

PHILIPS

Smart Display

8816 Series

User Manual

55PUH8816/96
70PUH8816/96

Register your product and get support at
www.philips.com/TVsupport

Contents

1 Setting Up	4	9.5 General Settings	30
1.1 Read Safety	4	9.6 Clock, Region, and Language Settings	32
1.2 Display Stand	4	9.7 Android Settings	33
1.3 Wall Mounting	4	9.8 Universal Access Settings	33
1.4 Tips on Placement	4	9.9 Lock Settings	33
1.5 Power Cable	4	10 Videos, Photos and Music	34
2 Remote Control	5	10.1 From a Computer or NAS	34
2.1 Key Overview	5	10.2 Most Popular Menu and Last Played Menu	34
2.2 Pair Your Remote Control to the display	6	10.3 From a USB Connection	34
2.3 Voice Search	6	10.4 Play your Videos	34
2.4 IR Sensor	6	10.5 View your Photos	35
2.5 Batteries	6	10.6 Play your Music	36
2.6 Cleaning	7	11 Smartphones and Tablets	38
3 Switching On and Off	8	11.1 Philips TV Remote App	38
3.1 On or Standby	8	11.2 Google Cast	38
3.2 Keys on display	8	12 Games	39
4 Connect Devices	9	12.1 What You Need	39
4.1 About Connections	9	12.2 Gamepads	39
4.2 Home Theatre System - HTS	10	12.3 Play a Game From Game Console	39
4.3 Smartphones and Tablets	10	13 Ambilight	40
4.4 Blu-ray Disc Player	10	13.1 Ambilight Style	40
4.5 Bluetooth	10	13.2 Ambilight Off	40
4.6 Headphones	11	13.3 Ambilight Settings	40
4.7 Game Console	11	13.4 Lounge Light Mode	40
4.8 USB Keyboard	12	13.5 Sunrise Alarm	41
4.9 USB Flash Drive	12	13.6 Ambisleep	41
4.10 Photo Camera	12	13.7 Ambilight Extension	41
4.11 Camcorder	13	14 Netflix	44
4.12 Computer	13	15 Alexa	45
5 Connect your Android display	14	15.1 About Alexa	45
5.1 Network and Internet	14	15.2 Using Alexa	45
5.2 Google Account	15	16 Software	46
5.3 Philips TV Collection App	16	16.1 Update Software	46
6 Apps	17	16.2 Software Version	46
6.1 About Apps	17	16.3 Automatic Software Update	46
6.2 Google Play	17	16.4 View Software Update History	47
6.3 Start or Stop an App	18	16.5 Open Source Software	47
6.4 Lock Apps	18	16.6 Open Source License	47
6.5 Manage Apps	19	16.7 Announcements	47
6.6 Storage	20	17 Specifications	48
7 Internet	21	17.1 Environmental	48
7.1 Start Internet	21	17.2 Power	48
7.2 Options on Internet	21	17.3 Operating System	48
8 Quick Menu	22	17.4 Reception	48
9 Settings	23	17.5 Display Type	48
9.1 Picture	23	17.6 Display Input Resolution	48
9.2 Sound	26	17.7 Connectivity	49
9.3 Ambilight Settings	29	17.8 Sound	49
9.4 Eco Settings	30	17.9 Multimedia	49

18 Help and Support	50
18.1 Register your product	50
18.2 Using Help	50
18.3 Troubleshooting	50
18.4 Online Help	52
18.5 Support and Repair	52
19 Safety and Care	54
19.1 Safety	54
19.2 Screen Care	55
20 Terms of Use	57
20.1 Terms of Use - Display	57
20.2 Terms of Use - Smart Display	57
20.3 Terms of Use - Philips TV Collection	57
21 Copyrights	58
21.1 HDMI	58
21.2 HEVC	58
21.3 Dolby Vision and Dolby Atmos	58
21.4 DTS-HD	58
21.5 DTS Play-Fi	58
21.6 Wi-Fi Alliance	58
21.7 Kensington	58
21.8 Other Trademarks	59
22 Disclaimer	60

Setting Up

Read Safety

Read the safety instructions before use.

To read the instructions, in **Help**, press the colour key **— Keywords** and look up **Safety Instructions**.

Display Stand

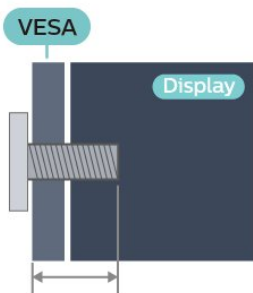
You can find the instructions for mounting the stand in the Quick Start Guide that came with the display. In case you lost this guide, you can download it from www.philips.com/TVsupport.

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 a VESA-compliant wall mount bracket (sold separately).

Use the following VESA code when purchasing the wall mount . . .



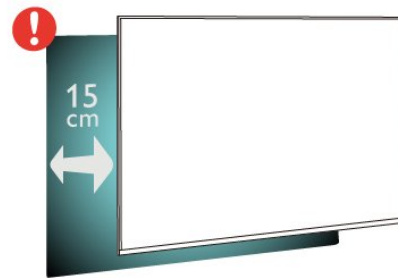
- 55PUH8816
VESA MIS-F 200x300, M6 (min.: 10mm, max.:16mm)
- 70PUH8816
VESA MIS-F 300x300, M8 (min.: 12mm, max.:25mm)

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.

Tips on Placement

- Position the display where light does not shine directly on the screen.
- Dim lighting conditions in the room for best Ambilight effect.
- The ideal distance to watch is 2 to 5 times its diagonal screen size. When seated, your eyes should be level with the centre of the screen.
- When wall mounted, position the display up to 15 cm away from the wall.

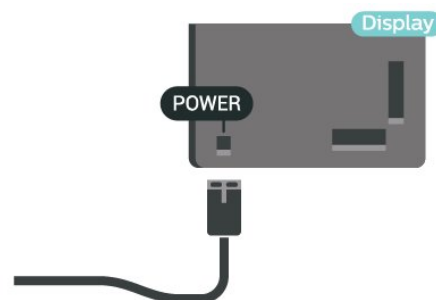


Note

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.

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.



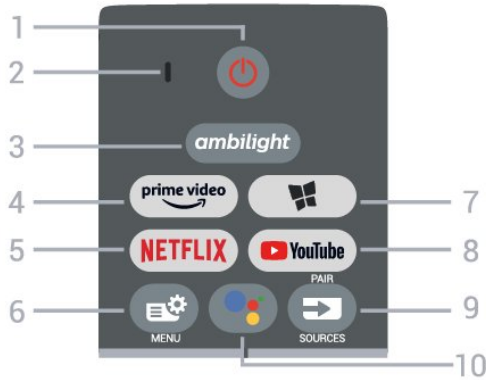
Although this display has a very low standby power consumption, unplug the power cable to save energy if you do not use the display for a long period of time.

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

Remote Control

Key Overview

Top



1 - Standby / On

To switch the display on or back to Standby.

2 - VOICE microphone

3 - *ambilight*

To select one of the Ambilight style.

4 - prime video

To launch the Amazon prime video App.

5 - **NETFLIX**

To open the Netflix App directly with the display switched on or from standby.

- If you have a Netflix membership subscription, you can enjoy Netflix on this display. Your display must be connected to the Internet.
- To open Netflix, press **NETFLIX** to open the Netflix App. You can open Netflix immediately from standby mode.

www.netflix.com

www.netflix.com

6 - Quick Menu

To open the Quick Menu with typical functions.

7 - Philips TV Collection

To launch Philips TV Collection App.

8 - YouTube

To launch the YouTube App.

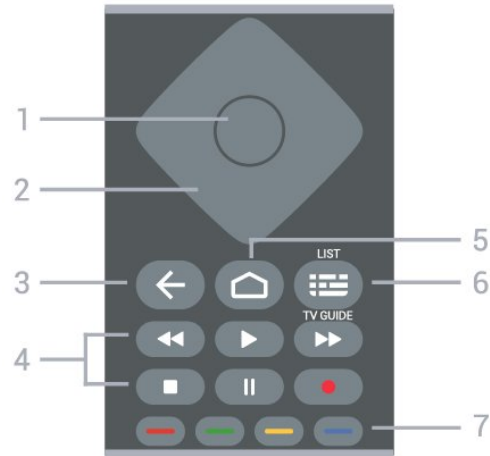
9 - SOURCES / PAIR

- To open or close the Sources menu.
- To pair the remote control to the display.

10 - Google Assistant™

To launch the Google Assistant™.

Middle



1 - OK key

To confirm a selection or setting.

2 - Arrow / navigation keys

To navigate up, down, left or right.

3 - Back

To switch back to the previous channel you selected.
To return to previous menu.

To go back to the previous App/Internet page.

4 - Playback

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

5 - HOME

To open the Home menu.

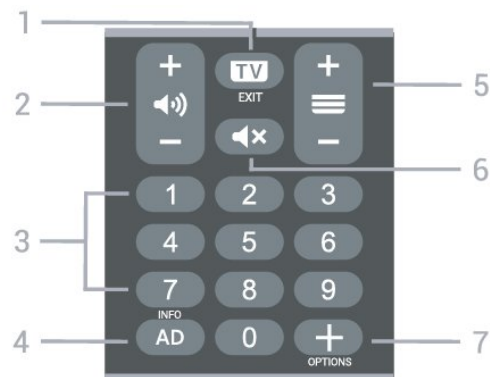
6 - GUIDE

To open or close the Guide

7 - Colour keys

Direct selection of options. Blue key , opens Help.

Bottom



1 - TV - EXIT

To stop an interactive application.

2 - Volume

Press + or - to adjust the volume level.

3 - Number keys

Press the number buttons 0 to 9 to enter numbers.

4 - AD/INFO

Not support.

