

User Manual

65HFL711T

PHILIPS

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TV Tour

1.1

Ambilight

Ambilight is the most elegant and exclusive feature of your new Philips TV.

A subtle glow of coloured light that shines from behind the screen - expanding your visual experience. With Ambilight your eyes relax but your mind is fully taken up by what you see.

With **Ambilight+hue** you even expand Ambilight further. Bringing in the wireless controlled bulbs of **Philips Hue***. All of them setup to fill your room with colours that fit what's on TV.

You will miss Ambilight when you switch it off.

* Separately available.

1.2

Bluetooth Connection

Your TV has **Bluetooth** technology inside.

You can connect extra wireless speakers or a wireless headphone. Forget connecting cables, pairing your device with the TV is enough.

Setting Up

2.1

Read Safety

Read the safety instructions first before you use the TV.

2.2

TV Stand and Wall Mounting

TV Stand

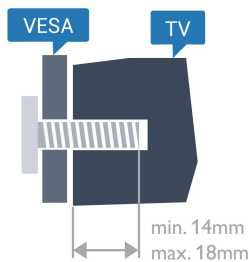
You can find the instructions for mounting the TV stand in the Quick Start Guide. The Quick Start Guide can be downloaded from www.philips.com.

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

Wall Mounting

Your TV is also prepared for a VESA-compliant wall mount bracket (sold separately).

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



• 65HFL7111T
VESA MIS-F 400x300, M6

Preparation

First remove the 4 plastic screw caps out of the threaded bushes on the back of the TV.

Make sure that the metal screws, to mount the TV to the VESA-compliant bracket, go about 10mm deep inside the threaded bushes of the TV.

Caution

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

according to the TV's weight. Also read the safety precautions before positioning the TV. TP Vision Europe B.V. bears no responsibility for improper mounting or any mounting that results in accident or injury.

2.3

Tips on Placement

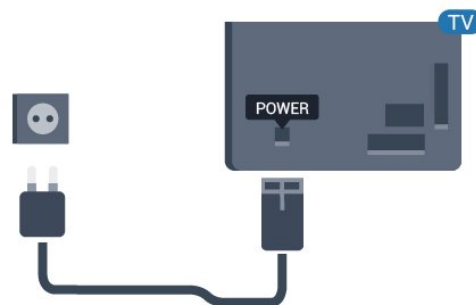
- Position the TV where light does not shine directly on the screen.
- Position the TV up to 15 cm away from the wall.
- The ideal distance to watch TV is 3 times its diagonal screen size. When seated, your eyes should be level with the centre of the screen.



2.4

Power Cable

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



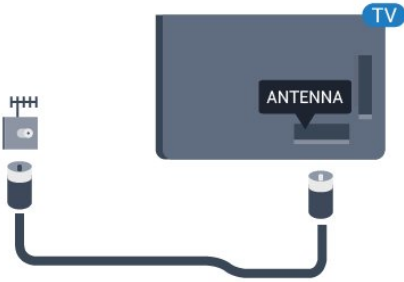
Although this TV has a very low standby power consumption, unplug the power cable to save energy if you do not use the TV for a long period of time.

Antenna Cable

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

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

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



Connect your Android TV

Network and Internet

Home Network

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

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

Connect to Network

Wireless Connection

What you need

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

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



Make the Connection

Wireless

Follow steps 1 to 5.

Step 1 - Make sure that the router of your wireless network is switched on.

Step 2 - Consumer Mode:

On – Press HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to

Installation manual)

Step 3 - Select **Wireless and Networks > Connect to network** and press **OK**.

Step 4 - Select **Connect to network** and press **OK**.

Step 5 - Select **Wireless** and press **OK**.

WPS

If your router has WPS, you can directly connect to the router without scanning for networks. Go to the router, press the WPS button and return to the TV within 2 minutes. Then press **Connect** to make the connection.

If you have devices in your wireless network that use the WEP security encryption system, you cannot use WPS.

1 - Consumer Mode: On – Press HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Wireless and Networks > Settings** and press **OK**.

3 - Select **Network type > WPS** then press **OK**.

4 - Go to the router, press the WPS button and return to the TV within 2 minutes.

5 - Select **Connect** to make the connection.

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

WPS with PIN Code

If your router has WPS with a PIN code, you can directly connect to the router without scanning for networks. If you have devices in your wireless network that use the WEP security encryption system, you cannot use WPS.

1 - Consumer Mode: On – Press HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Wireless and Networks > Settings** and press **OK**.

3 - Select **Network type > WPS with PIN code** and press **OK**.

4 - Write down the 8-digit PIN code shown on screen and enter it in the router software on your PC. Consult the router manual on where to enter the PIN

code in the router software.

5 - Select **Connect** to make the connection.

6 - 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 devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the TV's wireless connection.
- If the wireless network does not work properly in your home, try the wired network installation.

Internet does not work

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

The PC and Internet connection are slow

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

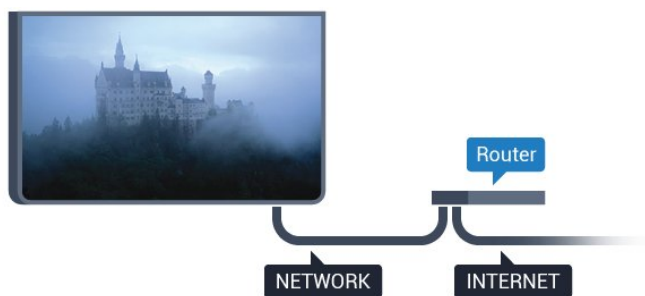
DHCP

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

Wired Connection

What You Need

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



Make the Connection

To make a wired connection...

- 1 - Connect the router to the TV with a network cable (Ethernet cable**).
- 2 - Make sure that the router is switched on.
- 3 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

4 - Select **Wireless and Networks** > **Connect to network** and press **OK**.

5 - Select **Wired** then press **OK**.

6 - The TV constantly searches for the network connection. A message will be shown when the connection is successful.

Network configuration

If the connection fails, you can check the DHCP setting of the router. DHCP should be switched on. Alternatively, if you are an advanced user and want to install your network with static IP addressing, set the TV to Static IP.

To set the TV to Static IP:

Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

Select **Wireless and Networks** > **Settings** > **Network configuration** > **Static IP**. With Static IP selected in the menu, you can set the IP address and other necessary settings in **Static IP configuration** in the same menu.

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

Network Settings

View Network Settings

You can view all current network settings here. The IP and MAC address, signal strength, speed, encryption method, etc.

To view the current network settings...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Wireless and Networks** and press **OK**.


3 - Select **Settings** > **View Network Settings** and press **OK**.

4 - Press **BACK** repeatedly if necessary, to close the menu.

Network Configuration


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

To set the TV to Static IP...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Settings > Network Configuration** and press **OK**.
- 4 - Select **Static IP** and press **OK** to enable **Static IP Configuration**.
- 5 - Press **← BACK** to go back to previous level.
- 6 - Select **Static IP Configuration** and configure the connection.
- 7 - You can set the number for **IP Address, Netmask, Gateway, DNS 1, or DNS 2**.
- 8 - Press **← BACK** repeatedly if necessary, to close the menu.

Switch On with LAN (WoL)


To switch on WoL...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Settings > Wake on LAN (WoL)** and press **OK**.
- 4 - Select **On** to enable **Wake on LAN (WoL)**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Switch On with Wi-Fi (WoWLAN)

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

To switch on WoWLAN...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Settings > Wake on Wi-Fi (WoWLAN)** and press **OK**.


4 - Select **On** to enable **Wake on Wi-Fi (WoWLAN)**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Switch on Wi-Fi connection

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


To switch on Wi-Fi...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Connect to Network** and press **OK**.
- 4 - Select **Connect** and press **OK**.
- 5 - Select **Wireless** and press **OK**.
- 6 - Press **← BACK** repeatedly if necessary, to close the menu.

Digital Media Renderer - DMR

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


To switch on DMR...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Features > PTA** and press **OK**.
- 4 - Select **Digital Media Renderer - DMR** and press **OK**.
- 5 - Select **On** and press **OK**.
- 6 - Press **← BACK** repeatedly if necessary, to close the menu.

Switch on Wi-Fi Miracast

Switch on Wi-Fi Miracast to share the screen of your smartphone, tablet or computer on the TV.

To switch on Miracast...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)

- 2 - Select **Wireless and Networks** > **Miracast** and press **OK**.
- 3 - Select **Features** > **Wi-Fi Miracast** and press **OK**.
- 4 - Select **Enable** and press **OK**.
- 5 - Select **Yes** and press **OK**.
- 6 - Press **← BACK** repeatedly if necessary, to close the menu.

Clear Wi-Fi Miracast connection

Clear the list of connected and blocked devices that are used with Miracast.

To clear Miracast connections...

- 1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** and press **OK**.
- 3 - Select **Features** > **Wi-Fi Miracast** and press **OK**.
- 4 - Select **Wi-Fi Miracast Connections** > **Clear All** and press **OK**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Connect Devices

4.1

About Connections

Connectivity Guide

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

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

Antenna port

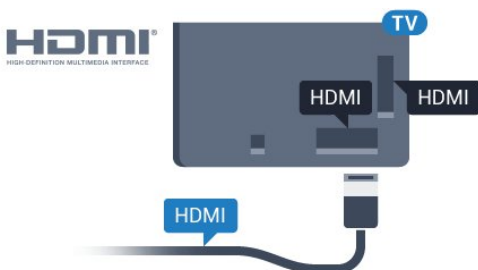
If you have a Set-top box (a digital receiver) or Recorder, connect the antenna cables to run the antenna signal through the Set-top box and/or Recorder first before it enters the TV. In this way, the antenna and the Set-top box can send possible additional channels to the Recorder to record.

HDMI ports

HDMI Quality

An HDMI connection has the best picture and sound quality. One HDMI cable combines video and audio signals. Use an HDMI cable for TV signal.

For best signal quality transfer, use a High speed HDMI cable and do not use an HDMI cable longer than 5 m.



Copy protection

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

HDMI ARC

All of the HDMI connections on the TV have HDMI ARC (Audio Return Channel).

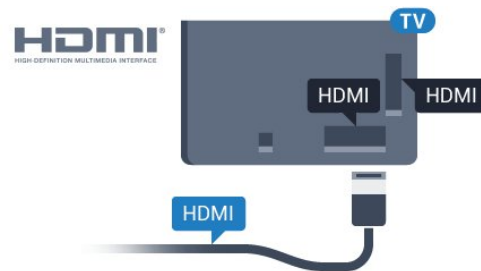
If the device, typically a Home Theatre System (HTS), also has the HDMI ARC connection, connect it to any of the HDMI connections on this TV. With the HDMI ARC connection, you do not need to connect the extra audio cable that sends the sound of the TV picture to the HTS. The HDMI ARC connection combines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

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

HDMI CEC - EasyLink

EasyLink

An HDMI connection has the best picture and sound quality. One HDMI cable combines video and audio signals. Use an HDMI cable for High Definition (HD) TV signals. For best signal quality transfer, use a High speed HDMI cable and do not use an HDMI cable longer than 5 m.



EasyLink HDMI CEC

If your devices are connected with HDMI and have EasyLink, you can operate them with the TV remote control. EasyLink HDMI CEC must be switched On on the TV and the connected device.

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

EasyLink setup

The TV comes with EasyLink switched on. Make sure that all HDMI CEC settings are properly set up on the connected EasyLink devices. EasyLink might not work with devices from other brands.

HDMI CEC on 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.

Operate Devices

To operate a device connected to HDMI and set up with EasyLink, select the device or its activity in the list of TV connections. Press **SOURCES**, select a device connected to an HDMI connection and press **OK**.

Once the device is selected, the TV remote control can control the device. However the keys **HOME** and **OPTIONS** and some other TV keys, are not forwarded to the device.

If the key you need is not on the TV remote control, you can select the key in the Options menu.

Press **OPTIONS** and select **Controls** in the menu bar. On the screen, select the device key you need and press **OK**.

Some very specific device keys might not be available in the Controls menu.

Only devices that support **EasyLink Remote Control** function will respond to the TV remote control.

EasyLink On or Off

You can switch EasyLink on or off. The TV comes with the EasyLink settings switched on.

To switch off EasyLink completely...

1 - Consumer Mode:

On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sources > Advanced > EasyLink**, and press **OK**.

3 - Select **EasyLink**, and press **OK**.

4 - Select **Off** and press **OK**.

5 - Press **BACK**, repeatedly if necessary, to close the menu.

EasyLink Remote Control

If you want devices to communicate but you don't want to operate them with the TV remote control, you can switch off EasyLink Remote Control separately.

To switch EasyLink Remote Control on or off...

1 - Consumer Mode:

On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sources > Advanced > EasyLink**, and press **OK**.

3 - Select **EasyLink Remote Control** and press **OK**.

