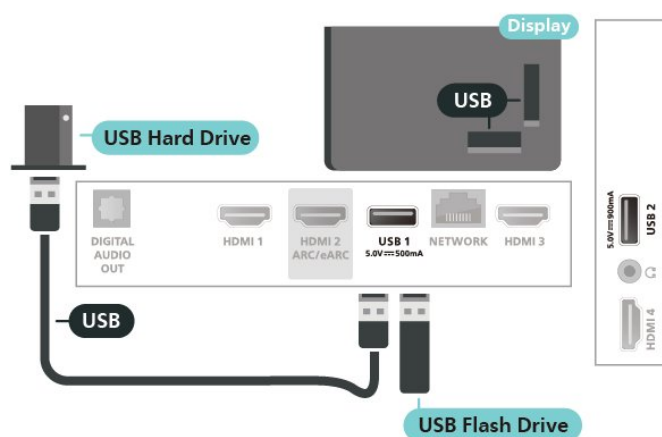
- Tab and Shift + Tab = Next and Previous
- Home = scroll to the top of the page
- End = scroll to the bottom of the page
- Page Up = jump one page up
- Page Down = jump one page down
- * = fit the web page to the screen width

5.9. 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 display while the display is

switched on.



The display 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 **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 display will downscale the resolution to Ultra HD if the resolution of the photo is higher.

For more information on watching or playing content from a USB storage device, in **Help**, press the color key **Keywords** and look up **Photos, Videos and Music**.

5.10. Photo Camera

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

Use one of the **USB** connections on the display 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.

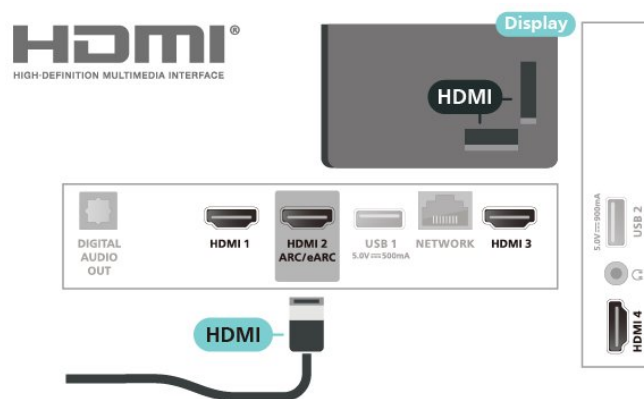
Ultra HD on USB

You can view photos in Ultra HD resolution from a connected USB device or flash drive. The display 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.

For more information on viewing photos, in **Help**, press the color key **Keywords** and look up **Photos, Videos and Music**.

5.11. Camcorder

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



5.12. Computer

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

* Note for Nvidia Graphics card users:

If you connect your computer to display via HDMI, Nvidia card may automatically output Variable Refresh Rate (VRR) video to display when display's **HDMI Ultra HD** setting is **Optimal (Auto Game)** or **Optimal (Auto Game 120Hz Pro)**. Please always ensure to turn off VRR function in graphics card before you change display's **HDMI Ultra HD** to **Optimal** or **Standard**, the display UI selection **Optimal** or **Standard** will turn off VRR support in display.

* Note for AMD Graphics card users:

If you connect your computer to display 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.

6. Connect Your Display

6.1. Network and Internet

Home Network

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

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

Connect to Network

Wireless Connection

What You Need

To connect the display 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 & Internet > Wi-Fi > On/Off.

Make the Connection

⚙ Settings > Network & 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 802.11b/g/n/ac devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the display'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

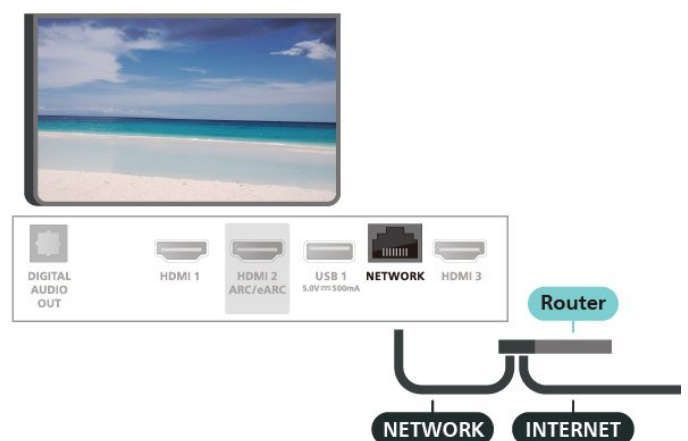
- If the connection fails, you can check the DHCP (Dynamic Host Configuration Protocol) setting of the router. DHCP should be switched on.

In Help, press the color key **Keywords** and look up **Troubleshooting** for more information.

Wired Connection

What You Need

To connect the display 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 & 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 & Internet > Switch On with Wi-Fi (WoWLAN).**

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

Switch on with Chromecast

⚙ **Settings > Network & Internet > Switch on with Chromecast.**

Set it **On** to allow this display to be switched on from a Chromecast app on your mobile device. Power consumption of the display 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 & Internet > Digital Media Renderer - DMR.**

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

Use your existing **Google Account** to sign in to Google on your display. 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 display installation, you can always sign in later.

To sign in after you did the display installation:

- 1 - Select ⚙ **Settings > Account & 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.

6.2. Google Account

Sign In

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

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

Sign In

7. Internet

7.1. Start Internet

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

- Some plug-ins (e.g. to view pages or videos) are not available on your display.
- 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.

8. Sources

8.1. 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 display or open the content of a connected USB storage device. You can switch to your connected devices to watch their program, 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 display will show the program or content of the device.

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

9. Quick Menu and Frequent Settings

In the **Quick Menu** and **Frequent settings**, you will find a quick way to access display 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.

* Note: **Quick Menu** and **Frequent settings** are not available on third party display apps.

10. Display and Sound

10.1. 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.

Picture Style

Select a style

⚙ **Settings > Display & Sound > Picture > Picture style.**
Alternately, select from **🏠 HOME > Dashboard > Picture > 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
- Movie - 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.

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

- HDR Personal
- HDR Crystal Clear
- HDR Home Cinema
- HDR Movie
- HDR Game

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

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

Restore Picture style

⚙ **Settings > Display & Sound > Picture > Restore picture style.**

Select to restore the picture style.