5 -

Press + or - to switch to the next or previous page.

6 - Mute

To mute the sound or to restore it.

7 - + OPTIONS

To open or close the options menu.

2.2


Pair Your Remote Control to the 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 and remote control keyboard, you need to pair (link) the display with the remote control.

When you start the initial installation, the display invites you to long press the **PAIR** key, and by doing so, the pairing will be done.


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 simply long press the **PAIR** key (approximate for 3 seconds) for pairing.


Alternatively, go  **Settings > Wireless and networks > Remote control > Pair remote control**, then follow the on-screen instructions.

A message appears when the pairing is successful.

Remote Control Software

 **Settings > Wireless and networks > Remote control > Remote control info**

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

 **Settings > Wireless and networks > Remote control > Update remote control software**

Check available remote control software for updates.


2.3

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  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. You can speak for 10 seconds before the microphone switches off. It might take some time for the results to appear.
- 3 - In the list of search results, you can select the item you want.

2.4

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.

2.5

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-bottom of the remote control.

- 1 - Slide the battery door in the direction shown by the arrow.
- 2 - Replace the old batteries with 2 Alkaline, type AAA-LR03-1.5V 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.

For more information, in **Help**, select **Keywords** and look up **End of use**.

2.6

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.

Switching On and Off


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. Alternatively, press  HOME. 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.

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.

Keys on display

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



Connect Devices

4.1

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.

For best signal quality transfer, use a High speed 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 colour key **— Keywords** and look up **HDMI Ultra HD**.

Copy protection

HDMI ports support HDCP 2.2 (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

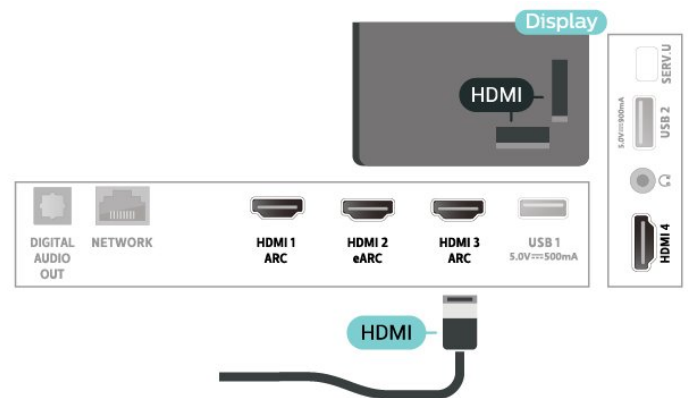
HDMI 1, HDMI 2, and HDMI 3 connections on the display have **HDMI ARC** (Audio Return Channel). If the device, typically a Home Theatre System (HTS),

soundbar or AV receiver, also has the HDMI ARC connection, connect it to the HDMI 1, HDMI 2, or HDMI 3 connections 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 the HDMI 1, HDMI 2, or HDMI 3 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 HDMI cable with Ethernet for eARC. Only 1 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 > General**
settings > EasyLink > EasyLink > On.

Operate HDMI CEC-compatible devices with display remote control

⚙ **Settings > General**
settings > EasyLink > EasyLink remote control > On.

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.

4.2

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

HDMI 1, HDMI 2, and HDMI 3 connections on the display can offer the Audio Return Channel (ARC) signal. But once you have connected the Home Theatre System, the display can only send the ARC signal to this HDMI connection.

If your Home Theatre System has an HDMI ARC connection, you can use any HDMI connection on the display to connect. 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.

Connect with HDMI

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.

If the Home Theatre System has no HDMI ARC connection, add an optical audio cable to send the sound of the picture to the Home Theatre System.


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 > Sound > Advanced > 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. All HDMI connections on the display are HDMI ARC connections. HDMI eARC is only available on HDMI 2.

4.3

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 favourite app store.

4.4

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's remote control.

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

4.5

Bluetooth

What You Need

You can connect a wireless device with Bluetooth® to this display – a wireless speaker or headphones. You can also connect a wireless gamepad with Bluetooth LE.

To play the sound on a wireless speaker, you must pair the wireless speaker with the display.

The display can only play the sound on one speaker at a time.

Attention - Audio to Video synchronisation

Many Bluetooth® speaker systems have a high, so called, 'latency'. High latency means that the audio lags behind the video, causing unsynchronised 'lip sync'. Before you purchase a wireless Bluetooth® speaker system, inform yourself about the newest models and look for a device with a low latency rating. Ask your dealer for advice.

Pairing a Device

Position the wireless speaker 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 wireless gamepad is paired, you can use it. When a wireless speaker is paired, you can select it to play the 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** > **Wireless and Networks** and press **➤** (right) to enter the menu.
- 3 - Select **Bluetooth** > **Search Bluetooth Device**, and press **OK**.
- 4 - 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.
- 5 - Select the type of device and press **OK**.
- 6 - Press **◀** (left) repeatedly if necessary, to close the menu.

Select a Device

To select a wireless device...

- 1 - Select **Settings** > **Wireless and Networks** and press **OK**.
- 2 - Select **Bluetooth** > **Search Bluetooth Device** and press **OK**.
- 3 - In the list, select the wireless device and press **OK**.
- 4 - Press **◀** (left) repeatedly if necessary, to close the menu.

Remove a Device


You can connect or disconnect a wireless Bluetooth device. You can also remove a wireless Bluetooth device. If you remove a Bluetooth device, the device will be unpaired.

To remove or disconnect a wireless device...

- 1 - Select **Settings** > **Wireless and Networks** and press **OK**.
- 2 - Select **Bluetooth** > **Remove Bluetooth device** and press **OK**.
- 3 - In the list, select the wireless device and press **OK**.
- 4 - Select **Disconnect** or **Remove** and press **OK**.
- 5 - Select **OK** and press **OK** to confirm.
- 6 - Press **◀** (left) repeatedly if necessary, to close the menu.

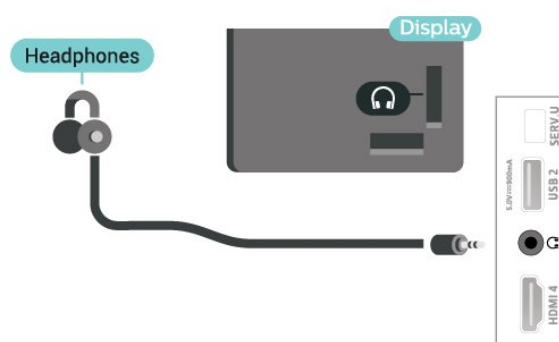
4.6

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...

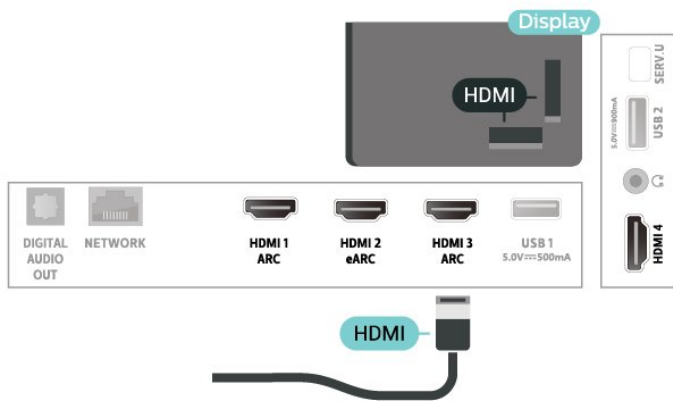
- 1 - Select **Settings**, select **Sound** > **Headphone Volume** and press **OK**.
- 2 - Press the arrows **▲** (up) or **▼** (down) to adjust the value.
- 3 - Press **◀** (left) repeatedly if necessary, to close the menu.



4.7

Game Console

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



4.8

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** > **General Settings** and press **➤** (right) to enter the menu.
- 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

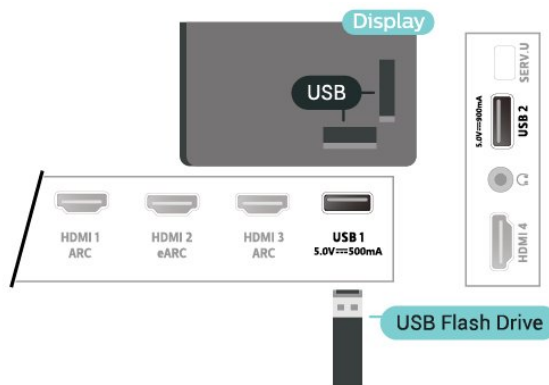
- End = scroll to the bottom of the page
- Page Up = jump one page up
- Page Down = jump one page down
- * = fit the web page to the screen width

4.9

USB Flash Drive

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

Insert a USB flash drive in one of the USB connections on the display while the display is switched on.



The display detects the flash drive 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 flash drive content, press **TV EXIT** or select another activity.

To disconnect the USB flash drive, you can pull out the flash drive anytime.

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.

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

4.10

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

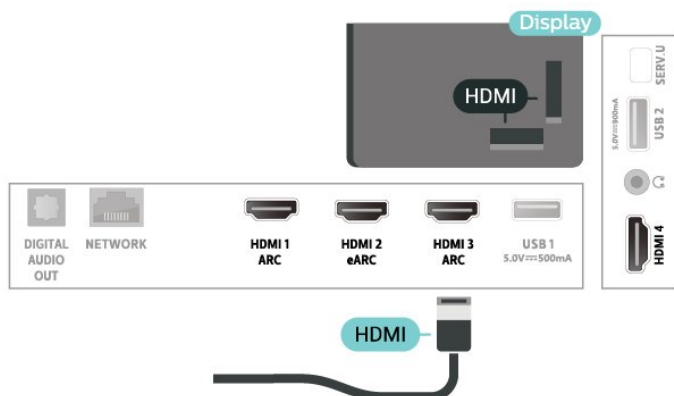
You can view photos in Ultra HD resolution from a connected USB device or flash drive. The display will downscale the resolution to Ultra HD if the resolution of the photo is higher. You cannot play a video with native resolution higher than Ultra HD on any of the USB connections.