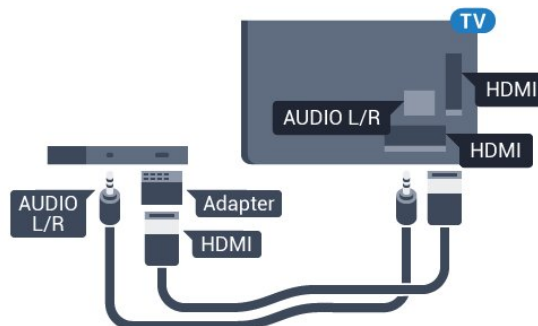
4 - Select **On** or **Off** and press **OK**.

5 - Press **BACK**, repeatedly if necessary, to close the menu.

DVI to HDMI

If you still own a device that only has a DVI connection, you can connect the device to any of the **HDMI** connection with a DVI to HDMI adapter.

Use a DVI to HDMI adapter if your device only has a DVI connection. Use one of the HDMI connections and add an Audio L/R cable (mini-jack 3.5mm) to Audio In for sound, on the back of the TV.



Copy protection

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

Y Pb Pr – Component

Y Pb Pr – Component Video is a high quality connection.

The YPbPr connection can be used for High Definition (HD) TV signals. Next to the Y, Pb and Pr signals add the Audio Left and Right signals for sound.

Match the YPbPr (green, blue, red) connector colours with the cable plugs when you connect.

Use an Audio L/R cinch cable if your device also has sound.

CAM with Smart Card - CI+

CI+

This TV is ready for the CI+ Conditional Access.

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

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

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



Smart Card

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

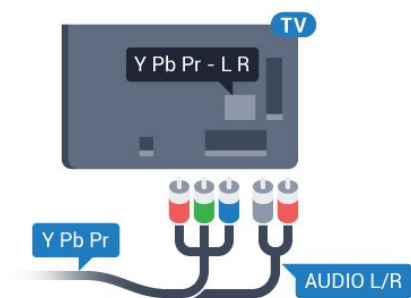
Insert the smart card into the CAM module. See the instruction you received from the operator.

To insert the CAM in the TV...

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

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

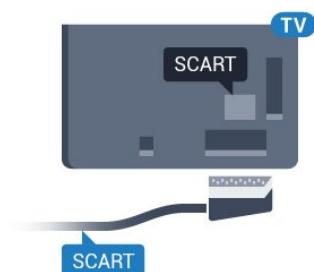
The CAM and smart card are exclusively for your TV. If you remove the CAM, you will no longer be able to watch the scrambled channels supported by the CAM.



Scart

SCART is a good quality connection.

The SCART connection can be used for CVBS and RGB video signals but cannot be used for High Definition (HD) TV signals. The SCART connection combines video and audio signals. The SCART connection also supports NTSC playback.



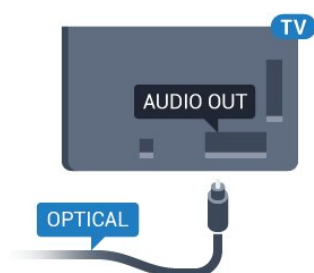
Audio Out - Optical

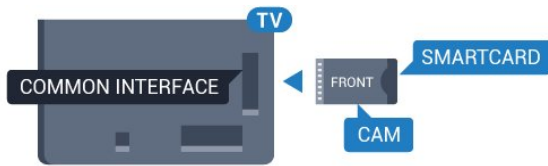
Audio Out - Optical is a high quality sound connection.

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

You can set the type of the audio out signal to fit the audio capabilities of your Home Theatre System.

If the sound does not match the video on screen, you can adjust the audio to video synchronisation.





Passwords and PIN codes

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

To set the PIN code for the CAM...

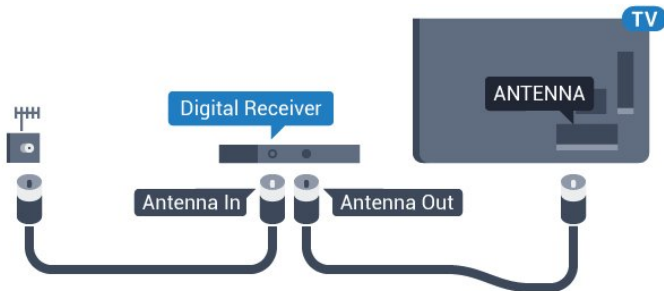
- 1 - Press **SOURCES** .
- 2 - Select the channel type you are using for the CAM for.
- 3 - Press **≡ OPTIONS** and select **Common Interface**.
- 4 - Select the TV operator of the CAM. The following screens come from the TV operator. Follow the on-screen instruction to look up the PIN code setting.

4.3

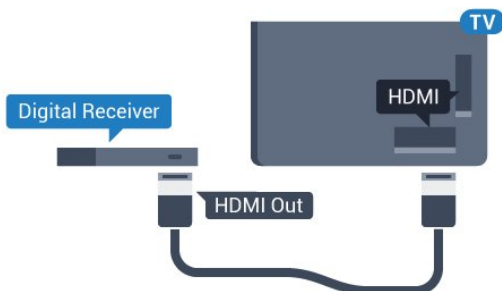
Receiver - Set-Top Box

Cable Box

Use 2 antenna cables to connect the antenna to the Set-top box (a digital receiver) and the TV.



Next to the antenna connections, add an HDMI cable to connect the Set-top box to the TV. Alternatively, you can use a SCART cable if the Set-top box has no HDMI connection.



4.4

Home Theatre System - HTS

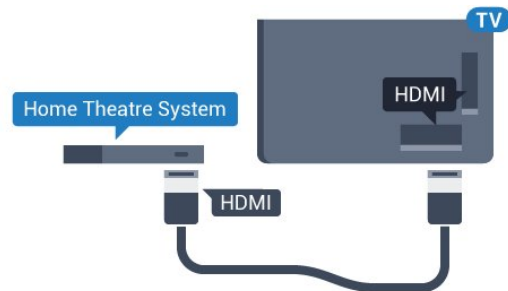
Connect with HDMI ARC

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

HDMI ARC

If your Home Theatre System has an HDMI ARC connection, you can use any HDMI connection on the TV to connect. With HDMI ARC, you do not need to connect the extra audio cable. The HDMI ARC connection combines both signals.

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



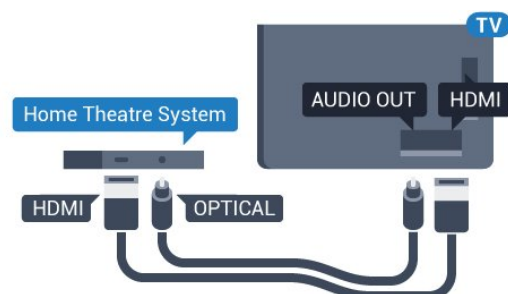
Audio to video synchronisation (sync)

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 TV. 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 (Toslink) to send the sound of the TV 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.

Audio Out Settings

Audio Out Delay

With a Home Theatre System (HTS) connected to the TV, the picture on TV and the sound from the HTS should be synchronised.

Automatic audio to video sync


With recent Philips Home Theatre Systems, the audio to video sync is done automatically and always correct.

Audio sync delay

For some Home Theatre Systems you might need to adjust the audio sync delay to synchronise the audio to the video. On the HTS, increase the delay value until there is a match between picture and sound. A delay value of 180ms may be required. Read the user manual of the HTS. With a delay value set up on the HTS, you need to switch off Audio Out Delay on the TV.

To switch off the Audio Out delay . . .

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > Audio out delay**.

3 - Select **Off** and press **OK**.

4 - Press **← BACK**, repeatedly if necessary, to close the menu.


Audio Out Offset

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

The **Audio Out Delay** setting should be switched on.

To synchronise the sound on the TV...

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > Audio out offset**.

3 - Use the slider bar to set the sound offset and press **OK**.


4 - Press **← BACK**, repeatedly if necessary, to close the menu.

Audio Out Format

If you have a Home Theatre System (HTS) with multichannel sound processing capabilities like Dolby Digital, DTS® or similar, set the Audio Out Format to Multichannel. With Multichannel, the TV can send the compressed multichannel sound signal from a TV channel or connected player to the Home Theatre System. If you have a Home Theatre System without multichannel sound processing, select Stereo.

To set **Audio Out Format**...

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > Audio out format**.

3 - Select **Multichannel** or **Stereo**.


4 - Press **← BACK**, repeatedly if necessary, to close the menu.

Audio Out Levelling

Use the Audio Out Levelling setting to level the volume (loudness) of the TV and the Home Theatre System when you switch over from one to another. Volume differences can be caused by differences in sound processing.

To level the difference in volume...

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > Audio out levelling**.

3 - If the volume difference is large, select **More**. If the volume difference is small, select **Less**.

4 - Press **← BACK**, repeatedly if necessary, to close the menu.


Audio Out Levelling affects both the Audio Out - Optical and HDMI ARC sound signals.

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 **Audio Out Format** of the TV to **Stereo (uncompressed)**.

1 - Consumer Mode:

On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > Audio out format**.


No sound

If you cannot hear the sound from the TV on your Home Theatre System, check if you connected the HDMI cable to an **HDMI ARC** connection on the Home Theatre System. All HDMI connections on the TV are HDMI ARC connections.


- Check if you connected the HDMI cable to an **HDMI ARC** connection on the Home Theatre System. All HDMI connections on the TV are HDMI ARC connections.

- Check if the **HDMI ARC** setting on the TV is switched On.

1 - Consumer Mode:

On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  **HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Advanced > HDMI ARC**.

4.5

Smartphones and Tablets

To connect a smartphone or tablet to the TV, you can use a wireless connection.

Wireless

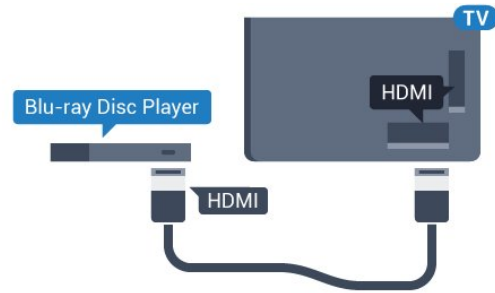
For a wireless connection, on your smartphone or tablet download the Philips TV Remote App from your favourite app store.

Note: Philips TV Remote App can only be used by making connection to TV. Use function in **Features** to make the connection.

4.6

Blu-ray Disc Player

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



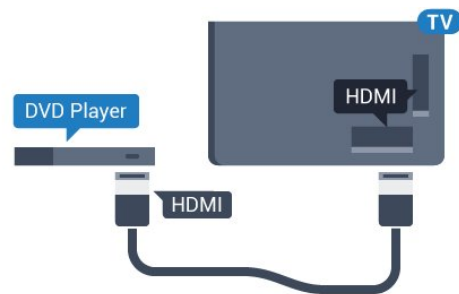
If the Blu-ray Disc player has EasyLink HDMI CEC, you can operate the player with the TV remote control.

4.7

DVD Player

Use an HDMI cable to connect the DVD player to the TV.


Alternatively, you can use a SCART cable, if the device has no HDMI connection.

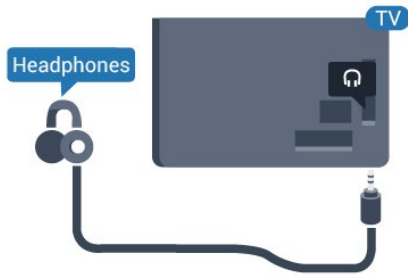


If the DVD player is connected with HDMI and has EasyLink CEC, you can operate the player with the TV remote control.

4.8

Headphones

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



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 TV while the TV is switched on.



The TV 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** or select another activity.

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

4.10

Photo Camera

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

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

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

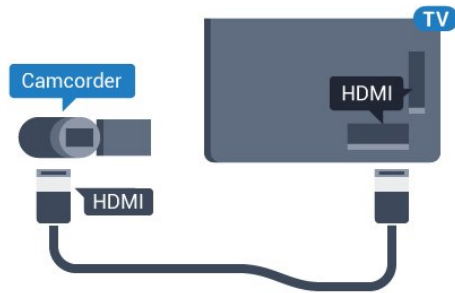
Your camera might need to be set to transfer its content with PTP (Picture Transfer Protocol). Read the user manual of the digital photo camera.

4.11

Camcorder

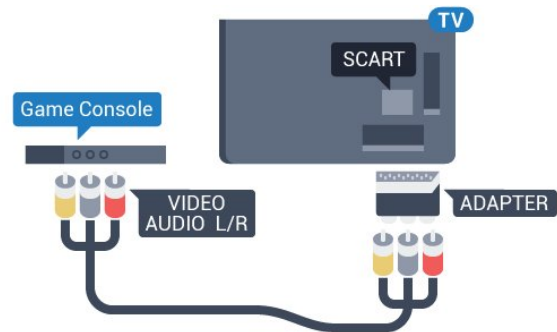
HDMI

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



Audio Video LR / Scart

You can use an HDMI, YPbPr or SCART connection to connect your camcorder. If your camcorder only has Video (CVBS) and Audio L/R output, use a Video Audio L/R to SCART adapter (sold separately) to connect to the SCART connection.