Auto Film Picture style

Preferred Film Picture style

⚙ **Settings > Display & Sound > Picture > Auto Film Picture style > Preferred Film Picture style.**

You can select which **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 & Sound > Picture > Picture style.**

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

Switch on/off Auto Film Picture style

⚙ **Settings > Display & 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 & Sound > Picture > Auto Film Picture style > Preferred**

Film Picture style.

More Picture Settings

Contrast

Brightness

Ambient Light Level Optimization

⚙️ Settings > Display & Sound > Picture > Contrast > Brightness > Ambient light level optimization.

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

Backlight Contrast

⚙️ Settings > Display & Sound > Picture > Contrast > Brightness > Backlight contrast.

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

Contrast Modes

⚙️ Settings > Display & Sound > Picture > Contrast > Brightness > Contrast mode.

Select **Normal**, **Optimized for picture**, or **Optimized for energy savings** to set the display automatically reduces the contrast, for best power consumption or for best picture experience, or select **Off** to switch off the adjustment.

Video Level

⚙️ Settings > Display & Sound > Picture > Contrast > Brightness > Video level.

Adjust the video contrast level.

Dark Details

Gamma

⚙️ Settings > Display & 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 optimization** or **Dark detail optimization** is set to **On**.

Black Level

⚙️ Settings > Display & 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

Dynamic Enhancement Level

⚙️ Settings > Display & Sound > Picture > Contrast > Contrast enhancement > Dynamic enhancement level.

Select **Off**, **Maximum**, **Medium**, or **Minimum** to set the level at which the display automatically enhances the details in the dark, middle and light areas of the picture.

Note: Not available when HDR signal is detected. Not available in **Monitor** mode.

HDR Control

HDR Tone Mapping

⚙️ Settings > Display & Sound > Picture > Contrast > HDR control > HDR tone mapping.

Set the method used in HDR tone mapping processing. **Off**, **Off/HGiG** is to disable display internal tone mapping or follow HGiG (HDR Gaming Interest Group) gaming HDR standard to matching gaming device. **Standard** is to follow HDR standard metadata.

Note: Available when HDR10 or HDR10+ signal detected.

HDR Effect Settings

⚙️ Settings > Display & Sound > Picture > Contrast > HDR control > HDR10 effect / HDR10+ effect / HLG effect.

When HDR10 / HDR10+ / HLG signal detected and **HDR tone mapping** is not set to **Off** or **Off/HGiG**, you can adjust the HDR effect level to **Minimum**, **Medium** or **Maximum** for each type of HDR contents.

Color

⚙️ Settings > Display & Sound > Picture > Color.

Saturation

⚙️ Settings > Display & Sound > Picture > Color >

Saturation.

To adjust the value of saturation for the colors.

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

Adjust the color enhancement

⚙ **Settings > Display & Sound > Picture > Color > Color enhancement.**

Select **Maximum**, **Medium**, **Minimum** or **Off** to set the level of the color intensity and the details in bright colors.

Note: not available when Dolby Vision signal is detected and picture style is **Monitor** / **HDR Monitor**

Adjust the wide color gamut

⚙ **Settings > Display & Sound > Picture > Color > Wide color gamut.**

To switch on/off of wide color gamut. Applicable to some display models only.

Adjust color temperature

⚙ **Settings > Display & Sound > Picture > Color > Color temperature > Whitepoint.**

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

⚙ **Settings > Display & Sound > Picture > Color > Color temperature > 2 whitepoint alignment or 20 whitepoint alignment.**

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

Color control

⚙ **Settings > Picture > Advanced > Color > Color control.**

Color control setting is only available when **Color enhancement** is set to **Off**. To adjust or reset to default value of **Hue**, **Saturation** and **Intensity** for the color **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 & Sound > Picture > Sharpness > Enhancement.**

To adjust the sharpness value of the picture.

Texture enhancement (AI SDR)

⚙ **Settings > Display & 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 Clean

Noise reduction

⚙ **Settings > Display & Sound > Picture > Picture clean > 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.

MPEG Artefact Reduction

⚙ **Settings > Display & Sound > Picture > Picture clean > 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.

Restore picture style

Reset the picture style setting personal

⚙ **Settings > Display & Sound > Picture > Restore picture style**

Reset all settings to personal settings.

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 & Sound > Picture**.
- 2 - Select **Quick Picture Setting**, and press **OK**.
- 3 - Use the navigation keys to select your preferable source, sharpness, contrast, color and motion settings.
- 4 - Select **Finish** or press ◀ (left) repeatedly if necessary, to close the menu.

10.2. 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 & 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 & 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 steaming, Android app application, gaming mode, etc.

10.3. Sound

Sound Style

Select a style

Settings > Display & 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
- **Dialog** - 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 & Sound > Sound > Personal settings** to change personal sound settings.

Restore personal settings

Settings > Display & Sound > Sound > Personal settings > Restore personal mode.

Select to restore personal sound settings.

Personal Settings

Speaker virtualizer

Settings > Display & 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.

Clear Dialog

Settings > Display & Sound > Sound > Personal settings > Clear dialog.

Select **On** to get an improved sound quality for speech program.

AI Equalizer

Settings > Display & 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 & Sound > Sound > Personal settings > Custom AI Equalizer.**

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

Restore personal settings

⚙️ **Settings > Display & Sound > Sound > Personal settings > Restore personal mode.**

Select to restore personal sound settings.

Display Placement

Display placement

⚙️ **Settings > Display & Sound > Sound > Display placement.**

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

DTS Play-Fi

DTS Play-Fi Wireless Surround

DTS Play-Fi

⚙️ **Settings > Display & Sound > Sound > DTS Play-Fi.**

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

Note: Settings for Multiroom Display 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 Display that supports DTS Play-Fi
- DTS Play-Fi compatible device
- DTS Play-Fi app on your Philips Display
- 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 display.
- 3 - On your Philips Display, 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 display, you can select the devices from device list and adjust the volume.

5 - Now you can start to stream audio from your display to multiple DTS Play-Fi devices.

DTS Play-Fi Wireless Surround

With Play-Fi app on your display, you can set up surround sound with display speakers, soundbar and subwoofer.

- 1 - Launch DTS Play-Fi App on display
- 2 - Move to **DTS Play-Fi Wireless Surround** tab and select '**Begin Setup...**'.
- 3 - Follow the on-screen instruction to set display speakers and DTS Play-Fi compatible devices as a surround sound system.