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

4.11

Camcorder

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



4.12

Computer

You can connect your computer to the display and use it as a PC monitor. Use an HDMI cable to connect the computer to the display.

Connect your Android display

Network and Internet

Home Network

To enjoy the full capabilities of your Philips Android 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 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 > Wireless and Networks > Wired or Wi-Fi > Wi-Fi On/Off.

Make the Connection

⚙ Settings > Wireless and Networks > Wired or Wi-Fi > Connect to Network > Wireless.

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

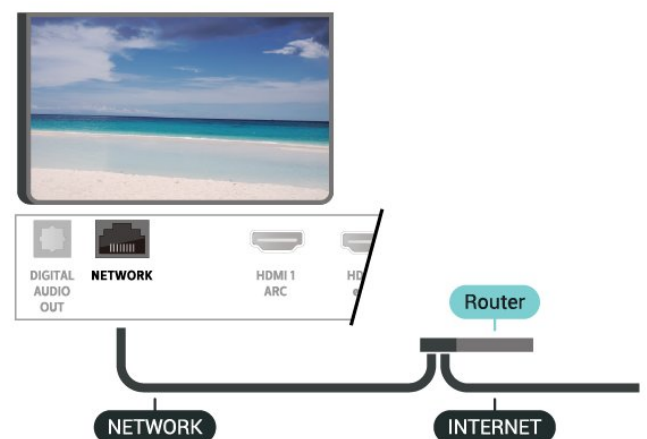
- If the connection fails, you can check the DHCP (Dynamic Host Configuration Protocol) setting of the router. DHCP should be switched on.

In Help, press the colour 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.



Make the Connection

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > Connect to Network > Wired.

- 1 - Connect the router to the display with a network cable (Ethernet cable**).
- 2 - Make sure that the router is switched on.
- 3 - The display constantly searches for the network connection.
- 4 - A message will be shown when the connection is successful.

If the connection fails, you can check the DHCP setting of the router. DHCP should be switched on.

**To fulfill EMC regulations, use a shielded FTP Cat. 5E Ethernet cable.

Network Settings

View Network Settings

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > 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.

Network Configuration - Static IP

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > Network Configuration > Static IP.

If you are an advanced user and want to install your network with Static IP addressing, set the display to Static IP.

Network Configuration - Static IP Configuration

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > Network Configuration > Static IP Configuration.

- 1 - Select Static IP Configuration and configure the connection.
- 2 - You can set the number for IP Address, Netmask, Gateway, DNS 1, or DNS 2.

Switch On with Wi-Fi (WoWLAN)

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > 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** > Wireless and Networks > Wired or Wi-Fi > 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** > Wireless and Networks > Wired or Wi-Fi > 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.

Switch on Wi-Fi connection

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > Wi-Fi On/Off.

You can switch on or off Wi-Fi connection on your display.

Clear Internet Memory

⚙️ **Settings** > Wireless and Networks > Wired or Wi-Fi > Clear Internet Memory.

With Clear Internet Memory you clear your Philips server registration and parental rating settings, your video store app logins, all Philips TV Collection favourites, Internet bookmarks and history. Interactive MHEG applications can also save so-called 'cookies', on your display. These files will also be cleared.

5.2

Google Account

Sign In

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

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

Sign In

Use your existing **Google Account** to sign in to

Google on your display. A Google Account consists of an email address and a password. If you don't have an Google Account yet, use your computer or tablet to create one (accounts.google.com). To play games with Google Play, you need a Google+ profile. If you did not sign in during the first installation, you can always sign in later.

To sign in after you did the installation

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

Android Settings

You can set or view several Android specific settings or information. You can find the list of apps installed on your device and the storage space they need. You can set the language you like to use with Voice Search. You can configure the onscreen keyboard or allow apps to use your location. Explore the different Android settings. You can go to www.support.google.com/androidtv for more information on these settings.

To open these settings...

- 1 - Select **Settings** > **Android Settings**, and press **OK**.
- 2 - Explore the different Android settings.
- 3 - Press **←** **Back** if necessary, to close the menu.

5.3

Philips TV Collection App

Featured Apps page

All your premium apps are available within the Philips TV Collection app, under Featured apps section. Launch it using the banner on the **Apps** row.

Downloading and installing Philips TV Collection apps are free of charge. The Philips TV Collection of apps can differ per country or region. The Philips TV Collection will also contain recommendations for new Apps and more.

Some Philips TV Collection apps are pre-installed on your display. To install other apps from Philips TV Collection, you will be asked to agree to the Terms of Use. You can set the Privacy Settings according to your preference.

To install an app from the Philips TV Collection

- 1 - Press **HOME**.
- 2 - Select **Philips TV Collection** and press **OK**. It will open the Featured apps section.
- 3 - Select the "All" tab and press **OK**. It will display all the apps that are available to the user, including the installed ones.
- 4 - Browse through the apps and select the app icon that you want to install, and press **OK**. It will open the App info page.
- 5 - Select the **Install** button and press **OK** to install the app.

The installed app found in the Apps page, which can be opened from the Android Home screen by pressing the Apps icon at the left end of the **Apps** row.

Terms of Use

To install and use the Philips TV Collection apps, you must agree to the Terms of Use. If you did not agree to these terms during the first installation, you can always agree to them later. The moment you agree to the Terms of Use, some apps will be available immediately and you can browse the Philips TV Collection to install other apps.

To agree on the Terms of Use after you did the installation

- 1 - Press **HOME**, select **Philips TV Collection** and press **OK**. Press the **Options** key to open the Options menu.
- 2 - You can select **Terms of Use**, then press **OK** to read.
- 3 - Select **Accept** and press **OK**. You cannot undo this approval.
- 4 - Press **←** **Back** to close the menu.

Privacy Settings

You can set some privacy settings for the Philips TV Collection apps.

- You can allow technical statistics to be send to Philips.
- You can allow personal recommendations.
- You can allow cookies.
- You can switch on the Child Lock for 18+ rated apps.

To set the Philips TV Collection privacy settings

- 1 - Press **HOME**, select **Philips TV Collection** and press **OK**. Press the **Options** key to open the Options menu.
- 2 - You can select **Privacy setting**, then press **OK**.
- 3 - Select each setting and press **OK** to allow or disallow. You can read about each setting in detail.
- 4 - Press **←** **Back** to close the menu.

Apps

6.1

About Apps

You can find your favourite Apps on **Apps** row in the Home menu.

Like apps on your smartphone or tablet, the apps on your display offer specific functions for an enriched experience. Apps like YouTube, games, video stores or weather forecasts (a.o.). You can use the Internet Browser app to surf the Internet.

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

To install apps from the **Philips TV Collection** or the **Google Play™ Store** , the display must be connected to the Internet. You must agree to the Terms of Use to use apps from the **Philips TV Collection**. You must sign in with a Google Account to use the Google Play apps and Google Play™ Store .

6.2

Google Play


Movies and TV

With **Google Play Movies & TV** , you can rent or buy movies and programme shows to watch.






What You Need

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

To rent or buy a movie or programme show...

- 1 - Press  HOME.
- 2 - Select **Google Play Movies & TV**.
- 3 - Select a movie or programme 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 programme show...

- 1 - Press  HOME.
- 2 - Select **Google Play Movies & TV**.
- 3 - Select the movie or programme show from your library in the app, select the title and press **OK**.
- 4 - You can use the  (stop),  (pause),  (rewind) or  (fast forward) keys on the remote control.

5 - To stop the **Movies & TV** app, press  **Back** repeatedly or press  **EXIT**.

If the App is not on your Home screen, you can add via the Apps page or by the **Add app to favourites** item on the **Apps** row. Some Google Play products and features aren't available in all countries.

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




Music

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

What You Need

- your display must be connected with the Internet
- you must sign in with your Google Account on this display

To start **YouTube Music**...

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

If the App is not on your Home screen, you can add via the Apps page or by the **Add app to favourites** item on the **Apps** row. Some Google Play products and features aren't available in all countries.

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

Games

With **Google Play Games**, you can play games on this 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 this 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.
- 2 - Select **Google Play Games**.
- 3 - Select a game to play or select a new game to

install and press OK.

4 - When done, press Back repeatedly or press EXIT or stop the app with its dedicated exit/stop button.

If the App is not on your Home screen, you can add via the Apps page or by the **Add app to favourites** item on the **Apps** row. Some Google Play products and features aren't available in all countries.

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

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 this display
- add a credit card to your Google Account to purchase apps

To install a new app...

- 1 - Press HOME.
- 2 - Select **Google Play Store** and press OK.
- 3 - Select the app you want to install and press OK.
- 4 - To close the **Google Play Store**, press Back repeatedly or press EXIT.

Parental controls

In the Google Play Store, you can hide apps according to users/buyers maturity. You need to enter a PIN code to select or change the level of maturity.

To set the parental control...

- 1 - Press HOME.
- 2 - Select **Google Play Store** and press OK.
- 3 - Select **Settings > Parental controls**.
- 4 - Select the level of maturity you want.
- 5 - On request, enter the PIN code.
- 6 - To close the **Google Play Store**, press Back repeatedly or press EXIT.

If the App is not on your Home screen, you can add via the Apps page or by the **Add app to favourites** item on the **Apps** row. Some Google Play products and features aren't available in all countries.

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

Payments

To make a payment on Google Play on this 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 programme 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 this 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.

6.3

Start or Stop an App

You can start an app from the Home screen.

To start an app...