4.12

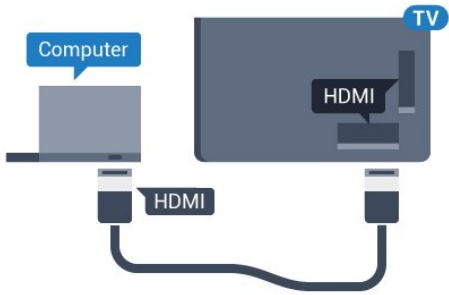
Computer

Connect

You can connect your computer to the TV and use the TV as a PC monitor.

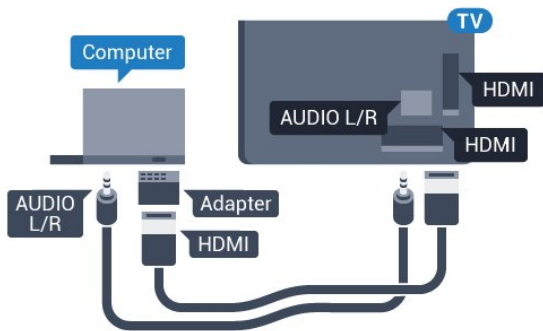
With HDMI

Use an HDMI cable to connect the computer to the TV.



With DVI to HDMI

Alternatively, you can use a DVI to HDMI adapter (sold separately) to connect the PC to HDMI and an audio L/R cable (mini-jack 3.5mm) to AUDIO IN L/R on the back of the TV.



Switching On and Off

5.1

On, Standby or Off

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

Switch on

Press **⏻** on the remote control to switch the TV on. Alternatively, press **🏠 HOME**. You can also press the small joystick key on the back of the TV to switch the TV on in case you can't find the remote control or its batteries are empty.

Switch to standby

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



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

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

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

5.2

Word mark brightness

You can switch off or adjust the brightness of the Philips logo on the front of the TV.

To adjust or switch off...

1 - Consumer Mode:

On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu:

Press **🏠 HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

- 2 - Select **Eco Settings > Philips Wordmark** and press **OK**.
- 3 - Select **Maximum, Medium, Minimum** or select **Off** to switch off the lighting of the word mark.
- 4 - Press **← BACK**, repeatedly if necessary, to close the menu.



*Only available for certain TV models

5.3

Keys on TV

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

To open the basic menu...

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

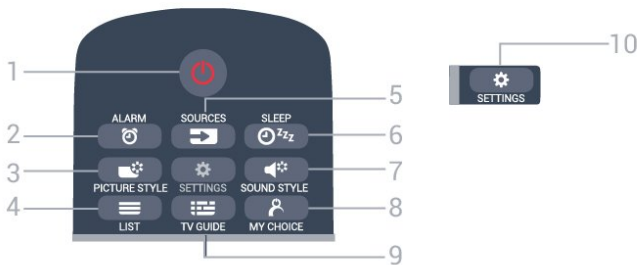
To switch the TV on standby, select **⏻** and press the joystick key.



Remote Control

Key overview

Top



1 - Standby / On

To switch the TV on or back to Standby.

2 - ALARM

To set the alarm.

3 - PICTURE STYLE

To select one of the picture style.

4 - LIST

To open the channel list.

5 - SOURCES

To open or close the Sources menu.

6 - SLEEP

To open the Sleep Timer list.

7 - SOUND STYLE

To select one of the sound style.

8 - MY CHOICE

To switch on mychoice.

9 - TV GUIDE

To open or close the TV Guide.

10 - SETTINGS

To open the Frequent Settings menu and All Settings.

Middle



1 - SMART INFO

To open the smart information page.

2 - Colour keys

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

3 - INFO

To open or close programme info.

4 - BACK

To switch back to the previous channel you selected.

To close a menu without changing a setting.

To go back to the previous App/Internet page.

5 - TV

To switch back to watching TV. To leave an interactive TV application.

6 - APPS

To open the App gallery.

7 - OPTIONS

To open or close the Options menu.

8 - OK key

To confirm a selection or setting.

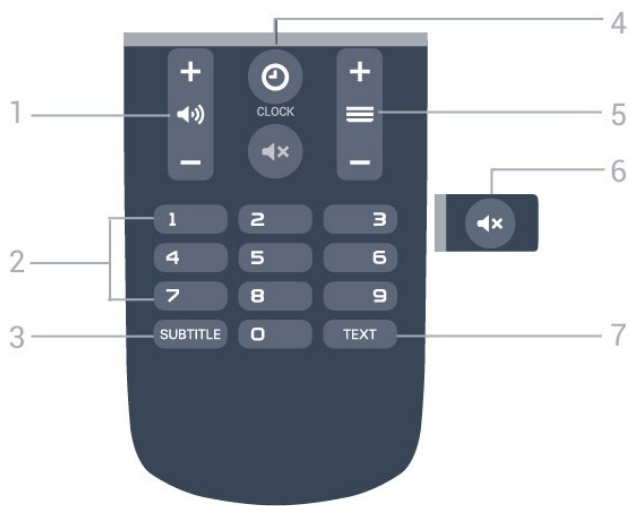
9 - Arrow / navigation keys

To navigate up, down, left or right.

10 - HOME

To open the Home menu.

Bottom



- 1 - **Volume**
To adjust the volume level.
- 2 - **Number keys**
To select a channel directly.
- 3 - **SUBTITLE**
To switch Subtitles on, off or on during mute.
- 4 - **CLOCK**
To display the clock.
- 5 - **Channel**
To switch to the next or previous channel in the channel list. To open the next or previous page in Text/Teletext. To start the next or previous chapter on a disc.
- 6 - **Mute**
To mute the sound or to restore it.
- 7 - **TEXT**
To open or close Text/Teletext.

6.2

IR Sensor

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

6.3

Batteries

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

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

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

the arrow.

- 2 - Replace the old batteries with 2 type **AAA-R03-1.5V** 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.

6.4

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.

Channels

Watching TV channels

Switch channels

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

Alternatively, press **HOME** to open the Home menu and press **▶** to select the desired channel.

To switch channels, press **≡ +** or **≡ -**. If you know the channel number, type in the number with the number keys. Press **OK** after you entered the number to switch channels.

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

To switch to a channel from a channel list

While watching a TV channel, press **≡ LIST** to open the channel grid.

The channel grid can have several pages with channels. To view the next or previous page, press **≡ +** or **≡ -**.

To close the channel lists without switching channels, press **≡ LIST** again.

Radio channels

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

Channel list

Channel list views

In the channel lists, you can find all installed TV and radio channels.

Next to the channel list **All**, which holds all installed channels where you can view the installed **Radio** stations separately or discover the newly added channels in **New**.

Channel logos

In some countries, the TV can show the channel logos. If you do not want these logos to appear, you can switch them off.

To switch off Channel logos . . .

1 - Consumer Mode:

On - Press **HOME** and select **Features** and press **OK**.

Guest Mode: On - Guest Menu: Not available in

Guest Menu.

(For professional mode information, please refer to Installation manual)

2 - Select **Channels > Channel settings >**

Enable Channel logos and press **OK**.

3 - Select **No** and press **OK**.

4 - Press **← BACK**, repeatedly if necessary, to close the menu.

Options for channels

While watching a channel, depending on the type of channel (analogue or digital) you are watching or depending on the TV settings you made, some options are available.

Open the options menu

While watching a channel, press **OPTIONS**.

Universal access

With Universal access switched on, you can set some options for hearing impaired and visually impaired people.

Video selection

Digital TV channels can offer multi video signals (multi-feed broadcast), different camera viewpoints or angles of the same event or different programmes on one TV channel. The TV shows a message if any such TV channels are available.

Subtitles

Switch **Subtitles on** or **Subtitles off** with this options. Select **Automatic** to show subtitles only when the sound is muted with **⏏**.

Subtitle language

For digital broadcast, you can select an available subtitle language temporarily if none of your preferred languages are available.

Audio languages

For digital broadcast, you can select an available audio language temporarily if none of your preferred languages are available.

Dual I-II

If an audio signal contains two audio languages but one language — or both — has no language indication, this option is available.

Common interface

If prepaid premium content is available from a CAM, you can set the provider settings with this option.

HbbTV on this channel

You can block the HbbTV pages from a channel that offers HbbTV.

Status

Select **Status** to view technical information on the channel (if it is analogue or digital) or a connected device you are watching.

Share

Enables the user to communicate his activity with his social networks (such as Twitter or email).


*For Smart TVs only.

Picture format


If black bars appear on top and bottom or on both sides of the picture, you can adjust the picture format to a format that fills the screen.

To change the picture format . . .

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu:

Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture** > **Picture Format** and press **OK**.

3 - Select a format from the list and press **OK**.

4 - Press **← BACK**, repeatedly if necessary, to close the menu.

The following format can be available according the picture on screen . . .

- Fill screen
- Fit to screen
- Super zoom
- Movie expand 16:9
- Wide screen
- Unscaled
- 4:3

7.2

Text / Teletext

Text Pages

To open Text/Teletext press **TEXT**, while you are watching TV channels.

To close Text, press **TEXT** again.

Select a Text page

To select a page . . .

1 - Enter the page number with the number keys.

2 - Use the arrow keys to navigate.

3 - Press a colour key to select a colour-coded subject at the bottom of the screen.


Text sub-pages

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

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

T.O.P. Text pages

Some broadcasters offer T.O.P. Text.

To open T.O.P. Text pages within Text, press  **OPTIONS** and select **T.O.P. overview**.

Favourite pages

The TV makes a list of the last 10 Text pages you opened. You can easily reopen them again in the Favourite Text pages column.

1 - In Text, select the star in the top left corner of the screen to show the column of favourite pages.

2 - Press **▼** (down) or **▲** (up) to select a page number and press **OK** to open the page.

You can clear the list with the option **Clear favourite pages**.

Search Text

You can select a word and scan Text for all occurrences of this word.

1 - Open a Text page and press **OK**.

2 - Select a word or number with the arrow keys.

3 - Press **OK** again to jump immediately to the next occurrence of this word or number.

4 - Press **OK** again to jump to the subsequent occurrence.



5 - To stop searching, press **▲** (up) until nothing is selected.

Text from a connected device

Some devices that receive TV channels can also offer Text.

To open Text from a connected device . . .

1 - Press **SOURCES** select the device and press **OK**.

2 - While watching a channel on the device, press  **OPTIONS**, select **Show device keys** and select the  key and press **OK**.

3 - Press **← BACK** to hide the device keys.

4 - To close Text, press **← BACK** again.

Digital Text (UK only)

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

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

Text Options

In Text/Teletext, press **≡** **OPTIONS** to select the following...

- **Freeze page**

To stop the automatic rotation of subpages.

- **Dual screen / Full screen**

To show the TV channel and Text alongside each other.

- **T.O.P. overview**

To open T.O.P. Text.

- **Enlarge**

To enlarge the Text page for comfortable reading.

- **Reveal**

To unhide hidden information on a page.

- **Cycle subpages**

To cycle subpages when these are available.

- **Language**

To switch the group of characters that Text uses to display correctly.

- **Text 2.5**

To activate the Text 2.5 for more colours and better graphics.

Text Setup

Text language

Some digital TV broadcasters have several Text languages available.

To set your primary and secondary Text language . . .

1 - Consumer Mode:

On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Region and Language** and press **OK**.

3 - Select **Languages > Primary**

Text or Secondary Text and press **OK**.

4 - Select your preferred Text languages.

5 - Press **BACK** repeatedly if necessary, to close the menu.

Text 2.5

If available, Text 2.5 offers more colours and better graphics. Text 2.5 is activated as a standard factory setting.

To switch off Text 2.5...

1 - Press **TEXT**.

2 - With Text/Teletext open on screen, press **≡** **OPTIONS**.

3 - Select **Text 2.5 > Off**.

4 - Press **◀** (left) repeatedly if necessary, to close

the menu.

7.3

Interactive TV

About iTV

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

HbbTV, MHEG, . . .

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

Visit the broadcaster's Internet website for more information.

What You Need

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

HbbTV

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

1 - Consumer Mode:

On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Channels > Channel settings >**

Enable Hbb TV and press **OK**.

3 - Select **Yes**.

4 - Press **BACK** repeatedly if necessary, to close the menu.

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

1 - Tune to the channel of which you want to block the HbbTV pages.

2 - Press **≡** **OPTIONS** and select **HbbTV on This Channel**.

3 - Select **Off**.

Use iTV

Open iTV pages

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

Navigate iTV pages

You can use the arrow and colour keys, the number keys and the **←** **BACK** key to navigate the iTV pages.

Digital Text (UK only)

To open Digital Text, press **TEXT**. To close, press **←** **BACK**.

Close iTV pages

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

TV Guide

What You Need

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

The TV can collect TV Guide information for the channels that are installed on the TV. The TV cannot collect the TV Guide information for channels viewed from a digital receiver or decoder.

Using the TV Guide

Open the TV Guide

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

Press  TV GUIDE again to close.

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

Tune to a Programme

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

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

View programme details


To call up the details of the selected programme...

1 - Press  **INFO**.

2 - Press  **BACK** to close.

Change Day

The TV Guide can show the scheduled programmes for the upcoming days (maximum up to 8 days).