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 Display Speakers

- You may output display audio to a pair of Play-Fi speakers such as the TAW6205, TAW6505 or TAFW1.
- Display speakers will be muted when connected to Play-Fi speakers.
- Use the Play-Fi app on display 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 display 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 **Display+ 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 display model and Play-Fi speakers in use.

Mimi Sound Personalisation settings

Mimi Sound Personalization settings

⚙ **Settings > Display & Sound > Sound > Mimi sound personalisation.**

Mimi Sound Personalization

Mimi Sound Personalization is a technology that adapts the audio signal of the display in real time to the user's hearing ability. It restores details in the audio signal that would otherwise not be heard by users with less-than-perfect hearing, so that they hear more and experience better sound, thereby enhancing the display viewing experience.

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

Open Mimi Sound Personalization under ⚙ **Settings > Display & Sound > Sound > Mimi sound personalisation > Configure.** Create your Hearing ID with a short hearing test with the Mimi Hearing Test app, or create a profile based on your year of birth. The Hearing ID can be added to the display with a QR code, which will sync your Hearing Test app with the display.

EasyLink 2.0

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

⚙ **Settings > Display & Sound > Sound > EasyLink 2.0.**

You can adjust the individual sound settings of the HDMI sound system via **Frequent settings** or **Settings > 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 **General settings > EasyLink**.

Select sound style

⚙ **Settings > Display & 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 display for the feature.

Adjust bass level

⚙ **Settings > Display & Sound > Sound > EasyLink 2.0 > Bass.**

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

Adjust treble level

⚙ **Settings > Display & Sound > Sound > EasyLink 2.0 > Treble.**

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

Custom Equaliser

⚙ **Settings > Display & 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 display for the feature.

Surround Sound

⚙ **Settings > Display & 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 & 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 & Sound > Sound > EasyLink 2.0 > Height speakers.**

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

- **Auto** - Dynamic movement follow contents.
- **On** - Always elevated.

- Off - Flat position.

Select sound stage

⚙ **Settings > Display & Sound > Sound > EasyLink 2.0 > Sound stage.**

Select a listening experience. The setting is only available when connected device is compatible with display 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 dialog.

Reset all to default

⚙ **Settings > Display & Sound > Sound > EasyLink 2.0 > Reset all to default.**

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

Room Calibration

Room calibration

⚙ **Settings > Display & Sound > Sound > Room calibration.**

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

You need to pair your remote control with the display before starting the setup and make sure the display **Audio out** setting is **Display 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 display 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 display, this can take several seconds.
- 4 - Once your display speakers are successfully calibrated, select **Test** to listen to the sound before and after the display 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, display shall return to the Settings menu. Now go to ⚙ **Settings > Display & Sound > Sound > Room calibration** and select **Apply calibration** to tune the audio output from display speakers.

Advanced Sound Settings

Volume Control

Auto volume

⚙ **Settings > Display & 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 & Sound > Sound > Advanced > Delta volume.**

The Delta volume setting can be used to adjust to balance the sound level difference between the program and the HDMI source input. Press the **Arrow / navigation keys** to adjust the delta value for display 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 **Display speakers** or **HDMI sound system**.

Dolby Atmos Notification

⚙ **Settings > Display & Sound > Sound > Dolby Atmos notification.**

Switch **On** or **Off** the Dolby Atmos notification when Dolby Atmos content begins to play on your display.

10.4. Audio Output

Speakers and eARC

Audio out

⚙ **Settings > Display & Sound > Audio out.**

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

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

- If you select **Display speakers off**, you permanently switch off the display speakers.
- If you select **Display speakers**, the display speakers are always on.

With an audio device connected with HDMI CEC, select **HDMI sound system**. The display will switch off

the display 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 & 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 & Sound > Audio output > Digital out format.**

Set the audio out signal of the display 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 & Sound > Audio output > Digital out levelling.**

Adjust the loudness level from device which is connected to digital audio output (SPDIF) or HDMI.

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

Digital out delay

⚙ **Settings > Display & 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 & Sound > Audio output > Digital out offset.**

If you cannot set a delay on the Home Theatre System, you can set the display 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 display picture. You can set the value in steps of 5ms. Maximum setting is 60ms.

11. Apps

11.1. 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 display offer specific functions for an enriched display 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 display.

To install apps from the Google Play™ Store, the display 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.

11.2. Google Play

Movies and Display

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

What You Need

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

To rent or buy a movie or display show:

- 1 - Press **HOME** and select **Apps** tab.
- 2 - Select **Google Display** app and open it.
- 3 - Select a movie or display 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 display show:

- 1 - Press **HOME** and select **Apps** tab.
- 2 - Select **Google Display** app and open it.
- 3 - Select the movie or display 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 & Display app, press **Back** repeatedly or press **TV EXIT**.

* Note: If **Google Display** 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 favorite music on display.

You can buy new music on your computer or mobile device. Or, on your display, 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 display must be connected with the Internet
- you must sign in with your Google Account on display
- 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 display. 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 display must be connected with the Internet
- you must sign in with your Google Account on display
- 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 display. 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 **TV 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 display must be connected with the Internet
- you must sign in with your Google Account on display
- 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 **TV 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 **TV 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 display, you must add a form of payment - a credit card (outside the United States) - to your Google Account. When you purchase a movie or display 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 display.
- 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.

11.3. 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 - Alternately, you can go to **Settings > Apps > See all apps** or **Show system apps** to select an app to open.
- 4 - To stop an app, press **Back** or press **TV EXIT** or stop the app with its dedicated exit/stop button.

11.4. 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 display. 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 display. 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

12. System

12.1. Accessibility

⚙ Settings > System > Accessibility.

With **Accessibility** switched on, the display is prepared for use for the deaf, hard of hearing, blind or partially sighted people.

High contrast text

⚙ Settings > System > Accessibility > High contrast text.

Turn on to make texts displayed with higher contrast for easier reading.

Text to speech

⚙ Settings > System > Accessibility > Text to speech.

Set to convert the text into speech for blind or partially sighted people.

Accessibility shortcut

⚙ Settings > System > Accessibility > Accessibility shortcut.

Quick access to Accessibility settings.

There are more services provided by Google, e.g., **Captions**, **TalkBack**, **Switch Access** to help your display more accessible. To find more information about the services please visit www.support.google.com/googletv/answer/10070337

12.2. About

System Software Update

Update from Internet

If the display is connected to the Internet, you may receive a message to update the display 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 display will switch off and on again. This might happen several times. The update can take a few minutes. Wait until the display picture comes back up. Do not press the power switch **⏻** on the display 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 display 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 display or remote control.
- 5 - When the update is done, the display will return to the program you were watching.