- 1 - Press HOME.
- 2 - Move to **Apps** row, select the app you want and press OK.
- 3 - To stop an app, press Back or press EXIT or stop the app with its dedicated exit/stop button.

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.

6.4

Lock Apps

About App Locks

You can lock apps unsuited for children. You can lock 18+ rated apps or set up a restricted profile in the Home menu.

18+

The 18+ app lock will ask for a PIN code when you try to start an 18+ rated app. This lock is only valid for 18+ rated apps from the Philips apps.

Restricted profile

You can set up a restricted profile for the Home menu where only the apps you allow are available. You need to enter a PIN code to set up and switch on the restricted profile.

Google Play Store - Maturity



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. The level of maturity will determine which apps are available for installation.

Lock 18+ rated apps

You can lock 18+ rated apps from the Philips apps. This setting controls the 18+ setting in the Philips apps Privacy Settings.

To lock 18+ rated apps...

- 1 - Select  Settings > Child Lock, select App Lock and press OK.
- 2 - Select On and press OK.
- 3 - Press  (left) repeatedly if necessary, to close the menu.

For more information, in Help, press the colour key  Keywords and look up Child Lock, App Lock for more information.

Restricted Profile

About Restricted Profile

You can restrict the use of certain apps by switching the display to a restricted profile. The Home menu will only show the apps you allowed. You need a PIN code to switch out of the restricted profile.

With the display switched to a restricted profile you cannot...

- Find or open apps which are marked as Not allowed
- Access the Google Play Store
- Purchase through Google Play Movies & TV, nor Google Play Games
- Use third-party apps that don't use the Google sign-in





With the display switched to a restricted profile you can...

- Watch content already rented or purchased from Google Play Movies & TV
- Play games already purchased and installed from Google Play Games
- Access the following settings: Wi-Fi network, Speech and Accessibility
- Add Bluetooth accessories

The Google Account on this display will stay logged in. Using a restricted profile doesn't change the Google Account.

Set Up

To set up the restricted profile...





- 1 - Select  Settings > Android Settings and press OK.
- 2 - Press  (down) and select Device Preferences > Security & restrictions and press OK.
- 3 - Select Restricted Profile and press OK.
- 4 - Select Settings and press OK.
- 5 - Enter a PIN code with the remote control.
- 6 - Select Allowed apps and press OK.
- 7 - In the list of available apps, select an app and press OK to allow or not allow this app.
- 8 - Press  Back to go back one step or press  EXIT to close the menu.


Now you can enter the restricted profile.

With the PIN code, you can always change the PIN code or edit the list of allowed or not allowed apps.

Enter



To enter (switch to) the restricted profile...

- 1 - Select  Settings > Android Settings and press OK.
- 2 - Press  (down) and select Device Preferences > Security & restrictions and press OK.
- 3 - Select Enter restricted profile and press OK.
- 4 - Enter a PIN code with the remote control.
- 5 - Press  Back to go back one step or press  EXIT to close the menu.

You can see when a restricted profile is entered if an icon appears in the Home screen. Scroll down to  Settings and scroll to the far right.

Delete

To delete the restricted profile...

- 1 - Select  Settings > Android Settings and press OK.
- 2 - Press  (down) and select Device Preferences > Security & restrictions and press OK.
- 3 - Select Delete restricted profile and press OK.
- 4 - Enter the PIN code. The display will delete the restricted profile.

6.5

Manage 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 this 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 Android device. Also, it is best to uninstall apps that you are not using anymore.

6.6

Storage


You can see how much storage space - the internal 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.

To see how much storage you are using...

- 1 - Select  **Settings** > **Android Settings** and press **OK**.
- 2 - Select **Device Preferences** > **Storage** and press **OK**.
- 3 - View the storage usage of the internal memory.
- 4 - Press  **Back** to go back one step or press  **EXIT** to close the menu.

USB Hard Drive

If you connect a USB Hard Drive, you can use the drive to extend the internal memory to store more apps. Allow the USB Hard Drive to be used as an additional internal memory during the formatting process. The display will try to store new apps on the USB Hard Drive first. Some apps do not allow to be stored on a USB Hard Drive.

To migrate your existing data, go to  **Settings** > **Android Settings** > **Device Preferences** > **Storage** and select the USB Hard Drive.

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 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 **Apps** > **Internet Browser** and press **OK**.
- 3 - Enter an Internet address and select to confirm.
- 4 - To close Internet, press  HOME or  EXIT.

* Note: If **Internet Browser** is not on your **Apps** row, you can press + icon on the end of the row to add the app.

7.2

Options on Internet

Some extras are available for the Internet.


To open the extras...

- 1 - With the website open, press **+** **OPTIONS**.
 - 2 - Select one of the items and press **OK**.
- Add to speed dial: To enter a new Internet address.
 - Add to bookmarks: Add the page as bookmark
 - Page security: To view the security level of the current page.
 - New private tab: Open new private tab, and have private browsing
 - Settings: Settings for Zoom, Text size, Accessibility mode, Always show menu bar, and clear (browsing) history
 - About: Internet browser information
 - Exit Internet browser: Close Internet browser

Quick Menu

You can use the Quick Menu as your Home menu. In the Quick Menu, you will find a quick way to access general functions.

To open Quick Menu and open an item...

- 1 - Press  to open Quick Menu.
- 2 - Select an item and press **OK** to open or start it.
- 3 - Press **← Back** to close Quick Menu without starting anything.


Settings

Picture






Picture Settings

Picture Style

Select a style

 Quick Menu > Frequent Settings > 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.
- Vivid - Ideal for daylight viewing
- Natural - Natural picture settings
-  Standard - Most energy conscious setting - Factory setting
- Movie - Ideal for watching movies with original studio effect
- Game* - Ideal for playing games
- Monitor** - Ideal for PC display
-  Day - For ISF Calibration, you can press the colour key  **APPLY ALL** to copy the calibrated settings to all sources.
-  Night - For ISF Calibration, you can press the colour key  **APPLY ALL** to copy the calibrated settings to all sources.
- Expert - Restore the picture quality settings linked to the picture style Expert

* Picture style - Game is available in HDMI video and online streaming sources.

** Picture style - Monitor is only available when HDMI source video is applicable for PC application. HDR is not supported in Monitor mode. This display is able to play HDR video in Monitor mode but no HDR processing will be applied.

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


- HDR Personal
- HDR Vivid
- HDR Natural
- HDR Movie
- HDR Game
-  Day - For ISF Calibration
-  Night - For ISF Calibration
- HDR Expert

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

- HDR Personal

- HDR Vivid
- Dolby Vision Bright
- Dolby Vision Dark
- Dolby Vision Game

Restore a Style

- 1 - Select the picture style you want to restore.
- 2 - Press the colour key  Restore style, and press OK. The style is restored.

Customise a Style



Any picture setting you adjust, like Colour or Contrast, is stored in the currently selected **Picture Style**. It allows you to customise each style.

Only the style **Personal** can save its settings for each source in the Sources menu.


Colour, Contrast, Sharpness, Brightness



Adjust the picture colour

 Settings > Picture > Colour.

Press the arrows  (up) or  (down) to adjust the colour saturation value of the picture.

Adjust the picture contrast



 Settings > Picture > Backlight contrast  or OLED contrast.

Press the arrows  (up) or  (down) to adjust the contrast value of the picture.

You can decrease contrast value to reduce power consumption.



Adjust the picture sharpness

 Settings > Picture > Sharpness.

Press the arrows  (up) or  (down) to adjust the sharpness value of the picture.

Adjust brightness

 Settings > Picture > Brightness.

Press the arrows  (up) or  (down) to set the level of brightness of the picture signal.

Note: Setting of brightness much away from reference value (50) may result lower contrast.

Advanced Picture Settings

Picture Clean

Noise reduction

⚙ Settings > Picture > Advanced > Picture clean > Noise reduction.

Select 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 > Picture > Advanced > Picture clean > MPEG Artefact Reduction.

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

Advanced Sharpness Settings

Ultra Resolution

⚙ Settings > Picture > Advanced > Sharpness > Ultra Resolution.

Select On to have a superior sharpness in line edges and details.

Colour Settings

Advanced Colour Settings

⚙ Settings > Picture > Advanced > Colour.

Adjust the tint setting

⚙ Settings > Picture > Advanced > Colour > Tint.

Press the arrows **▲** (up) or **▼** (down) to adjust the value of tint setting.

Adjust the colour enhancement

⚙ Settings > All settings > Picture > Advanced > Colour > Colour enhancement.

Select Maximum, Medium, or Minimum to set the level of the colour intensity and the details in bright colours.

Note: Not available when Dolby Vision signal is detected.

Adjust the colour gamut

⚙ Settings > All settings > Picture > Advanced > Colour > Colour gamut.

Select Normal or Wide to set the type of colour gamut.

Note: Not available when wide colour gamut signal is detected.

Select the preset colour temperature

⚙ Settings > Picture > Advanced > Colour > Colour temperature.

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

Whitepoint alignment

⚙ Settings > Picture > Advanced > Colour > Whitepoint alignment.

Customise the whitepoint alignment based on the selected colour temperature of the picture. Press the arrows **▲** (up) or **▼** (down) to adjust the value.

Colour control (Hue, Saturation and Intensity)

⚙ Settings > Picture > Advanced > Colour > Colour control.

Press the arrows **▲** (up) or **▼** (down) to adjust the value of Hue, Saturation and Intensity for the colour Red, Yellow, Green, Cyan, Blue and Magenta. Press the colour key **■** **Reset** to reset the picture style. If you want to reset all value to default, select **Reset all**.

Note: Available only when picture style is ISF Day or ISF Night.

RGB only mode

⚙ Settings > Picture > Advanced > Colour > RGB only mode.