Press the colour key  **Day** and select the day you need.

Search by Genre

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

To search for programmes by genre...

1 - Press  **TV GUIDE**.

2 - Press  **OPTIONS**.

3 - Select **Search by Genre** and press **OK**.

4 - Select the genre you want and press **OK**. A list with the found programmes appears.

5 - You can set reminders or schedule a recording on a selected programme.

6 - Press  **BACK**, repeatedly if necessary, to close the menu.

Home Menu

9.1

About the Home Menu

To enjoy the benefits of your Android TV, connect the TV to the Internet.

Like on your Android smartphone or tablet, the Home menu is the centre of your TV. From the Home menu you can start any application, switch to a TV channel, open a website or switch to a connected device. Depending on your TV setup and your country the Home menu can contain different items.

The Home menu is organised in rows...

LIST

The first row shows a selection of channels. Select the channel that you want to watch.

Smart Info

This row allows user to customise the hotel information on TV.

Apps

The row of Apps contain all Apps that come with the TV. In this row you will also find the Apps for TV, like **Watch TV**, **Sources**, **Media** and others. Apps you started recently will appear in front of the row.

Features

From this row, you can open a selection of settings.



Language

User can set the language of the TV in this row.

9.2

Open the Home Menu

To open the Home menu and open an item...

- 1 - Press  HOME.
- 2 - Select an item and press **OK** to open or start it.
- 3 - Press  BACK, to close the Home menu without starting anything.

Sources

10.1

Switch to a device

From the list of Sources, you can switch to any of the connected devices. You can switch to a tuner to watch TV, open the content of a connected USB Flash Drive or see the recordings you made on a connected USB Hard Drive. You can switch to your connected devices to watch their programme, a digital receiver or a Blu-ray Disc player.

To switch to a connected device...

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

One Touch Play

With the TV in standby, you can switch on a disc player with your TV remote control.

To switch on both disc player and TV from standby and start playing the disc immediately, press **▶** (play) on the TV remote control. The device must be connected with an HDMI cable and both TV and device must have HDMI CEC switched on.

10.2

Options for a TV Input

Some TV input devices offer specific settings.

To set the options for a specific TV input...

- 1 - Press **SOURCES**.
- 2 - Select the TV input in the list and press **OK**.
- 3 - Press **≡** **OPTIONS**. You can set the options for the selected TV input here.
- 4 - Press **≡** **OPTIONS** again to close the Options menu.

Possible options...

Controls

With this option you can operate the connected device with the TV remote control. The device must be connected with an HDMI cable and both TV and device must have HDMI CEC switched on.

Device Info

Open this option to view information on the connected device.

Device Name and Type

When you connect a new device to the TV and the TV detects the device, you can assign an icon that fits the device type. If you connect a device with an HDMI cable and HDMI CEC, the TV detects the device type automatically and the device gets an appropriate icon.

The device type determines picture and sound styles, resolution values, specific settings or the position within the Sources menu. You don't have to worry about the ideal settings.

Rename or Change Type

You can always change the name or change the type of a connected device. Look for the **⚙️** icon at the right of the device name in the Sources menu. Some TV input sources do not allow a name change.

To change the device type...

- 1 - Select the device in the Sources menu.
- 2 - Press **▶** (right) to select the **⚙️** icon and press **OK**.
- 3 - Press **←** **BACK** to hide the onscreen keyboard.
- 4 - Press **▼** (down) to find all available device types. Select the type you want and press **OK**.
- 5 - If you want to reset the type of the device to the original connector type, select **Reset** and press **OK**.
- 6 - Select **Close** and press **OK** to close this menu.

To change the device name...

- 1 - Select the device in the Sources menu.
- 2 - Press **▶** (right) to select the **⚙️** icon and press **OK**.
- 3 - Use the on-screen Keyboard to delete the current name and enter a new one. Press **✓** to confirm.
- 4 - Press **←** **BACK** to hide the onscreen keyboard.
- 5 - If you want to reset the name of the device to the original connector name, select **Reset** and press **OK**.
- 6 - Select **Close** and press **OK** to close this menu.

10.4

Game or Computer

The device type determines picture and sound styles, resolution values and other specifics. You don't have to worry about the ideal settings.

For some devices the type of the device is not that clear. A game console can have a built-in Blu-ray Disc player and the type is set to Player because it is used as a disc player most of the time. For this kind of devices, you can temporarily switch to the ideal settings for gaming. Or alternatively, switch to the

ideal settings for a connected computer.

You can only use the setting **Game or Computer** when you switch to a connected device in the Sources menu. The Game or Computer setting is stored for the selected device.

To switch to the ideal settings for gaming or computer manually...

1 - Consumer Mode:

On – Press  HOME and select **Features** and press **OK**.



Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Game or Computer** and press **OK**.

4 - Select **Game, Computer or Off**.

5 - Press  (left) to go back one step or press  **BACK** to close the menu.

Remember to set this setting back to **Off** when you stop playing the game.



10.5

Rescan Connections

You can rescan all TV connections to update the Sources menu with recently connected devices.

To rescan the connections...

1 - Press **SOURCES** to open the Sources menu.


2 - Press  (up) to select the  icon at the top right of the Sources menu.

3 - Press **OK** to start scanning the connections.

Newly connected devices will be added to the Sources menu.

Apps

About Apps


All the apps can be found by pressing  **Apps** on your remote control. These TV apps offer entertainments to enrich your hotel stay experience. Apps can also be accessed in **Apps** section in the **Apps** menu.

Start or Stop an App


You can start an app from the Home menu.

To start an app...

1 - Consumer Mode:



On – Press  **HOME** and select **Apps** and press **OK**.

Guest Mode: On – Guest

Menu: Press  **HOME** and select **Apps** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select the app you want and press **OK**.

3 - To stop an app, press  **BACK** or press  **TV** or stop the app with its dedicated exit/stop button.

Internet

12.1



Start Internet

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



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

To start the Internet browser...


1 - Consumer Mode:

On – Press  HOME and select **Features** and press  (right).

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press  (right).

(For professional mode information, please refer to Installation manual)

2 - Select  Internet and press **OK**.

3 - Enter an Internet address and select , press **OK**.

4 - To close Internet, press  HOME or **TV**.

12.2

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**.

3 - Press  **BACK** repeatedly if necessary, to close the menu.

Enter Address

To enter a new Internet address.

Show Favourites

To view the pages you marked as favourites.

Reload Page

To load the Internet page again.

Zoom Page

Use the slider bar to set the zoom percentage.

Security Info

To view the security level of the current page.

Mark as Favourite

To mark the current page as a favourite.

Subtitles

To select subtitles if available.

Videos, Photos and Music

From a USB Connection

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

With the TV switched on, plug in a USB flash drive or a USB Hard Drive to one of the USB connections. The TV detects the device and will list your media files.

If the list of files does not appear automatically...

- 1 - Press **SOURCES**, select **USB** and press **OK**.
- 2 - Select **USB Devices** and press **▶** (right) to select the USB device you need.
- 3 - You can browse your files in the folder structure you have organised on the drive.
- 4 - To stop playing videos, photos and music, press **TV**.

Play your Videos

Play Videos

How you open the list of your media files on TV depends on the type of device where the files are stored. See the chapters above.

To play a video on TV...

Select **Videos**, and select the file name and press **OK**.

- To rewind or go fast forward, press **▶▶** or **◀◀**. Press the keys several times to speed up - 2x, 4x, 8x, 16x, 32x.
- To jump to the next video in a folder, press **OK** to pause and select **▶** on screen and press **OK**.
- To stop the video playback, press **■** (Stop).
- To go back to the folder, press **◀** **BACK**.

Progress Bar

To show the progress bar when a video is playing (playhead position, duration, title, date, etc.), press **ⓘ** **INFO**.
Press again to hide the info.

Video Options

During the video playback, press **≡** **OPTIONS** to...

- **Mark as Favourite** – Set the selected video as favourite.
- **Play All** – Play all video files in this folder.
- **Play One** – Play this video only.
- **Subtitles** – If available, you can switch subtitles **On**, **Off** or **On During Mute**.
- **Audio Language** – If available, select an Audio Language.
- **Shuffle** – Play your files in a random order.
- **Repeat** – Plays all videos in this folder once or continuously.

View your Photos

View Photos

How you open the list of your media files on TV depends on the type of device where the files are stored. See the chapters above.

To view all photos on TV...

Select **Photos**, and select **All** and press **OK**.

To view a photo on TV...

Select **Photos**, and select the file name and press **OK**.

To start a slide show on TV...

If there are several photos in a folder, you can start a slide show.

To start a slide show...

- 1 - Select the folder with photos.
- 2 - Press the colour key **Slide Show**.
 - To jump to the next or previous photo, press **▶** (right - next) or **◀** (left - previous).
 - To pause the slide show, press **OK**. To start again, press **OK** again.
 - To stop the slide show, press **OK** and press **◀** **BACK**.

Info

To view info on a photo (size, creation date, file path, etc.), select a photo and press **ⓘ** **INFO**.
Press again to hide the info.

Slideshow with Music

You can watch a slideshow of your photos and listen to your music at the same time. You must start the music before you start the photo slideshow.

To play music with the slide show...

- 1 - Select a song or a folder with songs and press **OK**.
- 2 - Press **i** **INFO** to hide file info and progress bar.
- 3 - Press **←** **BACK**.
- 4 - Now use the navigation arrows to select the folder with photos.
- 5 - Select the folder with photos and press **→** **Slide Show**.
- 6 - To stop the slideshow, press **←** **BACK**.

Photo Options

With a photo on screen, press **≡** **OPTIONS** to...

- **Mark as Favourite** – Set the selected photo as favourite.
- **Slide Show** – Show photos one after the other.

- **Rotate** – Rotate the photo to landscape or portrait format.
- **Shuffle** – Play your files in a random order.
- **Repeat** – Play the slide show once or continuously.

- **Stop Music** – Stop the music playing in the background.
- **Slide Show Speed** – Set the speed of the slide show.
- **Slide Show Transition** – Set the style of the photo transitions.

13.4

Play your Music

Play Music

How you open the list of your media files on TV depends on the type of device where the files are stored. See the chapters above.

To play a song on TV...

Select **🎵** **Music** , and select the file name and press **OK**

If there are several songs in a folder, you can listen to them one after the other.

- To pause a song, press **OK**. Press **OK** again to continue.
- To rewind or go fast forward, press **⏮** or **⏭**. Press the keys several times to speed up – 2x, 4x, 8x, 16x, 32x.

- To jump to the next song in a folder, press **OK** to pause and select **▶** on screen and press **OK**.
- To go back to the folder, press **←** **BACK**, the music will keep on playing.
- To stop the music playback, press **■** (Stop).

Progress Bar

To show the progress bar when a song is playing (playhead position, duration, title, date, etc.), press **i** **INFO** . Press again to hide the info.

Music Options

Options for playing music...

- **Mark as Favourite** – Set the selected song as favourite.
- **Play All** – Play all songs in this folder.
- **Play One** – Play this song only.

- **Shuffle** – Play your files in a random order.

- **Repeat** – Plays all songs in this folder once or continuously.

Smartphones and Tablets

Miracast

About Wi-Fi Miracast

You can view your photos or play your music and videos from a mobile device on your TV with Wi-Fi Miracast™. The mobile device and the TV should be within range, which usually means being in the same room.

Check if your mobile device is ready for Miracast.

Your TV is a **Wi-Fi CERTIFIED Miracast™** device. With Miracast™, you can watch and share the screen of your smartphone, tablet or computer on your TV screen wirelessly. You can stream videos (audio and video), share photos or anything else that's on screen of the device. No need to connect the device to your home network. Both the TV and the device must be Wi-Fi CERTIFIED Miracast™ devices and have Miracast switched on.



Miracast on this TV is subject to the HDCP protocol and cannot display copy-protected premium content sent by a device. The maximum video resolution supported is 720p for 2.4GHz Wi-Fi or 1080p for 5GHz Wi-Fi.

For more information on Wi-Fi CERTIFIED Miracast™ go to www.wi-fi.org

Wi-Fi®, the Wi-Fi CERTIFIED logo, the Wi-Fi logo are registered trademarks of the Wi-Fi Alliance. **Wi-Fi CERTIFIED Miracast™**, **Miracast™** are trademarks of the Wi-Fi Alliance.

Share a Screen on TV

To share the screen of your smartphone, tablet or computer on the TV . . .

- 1 - Switch on the TV.
- 2 - Consumer Mode: On – Press  HOME > Features and then press  (right).
- 3 - Select **Miracast** and press **OK**.
- 4 - On the device, open an application such as Wi-Fi Miracast, Wi-Fi Direct™, Intel®Wireless Display* or similar and start scanning for other Miracast devices.
- 5 - In the list of found devices, select the TV and connect.
- 6 - On the TV, agree to the request to connect to the TV. If you connect, the TV will show the screen of the device.

7 - On the device, select the videos, photos or files you want to watch on TV.

* Miracast is supported by WiDi 3.5 onwards.

Stop Sharing


You can stop sharing a screen from the TV or from the mobile device.