Update from USB

It might be necessary to update the display software.

You need a computer with a high-speed Internet connection and an USB flash drive to upload the software on the display. Use an USB flash drive with at least 2Gb free space. Make sure that write protection is switched off.

To update the display software:

- 1 - Select **⚙ Settings > System > About > System update**.
- 2 - Select **USB** and press **OK**.

Identify the display

- 1 - Insert the USB flash drive into one of the USB connections of the display.
- 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 display software

- 1 - Insert the USB flash drive into the display again. The update starts automatically.
- 2 - A software update can take several minutes. Do not press the **⏻** key on the display or remote control. Do not remove the USB flash drive.
- 3 - When the update is done, the display will return to the program you were watching.

If a power cut occurs during the update, never remove the USB flash drive from the display. When the power

returns, the update will continue.

To prevent an accidental update of the display software, delete the autorun.upg file from the USB flash drive.

Automatic Software Update

To switch on Automatic software update to update your display software automatically. Leave the display 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 display is powered ON and installed 15min after the display 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 display.

To view the software update history:

- 1 - Select **⚙ Settings > System > About > System update > View software update history**.
- 2 - The software update history on this display will be listed.

Reset

Rinstall display

⚙ Settings > System > About > Reset > Factory reset.

Reinstall and redo the complete display installation.

Reset all settings value to original display settings

⚙ Settings > System > About > Reset > Factory settings.

Reset all settings to factory settings.

Status

Display display status information

⚙ Settings > System > About > Status.

To display the display status about IP address, Device, MAC address, Bluetooth® address, Serial Number, etc.

Legal Information

Open Source Software

This display 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

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README for the source code of the parts of TP Vision Europe B.V. display 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. display, 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.

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System Information

To view the current display software version:

- 1 - Select **⚙ Settings > System > About > Model, Android display OS version, Android security patch level, Kernel version, Android display OS build, SW version, Netflix ESN, Nagra device ID**.
- 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.

12.3. Date and Time

⚙ Settings > System > Date & Time.

Automatic date & time

⚙ Settings > System > Date & Time > Automatic date & time.

Set to use network-provided time.

Set date

⚙ Settings > System > Date & Time > Set date.

Set current date.

Set time

⚙ Settings > System > Date & Time > Set time.

Set current time.

Set time zone

⚙ Settings > System > Date & Time > Set time zone.

Set current time zone.

Use 24-hour format

⚙ Settings > System > Date & Time > Use 24-hour format.

Set to use 24-hour format to display the time.

12.4. Language

Change the language of the display menu and messages

⚙ Settings > System > Language.

Select the language to display display menu and messages.

12.5. USB Keyboard Settings

Set the keyboard layout for installed USB keyboard

⚙ Settings > System > Keyboard > USB keyboard settings.

Connect the USB keyboard to one of the USB connections on this display. When the display detects the keyboard for the first time, you can select your keyboard lay-out and test your selection.

12.6. Storage

Internal shared storage

You can see how much storage space - the internal display 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.

12.7. 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.

12.8. Power and Energy

Set the Power on behavior

⚙ Settings > System > Power & Energy > Power on behavior.


Set the display stay on Home screen or on Last input when power on the display.


Set Energy saver


⚙ Settings > System > Power & Energy > Energy saver.

Set the time to turn off display display automatically to save energy. You can set the time to **15 minutes, 30 minutes, 1 hour, 4 hours, 8 hours, 12 hours, 24 hours, or Never.**


Set screen off to save energy consumption

 **Quick Menu / MENU > Frequent Settings > Screen off.**

Alternatively, go to  **Settings > System > Power & Energy > Screen off.** You can also press **+ OPTIONS** key to access **Screen off** under display and HDMI sources.

Select **Screen off**, the display screen is switched off. To switch the display screen back on, press any key (except **AMBILIGHT***,  **Volume +** or **-**, and **navigation** keys) on the remote control.

Set the display to switch to Standby automatically after a preset time

 **Quick Menu / MENU > Frequent Settings > Sleep timer.**

Alternatively, go to  **Settings > System > Power & Energy > Sleep timer.**

Display switches to standby mode automatically after a preset time. You may stop the timer when the notification pop-up at last two minutes.

Set display switch off timer

 **Settings > System > Power & Energy > Switch off timer.**

Press the **Arrow / navigation keys** to adjust the value. The value 0 (Off) deactivates the automatic switch off.

Select Switch off timer, the display switches off automatically to save energy.

- Display switches off if receiving a display signal but you don't press a key on the remote control during a 4 hour period.
- Display switches off if not receiving a display signal nor a remote control command for 10 minutes.
- If you use the display as a monitor or use a digital receiver to watch display (a Set-Top Box - STB) and you do not use the remote control of the display, you should deactivate this automatic switch off, to set the value to 0.

12.9. Cast

What You Need

If an app on your mobile device has Google Cast, you can cast your app on this display. On the mobile app, look for the Google Cast icon. You can use your mobile device to control what's on display. Google Cast works on Android and iOS.

Your mobile device must be connected to the same Wi-Fi home network as your display.

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 Display

To cast an app to the display screen:

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

12.10. System Sounds

Settings for system sound

 **Settings > System > System sounds.**

Enable or disable the system sounds.

12.11. 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 programs.

Note:

If you forgot your PIN code, you can override the current one by using the code **8888** and entering a new one.

12.12. Retail Mode Settings

Home or Shop

Select the location of your display

⚙️ 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 display 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.

Set Logos and banner

⚙️ Settings > System > Retail mode settings > Shop setup > Logos and banner.

Set to display **Feature logos** or **Promotional Banner**, or **Off** to turn off.

12.13. Restart

⚙️ Settings > System > Restart

Note:

- Disconnect the external USB hard disc before rebooting.
- Wait for few seconds, the display restart automatically.

This will remove unnecessary data and information in the memory.

If your display runs low performance when using Apps, such as the video and audio are not synchronised or the App is running slow, reboot your display for better performance.

13. Remote and Accessories

13.1. Bluetooth® On or Off

Pair Accessory

Position the Bluetooth® device within a distance of 5 meters from the display. Read the user manual of the device for specific information on pairing and on wireless range. Make sure the Bluetooth® setting on display is switched on.