Select Red, Green or Blue to switch picture as selected colour only, or select Off to turn off RGB mode.

Note: Available only when picture style is ISF Day or ISF Night.

Advanced Contrast Settings

Contrast Modes

⚙ Settings >
Picture > Advanced > Contrast > 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.

HDR Settings

If you are watching HDR programmes - programmes recorded in HDR - there is no need to upscale to HDR and the HDR Upscaling Control is unavailable. The display will automatically switched to HDR mode with indication.

This display supports following HDR formats: Hybrid Log Gamma, HDR10, HDR10+, and Dolby Vision but it is subject to the availability of such HDR format in content providers.

HDR Upscaling

⚙ Settings >
Picture > Advanced > Contrast > HDR Upscaling.

Select **On** to boost the brightness and contrast of the picture. The picture is much brighter and has a higher level of contrast between lighter and darker parts. HDR upscaling keeps colours rich and saturated. Not available when video content is supported HDR.

HDR Plus

⚙ Settings >
> Picture > Advanced > Contrast > HDR Plus.

Select **HDR Plus** for superior contrast and brightness effect.

Note: Available when HDR (High-Dynamic Range) signal is detected.

Dynamic Contrast

⚙ Settings >
Picture > Advanced > Contrast > Dynamic contrast.

Select **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.

Video Contrast, Gamma

Video contrast

⚙ Settings >
> Picture > Advanced > Contrast > Video contrast.

Press the arrows **▲** (up) or **▼** (down) to adjust the video contrast level.

Gamma

⚙ Settings >
> Picture > Advanced > Contrast > Gamma.

Press the arrows **▲** (up) or **▼** (down) to set a non-linear setting for picture luminance and contrast.

Light Sensor

⚙ Settings >
Picture > Advanced > Contrast > Light sensor.

Select **On** to adjust the picture settings automatically to the lighting conditions of the room.

Motion Settings

Motion Styles

Motion Styles

⚙ Settings >
Picture > Advanced > Motion > Motion styles.

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

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

Not available for below cases:

- ⚙ Settings > Picture > Picture style > Monitor
- ⚙ Settings > Picture > Picture style > Game

Natural Motion

Natural Motion

⚙ Settings >
> Picture > Advanced > Motion > Natural Motion.

Natural Motion makes any movement smooth and fluent.

Select from **0** to **10** to have different degrees

for reducing the motion judder, visible in movies on this display. Select **0** when noise appears in playing moving picture on-screen.

Note: Only available when Motion styles set to Personal.

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 - While watching a video, select **Settings > Picture Format > Fill Screen, Fit to Screen, Wide Screen and Original**, and press **OK**.

2 - Press **Left** (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 - While watching a video, select **Settings > 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.

Dolby Vision Notification

Settings > Picture > Dolby Vision notification.

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

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 > Picture** and press **Right** (right) to enter the menu.

2 - Select **Quick Picture Setting**, and press **OK**.

3 - Use the navigation keys to select your preferable brightness, contrast, colour and sharpness settings.

4 - Select **Finish** or press **Left** (left) repeatedly if necessary, to close the menu.

9.2

Sound

Sound Style

Select a style

Settings > 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

- **Movie** - Ideal for watching movies

- **Music** - Ideal for listening to music

- **Game** - Ideal for gaming

- **Dialogue** - Ideal for speech

- **Personal mode** - Access to a more in depth sound settings.

Restore Personal mode

1 - Set the sound style to Personal mode.

2 - Press the colour key **Restore Style**, and press **OK**. The style is restored.

Customise Personal mode

1 - Set the sound style to Personal mode.

2 - Press the colour key **Customise**, and press **OK** to change Personal mode settings.

Personal Mode Settings

Speaker virtualizer

⚙ Settings > Sound > Personal mode 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 dialogue

⚙ Settings > Sound > Personal mode settings > Clear dialogue > On.

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

AI Equalizer

⚙ Settings > Sound > Personal mode settings > AI Equalizer.

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

Custom AI Equalizer

⚙ Settings > Sound > Personal mode settings > Custom AI Equalizer.

Press the arrows **▲** (up) or **▼** (down) to adjust the level of AI Equalizer.

Placement

⚙ Settings > Sound > Display placement.

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

DTS Play-Fi

DTS Play-Fi Wireless Surround

⚙ Settings > 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 Android 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
- DTS Play-Fi app or DTS Play-Fi Headphones app installed on your phone or tablet
- Wi-Fi network

Setup to connect DTS Play-Fi compatible device

- 1 - Download DTS Play-Fi app or DTS Play-Fi Headphones app and install the App on your phone or tablet.
- 2 - Use DTS Play-Fi app or DTS Play-Fi Headphones 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 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 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 Personalization Settings

⚙ Settings > Sound > Mimi Sound Personalization settings.

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 viewing experience.

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

Open Mimi Sound Personalization under ⚙ Settings > Sound > Mimi Sound Personalization settings > 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 television with a QR code, which will sync your Hearing Test app with the display.

Advanced Sound Settings

Volume Control

Auto volume

⚙ Settings > 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 > Sound > Advanced > Delta volume.

The Delta volume setting can be used to adjust to balance the sound level difference between the programme and the HDMI source input. Press the arrows **▲** (up) or **▼** (down) 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 **TV speakers** or **HDMI sound system**.

Audio Out Settings

Audio out

⚙ Quick Menu > Frequent Settings > 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 **TV speakers off**, you permanently switch off the display speakers.
- If you select **TV 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.

If there is a Bluetooth speaker already paired with your display, it will be available on the audio out device list with its device name.

eARC

⚙ Settings > Sound > Advanced > 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 > Sound > Advanced > 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 disabled when streaming Dolby Digital Plus content.

Digital out levelling

⚙ Settings > Sound > Advanced > 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 > Sound > Advanced > 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 > Sound > Advanced > 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 picture. You can set the value in steps of 5ms. Maximum setting is 60ms.

Dolby Atmos Notification

⚙ Settings > Sound > Dolby Atmos notification.

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

9.3

Ambilight Settings

Turn Ambilight On or Off

Turn off Ambilight

Press **ambilight** and select Off, or you can turn Off by pressing ⚙ Settings > Ambilight > Ambilight style > Off.

Ambilight Style

You can select the way Ambilight follows.

📺 Quick Menu > Frequent Settings > Ambilight style.

Follow video

📺 Quick Menu > Frequent Settings > Ambilight style > Follow video.

Select one of the styles that follow the dynamics of the picture on your screen.

- Standard - Ideal for day to day watching
- Natural - Follows the picture or sound as truthful as possible
- Sports - Ideal for sports programme
- Vivid - Ideal for daylight conditions
- Game - Ideal for gaming

Follow audio

📺 Quick Menu > Frequent Settings > Ambilight style > Follow audio.

Select one of the styles that follow the dynamics of the sound.

- Lumina - Mixes audio dynamics with video colours
- Retro - Based on audio dynamics
- Rhythm - Based on audio dynamics

Lounge light

📺 Quick Menu > Frequent Settings > Ambilight style > Lounge light.

Select one of the preset colour styles.

- Hot lava – Red colour variations
- Deep water – Blue colour variations
- Fresh nature – Green colour variations
- **ISF** Warm white / ISF – Static colour
- Custom colour – Static colour of your choice. To set the colour for Ambilight static light, go to **Settings > Ambilight > Custom colour** and pick a colour you like.

Follow app

Quick Menu > Frequent Settings > Ambilight style > Follow app.

This function is available when you control Ambilight with an app.

Custom Colour

Custom colour

Settings > Ambilight > Custom colour.

To set the colour for Ambilight static light of your choice. You can pick a colour you like from the colour palette.

Advanced Ambilight Settings

Brightness

Settings > Ambilight > Advanced > Brightness.

Press the arrows **▲** (up) or **▼** (down) to set the level of Ambilight brightness.

Saturation

Settings > Ambilight > Advanced > Saturation.

Press the arrows **▲** (up) or **▼** (down) to set the level of Ambilight saturation.

Neutralise the influence of a coloured wall on the Ambilight colours

Settings > Ambilight > Advanced > Wall colour.

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

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

Settings > Ambilight > Advanced > Switch off > Fade out to off / Immediate switch off.

ISF ISF Tuning

Settings > Ambilight > Advanced > **ISF ISF tuning.**

The ISF Calibration expert tunes and locks your preferred colour for Ambilight. When the ISF Calibration is done, select **Settings > Ambilight > Ambilight style > Follow colour > **ISF** Warm white / ISF** to use ISF tuning for Ambilight.

9.4

Eco Settings

Set screen off to save energy consumption

Quick Menu > Frequent Settings > Screen off.

Select Screen off, the display screen is switched off, to switch the screen back on, press any key on the remote control.

Note:

Exceptions are volume keys and Ambilight key.

Switch on built-in ambient light sensor

Settings > Eco settings > Light sensor.

Select Light sensor, the built-in ambient light sensor lowers the brightness of the screen when the surrounding light darkens. The built-in light sensor automatically adjusts the picture, to the lighting conditions of the room.

Set the switch off timer

Settings > Eco settings > Switch off timer.

Press the arrows **▲** (up) or **▼** (down) 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.

* The display switches off if receiving signals but you don't press a key on the remote control during a 4 hour period.

* The display switches off if not receiving signals nor a remote control command for 10 minutes.

* If you use the device as a monitor or use a digital receiver to watch programme (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.

General Settings

USB Keyboard Settings

Set the keyboard layout for installed USB keyboard

⚙ Settings > General settings > 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.

Home or Shop

Select the location of your display

⚙ Settings > General settings > Location.

Select Shop, the picture style is switched back to Vivid, and can adjust shop settings. Shop mode is for in-store promotion.

Shop Setup

Adjust shop settings

⚙ Settings > General 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 > General settings > Shop setup > Picture and audio.