From the device

With the application you use to start Miracast, you can disconnect and stop watching the screen of the device on TV. The TV will switch back to the last selected programme.

From the TV

To stop watching the screen of the device on TV, you can . . .

- press **TV** to watch a TV broadcast
- press  **HOME** to start another activity on TV
- press **SOURCES** to open the Sources menu and select a connected device.

Block a Device

The first time you receive a request to connect from a device, you can block the device. The request from this device and all its requests in the future, will be ignored.



To block a device...

Select **Block...** and press **OK**.

Unblock all devices

All previously connected and also blocked devices are stored in the Wi-Fi Miracast list of connections. If you clear this list, all blocked devices will be unblocked.

To unblock all blocked devices...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Wireless and Networks** > **Features** and press **OK**.
- 3 - Select **Wi-Fi Miracast** > **Wi-Fi Miracast Connections** and press **OK**. The list is cleared.
- 4 - Press  **BACK** repeatedly if necessary, to close the menu.

Blocking a previously connected device

If you want to block a device that you previously connected, you need to clear the Wi-Fi Miracast

connections list first. If you clear this list, you will have to confirm or block the connection for every device again.

Screen Delay

The normal delay when sharing a screen with Miracast is about 1 second. The delay might be longer if you are using older devices with less processing power.

Ambilight

Ambilight Style

Follow Video


You can set Ambilight to follow the video dynamics or to show a preset colour style. Alternatively, 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 TV screen.

To set the Ambilight Style...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Ambilight > Ambilight style** and press **OK**.

3 - Select **Follow Video** and press **OK**.

4 - Select the style you want and press **OK**.

5 - Press  BACK repeatedly if necessary, to close the menu.

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

- **Standard** - Ideal for day to day TV watching
- **Natural** - Follows the picture or sound as truthful as possible
- **Immersive** - Ideal for action movies
- **Vivid** - Ideal for daylight conditions
- **Game** - Ideal for gaming
- **Comfort** - Ideal for a quiet evening
- **Relax** - Ideal for a lounge feeling

Follow Audio


You can set Ambilight to follow the video or the audio dynamics of a TV 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 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Ambilight > Ambilight style** and press **OK**.

3 - Select **Follow Audio** and press **OK**.

4 - Select the style you want and press **OK**.

5 - Press  BACK repeatedly if necessary, to close the menu.

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

- **Lumina** - Mixes audio dynamics with video colours
- **Colora** - Based on audio dynamics
- **Retro** - Based on audio dynamics
- **Spectrum** - Based on audio dynamics
- **Scanner** - Based on audio dynamics
- **Rhythm** - Based on audio dynamics
- **Party** - A mix of all Follow Audio styles, one after the other

Follow Colour


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

If you select **Follow Colour**, you can select one of the preset colour styles.

To set the Ambilight Style...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Ambilight > Ambilight style** and press **OK**.

3 - Select **Follow Colour** and press **OK**.

4 - Select the style you want and press **OK**.

5 - Press  BACK repeatedly if necessary, to close the menu.

The available **Follow Colour** styles are...


- **Hot Lava** - Red colour variations
- **Deep Water** - Blue colour variations
- **Fresh Nature** - Green colour variations
- **Warm White/ISF** - Static colour
- **Cool White** - Static colour

Ambilight Off

To switch off Ambilight...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.


Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Ambilight** > **Ambilight style** and press **OK**.

3 - Select **Off** and press **OK**.

4 - Press  **BACK** repeatedly if necessary, to close the menu

Settings

16.1

Picture


Picture Style

Select a Style

For easy picture adjustment, you can select a preset Picture Style.

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Picture Style** and press **OK**.

3 - Select one of the styles in the list.

4 - Press  **BACK** repeatedly if necessary, to close the menu.

The available styles are...

- **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

- **Photo** - Ideal for viewing photos

- **Game** - Ideal for playing games
- **Computer** - Ideal for viewing computer

Customise a Style

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

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

Restore a Style

With a Picture Style selected, you can adjust any picture setting in **All Settings > Picture...**


The selected style will store the changes you made. We recommend to adjust the picture settings for the style **Personal** only. The Picture Style - Personal can save its settings for each individual connected device

in Sources menu.

To restore the style to its original setting...


1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Picture Style**, and select the Picture Style you want to restore.

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

4 - Press  **BACK** repeatedly if necessary, to close the menu.

Picture Settings


Colour

With **Colour**, you can adjust the colour saturation of the picture.

To adjust the colour...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Colour** press **OK**.


3 - Adjust the value with  (up) or  (down).

4 - Press  **BACK** repeatedly if necessary, to close the menu.


Contrast

With **Contrast**, you can adjust the contrast of the picture.

To adjust the contrast...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Contrast** press **OK**.

3 - Adjust the value with  (up) or  (down).

4 - Press  **BACK** repeatedly if necessary, to close the menu.


Sharpness

With **Sharpness**, you can adjust the contrast of the picture.

To adjust the contrast...



1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Sharpness** press **OK**.

3 - Adjust the value with  (up) or  (down).

4 - Press  **BACK** repeatedly if necessary, to close the menu.

Advanced Picture Settings

Game or Computer

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

If you have a game console with a built-in Blu-ray Disc player, you might have set the type name to Blu-ray Disc. With **Game or Computer** you can switch to the ideal settings for gaming manually. Don't forget to switch the Game or Computer setting off, when you return to watch TV.

To switch the setting manually...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** press **OK**.

3 - Select **Game or Computer**, and select the device type you want to use. To switch back to TV, select **Off**.

4 - Press  **BACK** repeatedly if necessary, to close the menu.

Colour Settings

Tint

With **Tint**, you can adjust the level of tint in fine detail of the picture.

To adjust the tint...



1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Colour > Tint** and press **OK**.

4 - Adjust the value with  (up) or  (down).

5 - Press  **BACK** repeatedly if necessary, to close the menu.

Colour Enhancement

With **Colour Enhancement**, you can enhance the colour intensity and the details in bright colours.

To adjust the level...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Colour > Colour**

Enhancement and press **OK**.

4 - Select **Maximum, Medium, Minimum** or **Off**.

5 - Press  **BACK** repeatedly if necessary, to close the menu.

Colour Temperature

With **Colour Temperature**, you can set the picture to a preset colour temperature or select **Custom** to set a temperature setting yourself with **Custom Colour Temperature**. Colour Temperature and Custom Colour Temperature are settings intended for expert users.

To select a preset...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Colour > Colour**

Temperature and press **OK**.

4 - Select **Normal, Warm** or **Cool**. Or


select **Custom** if you want to customise a colour temperature yourself.

5 - Press  **BACK** repeatedly if necessary, to close the menu.

Custom Colour Temperature

With **Custom Colour Temperature**, you can set a colour temperature yourself. To set a custom colour temperature, first select **Custom** in the Colour Temperature menu. Custom Colour Temperature is a setting intended for expert users.

To set a custom colour temperature...


- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Colour > Custom Colour Temperature** and press **OK**.
- 4 - Select one of the options and press **OK**.
- 5 - Press the arrows **▲** (up) or **▼** (down) to adjust the value.
- 6 - Press **← BACK** repeatedly if necessary, to close the menu.

Contrast Settings

Contrast Modes

With **Contrast Mode**, you can set the level at which power consumption can be reduced by dimming the intensity of the screen. Choose for the best power consumption or for the picture with the best intensity.


To adjust the level...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Contrast > Contrast mode** and press **OK**.
- 4 - Select **Off, Standard, Best power or Best picture**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Dynamic Contrast

With **Dynamic Contrast**, you can set the level at which the TV automatically enhances the details in the dark, middle and light areas of the picture.

To adjust the level...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this

mode.


(For professional mode information, please refer to Installation manual)

- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Contrast > Dynamic contrast** and press **OK**.
- 4 - Select **Off, Minimum, Medium or Maximum**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Perfect Contrast

With **Perfect Contrast**, you can set the level at which the TV automatically enhances the details in the dark, middle and light areas of the picture.


To adjust the level...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Contrast > Perfect contrast** and press **OK**.
- 4 - Select **Off, Minimum, Medium or Maximum**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Brightness

With **Brightness**, you can set the level of brightness of the picture signal. Brightness is a setting intended for expert users. We recommend non-expert users to adjust the brightness of the picture with the **Contrast** setting.


To adjust the level...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Contrast > Brightness** and press **OK**.
- 4 - Press the arrows **▲** (up) or **▼** (down) to adjust the value.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Video Contrast

With **Video Contrast**, you can decrease the range of the video contrast.


To adjust the level...

- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Picture > Advanced** and press **OK**.
 - 3 - Select **Contrast > Video contrast** and press **OK**.
 - 4 - Press the arrows **▲** (up) or **▼** (down) to adjust the value.
 - 5 - Press **← BACK** repeatedly if necessary, to close the menu.
-

Gamma

With **Gamma**, you can set a non-linear setting for picture luminance and contrast. Gamma is a setting intended for expert users.

To adjust the level...


- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Picture > Advanced** and press **OK**.
 - 3 - Select **Contrast > Gamma** and press **OK**.
 - 4 - Press the arrows **▲** (up) or **▼** (down) to adjust the value.
 - 5 - Press **← BACK** repeatedly if necessary, to close the menu.
-

Sharpness Settings

Super Resolution

With **Super Resolution**, you switch on a superior sharpness in line edges and contours.

To switch on or off...


- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Sharpness > Super resolution** and press **OK**.
- 4 - Select **On** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Ultra Resolution

With **Ultra Resolution**, you switch on a superior sharpness in line edges and contours.


To switch on or off...

- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Picture > Advanced** and press **OK**.
 - 3 - Select **Sharpness > Ultra resolution** and press **OK**.
 - 4 - Select **On** or **Off**.
 - 5 - Press **← BACK** repeatedly if necessary, to close the menu.
-

Noise Reduction

With **Noise Reduction**, you can filter out and reduce the level of image noise.


To adjust the noise reduction...

- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Picture > Advanced** and press **OK**.
 - 3 - Select **Sharpness > Noise reduction** and press **OK**.
 - 4 - Select **Maximum**, **Medium**, **Minimum** or **Off**.
 - 5 - Press **← BACK** repeatedly if necessary, to close the menu.
-

MPEG Artefact Reduction

With **MPEG Artefact Reduction**, you can smoothen the digital transitions in the picture. MPEG artefacts are mostly visible as small blocks or jagged edges in images.

To reduce the MPEG artefacts...

- 1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Picture > Advanced** and press **OK**.
- 3 - Select **Sharpness > MPEG Artefact**

Reduction and press **OK**.

4 - Select **Maximum**, **Medium**, **Minimum** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Motion Settings

Perfect Natural Motion

With **Perfect Natural Motion**, you can reduce the motion judder, visible in movies on TV. Perfect Natural Motion makes any movement smooth and fluent.

To adjust the motion judder...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Motion > Perfect Natural**

Motion and press **OK**.

4 - Select **Maximum**, **Medium**, **Minimum** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Natural Motion

With **Natural Motion**, you can reduce the motion judder, visible in movies on TV. Natural Motion makes any movement smooth and fluent.

To adjust the motion judder...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Motion > Digital Natural**

Motion and press **OK**.

4 - Select **Maximum**, **Medium**, **Minimum** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Clear LCD

With **Clear LCD**, you switch on a superior motion sharpness, better black level, high contrast with a flicker-free, quiet image and a larger viewing angle.

To switch on or off...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this

mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Picture > Advanced** and press **OK**.

3 - Select **Motion > Clear LCD** and press **OK**.

4 - Select **On** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

16.2

Sound

Sound Style

Select a Style

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

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press **HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound > Sound Style** and press **OK**.

3 - Select one of the styles in the list.

4 - Press **← BACK** repeatedly if necessary, to close the menu.

The available styles are...

- **Personal** - The sound preferences you set during the first start up.
- **Original** - Most neutral sound setting
- **Movie** - Ideal for watching movies
- **Music** - Ideal for listening to music
- **Game** - Ideal for gaming

- **News** - Ideal for speech

Restore a Style

With a Sound Style selected, you can adjust any sound setting in **Setup > Sound...**

The selected style will store the changes you made. We recommend to adjust the sound settings for the style **Personal** only. The Sound Style - Personal can save its settings for each individual connected device in Sources menu.

To restore the style to its original setting...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press **HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Sound Style**, and select the Sound Style you want to restore.

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

4 - Press **← BACK** repeatedly if necessary, to close the menu.

Sound Settings

Bass

With **Bass**, you can adjust the level of low tones in the sound.

To adjust the level...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press **HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Bass** press **OK**.

3 - Adjust the value with **▲** (up) or **▼** (down).

4 - Press **← BACK** repeatedly if necessary, to close the menu.

Treble

With **Treble**, you can adjust the level of high tones in the sound.

To adjust the level...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest

Menu: Press **HOME** and select **Features** and press **OK**.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Treble** press **OK**.

3 - Adjust the value with **▲** (up) or **▼** (down).

4 - Press **← BACK** repeatedly if necessary, to close the menu.

Advanced Sound Settings

Surround mode

With **Surround Mode**, you can set the sound effect of the TV speakers.