Once a Bluetooth® device is paired, you can select it to play the display 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 display:

- 1 - Switch on the Bluetooth® device and place it within range of the display.
- 2 - Select **Settings > Remote & accessories > Pair accessory**.
- 3 - Select **Search** and press **OK**. Follow the instructions on screen. You will pair the device with the display and the display 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 & 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 & 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 & 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 & 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.

13.2. Remote Control

Pair Remote Control

Pairing or pairing again

When you start the initial display installation, the display 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 & 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 & 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 & 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 and position your remote control within one meter from display for updating software.

14. Videos, Photos and Music

14.1. 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 display 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 display. The display shows your files and folders as they are organised by the Media Server or as they are structured on your computer or NAS.

The display 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**.

14.2. Most Popular Menu and Last Played Menu

View most popular files or clear the list

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and select **★ Most popular**.
- 3 - Select one of the file and press **OK** to view files or press **Clear all** to clear the list.

View last played files

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and select **▶ Last played**.
- 3 - Select one of the file and press **OK** to view files or press **Clear all** to clear the list.

14.3. 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 display switched on, plug in a USB flash drive or a USB Hard Drive to one of the USB connections. The display 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 - Press **Play all** to play all files in the USB folder or press **Mark favorite** to add the selected folder to favorite menu - **♥ Favorites**.
- 5 - To stop playing videos, photos and music, press **TV EXIT**.

14.4. Play your Videos

Play Videos

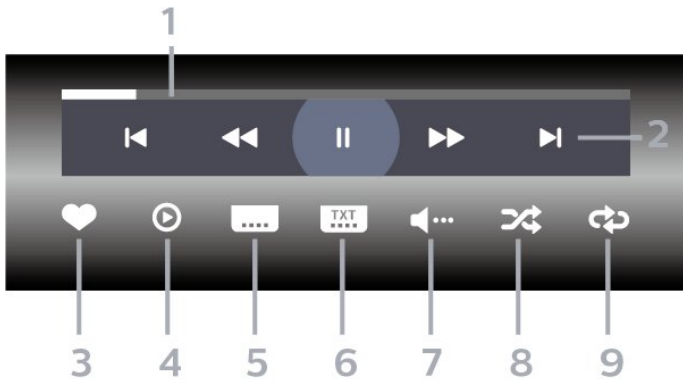
Open video folder

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **➤** (right) to select the USB device you need.
- 3 - Select **Videos**, you can press **Mark favorite** to add the video folder to favorite menu - **♥ Favorites**.

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, you can press **Play all** to play all files in the folder or press **Mark as favorite** to add the selected video to favorite menu - **♥ Favorites**.

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 favorites
- 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:

- **List/Thumbnails** – List or thumbnails views
- **Shuffle** – Play your files in a random order
- **Repeat** – Plays all videos in this folder once or continuously

Playing video files:

- **Mark as favorites** – Mark the video as favorites
- **Subtitle setting** – Set subtitle font size, color, position, etc.

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.
- 3 - Select **Photos**, you can press **Mark favorite** to add the photo folder to favorite menu.

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 photos, you can press **Slide show** to play all files in the folder or press **Mark favorite** to add the selected photo to favorite menu - **♥ Favorites**.

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 favorites
- 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

14.5. View your Photos

Photo Options

Browse photo files:

- **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 photo information

Playing photo files:

- **Mark as favorites** – Mark the photo as favorites

- **Info** – Show photo information

View 360 Photos

Open 360 Photos folder

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **➤** (right) to select the USB device you need.
- 3 - Select **360 Photos**, you can press **Mark favorite** to add the 360 photos folder to favorite menu.

View a 360 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 **360 Photos** and select one of photos, you can press **Play All** to play all files in the folder or press **Mark Favorite** to add the selected photo to favorite menu - **♥ Favorites**.

Control bar



1 - Playback control bar

- **⏮**: Jump to the previous photo in a folder
- **⏭**: Jump to the next photo in a folder
- **⏮⏮**: Rewind playback at 2x, 4x, 32x speed
- **⏭⏭**: Fast forward

⏮: Pause the playback

2 - Mark as favorites

3 - Play one / Play all: play one photo or play all photos in this folder.

4 - Manual mode / Auto mode: when the 360 player is started, it will auto pan the selected 360 photo from left to right (0 to 360 degrees) in 360 view. When manual mode is entered, the 360 player will stop auto panning/rotating to allow manually panning/rotating with the remote control keys.

5 - Little Planet view: Little Planet is an alternate and fun view of 360 photo. When Little Planet view is started, the 360 photo will be rendered in a wrapped around view like a planet.

6 - Shuffle: play your files in a random order.

7 - Repeat: plays all photos in this folder once or continuously.

8 - Stop the music playing in the background.

* Note: When a 360 photo file is browsed or viewed in regular photo viewer, it will be treated as regular picture and displayed as equirectangular (or "flatten") when opened.

360 Photo Options

Browse 360 photo files:

- **List/Thumbnails** – List or thumbnails views
- **Shuffle** – Play your files in a random order
- **Repeat** – Play your files once or continuously
- **Stop music** – Stop background music playing

Playing 360 photo files:

- **Reset view** – Reset the angle of view

14.6. Play your Music

Play Music

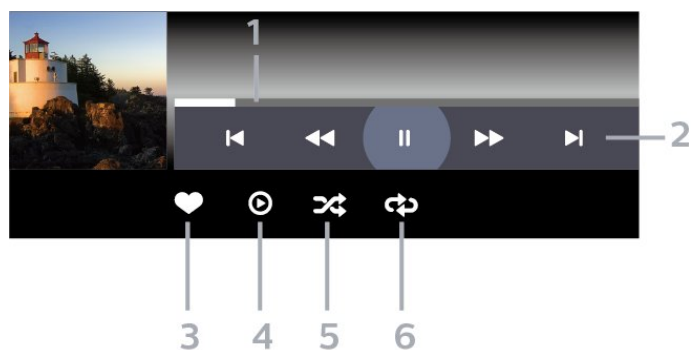
Open music folder

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **➤** (right) to select the USB device you need.
- 3 - Select **Music**, you can press **Mark Favorite** to add the music folder to favorite menu - **♥ Favorites**.
- 4 - 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 and you can press **Play all** to play all files in the folder or press **Mark favorite** to add the selected music to favorite menu - **♥ Favorites**.