Select **Optimized for shop** or **custom** for picture and audio settings.

Set Logos and banner

⚙ Settings > General settings > Shop setup > Logos and banner.

Set to display Feature logos and Promotional banner.

Demo Me autostart and Ambilight Demo autostart

⚙ Settings > General settings > Shop setup > Demo Me autostart / Ambilight Demo autostart.

Turn On/Off the Demo Me or Ambilight Demo autostart.

EasyLink - HDMI CEC

Connect HDMI CEC-compatible devices to your display, you can operate them with the display's remote control.

EasyLink HDMI CEC must be switched on on the display and the connected device.

Switch on EasyLink

⚙ Settings > General settings > EasyLink > EasyLink > On.

Operate HDMI CEC-compatible devices with display remote control

⚙ Settings > General settings > EasyLink > EasyLink remote control > On.

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

It 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 the display is in the HDMI source. Recommended setting for legacy device is **Standard**.

Set the signal quality for each HDMI connectors

⚙ Settings > General settings > HDMI Ultra HD > HDMI (port) > Standard, Optimal, or Optimal (Auto Game).

To change the settings, switch to the HDMI source first. Select **Optimal** to enable the highest quality HDMI signal for 4K Ultra HD and HDR content (4K60 4:4:4, 4K60 10 or 12-bit HDR).

- The setting **Optimal** allows maximum up to Ultra HD (50 Hz 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 (50 Hz 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*
 - 12 bit: YCbCr 4:2:0*, YCbCr 4:2:2*

* Supported only when HDMI Ultra HD is set to **Optimal**.

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

• Set **Optimal (Auto Game)** to enable the display to support the HDMI Variable Refresh Rate* video (on some models only and the **Picture style** setting is not **Monitor**). The display will automatically set Picture/Sound style to Game whenever it is informed by the HDMI device connected to the display.

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

Note:

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

Auto Movie Mode

Set the Auto movie mode

⚙ Settings > General settings > Auto movie mode.

Set **Auto movie mode** to **On**, if you want the display to automatically set **Picture style** to **Movie** when movie contents is detected.

HDMI Variable Refresh Rate

Set the HDMI Variable Refresh Rate

⚙ Settings > General settings > HDMI Variable Refresh Rate.

Switch on HDMI Variable Refresh Rate will adjust the panel refresh rate on-the-fly to match the source device connected to the HDMI. This can produce a smoother image with more consistent input lag and no screen tearing.

Reset Settings and Reinstall

Reset all settings value to original settings

⚙ Settings > General settings > Factory settings.

Redo full installation , and set the status back to the first time you switch on

⚙ Settings > General settings > Reinstall TV.

Enter PIN code and select Yes, the reinstall will be completed.

All settings will be reset.

The installation can take a few minute

9.6

Clock, Region, and Language Settings

Menu language

Change the language of the menu and messages

⚙ Settings > All settings > Region and language > Menu language.

Clock

⚙ Settings > Region and language > Clock.

Correct clock automatically

⚙ Settings > Region and language > Clock > Auto clock mode.

- The standard setting for the clock is **Automatic**. The time information comes from the broadcasted UTC - Coordinated Universal Time information.
- If the clock is not correct, you can set the clock manually.

Correct clock manually

⚙ Settings > Region and language > Clock > Auto clock mode > Manual.

⚙ Settings > Region and language > Clock > Date, Time.

Go to previous menu, and select Date and Time to adjust the value.

Note:

- If none of the automatic settings display the time correctly, you can set the time manually.

Switch to Standby automatically after a preset time

⚙ Settings > Region and language > Clock > Sleep timer.

9.7

Android Settings

⚙ Settings > Android settings.

View the list of installed Apps, check out the free space to download more or uninstall an App.

9.8

Universal Access Settings

⚙ Settings > Universal access.

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

Switch on universal access settings

⚙ Settings > Universal access > Universal access > On.

Dialogue enhancement

⚙ Settings > Universal access > Dialogue enhancement.

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

9.9

Lock Settings

Set Code and Change Code

Set a new code or reset the change code

⚙ Settings > Child lock > Set code / Change code.

The child lock code is used to lock or unlock channels or programmes.

Note:

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

Lock for App

Set lock on Philips apps

⚙ Settings > Child lock > App lock.

You can lock apps unsuited for children. You can lock 18+ rated apps from the Philips apps or set up a restricted profile in the Home menu.

18+

The 18+ app lock will ask for a PIN code when you try to start an 18+ rated app. This lock is only valid for 18+ rated apps from the Philips apps.

Restricted profile

You can set up a restricted profile for the Home menu where only the apps you allow are available. You need to enter a PIN code to set up and switch on the restricted profile.

Google Play Store - Maturity

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. The level of maturity will determine which apps are available for installation.

Videos, Photos and Music

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 SimplyShare Devices and press (right) to select the device you need.
- 3 - Once a SimplyShare device is connected, the SimplyShare 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 **EXIT**.

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.

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 favourite** to add the selected folder to favourite menu - **Favourites**.
- 5 - To stop playing videos, photos and music, press **EXIT**.

Play your Videos

Play Videos

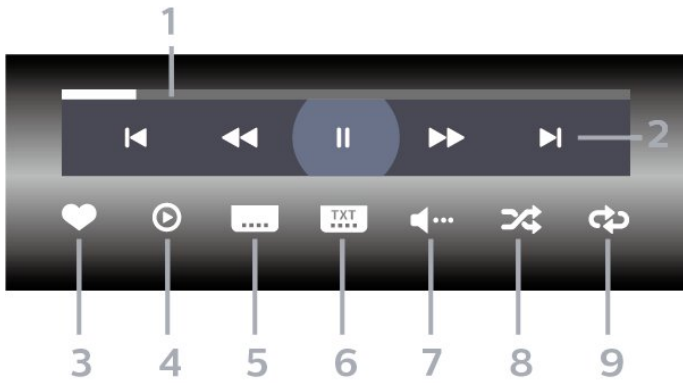
Open video folder

- 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 favourite** to add the video folder to favourite menu - **Favourites**.

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 favourite** to add the selected video to favourite menu - **Favourites**.

Control bar



- 1 - Progress bar
- 2 - Playback control bar
 - ◀: Jump to the previous video in a folder
 - ▶: Jump to the next video in a folder
 - ⏮: Rewind
 - ⏭: Fast forward
 - ⏸: Pause the playback
- 3 - Mark as favourites
- 4 - Play all videos
- 5 - Subtitle: switch subtitles On, Off or On During Mute.
- 6 - Subtitle language: select a Subtitle Language
- 7 - Audio language: select an audio language
- 8 - Shuffle: play your files in a random order
- 9 - Repeat: plays all videos in this folder once or continuously

Video Options

Browse video files...

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

Playing video files...

- **Mark as favourites** – Mark the video as favourites
- **Subtitle setting** – Set subtitle font size, colour, position...etc
- **Info** – Show video information

10.5

View your Photos

View Photos

Open photo folder

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **>** (right) to select the USB device you need.
- 3 - Select **Photos**, you can press **Mark favourite** to add the photo folder to favourite 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 favourite** to add the selected photo to favourite menu - **Favourites**.

Control bar



- 1 - Playback control bar
 - ◀: Jump to the previous photo in a folder
 - ▶: Jump to the next photo in a folder
 - ⏸: Pause the slideshow playback
- 2 - Mark as favourites
- 3 - Start a slideshow
- 4 - Rotate the photo
- 5 - Shuffle: play your files in a random order
- 6 - Repeat: plays all photos in this folder once or continuously
- 7 - Stop the music playing in the background
- 8 - Set the speed of the slide show

Photo Options

Browse photo files...

- List/Thumbnails – List or thumbnails views
- Shuffle – Play your files in a random order
- Repeat – Play the slide show once or continuously
- Stop music – Stop background music playing
- Slide Show Speed – Set the speed of the slide show
- Info – Show photo information

Playing photo files...

- Mark as favourites – Mark the photo as favourites
- Info – Show photo information

View 360 Photos

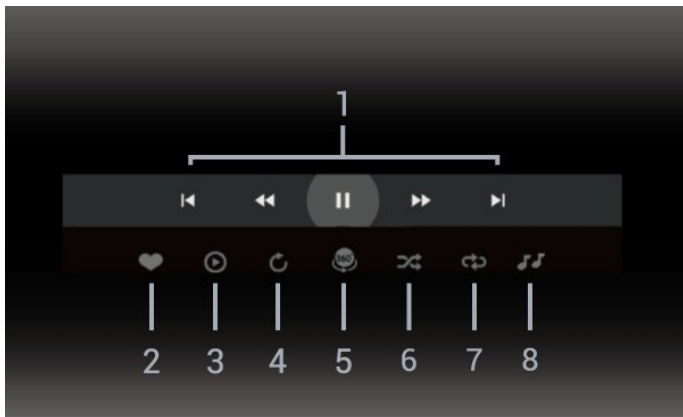
Open 360 Photos folder

- 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 favourite** to add the 360 photos folder to favourite 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 favourite** to add the selected photo to favourite menu - **Favourites**.

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

- **>>**: Wind playback at 2x, 4x, 32x speed
- **||**: Pause the playback

2 - Mark as favourites

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.

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
- Info – Show 360 photo information

10.6

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 favourite** to add the music folder to favourite menu - **Favourites**.
- 4 - You can quickly find a music using classification - **Genres, Artists, Albums, Tracks**.