To set the surround mode...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Advanced** press **OK**.

3 - Select **Surround mode** and press **OK**.

4 - Select **Stereo** or **Incredible surround**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Auto Volume Levelling

With **Auto Volume Levelling**, you can set the TV to automatically level out sudden volume differences. Typically at the beginning of adverts or when you are switching channels.

To switch on or off...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Advanced** press **OK**.

3 - Select **Auto volume levelling** and press **OK**.

4 - Select **On** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Clear Sound

With **Clear Sound**, you improve the sound for speech. Ideal for news programmes. You can switch the speech improvement on or off.

To switch on or off...

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sound** > **Advanced** press **OK**.

3 - Select **Clear sound** and press **OK**.

4 - Select **On** or **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Audio Out Format

1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to

Installation manual)

- 2 - Select **Sound** > **Advanced** press **OK**.
- 3 - Select **Audio Out Format** and press **OK**.
- 4 - Select **Multichannel** or **Stereo**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Audio Out Levelling

- 1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** > **Advanced** press **OK**.
- 3 - Select **Audio Out Levelling** and press **OK**.
- 4 - Select **More**, **Medium** or **Less**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Audio Out Delay

If you set an Audio sync delay on your Home Theatre System, to synchronise the sound with the picture, you must switch off **Audio Out Delay** on the TV.

To switch off Audio Out Delay...

- 1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** > **Advanced** press **OK**.
- 3 - Select **Audio Out Delay** and press **OK**.
- 4 - Select **Off** or **On**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Audio Out Offset

If you cannot set a delay on the Home Theatre System, you can set a delay on the TV with **Audio Out Offset**.

To synchronise the sound on the TV...

- 1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)

- 2 - Select **Sound** > **Advanced** press **OK**.
- 3 - Select **Audio Out Offset** and press **OK**.
- 4 - Use the slider bar to set the sound offset and press **OK**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Speakers

Wireless Speakers

What You Need

You can connect a wireless device with Bluetooth® to this TV – a wireless speaker, a subwoofer, a sound bar or headphones. You can also connect a wireless gamepad with Bluetooth LE.

To play the TV sound on a wireless speaker, you must pair the wireless speaker with the TV. You can pair some wireless speakers and a maximum of 4 Bluetooth LE (low energy) devices. The TV can only play the sound on one wireless audio speaker at a time. If you connect a subwoofer, the sound is played on the TV and the subwoofer. If you connect a sound bar the sound is played on the sound bar only.

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.

A range of selected Philips wireless speaker products can connect and play the TV sound. Consult the Philips website for suited wireless audio products for this TV - www.philips.com/tv




Select a Speaker

To connect a wireless speaker...

- 1 - Consumer Mode: On – Press **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Press **HOME** and select **Features** and press **OK**.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** > **Bluetooth Audio** press **OK**.
- 3 - Select **Connect** and press **OK**.
- 4 - Press **← BACK** repeatedly if necessary, to close the menu.

Remove a Speaker




To remove a wireless speaker...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest
Menu: Press  HOME and select **Features** and press **OK**.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** > **Bluetooth Audio** press **OK**.
- 3 - Select **Remove** and press **OK**.
- 4 - Press  BACK repeatedly if necessary, to close the menu.

Wireless Headphone





To connect wireless Bluetooth devices such as wireless Bluetooth headphone, make sure Bluetooth is switched on.

To switch Bluetooth on...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest
Menu: Press  HOME and select **Features** and press **OK**.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** and press **OK**.
- 3 - Select **Bluetooth Audio** and press **OK**.
- 4 - Select **Connect** and press **OK**.
- 5 - Press  BACK repeatedly if necessary, to close the menu.

Subwoofer Volume

To adjust the volume of wireless speaker...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound** > **Bluetooth Audio** press **OK**.
- 3 - Select **Subwoofer-level** and press **OK**.
- 4 - Adjust the value with  (up) or  (down).
- 5 - Press  BACK repeatedly if necessary, to close the menu.

Problems

Lost connection

- Position the wireless speaker within a range of 5 meters from the TV.
- Places with a high amount of wireless activity -

apartments with lots of wireless routers - can hamper the wireless connection. Keep the router and wireless speaker as close to the TV as possible.

Audio and video mismatch

- Some wireless speakers systems might have audio and video sync problems. We recommend using Philips wireless audio products.

16.3






Ambilight Settings

Ambilight Settings

Ambilight Brightness





With Ambilight **Brightness**, you can set the level of brightness of the Ambilight.

To adjust the level...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest
Menu: Press  HOME and select **Features** and press **OK**.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Ambilight** > **Brightness** and press **OK**.
- 3 - Adjust the value with  (up) or  (down).
- 4 - Press  BACK repeatedly if necessary, to close the menu.

Ambilight bottom side

To adjust the brightness at the bottom side of ambilight...


- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Ambilight** > **Brightness bottom side** and press **OK**.
- 3 - Adjust the value with  (up) or  (down).
- 4 - Press  BACK repeatedly if necessary, to close the menu.

Halo Size


You can adjust the size of Ambilight halo.

To set the Halo Size...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest

Menu: Press  HOME and select **Features** and press **OK**.





(For professional mode information, please refer to Installation manual)

- 2 - Select **Ambilight** > **Halo size** and press **OK**.
- 3 - Select **Small**, **Medium** or **Large** and press **OK**.
- 4 - Press  **BACK** repeatedly if necessary, to close the menu.

Ambilight Saturation

With **Ambilight Saturation**, you can set the level of colour saturation of the Ambilight.

To adjust the level...



- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Ambilight** > **Saturation** and press **OK**.
- 3 - Adjust the value with  (up) or  (down).
- 4 - Press  **BACK** repeatedly if necessary, to close the menu.

Advanced Ambilight Settings

Wall Colour

With **Wall Colour**, you can neutralise the influence of a coloured wall on the Ambilight colours. Select the colour of the wall behind the TV and the TV will modify the Ambilight colours to appear as they are intended.



To select the colour of the wall . . .

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Ambilight** > **Advanced** and press **OK**.
- 3 - Select **Wall Colour** and press **OK**.
- 4 - In the colour palette, select the colour that matches the colour of the wall behind the TV.
- 5 - Press  **BACK** repeatedly if necessary, to close the menu.

TV Switch Off

With **TV Switch Off**, you can set Ambilight to switch off immediately or slowly fade out when you switch off the TV. The slow fade out gives you some time to switch on the lights in your living room.

To select the way how Ambilight switches off...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Ambilight** > **Advanced** and press **OK**.
- 3 - Select **TV Switch Off** and press **OK**.
- 4 - Select **Fade Out to Off** or **Immediate Switch Off**.
- 5 - Press  **BACK** repeatedly if necessary, to close the menu.




16.4

Eco Settings

Screen Off

If you only listen to music, you can switch off the TV screen to save energy.



To only switch off the TV screen...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
Menu: Press  HOME and select **Features** and press **OK**.
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Eco Settings** > **Screen Off**.
 - 3 - Press  **BACK** repeatedly if necessary, to close the menu.
- To switch the screen back on, press any key on the remote control.

Sleep timer

With the sleep timer, you can set the TV to switch to standby automatically after a preset time.

To set the sleep timer . . .

- 1 - Press  HOME and select **Features*** and press **OK**.
*Consumer Mode: On – Setup
*Guest Mode: On – Guest Menu
(For professional mode information, please refer to Installation manual)
 - 2 - Select **Eco settings*** > **Sleep timer**.
*Consumer Mode : On –  HOME > **Eco settings**
*Guest Mode: On – Select **Eco settings** > **Sleep timer**.
(For professional mode information, please refer to Installation manual)
- With the slider bar you can set the time to up to 240 minutes in increments of 30 minutes. If set to **Off**, the

sleep timer is switched off. You can always switch off your TV earlier or reset the time during the countdown.

3 - Press **← BACK**, repeatedly if necessary, to close the menu.

16.5

General Settings

EasyLink

EasyLink

To switch off EasyLink completely...

1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sources > Advanced** and press **OK**.

3 - Select **EasyLink** and

press **OK**, then select **EasyLink** one step further.

4 - Select **Off**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

EasyLink Remote Control

To switch off EasyLink remote control...

1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Sources > Advanced** and press **OK**.

3 - Select **EasyLink** and

press **OK**, then select **EasyLink** one step further.

4 - Select **Easylink Remote Control** and press **OK**.

5 - Select **Off**.

6 - Press **← BACK** 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 TV and the storage space they need. 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 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Android Settings**, and press **OK**.

3 - Explore the different Android settings.

4 - Press **← BACK** repeatedly if necessary, to close the menu.

USB Keyboard Settings

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

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

Consumer Mode: On – Not available in this mode.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

HbbTV

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

1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Channels > Channel Settings** and press **OK**.

3 - Select **Enable Hbb TV**, and press **OK**.

4 - Select **Yes**.

5 - Press **← BACK** repeatedly if necessary, to close

the menu.

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

- 1 - Tune to the channel of which you want to block the HbbTV pages.
- 2 - Press **≡** **OPTIONS** and select **HBB TV on This Channel** and press **OK**.
- 3 - Select **Off** and press **OK**.

TV Placement

As part of the first installation, this setting is set to either **On a TV stand** or **Hang on the Wall**. If you have changed the placement of the TV since then, adjust this setting accordingly for best sound reproduction.

- 1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Sound > TV Placement** and press **OK**.
- 3 - Select **On a TV stand** or **Hang on the Wall**.
- 4 - Press **← BACK** repeatedly if necessary, to close the menu.

Channel Logos

In some countries, the TV can show the channel logos.

If you do not want these logos to appear, you can switch them off.

To switch off the logos...

- 1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Channels > Channel Settings** and press **OK**.
- 3 - Select **Enable Channel Logos**, and press **OK**.
- 4 - Select **No**.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Reinstall TV

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

To redo a full TV installation...

- 1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Reset > Reinstall TV** and press **OK**.
- 3 - Follow the instructions on screen. The installation may take a few minutes.

16.6

Clock, Region and Language

Menu Language

To change the language of the TV menus and messages...

- 1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Region and Language > Languages > Menu Language** and press **OK**.
- 3 - Select **Languages List** and press **OK**.
- 4 - Select on the language you need.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

Language preferences

Audio Language Settings

Digital TV channels can broadcast audio with several spoken languages for a programme. You can set a preferred primary and secondary audio language. If audio in one of these languages is available, the TV will switch to this audio.

If none of the preferred audio languages is available, you can select another audio language which is available.

To set the primary and secondary audio language...

- 1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to

Installation manual)

2 - Select **Region and**

Language > **Languages** > **Primary**

Audio or **Secondary Audio** and press **OK**.

3 - Select on the language you need.

4 - Press **← BACK** repeatedly if necessary, to close the menu.

To select an audio language when none of your preferred audio language is available...

1 - Press **≡ OPTIONS** .

2 - Select **Audio Language** and select on the audio language you want temporarily.

Subtitles

Switch On

To switch on Subtitles, press **SUBTITLE**.

You can switch subtitles **On**, **Off** or **On During Mute**.

Or to show subtitles automatically when the broadcasted programme is not in language – the language set for the TV – select **Automatic**. This setting will also show Subtitles automatically when you mute the sound.

Subtitle Language Settings

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

If none of the preferred subtitle languages are available, you can select another subtitle language which is available.

To set the primary and secondary subtitle language...

1 - Consumer Mode: On – Press **🏠 HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Region and**

Language > **Languages** > **Primary**

Subtitle or **Secondary Subtitle** and press **OK**.

3 - Select on the language you need.

4 - Press **← BACK** repeatedly if necessary, to close the menu.

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

1 - Press **≡ OPTIONS** .

2 - Select **Subtitle Language** and select on the language you want temporarily.

Subtitles from Text

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

1 - Switch to a channel and press **TEXT** to open Text.

2 - Enter the page number for subtitles, usually **888**.

3 - Press **TEXT** again, to close Text.

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

To know if a channel is analogue or digital, switch to the channel and open **Channel**

Info in **≡ OPTIONS**.

Text / Teletext Languages

Text Pages

To open Text/Teletext press **TEXT**, while you are watching TV channels.

To close Text, press **TEXT** again.

Select a Text page

To select a page . . .

1 - Enter the page number with the number keys.

2 - Use the arrow keys to navigate.

3 - Press a colour key to select a colour-coded subject at the bottom of the screen.

Text sub-pages

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

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

T.O.P. Text pages

Some broadcasters offer T.O.P. Text.

To open T.O.P. Text pages within Text, press **≡ OPTIONS** and select **T.O.P. overview**.

Favourite pages

The TV makes a list of the last 10 Text pages you opened. You can easily reopen them again in the Favourite Text pages column.

1 - In Text, select the star in the top left corner of the screen to show the column of favourite pages.

2 - Press **▼** (down) or **▲** (up) to select a page number and press **OK** to open the page.

You can clear the list with the option **Clear favourite pages**.

Search Text

You can select a word and scan Text for all occurrences of this word.