Control bar



- 1 - Progress bar
- 2 - Playback control bar
 - **⏮**: Jump to the previous music in a folder
 - **⏮**: Jump to the previous music in a folder
 - **⏮**: Rewind
 - **⏭**: Fast forward
 - **⏸**: Pause the playback
- 3 - Mark as favorites
- 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:

- **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 favorites** – Mark the music as favorites

15. Smartphones and Tablets

15.1. Philips TV Remote App

The **Philips TV Remote App** on your smartphone or tablet is your new display buddy. The app lets you switch programs and adjust the volume — just like a remote control.

Download the Philips TV Remote App from your favorite app store today.

The Philips TV Remote App is available for iOS and Android and is free of charge.

Alternatively, you can go **⚙ Settings > Network & Internet > Remote app QR code** and press OK; a QR code will be presented on display screen. Scan the QR code with your mobile device and follow the instruction to download and install the Philips TV Remote App. When using the app, your mobile device and Philips display need to connect to the same Wi-Fi network.

16. Games

16.1. What You Need

On this display, 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 display before you can play them. Some games need a gamepad to play.

To install game apps from the Google Play Store, the display 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.

16.2. Gamepads

To play games from the Internet on this display, you can connect a selected range of wireless Gamepads. The display can support 2 connected Gamepads at a time. When you connect the Gamepad, you can use it immediately.

16.3. 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 display 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 **Optimal** for standard gaming, to **Optimal (Auto Game)** for HDMI Variable Refresh Rate (on some models only).
- 4 - Power on Game Console or Computer.
- 5 - Start the game.

For more information on connecting a Game Console, in **Help**, press the color key **Keywords** and look up **Game Console, connect**.

16.4. Gaming Control Bar

The Gaming control bar is an integrated centre for information display and setting control while playing game. It is applicable for HDMI source as long as the **Picture style** is set to **Game/HDR Game/Dolby Vision Game/Monitor/HDR Monitor**.

When display auto switch to Game mode (via game detection), the display will show a message to inform user that Game mode is enabled and the gaming control bar can be enabled via long pressing the **MENU** key.

Activation and deactivation

Long press the **MENU** key to launch the gaming control bar while in **Game** mode or **Monitor** mode. To deactivate the gaming control bar, you can press **← Back** or it will be close automatically after 20 seconds without interaction.

The Gaming control bar contains information bar or setting bar and a Toggle button to switch between information bar and settings bar.

Information bar

The information bar will show the key information for the gaming:

Input lag: current input lag status

Frame rate: current FPS (frame per second)

Resolution: video source resolution

Content type: video content is General or Movie or VRR/Freesync/G-Sync

SDR/HDR format: the supported source HDR or SDR type

Color space: supported source color space type

Setting bar

The settings bar contains related settings that can improve your gaming experience. Select and press **OK** on the setting icons to change following settings:

Crosshair: select **On/Off** to show or hide the dial point.

Shadow control: select **Off** to use current black level in **Picture settings**; select **On** to change the setting to higher black level.

Whitepoint: select the color temperature for your preference.

Speakers: select the device to output the sound.

Ambilight* style: select **On** to turn on the Ambilight with gaming style; select **Off** to turn off the Ambilight.

* Ambilight setting is only for models which support Ambilight function.

17. Netflix

If you have a Netflix membership subscription, you can enjoy Netflix on this display. Your display 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 display 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 display, please follow the steps:

- 1 - Go to **⚙ Settings > Display & Sound > Audio output > Digital out format** and set the option to **Stereo (uncompressed)**.
- 2 - Go to **⚙ Settings > Display & Sound > Sound > Sound style** and set the style to **Personal**.
- 3 - Go to **⚙ Settings > Display & Sound > Sound > Personal settings > Speaker virtualizer** and select **Off** to turn off the Speaker virtualizer.

18. Alexa

18.1. About Alexa

Your display 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 display, you can switch on/off display, change programs, change volume and more.

To control your display with Alexa, you will need:

- Philips Smart display 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 display. "Philips Smart Display Voice Control" skill can be found on Alexa Skills store, it offers various voice control commands to work with your Philips Smart display.

* 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 display models. Please refer the user manual of your display to know the supported Ambilight styles.

18.2. Using Alexa

To use Alexa, you need to first setup the Alexa client service on your Philips Smart Display. Follow the instructions and complete the following steps:

- Select a name for your Smart display 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 display to complete setup.

Setup on display for Alexa

- 1 - Go to **⚙ Settings > Network & Internet > Advanced > Display 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 display 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 Display 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 display switch on setting. You can use Alexa to turn your display On/Off by voice command.

7 - At the end of setup screen, you can select **Done** to start to use Alexa. Select **Manage displays** to do the management of Alexa-paired displays or un-pair the displays with Alexa.

Go to alexa.amazon.com, click on Skills, and search for "Philips Smart Display Voice Control". The skill will be listed in the results.

19. Specifications

19.1. Environmental

Product Fiche

50PUH8218/96, 50PUH8288/96

- Visible Screen Size : 126 cm / 50 inch
- On Mode Power Consumption (W) : 125 W
- Standby Power Consumption (W) ** : ≤ 0.5 W
- Display Resolution (Pixels) : 3840 x 2160p

55PUH8218/96, 55PUH8288/96

- Visible Screen Size : 139 cm / 55 inch
- On Mode Power Consumption (W) : 155 W
- Standby Power Consumption (W) ** : ≤ 0.5 W
- Display Resolution (Pixels) : 3840 x 2160p

65PUH8218/96, 65PUH8288/96

- Visible Screen Size : 164 cm / 65 inch
- On Mode Power Consumption (W) : 200 W
- Standby Power Consumption (W) ** : ≤ 0.5 W
- Display Resolution (Pixels) : 3840 x 2160p

70PUH8218/96, 70PUH8288/96

- Visible Screen Size : 177 cm / 70 inch
- On Mode Power Consumption (W) : 250 W
- Standby Power Consumption (W) ** : ≤ 0.5 W
- Display Resolution (Pixels) : 3840 x 2160p

** When the display is turned off with the remote control and no function is active. Power consumption in full standby mode ≤ 0.5 W. The display will take several minutes going to full standby.

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.



Please recycle used batteries

Drained or discharged batteries must be recycled or discarded according to relevant laws and regulations. For more detailed information, please contact the unit responsible for solid waste disposal in your country.

The display disposal method

According to Environmental Protection Administration regulations, displays must be properly disposed of to avoid any negative impact on the environment. When disposing of a display, please use one of the following methods:

1. When purchasing a new display, you can entrust your old display to the seller for recycling.
2. You can contact the service hotline for the Resource Recycling Management Fund Committee on Electronic and Electrical Appliances Waste at: 0800-085-717.