Play music

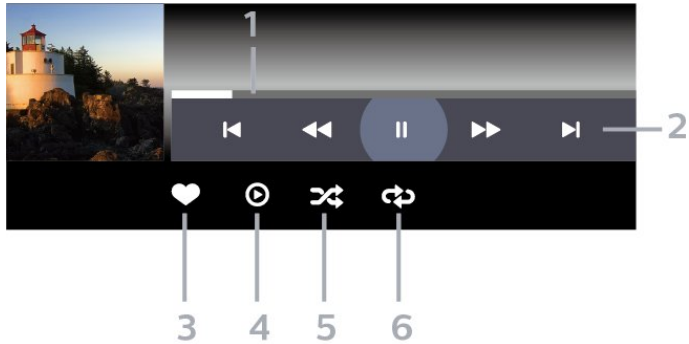
- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **>** (right) to

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 favourite** to add the selected music to favourite menu - **♥ Favourites**.

Control bar



1 - Progress bar

2 - Playback control bar

- ◀: Jump to the previous music in a folder

- ▶: Jump to the next music in a folder

- ◀◀: Rewind

- ▶▶: Fast forward

- ||: Pause the playback

3 - Mark as favourites

4 - Play all music

5 - Shuffle: play your files in a random order

6 - Repeat: plays all music in this folder once or continuously

Music Options

Browse music files...

- **Shuffle** – Play your files in a random order.
- **Repeat** – Plays all songs in this folder once or continuously.

Playing music files...

- **Mark as favourites** – Mark the music as favourites

Smartphones and Tablets

Philips TV Remote App

The new Philips TV Remote App on your smartphone or tablet is your new display buddy.

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

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

Google 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 the 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/androidtv

Cast to Your Display

To cast an app to the 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 the display.

Games

12.1

What You Need

On this display, you can play games...

- from the **Philips TV Collection** in the Home menu
- from the **Google Play Store** in the Home menu
- from a connected Game Console

Games from the Philips TV Collection or the Google Play Store must be downloaded and installed on the display before you can play them. Some games need a gamepad to play.

To install game apps from the Philips TV Collection or the Google Play Store, the display must be connected to the Internet. You must agree to the Terms of Use to use apps from the Philips TV Collection. You must sign in with a Google Account to use the Google Play apps and Google Play Store.

12.2

Gamepads

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

12.3

Play a Game From Game Console

To start a game from a Game Console...

- 1 - Switch on the Game Console.
- 2 - Press **➔ SOURCES** and select a game console or the name of the connection.
- 3 - Start the game.
- 4 - Press **← Back** repeatedly or press **tv EXIT** or stop the app with its dedicated exit/stop button.

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

Ambilight

Ambilight Style

Follow Video

You can set Ambilight to follow the video or the audio dynamics of a programme. Alternatively, you can set Ambilight to show a preset colour style or you can switch Ambilight off.

If you select **Follow Video**, you can select one of the styles that follow the dynamics of the picture on your screen.

To set the Ambilight Style...

- 1 - Press **ambilight**.
- 2 - Select **Follow Video** and press **OK**.
- 3 - Select the style you want and press **OK**.
- 4 - Press **◀** (left) to go back one step or press **← Back** to close the menu.

The available **Follow Video** styles are...

- **Standard** - Ideal for day to day watching
- **Natural** - Follows the picture or sound as truthful as possible
- **Sports** - Ideal for sports programme
- **Vivid** - Ideal for daylight conditions

- **Game** - Ideal for gaming

Follow Audio

You can set Ambilight to follow the video or the audio dynamics of a programme. Alternatively, you can set Ambilight to show a preset colour style or you can switch Ambilight off.

If you select **Follow Audio**, you can select one of the styles that follow the dynamics of the sound.

To set the Ambilight Style...

- 1 - Press **ambilight**.
- 2 - Select **Follow Audio** and press **OK**.
- 3 - Select the style you want and press **OK**.
- 4 - Press **◀** (left) to go back one step or press **← Back** to close the menu.

The available **Follow Audio** styles are...

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

Lounge Light

You can set Ambilight to follow the video or the audio dynamics of a programme. Alternatively, you can set Ambilight to show a preset colour style or you can switch Ambilight off.

If you select **Lounge light**, you can select one of the preset colour styles.

To set the Ambilight Style...

- 1 - Press **ambilight**.
- 2 - Select **Lounge light** and press **OK**.
- 3 - Select the style you want and press **OK**.
- 4 - Press **◀** (left) to go back one step or press **← Back** to close the menu.

The available **Lounge light** styles are...

- **Hot Lava** - Red colour variations
- **Deep Water** - Blue colour variations
- **Fresh Nature** - Green colour variations
- **ISF Warm white / ISF** - Static colour
- **Custom colour** - Static colour of your choice. To set the colour for Ambilight static light, go to **⚙ Settings > Ambilight > Custom colour** and pick a colour you like.

Follow App

Follow App setting is available when you control Ambilight with an app.

Ambilight Off

To switch off Ambilight...

- 1 - Press **ambilight**.
- 2 - Select **Off** and press **OK**.
- 3 - Press **◀** (left) to go back one step or press **← Back** to close the menu.

Ambilight Settings

For more information, in **Help**, press the colour key **■ Keywords** and look up **Ambilight Settings** for more information.

Lounge Light Mode

The lounge light mode of your display allows you to switch on the Ambilight when the display is in standby. So you can light up your room with Ambilight.

After you have switched your display to standby and wish to switch on the Ambilight lounge light, follow these steps:


- 1 - Press **ambilight**.
- 2 - After you have pressed the **ambilight**, the Ambilight lounge light will be switched on.
- 3 - Press **ambilight** again if you wish to change to a different light effect.
- 4 - To switch off the Ambilight lounge light, press **ambilight** until you see the lights are turned off. You may need to press **ambilight** a few times.

Sunrise Alarm

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



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


To enter the Sunrise alarm setting menu...

- 1 - Press  to open Quick Menu.
- 2 - Select **Sunrise alarm** and press **OK** to open it.
 - **Alarm**: set multiple alarms up to 5, for repeat/select days, On/Off settings.
 - **Backdrop**: follow weather or select from photo categories.
 - **Music**: music track to play during wake up.
 - **Switch on volume**: music volume to set during wake up.
 - **Weather**: settings for local weather forecast.
 - **Preview**: you can preview the wake up effect.

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

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

-  **Standby / On**: exits the Sunrise app and switch the display to standby.
-  **Back** : exits the Sunrise app and switch to last viewed input source.

-  **HOME** : exits the Sunrise app and switch to launcher.
- If Sunrise alarm is not exited to other application after 30 min since Sunrise wake-up, the display shall auto shutdown to standby.

Note:


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

Ambisleep


Ambisleep simulates sunset to help you unwind before you fall asleep. At the end of simulation, the display will automatically switch to standby.

-  **Settings > Ambilight > Ambisleep.**


Ambisleep on

-  **Quick Menu > Frequent Settings > Ambisleep on.**
- Select to turn on Ambisleep.


Duration

-  **Settings > Ambilight > Ambisleep > Duration.**
- Set the duration (in minutes) of the Ambisleep.


Brightness

-  **Settings > Ambilight > Ambisleep > Brightness.**
- Set the starting brightness of the Ambisleep.

Colour

-  **Settings > Ambilight > Ambisleep > Colour.**
- Select the light colour of your preference.

Sound

-  **Settings > Ambilight > Ambisleep > Sound.**
- Select the nature sound you like to use during Ambisleep.

Ambilight Extension

Ambilight+Hue

Configure

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > Configure.

Setup your Philips Hue bulbs to follow the colours of Ambilight.

* Note: Ambilight+Hue feature will work with Hue lamp type of "Colour Light" and "Extended Colour Light".

Switch on/off Ambilight+hue

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > Switch on/off.

Immersion

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > Immersion.

Press the arrows **▲** (up) or **▼** (down) to adjust how accurate the Hue bulbs follow the Ambilight.

Lounge Light+hue

If you installed Ambilight+hue, you can let the hue bulbs follow Lounge Light from Ambilight. The Philips hue lamps will expand the Lounge Light effect across the room.

Switch on/off the hue bulbs

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > Lounge light+hue.

View Configuration or Reset

View current setup of the Ambilight+hue, network, Bridge and bulbs

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > View configuration.

Reset current setup of the Ambilight+hue

⚙ Settings > Ambilight > Ambilight extension > Ambilight+hue > Reset configuration.

Ambilight+Philips Wireless Home Speakers

⚙ Settings > Ambilight > Ambilight extension > Ambilight+Philips Wireless Home Speakers.

Setup your Philips Wireless Home Speakers to follow the colours of Ambilight when the display is in standby. Before starting the setup, make sure the display and your Philips Wireless Home Speakers are connected to the same Wi-Fi network.

Configure

⚙ Settings > Ambilight > Ambilight extension > Ambilight+Philips Wireless Home Speakers > Configure.

Configure the Ambilight+Philips Wireless Home Speakers. Follow the instructions on screen to link maximum of 10 Speaker LEDs to your display. For each linked Speaker LED, you can select the colour zone to follow relative to the display and adjust the brightness of the light.

Note: When Ambilight+hue is on, Ambilight+Philips Wireless Home Speakers will be off, and vice versa.

Switch on/off

⚙ Settings > Ambilight > Ambilight extension > Ambilight+Philips Wireless Home Speakers > Switch on/off.

Switch Ambilight+Philips Wireless Home Speakers on/off.

Lounge light+Philips Wireless Home Speakers

⚙ Settings > Ambilight > Ambilight extension > Ambilight+Philips Wireless Home Speakers > Lounge light+Philips Wireless Home Speakers.

Switch on to let your Philips Wireless Home Speakers to follow the colours of Lounge Light Ambilight. The Philips Wireless Home Speakers will expand the Lounge Light effect across the room.

View configuration

⚙ Settings > Ambilight > Ambilight extension > Ambilight+Philips Wireless Home Speakers > View configuration.

View the current setup of the Ambilight+Philips Wireless Home Speakers, network and Speaker LEDs.