- 1 - Open a Text page and press **OK**.
- 2 - Select a word or number with the arrow keys.
- 3 - Press **OK** again to jump immediately to the next occurrence of this word or number.
- 4 - Press **OK** again to jump to the subsequent occurrence.
- 5 - To stop searching, press **▲** (up) until nothing is selected.

Text from a connected device

Some devices that receive TV channels can also offer Text.

To open Text from a connected device . . .

- 1 - Press **SOURCES** select the device and press **OK**.
- 2 - While watching a channel on the device, press **≡** **OPTIONS** , select **Show device keys** and select the **☰** key and press **OK**.
- 3 - Press **←** **BACK** to hide the device keys.
- 4 - To close Text, press **←** **BACK** again.

Digital Text (UK only)

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

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

Text Options

In Text/Teletext, press **≡** **OPTIONS** to select the following...

- **Freeze page**
To stop the automatic rotation of subpages.
- **Dual screen / Full screen**
To show the TV channel and Text alongside each other.
- **T.O.P. overview**
To open T.O.P. Text.
- **Enlarge**
To enlarge the Text page for comfortable reading.
- **Reveal**
To unhide hidden information on a page.
- **Cycle subpages**
To cycle subpages when these are available.
- **Language**
To switch the group of characters that Text uses to display correctly.
- **Text 2.5**
To activate the Text 2.5 for more colours and better graphics.

Text Setup

Text language

Some digital TV broadcasters have several Text languages available.

To set your primary and secondary Text language . . .

- 1 - Consumer Mode: On – Press **🏠** **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Region and Language > Languages > Primary Text** or **Secondary Text** and press **OK**.
- 3 - Select your preferred Text languages.
- 4 - Press **←** **BACK** repeatedly if necessary, to close the menu.

Text 2.5

If available, Text 2.5 offers more colours and better graphics. Text 2.5 is activated as a standard factory setting.

To switch off Text 2.5...

- 1 - Press **TEXT**.
- 2 - With Text/Teletext open on screen, press **≡** **OPTIONS**.
- 3 - Select **Text 2.5 > Off**.
- 4 - Press **←** **BACK** repeatedly if necessary, to close the menu.

Clock

Date and Time

Automatic

To know what time it is, press **🏠** **HOME**. The **Home Menu** always shows what time it is.

In some countries, digital broadcasts do not send UTC - Coordinated Universal Time information. The daylight saving change might be ignored and the TV might show an incorrect time.


When you record programmes - scheduled in the TV Guide, we recommend not to change the time and date manually. In some countries, for some network operators, the **Clock** setting is hidden to avoid an incorrect clock setting.

To correct the TV clock automatically...

- 1 - Consumer Mode: On – Press **🏠** **HOME** and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Date and Time > Source** and press **OK**.
- 3 - Select **Automatic NTP**.
- 4 - Press **←** **BACK** repeatedly if necessary, to close the menu.


Manual

To set the TV clock manually...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select **Date and Time > Manual Date and Time Setting** and press **OK**.
- 3 - Select **Date and Time** to adjust.
- 4 - Press **← BACK** repeatedly if necessary, to close the menu.

Time Zone

To set the time zone...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select **Date and Time > Time Zone Settings** and press **OK**.
- 3 - Select **Time Zone Country or Time Zone Region** and press **OK**.
- 4 - Select one of the time zones.
- 5 - Press **← BACK** repeatedly if necessary, to close the menu.

16.7

Universal Access


Switch On

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

Switch on

If you did not switch on **Universal Access** during the installation, you can still switch it on in **Universal Access** menu.

To switch on Accessibility...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select **Accessibility > Universal Access** and press **OK**.
- 3 - Select **On** and press **OK**.


4 - Press **← BACK** repeatedly if necessary, to close the menu.

With **Universal Access** switched on, the option **Universal Access** is added in the **Options** menu.


Hard of Hearing



Some digital TV channels broadcast special audio and subtitles adapted for the hard of hearing or deaf people. With **Hearing impaired** switched on, the TV automatically switches to the adapted audio and subtitles, if available. Before you can switch on **Hearing impaired**, you have to switch on **Universal Access**.

To switch on **Hearing impaired**...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select **Accessibility > Hearing impaired** and press **OK**.
- 3 - Select **On** and press **OK**.
- 4 - Press **← BACK** repeatedly if necessary, to close the menu.

To switch on **Hearing impaired** while watching TV...

- 1 - While watching a TV channel, press  **OPTIONS**, select **Universal Access** and press **OK**.
- 2 - Select **Hearing impaired**, and select **On**.

To check whether a hearing impaired audio language is available, press  **OPTIONS**, select **Audio Language** and look for an audio language marked with a .

If **Accessibility** does not appear in the **Options** menu, switch on **Universal Access** in setup menu.

Audio Description

Switch On

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

To be able to set the visually impaired audio and effects, you have to switch on **Audio Description** first.

Also, before you can switch on **Audio Description**, you have to switch on **Universal Access** in setup menu.

With **Audio Description**, a narrator's commentary is added to the normal audio.

To switch on the commentary (if available)...

To switch on **Audio Description**...

1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)


2 - Select **Accessibility** > **Audio Description** and press **OK**.

3 - Select **Audio Description** one step further.


4 - Select **On** and press **OK**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

To switch on **Audio Description** while watching TV...

1 - While watching a TV channel, press  **OPTIONS**, select **Universal Access** and press **OK**.

2 - Select **Audio Description**, and select **On**.

You can check if an audio commentary is available. In the Options menu, select **Audio Language** and look for an audio language marked with a .

Speakers/Headphones

With **Speakers/Headphones**, you can select where you want to hear the audio commentary. On the TV speakers only, on the headphones only or on both.

To set **Speakers/Headphones**...

1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Accessibility** > **Audio Description** and press **OK**.

3 - Select **Speakers/Headphones** and press **OK**.


4 - Select **Speakers**, **Headphones** or **Speakers + Headphones** and press **OK**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Mixed Volume

You can mix the volume of the normal audio with the audio commentary.

To mix the volume...

1 - Consumer Mode: On – Press  **HOME** and

select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.


(For professional mode information, please refer to Installation manual)

2 - Select **Accessibility** > **Audio Description** and press **OK**.

3 - Select **Mixed Volume** and press **OK**.

4 - Adjust the value with **▲** (up) or **▼** (down).

5 - Press **← BACK** repeatedly if necessary, to close the menu.

If an audio language with added audio commentary is available, you can also find this setting in  **OPTIONS** > **Universal Access** > **Mixed Volume**.

Audio Effect

Some audio commentary can hold extra audio effects, like stereo or fading sound.

To switch on **Audio effects** (if available)...

1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Accessibility** > **Audio Description** and press **OK**.

3 - Select **Audio Effect** and press **OK**.

4 - Select **On** and press **OK**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Speech

The audio commentary can also hold subtitles for the words which are spoken.

To switch on these subtitles (if available) . . .

1 - Consumer Mode: On – Press  **HOME** and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Accessibility** > **Audio Description** and press **OK**.

3 - Select **Speech** and press **OK**.

4 - Select **Descriptive** or **Subtitles** and press **OK**.

5 - Press **← BACK** repeatedly if necessary, to close the menu.

Channel Installation

17.1

Antenna/Cable Installation

Update Channels

Automatic Channel Update

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

Once a day, at 4 AM, the TV updates the channels and stores new channels. New channels are stored in the Channels List and are marked with a ★. Channels without a signal are removed. The TV must be in standby to automatically update channels. You can switch off Automatic Channel Update.

To switch off the automatic update...

- 1 - Consumer Mode: On – Not available in this mode.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)

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

To switch off the message...


- 1 - Consumer Mode: On – Not available in this mode.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)

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

Reception Quality

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

To check the reception quality of a digital channel...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to

Installation manual)

2 - Select **Channels > RF Channel Installation** and press **OK**.

3 - Enter your PIN code if necessary.

4 - Select **Digital: Reception Test** and press **OK**.

5 - Select **DVB-T Search** or **DVB-C Search** and press **OK**. The digital frequency is shown for this channel.

6 - Select **Search** again and press **OK** to check the signal quality of this frequency. The test result is shown on screen. You can reposition the antenna or check the connections to possibly improve the reception.

7 - You can also change the frequency yourself. Select the frequency number one by one and use the **▲** (up) or **▼** (down) keys to change the value. Select **Search** and press **OK** to test the reception again.

8 - Press **← BACK** repeatedly if necessary, to close the menu.


Reinstall Channels

Reinstall All Channels

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

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



To reinstall channels...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
- Guest Mode: On – Guest Menu: Not available in this mode.
- (For professional mode information, please refer to Installation manual)
- 2 - Select **Channels > RF Channel Installation** and press **OK**.
- 3 - Enter your PIN code if necessary.
- 4 - Select **Search for Channels** and press **OK**.
- 5 - Select **Start** and press **OK**.
- 6 - Select **Reinstall Channels**, select **Next** and press **OK**.
- 7 - Select the country where you are now and press **OK**.
- 8 - Select **Next** and press **OK**.
- 9 - Select the type of installation you want, **Antenna (DVB-T)** or **Cable (DVB-C)** and press **OK**.
- 8 - Select **Next** and press **OK**.
- 11 - Select the type of channels you want, **Digital and Analogue Channels** or **Only Digital Channels** and press **OK**.
- 8 - Select **Next** and press **OK**.
- 13 - Select **Start** and press **OK** to update the digital channels. This can take a few minutes.
- 14 - Press **← BACK** repeatedly if necessary, to close the menu.

Reinstall TV

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

To redo a full TV installation...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Reset** and press **OK**.
- 3 - Select **Reinstall TV** and press **OK**.
- 4 - Enter your PIN code if necessary.
- 5 - Select **Yes** and press **OK** to confirm.
- 6 - The TV will reinstall completely. All settings will be reset and installed channels will be replaced. The installation can take a few minutes.
- 7 - Press  BACK repeatedly if necessary, to close the menu.


shown briefly.

You can redo these steps until you have found all available analogue TV channels.

Manual Installation

Analogue TV channels can be manually installed, channel by channel.


To install analogue channels manually...

- 1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.
Guest Mode: On – Guest Menu: Not available in this mode.
(For professional mode information, please refer to Installation manual)
- 2 - Select **Channels > RF Channel Installation** and press **OK**.
- 3 - Enter your PIN code if necessary.
- 4 - Select **Analogue: Manual Installation** and press **OK**.

- **System**

To set up the TV system, select **System**.
Select your country or the part of the world where you are now and press **OK**.

- **Search Channel**

To find a channel, select **Search Channel** and press **OK**. You can enter a frequency yourself to find a channel or let the TV search for a channel.
Press  (right) to select **Search** and press **OK** to search for a channel automatically. The found channel is shown on screen and if the reception is poor, press **Search** again. If you want to store the channel, select **Done** and press **OK**.

- **Store**

You can store the channel on the current channel number or as a new channel number.
Select **Store Current Channel** or **Store as New Channel** and press **OK**. The new channel number is

Software

18.1

Update Software

Update from USB

It might be necessary to update the TV software. You need a computer with an high-speed Internet connection and a USB flash drive to upload the software on the TV. Use a USB flash drive with at least 500MB free space. Make sure that write protection is switched off.

To update the TV software...

1 - Consumer Mode: On – Press  HOME and select **Features** and press **OK**.

Guest Mode: On – Guest Menu: Not available in this mode.

(For professional mode information, please refer to Installation manual)

2 - Select **Upgrade and Clone** > **Firmware Upgrade from USB** and press **OK**.

Download the software

1 - Insert the USB flash drive into your computer.

2 - On the USB flash drive, locate the file **update.htm** and double click it.


3 - Click **Send ID**.

4 - If new software is available, download the .zip file.

5 - After the download, unzip the file and copy the file **autorun.upg** onto the USB flash drive. Do not place this file in a folder.

Update the TV software

1 - Insert the USB flash drive into the TV again. The update starts automatically.

2 - A software update can take several minutes. Do not press the  key on the TV or remote control. Do not remove the USB flash drive.

3 - When the update is done, the TV will return to the channel you were watching.

If a power cut occurs during the update, never remove the USB flash drive from the TV. When the power returns, the update will continue.

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

Open Source Software

This television contains open source software. TP Vision Europe B.V. hereby offers to deliver, upon request, a copy of the complete corresponding source code for the copyrighted open source software packages used in this product for which such offer is requested by the respective licences.

This offer is valid up to three years after product purchase to anyone in receipt of this information. To obtain the source code, please write in English to .

..

open.source@tpvision.com

18.3

Open Source License Statement

README for the source code of the parts of TP Vision Netherlands B.V. TV software that fall under open source licenses.

This is a document describing the distribution of the source code used on the TP Vision Netherlands B.V. TV, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain copies of this software can be found in the Directions For Use.