Please take time to learn more about the different recycling processes for electrical and electronic products in your local area.

Please ensure to follow local regulations, do not dispose of your old products together with general household waste. Disposing of your old electronic products correctly will minimise any negative impact on the environment and the health of others.

Please take time to research the relevant regulations for battery recycling in your local area. Disposing of your batteries correctly will minimise any negative impact on the environment and the health of others.

19.2. 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 110V +/-10%
- Ambient temperature : 5°C to 35°C
- Power saving features : Eco mode, Picture mute (for radio), Auto switch-off timer, Eco settings menu.

19.3. Operating System

Android OS :

Android 12

19.4. Reception

- Digital video playback : MPEG2 SD/HD (ISO/IEC 13818-2), MPEG4 SD/HD (ISO/IEC 14496-10)
- Digital audio playback (ISO/IEC 13818-3)

19.5. Display Type

Diagonal screen size

- 126 cm / 50 inch
- 139 cm / 55 inch
- 164 cm / 65 inch
- 177 cm / 70 inch

Display resolution

- 3840 x 2160

19.6. 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
- 2560 x 1440p - 60Hz
- 3840 x 2160p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz

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 48-60Hz when **HDMI Ultra HD** is set to **Optimal (Auto Game)**.

19.7. Connectivity

Side

- USB 2 - USB 3.0
- Headphones - Stereo mini-jack 3.5mm
- HDMI 4 in - Ultra HD - HDR

Bottom

- Digital audio out - Optical
- HDMI 1 in - Ultra HD - HDR
- HDMI 2 in - ARC/eARC - Ultra HD - HDR
- USB 1 - USB 2.0
- Network LAN - RJ45
- HDMI 3 in - Ultra HD - HDR

19.8. Sound

- Output power (RMS) : 20W
- Dolby MS12 V2.6.1
- Dolby Atmos
- DTS – HD (M6)
- DTS Play-Fi
- DTS:X
- Surround Virtualizer + Height Virtualizer
- Dolby Bass Enhancement
- Dolby Dialog Enhancement
- Dolby Volume (AVL/Night Mode)
- AI Sound
- AI EQ
- Mimi Health Hearing

19.9. Multimedia

Connections

- USB 2.0 / USB 3.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11a/b/g/n/ac, Dual Band
- Bluetooth® 5.0

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, H.264/MPEG-4 AVC, MPEG1, MPEG2, MPEG4, VP9, HEVC (H.265), AV1
- Audio Codecs : MP3, WAV, AAC, WMA (v2 up to v9.2), WMA-PRO (v9 and v10)
- Subtitles :
 - Formats : SRT, SUB, TXT, SMI
 - 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, 360 Photo

Wi-Fi Certified

This display is Wi-Fi Certified device.

20. Help and Support



20.1. Register your Display

Register your display 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


20.2. Using Help

Open Help

Press the  key (blue) to open Help immediately. Help will open on the chapter that is most relevant to what you are doing or what is selected on display. To look up topics alphabetically, press the color key  **Keywords**.

To read the Help as a book, select **Book**.

You can also open  **Help** in the Quick menu.

Before you execute the Help instructions, close Help. To close Help, press the color key  **Close**.

For some activities, like Text (Teletext), the color keys have specific functions and cannot open Help.

Display Help on your tablet, smartphone or computer

To carry out extended sequences of instructions more easily, you can download the display 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 > Help

You can use more Help functions to diagnose and get more information about your display.

- **Display information** - View the Model name, Serial number and Software version of your display.
- **How to** - You can see instructions on how to update display software, connect external devices and use Smart functions on your display.
- **Display diagnose** - Run the display diagnose to check the condition of your display.
- **Self-diagnose** - You can check if the picture, sound, network and other settings are working fine.
- **Update software** - Check available software updates.



- **User manual** - Read the user manual for display information.
 - **Settings list copy** - Copy the display settings on a USB Flash Drive.
 - **Troubleshooting** - Find a solution for frequent ask questions.
 - **Factory settings** - Reset all settings to factory settings.
 - **Reinstall display** - Reinstall and redo the complete display installation.
 - **Contact info** - Show the telephone number or web address for your country or region.
-

20.3. Display Diagnose and Self-diagnose

Display diagnose

You can run the display diagnose test to check the condition of your display. At the end of the diagnose, display will clear the cache memory and close any unused apps to continue the smooth functioning of your display.



To run the display diagnose test:

- 1 - Select  **Quick Menu** >  **Help** > **Display 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
 - Storage
 - Clear cache memory
 - Apps
- 4 - Select **Close** to close the result page and go back to **Display diagnose** wizard.
- 5 - Select **Done** to exit from **Display 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 display by checking the configurations of the display.

To run the Self-diagnose:

- 1 - Select  **Quick Menu** >  **Help** > **Self-diagnose** and press **OK**.
- 2 - Select following items to check the configurations.
 - **Check the display** - You can check if the picture, sound and other settings are working fine..
 - **Check the network** - Check the network connection.

- **Check the remote control** - Perform the test to verify the display bundled remote control functionality.
- **View weak signal history** - Display the list of progame numbers that were automatically saved when signal strength was weak.
- **Optimize internal storage** - Free up space in display's internal storage for optimal performance.

20.4. Troubleshooting

Switch On and Remote Control

The display 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 display on, off or to standby, you hear a creaking sound from the display chassis. The creaking sound is due to the normal expansion and contraction of the display as it cools and warms up. This does not affect performance.

Display does not respond to the remote control

The display requires some time to start up. During this time, the display does not respond to the remote control or display controls. This is normal behaviour. If the display 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 display 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 display.

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 Display Consumer Care.

Picture

No picture / distorted picture

- 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 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 display 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 display 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 display to display content from an HDMI device.
- If the display 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 display 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. In Help, press the color key  **Keywords** and look up **HDMI Ultra HD**.
- 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 display 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 display.
- Make sure that the audio and picture file formats are supported by the display.

Choppy playback of USB files

- The transfer performance of the USB storage device may limit the data transfer rate to the display which causes poor playback.

Network

Wi-Fi network not found or distorted

- Microwave ovens, DECT phones or other Wi-Fi 802.11b/g/n/ac devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the display'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 display as possible.
- Trying to pair several devices with the display at the same time, may not work.

Bluetooth® lost connection

- Always position the wireless speaker within a range of 5 meters from the display.