Reset configuration

⚙ Settings > Ambilight > Ambilight extension

> Ambilight+Philips Wireless Home Speakers > Reset configuration.

Reset current setup of the Ambilight+Philips Wireless Home Speakers.

Netflix

If you have a Netflix membership subscription, you can enjoy Netflix on this device. Your device 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 standby mode.

www.netflix.com

Alexa

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 volume and more.

To control your display with Alexa, you will need...

- Philips Android 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 TV Voice Control" skill can be found on Alexa Skills store, it offers various voice control commands to work with your Philips Android 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 models. Please refer the user manual of your display to know the supported Ambilight styles.

Using Alexa

To use Alexa, you need to first setup the Alexa client service on your Philips Android Smart Display. Start the setup by launching the "Amazon Alexa" app from the Home screen of your display. Follow the instructions and complete the following steps:

- Select a name for your Android 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 - Press  HOME and open "Amazon Alexa" app.

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 TV Voice Control" skill. The second is to link your Google account and then the final is to discover devices.

6 - Select **Enable** or **Disable** for the 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 TVs** 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 TV Voice Control". The skill will be listed in the results.

Software

16.1


Update Software

Update from Internet



If the display is connected to the Internet, you may receive a message to update the 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 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** > **Update Software** > **Search for Updates** and press **OK**.
- 2 - Select **Internet (recommended)** and press **OK**.
- 3 - The display will look for an update on the Internet.
- 4 - If an update is available, you can update the software right away.
- 5 - A software update can take several minutes. Do not press the  key on the display or remote control.
- 6 - When the update is done, the display will return to the programme you were watching.

Update from USB

It might be necessary to update the software.

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

To update the software...

- 1 - Select  **Settings** > **Update Software** > **Search for Updates** and press **OK**.
- 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 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 programme 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 software, delete the autorun.upg file from the USB flash drive.

16.2

Software Version


To view the current software version...

- 1 - Select  **Settings** > **Update Software** > **Current Software info**, and press **OK**.
- 2 - The version, release notes and creation date are shown. Also, the Netflix ESN Number is shown if available.
- 3 - Press **<** (left) repeatedly if necessary, to close the menu.

16.3

Automatic Software Update

To switch on Automatic software update to update your display's software automatically. Leave the display in standby.

- 1 - Select  **Settings** > **Update Software** > **Automatic Software Update** > **On**, and press **OK**.
- 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.

16.4

View Software Update History

View the list of software versions that are successfully updated.

To view the software update history...

- 1 - Select **Settings > Update Software > View software update history** and press OK.
- 2 - The software update history on this display will be listed.

16.5

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

16.6

Open Source License

About Open Source License

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.

TP Vision Europe B.V. MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THIS SOFTWARE. TP Vision Europe B.V. offers no support for this software. The

preceding does not affect your warranties and statutory rights regarding any TP Vision Europe B.V. product(s) you purchased. It only applies to this source code made available to you.

16.7

Announcements

You can receive an announcement on new software available for download or other software related issues.

To read these announcements...

- 1 - Select **Settings > Update Software > Announcements**, and press OK.
- 2 - If there is an announcement, you can read it or select one of the announcements available.

Specifications

17.1

Environmental

Product Fiche

55PUH8816/96

- Visible Screen Size : 139 cm / 55 inch
- On Mode Power Consumption (W) : 155 W
- Standby Power Consumption (W) ** : 0.3 W
- Display Resolution (Pixels) : 3840 x 2160p

70PUH8816/96

- Visible Screen Size : 177 cm / 70 inch
- On Mode Power Consumption (W) : 245 W
- Standby Power Consumption (W) ** : 0.3 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 \approx 0.5W. 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.

17.2

Power

Product specifications are subject to change without notice. For more specification details of this product, see www.philips.com/TVsupport

- 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.

17.3

Operating System

Android OS :

Android 10

17.4

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)

17.5

Display Type

Diagonal screen size

- 139 cm / 55 inch
- 177 cm / 70 inch

Display resolution

- 3840 x 2160

Display Input Resolution

Supported Computer/Video resolution

Resolution — Refresh rate

Video Inputs - Max frame rate is 60Hz (Display can be in Video/Game/Computer mode)

- 640 x 480 - 60Hz
- 576p - 50Hz
- 720p - 50Hz, 60Hz
- 1920 x 1080p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 2560 x 1440 - 60Hz
- 3840 x 2160p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 4096 x 2160p - 24Hz, 25Hz, 30Hz, 50Hz, 60Hz

Supported Video only resolution

Resolution — Refresh rate

Video Inputs (Display can be Video or Game Mode)

- 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)

* Note: Some resolution and frame rate may not be supported in all input sources.

Connectivity

Side

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

Bottom

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

Sound

Output power (RMS) : 20W

Dolby MS12 V2.5

- Dolby Atmos
- DTS – HD (M6)
- DTS Play-Fi
- Surround Virtualizer + Height Virtualizer
- Dolby Bass Enhancement
- Dolby Dialogue Enhancement
- Dolby Volume (AVL/Night Mode)
- AI Sound
- AI EQ
- Mimi Health Hearing

Multimedia

Connections

- USB 2.0 / USB 3.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11a/b/g/n/ac, Dual Band
- BT 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) is supported up to High Profile @ L5.2 80Mbps
 - H.265 (HEVC) is supported up to Main / Main 10 Profile up to High Profile @ L5.1 80Mbps
- Image Codecs : JPEG, GIF, PNG, BMP, HEIF, 360 Photo

Supported media server software

- You can use any DLNA V1.5 certified media server software.
- You can use the Philips TV Remote app (iOS and Android) on mobile devices.

Performance may vary, depending on the capabilities of the mobile device and the software used.

Help and Support

18.1


Register your product

Register your product and enjoy a range of benefits including full support (including downloads), privileged access to information about new products, exclusive offers and discounts and even participate in special surveys about new releases.

Go to www.philips.com/TVsupport



18.2

Using Help

This display offers help on screen .


To download the Help (user manual) go to www.philips.com/TVsupport

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 this display. To look up topics alphabetically, press the colour 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 colour key  **Close**.

For some activities, the colour keys have specific functions and cannot open Help.

Help on your tablet, smartphone or computer

To carry out extended sequences of instructions more easily, you can download the Help in PDF format to read on your smartphone, tablet or computer. Alternatively, you can print the relevant Help page from your computer.

Quick Menu > Help

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

- **How to** – You can see instructions on how to update software, connect external devices and use Smart functions on your display.
- **Check the network** – Check the network connection.
- **Check the remote control** – Perform the test to verify the bundled remote control functionality.

- **Optimize internal storage** – Free up space in display's internal storage for optimal performance.
- **Update software** – Check available software updates.
- **User manual** – Read the user manual for information.
- **Troubleshooting** – Find a solution for frequent ask questions.
- **Factory settings** – Reset all settings to factory settings.

- **Reinstall TV** – Reinstall and redo the complete TV installation.
- **Contact info** – Show the telephone number or web address for your country or region.

18.3

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. 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 display goes back to standby after showing the Philips startup screen

When the display is in standby, a Philips startup screen is displayed, then the display returns to standby mode. This is normal behaviour. When the display is disconnected and reconnected to the

power supply, the startup screen is showed at the next startup. To switch on the display from standby, press **⏻** on the remote control or on 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 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.
- Make sure HDMI video source is not supported HDR content.

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 show 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 the 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 colour 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.

No volume icon shown

- When an HDMI-CEC audio device is connected and you use the Display's 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.

- 1 - Press  HOME to go to Home screen .
- 2 - Select the  icon (Settings) from System bar on the top of Home screen and press OK.
- 3 - Press 5 times  (down).
- 4 - Press 3 times , select your language and press OK.
- 5 - Press  Back to close the menu.

18.4

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 software or the manual to read on your computer.

18.5

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.

Model number and serial number

You might be asked to provide the 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.

⚠ Warning

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

Safety and Care

19.1

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 Quantum Dot Smart Display

Model (type):

- 55PUH8816/96
- 70PUH8816/96

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 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 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

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 is not overhanging the edge of the supporting furniture.
- ALWAYS use cabinets or stands or mounting methods recommended by the manufacturer of the display.
- ALWAYS use furniture that can safely support the display.
- ALWAYS educate children about the dangers of climbing on furniture to reach the display 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 in an unstable location.
- NEVER place the display 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 on cloth or other materials that may be located between the display 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 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 20 cm or 8 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 and antenna before lightning storms. During lightning storms, never touch any part of the display, power cord or antenna cable.

Risk of Hearing Damage

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

Low Temperatures

If the 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.

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 colour fading, wipe off water drops as quickly as possible.
- Avoid stationary images as much as possible.

Stationary images are images that remain onscreen for extended periods of time. Stationary images include onscreen menus, black bars, time displays, etc. If you must use stationary images, reduce screen contrast and brightness to avoid screen damage.

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

Terms of Use

20.1

Terms of Use – Display

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This product was brought to the market by TP Vision Europe B.V. or one of its affiliates, hereinafter referred to as TP Vision, which is the manufacturer of the product. TP Vision is the warrantor in relation to the 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 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 product has a high number of colour pixels. Although it has effective pixels of 99.999% or more,

black dots or bright points of light (red, green or blue) may appear constantly on the screen. This is a structural property of the display (within common industry standards) and is not a malfunction.


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.

20.2

Terms of Use – Smart Display

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

To open the terms of use of Smart page...

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

20.3

Terms of Use – Philips TV Collection

In Help, press the colour key  Keywords and look up Terms of Use, Philips TV Collection for more information.

Copyrights

HDMI

The terms HDMI, HDMI High-Definition Multimedia Interface, and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator, Inc.



HEVC

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



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21.7

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