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 Display 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.
-

⚠ Warning

Do not attempt to repair the display yourself. This may cause severe injury, irreparable damage to your display or void your warranty.

20.5. Online Help

To solve any Philips Display 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 display software or the manual to read on your computer.

20.6. 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 display. Or consult our website www.philips.com/TVsupport and select your country if needed.

Display model number and serial number

You might be asked to provide the display 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 display.

21. Safety and Care

21.1. Safety

Important

Read and understand all safety instructions before you use the display. If damage is caused by failure to follow instructions, the warranty does not apply.

RoHS regulations

Device name: Philips LED Smart Display

Model (type):

- 50PUH8218/96, 50PUH8288/96
- 55PUH8218/96, 55PUH8288/96
- 65PUH8218/96, 65PUH8288/96
- 70PUH8218/96, 70PUH8288/96

單元	限用物質及其化學符號					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr ⁺⁶)	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
塑料外框	○	○	○	○	○	○
後殼	○	○	○	○	○	○
液晶面板	—	○	○	○	○	○
電路板組件	—	○	○	○	○	○
底座	○	○	○	○	○	○
電源線	—	○	○	○	○	○
其他線材	—	○	○	○	○	○
遙控器	—	○	○	○	○	○
備考1. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 備考2. “—” 係指該項限用物質為排除項目。						

Safety precautions

Warning: Excessive use may cause damage to eyesight.

Precautions:

- You should take a 10-minute break for every 30 minutes of use
- Children under the age of 2 should not look at the screen and those over the age of 2 should not look at the screen for more than 1 hour per day.

Technical specifications for low-power radio frequency equipment

Without approval, businesses, shops or users are not permitted to change the frequency, increase the power or change the original design characteristics and functions of the low-power RF equipment certified by inspection. The use of low-power radio frequency equipment must not affect flight safety or interfere with

lawful communications. If any interference is discovered, it should be stopped immediately and improved to ensure no interference before continuing use. The aforementioned lawful communication refers to radio communication operated in accordance with the provisions of the Telecommunications Management Act. Low-power radio frequency equipment must withstand interference from lawful communications or electrical equipment used for radio wave radiation in industrial, scientific and medical applications.

Wireless information transmission equipment operating in the 5.25–5.35 GHz frequency band is limited to indoor use only.

Avoid interfering with the operation of nearby radar systems.

High-gain directional aerials can only be used in fixed point-to-point systems.

Risk of Electric Shock or Fire

- Never expose the display to rain or water. Never place liquid containers, such as vases, near the display. If liquids are spilt on or into the display, disconnect the display from the power outlet immediately. Contact Philips Display Consumer Care to have the display checked before use.
- Never expose the display, 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 display.
- 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 display screen.
- To disconnect the display from the mains power, the power plug of the display 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 Display

- Two people are required to lift and carry a display that weighs more than 25 kg or 55 lbs.
- If you mount the display on a stand, only use the supplied stand. Secure the stand to the display tightly. Place the display on a flat, level surface that can support the weight of the display and the stand.
- When wall mounted, ensure that the wall mount can safely bear the weight of the display 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 display !

Before you connect the display to the power outlet, ensure that the power voltage matches the value printed on the back of the display. Never connect the display 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 display 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 display set is not overhanging the edge of the supporting furniture.
- ALWAYS use cabinets or stands or mounting methods recommended by the manufacturer of the display set.
- ALWAYS use furniture that can safely support the display set.
- ALWAYS educate children about the dangers of climbing on furniture to reach the display set or its controls.
- ALWAYS route cords and cables connected to your display so they cannot be tripped over, pulled or grabbed.
- NEVER place a display set in an unstable location.
- NEVER place the display set on tall furniture (for example, cupboards or bookcases) without anchoring both the furniture and the display set to a suitable support.
- NEVER place the display set on cloth or other materials that may be located between the display set and supporting furniture.
- NEVER place items that might tempt children to climb, such as toys and remote controls, on the top of the display or furniture on which the display is placed.

If the existing display 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 display in a confined space. Always leave a space of at least 10 cm or 4 inches around the display for ventilation. Ensure curtains or other objects never cover the ventilation slots on the display.

Lightning Storms

Disconnect the display from the power outlet before lightning storms.

During lightning storms, never touch any part of the display, power cord.

Risk of Hearing Damage

Avoid using earphones or headphones at high volumes or for prolonged periods of time.

Low Temperatures

If the display is transported in temperatures below 5°C or 41°F, unpack the display and wait until the display temperature reaches room temperature before connecting the display to the power outlet.

Humidity

In rare occasions, depending on temperature and humidity, minor condensation can occur on the inside of the display glass front (on some models). To prevent this, do not expose the display to direct sunlight, heat or extreme humidity. If condensation occurs, it will disappear spontaneously while the display is playing for

a few hours.

The condensation moisture will not harm the display or cause malfunction.

21.2. Screen Care

- Never touch, push, rub or strike the screen with any object.
- Unplug the display before cleaning.
- Clean the display and frame with a soft damp cloth and wipe gently. Avoid touching the Ambilight* LEDs on the backside of the display. Never use substances such as alcohol, chemicals or household cleaners on the display.
- To avoid deformations and color 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.

22. Terms of Use

22.1. Terms of Use - Display

2023 © TP Vision Europe B.V. All rights reserved.

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 display 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 display and the manual stored in the memory of the display 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 display or void of warranty!

Never attempt to repair the display yourself. Use the display and accessories only as intended by the manufacturer. The caution sign printed on the back of the display indicates risk of electric shock. Never remove the display cover. Always contact Philips Display Customer Care for service or repairs. Find the telephone number in the printed documentation that came with the display. 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 display product has a high number of color 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 Display have gone through stringent tests and checks before shipping to you. You can be rest assured that we place the quality of our displays the utmost importance so that you do not suffer any viewing displeasure while watching your display. 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 display specifications. Such occurrences do not represent a deterioration nor shall be regarded as a defect of the display. 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.

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 safety standards, enabling TP Vision to anticipate further developments in standardisation for early integration in its products.

22.2. Terms of Use - Smart TV

You can see the terms of use, privacy policy, and also set privacy settings of your Smart TV.

To open the terms of use of Smart TV page:

- 1 - Press **HOME** to open the Home menu.
- 2 - Select **Apps** to open apps.

23. Copyrights

23.1. 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.



23.2. 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.



23.3. HEVC Advance

Covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com. Future proof with advanced HEVC decoding.



23.4. Dolby Vision and Dolby Atmos

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