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18.4

Open Source License

Android (5.1.0)

This TV contains the Android Lollipop Software. Android is a Linux-based operating system designed primarily for touch screen mobile devices such as smartphones and tablet computers. This software will also be reused in TPVision Android based TV's. The original download site for this software is : <https://android.googlesource.com/>This piece of software is made available under the terms and

conditions of the Apache license version 2, which can be found below. Android APACHE License Version 2 (<http://source.android.com/source/licenses.html>)

Toolbox (N/A)

The original download site for this software is : <https://android.googlesource.com/>This piece of software is made available under the terms and conditions of the Apache license version 2, which can be found below. Android APACHE License Version 2 (<http://source.android.com/source/licenses.html>)

linux kernel (3.10.27)

This TV contains the Linux Kernel. The original download site for this software is : <http://www.kernel.org/>.This piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below. Additionally, following exception applies : "NOTE! This copyright does *not* cover user programs that use kernel services by normal system calls - this is merely considered normal use of the kernel, and does *not* fall under the heading of "derived work". Also note that the GPL below is copyrighted by the Free Software Foundation, but the instance of code that it refers to (the linux kernel) is copyrighted by me and others who actually wrote it. Also note that the only valid version of the GPL as far as the kernel is concerned is `_this_` particular version of the license (ie v2, not v2.2 or v3.x or whatever), unless explicitly otherwise stated. Linus Torvalds"

libcurl (7.21.7)

libcurl is a free and easy-to-use client-side URL transfer library, supporting DICT, FILE, FTP, FTPS, Gopher, HTTP, HTTPS, IMAP, IMAPS, LDAP, LDAPS, POP3, POP3S, RTMP, RTSP, SCP, SFTP, SMTP, SMTPS, Telnet and TFTP. libcurl supports SSL certificates, HTTP POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, user+password authentication (Basic, Digest, NTLM, Negotiate, Kerberos), file transfer resume, http proxy tunneling and more! The original download site for this software is :

<http://curl.haxx.se/libcurl/COPYRIGHT AND PERMISSION NOTICE>

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libfreetype (2.4.2)

FreeType is a software development library, available in source and binary forms, used to render text on to bitmaps and provides support for other font-related operations

The original download site for this software is : <https://github.com/julienr/libfreetype-android>FreeType License

libjpeg (8a)

This package contains C software to implement JPEG image encoding, decoding, and transcoding. This software is based in part on the work of the Independent JPEG Group.

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name in advertising or publicity relating to this software or products derived from it. This software may be referred to only as "the Independent JPEG Group's software". We specifically permit and encourage the use of this software as the basis of commercial products, provided that all warranty or liability claims are assumed by the product vendor.

libpng (1.4.1)

libpng is the official Portable Network Graphics (PNG) reference library (originally called pnglib). It is a platform-independent library that contains C functions for handling PNG images. It supports almost all of PNG's features, is extensible. The original download site for this software is :

<https://github.com/julienr/libpng-androidlibpng>
license

openssl (1.0.1j)

OpenSSL is an open-source implementation of the SSL and TLS protocols. The core library, written in the C programming language, implements the basic cryptographic functions and provides various utility functions. The original download site for this software is : <http://openssl.org/OpenSSL> license

Zlib compression library (1.2.7)

zlib is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format) Developed by Jean-loup Gailly and Mark Adler(C) 1995-2012 Jean-loup Gailly and Mark Adler This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software. Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions: 1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required. 2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software. 3. This notice may not be removed or altered from any source distribution. Jean-loup Gailly Mark Adler jloup@gzip.org madler@alumni.caltech.edu

dvbsnoop (1.2)

dvbsnoop is a DVB / MPEG stream analyzer program. For generating CRC32 values required for composing PAT, PMT, EIT sections

The original download site for this software is : <https://github.com/a4tunado/dvbsnoop/blob/master/src/misc/crc32.c> GPL v2
<http://dvbsnoop.sourceforge.net/dvbsnoop.html>

ezxml (0.8.6)

ezXML is a C library for parsing XML documents.

The original download site for this software is : <http://ezxml.sourceforge.net>. Copyright 2004, 2005 Aaron Voisine. This piece of software is made available under the terms and conditions of the MIT license, which can be found below.

gSoap (2.7.15)

The gSOAP toolkit is an open source C and C++ software development toolkit for SOAP/XML Web services and generic (non-SOAP) C/C++ XML data bindings. Part of the software embedded in this product is gSOAP software. Portions created by gSOAP are Copyright 2001-2009 Robert A. van Engelen, Genivia inc. All Rights Reserved. THE SOFTWARE IN THIS PRODUCT WAS IN PART PROVIDED BY GENIVIA INC AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

restlet (2.1.7)

Restlet is a lightweight, comprehensive, open source REST framework for the Java platform. Rest let is suitable for both server and client Web applications. It supports major Internet transport, data format, and service description standards like HTTP and HTTPS, SMTP, XML, JSON, Atom, and WADL. The original download site for this software is : <http://restlet.org> This piece of software is made available under the terms and conditions of the Apache License version 2.

Opera Web Browser (SDK 3.5)

This TV contains Opera Browser Software.

dmalloc (2.7.2)

Opera uses Doug Lea's memory allocator

The original download site for this software is :

<http://gee.cs.oswego.edu/dl/html/malloc.html>

double-conversion

Opera uses double-conversion library by Florian Loitsch, faster double : string conversions (dtoa and strtod). The original download site for this software is : <http://code.google.com/p/double-conversion> Copyright 2006-2011, the V8 project authors. All rights reserved. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met: * Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. * Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution. * Neither the name of Google Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission. THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

EMX (0.9c)

Opera uses EMX, which is an OS/2 port of the gcc suite. Opera uses modified versions of the sprintf and scanf methods from this C library.* The emx libraries are not distributed under the GPL. Linking an * application with the emx libraries does not cause the

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freetype (2.4.8)

Opera uses freetype FreeType 2 is a software-font engine that is designed to be small, efficient, highly customizable and portable, while capable of producing high-quality output (glyph images). The original download site for this software is : <http://www.freetype.org/freetype2/index.html> Freetype License

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IANA (Dec 30 2013)

Opera uses Internet Assigned Numbers Authority: Character encoding tag names and numbers. The original download site for this software is : <https://www.iana.org>

ICU (3)

Opera uses ICU : International Components for Unicode: Mapping table for GB18030The original

download site for this software is : <http://site.icu-project.org/http://source.icu-project.org/repos/icu/icu/trunk/license.html>

MozTW (1.0)

Opera uses MoxTW : MozTW project: Big5-2003 mapping tables. The original download site for this software is : <https://moztw.org>This piece of software is made available under the terms and conditions of CCPL

NPAPI (0.27)

Opera uses NPAPI : Netscape 4 Plugin API: npapi.h, npfunctions.h, npruntime.h and nptypes.h. Distributed as part of the Netscape 4 Plugin SDK.The original download site for this software is : wiki.mozilla.orgThis piece of software is made available under the terms and conditions of mozilla licence as described below.

Unicode (4.0)

Opera uses Unicode : Data from the Unicode character database. The original download site for this software is : www.unicode.org<http://www.unicode.org/copyright.html>

Webp (0.2.0)

Opera uses Webp : libwebp is a library for decoding images in the WebP format. Products may use it to decode WebP images. The turbo servers will eventually re-decode images to WebP. The original download site for this software is : <https://developers.google.com/speed/webp/?csw=1> <https://chromium.googlesource.com/webm/libwebp/> Additional IP Rights Grant (Patents)"This implementation" means the copyrightable works distributed by Google as part of the WebM Project.Google hereby grants to you a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section)patent license to make, have made, use, offer to sell, sell, import, transfer, and otherwise run, modify and propagate the contents of this implementation of VP8, where such license applies only to those patent claims, both currently owned by Google and acquired in the future, licensable by Google that are necessarily infringed by this implementation of VP8. This grant does not include claims that would be infringed only as a consequence of further modification of this implementation. If you or your agent or exclusive licensee institute or order or agree to the institution of patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that this implementation of VP8 or any code

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FaceBook SDK (3.0.1)

This TV contains Facebook SDK. The Facebook SDK for Android is the easiest way to integrate your Android app with Facebook's platform. The SDK provides support for Login with Facebook authentication, reading and writing to Facebook APIs and support for UI elements such as pickers and dialogs. The original download site for this software is : <https://developer.facebook.com/docs/android> This piece of software is made available under the terms and conditions of the Apache License version 2.

iptables (1.4.7)

iptables is a user space application program that allows a system administrator to configure the tables provided by the Linux kernel firewall (implemented as different Netfilter modules) and the chains and rules it stores. Different kernel modules and programs are currently used for different protocols; iptables applies to IPv4. The original download site for this software is : <https://android.googlesource.com> This piece of software is made available under the terms and conditions of the GPL v2.

libyuv (814)

libyuv is an open source project that includes YUV conversion and scaling functionality. The original download site for this software is : <http://code.google.com/p/libyuv> This piece of software is made available under the terms and conditions BSD.

ffmpeg (2.1.3)

This TV uses FFmpeg. FFmpeg is a complete, cross-platform solution to record, convert and stream audio and video. The original download site for this software is : <http://ffmpeg.org> This piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below.

u-boot (2011-12)

U-boot is a boot loader for embedded boards based on ARM, MIPS and other processors, which can be installed in a boot ROM and used to initialize and test the hardware or to download and run application code

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live555 (0.82)

Live555 provides RTP/RTCP/RTSP client. The original download site for this software is : <http://www.live555.com> This piece of software is made available under the terms and conditions of the LGPL v2.1 license, which can be found below.

Bluetooth Stack (Bluedroid)

This TV uses Bluetooth stack. The original download site for this software is : This piece of software is made available under the terms and conditions of Android Apache License Version 2.

EXIF (NA)

Exif JPEG header manipulation tool. The original download site for this software is : <http://www.sentex.net/~mwandel/jhead/> Portions of this source code are in the public domain

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EXPAT (2.1.0)

EXPAT is a XML Parser. The original download site for this software is :

<http://expat.sourceforge.net> Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd and Clark Cooper

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neven face recognition library (NA)

This TV uses neven face recognition library which is used for face recognition This piece of software is made available under the terms and conditions of Android Apache License version 2.

Unicode (4.8.1.1)

This TV uses Unicode which specifies the representation of text

The original download site for this software is : <http://icu-project.org/> ICU License - ICU 1.8.1 and later

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IPRoute2 (NA)

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mtpd (NA)

mtpd is used for VPN Network. The original download site for this software is : <http://libmtp.sourceforge.net/> This piece of software is made available under the terms and conditions of Apache License version 2.0.

MDNS Responder (NA)

MDNS Responder. The Mdns Responder project is a component of Bonjour, Apple's ease-of-use IP networking initiative. The original download site for this software is : <http://www.opensource.apple.com/tarballs/mDNSResponder/> This piece of software is made available under the terms and conditions of Apache License version 2.0.

NFC (NA)

NFC Semiconductor's NFC Library. Near Field Communication (NFC) is a set of short-range wireless technologies, typically requiring a distance of 4cm or

less to initiate a connection. NFC allows you to share small payloads of data between an NFC tag and an Android-powered device, or between two Android-powered devices. This piece of software is made available under the terms and conditions of Apache License version 2.0.

Skia (NA)

Skia is a complete 2D graphic library for drawing Text, Geometries, and Images. The original download site for this software is :

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Sonic Audio Synthesis library (NA)

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Sqlite (3071100)

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Nuance Speech Recognition engine (NA)

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C++Standard Template Library library (5)

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svox (NA)

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tinyalsa (NA)

This TV uses tinyalsa: a small library to interface with ALSA in the Linux kernel The original download site for this software is :
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Vorbis Decompression Library (NA)

This TV uses Tremolo ARM-optimized Ogg Vorbis decompression library. Vorbis is a general purpose audio and music encoding format contemporary to MPEG-4's AAC and TwinVQ, the next generation beyond MPEG audio layer 3The original download site for this software is :
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wpa_supplicant_Daemon (v0.8)

Library used by legacy HAL to talk to wpa_supplicant daemonThe original download site for this software is :
http://hostap.epitest.fi/wpa_supplicant/This piece of software is made available under the terms and conditions of GPL version 2.

gson (2.3)

Gson is a Java library that can be used to convert Java Objects into their JSON representation. It can also be used to convert a JSON string to an equivalent Java object. Gson can work with arbitrary

Java objects including pre-existing objects that you do not have source-code of. The original download site for this software is :
<https://code.google.com/p/google-gson/>This piece of software is made available under the terms and conditions of the Apache License 2.0

This software includes an implementation of the AES Cipher, licensed by Brian Gladman

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libUpNp (1.2.1)

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dnsmasq

Dnsmasq is a lightweight, easy to configure DNS forwarder and DHCP server

The original download site for this software is : <https://android.googlesource.com/platform/external/dnsmasq/>This piece of software is made available under the terms and conditions of the GPL v2 license, which can be found below.

TomCrypt (1.1)

iwedia stack is using tomcrypt for sw decryption

The original download site for this software is : <http://manpages.ubuntu.com/manpages/saucy/man3/libtomcrypt.3.html>This piece of software is made available under the terms and conditions of the DO WHAT THE FUCK YOU WANT TO PUBLIC LICENSE

AsyncHttpClient (1.4.6)

The original download site for this software is :
<http://loopj.com/android-async-http/>This piece of software is made available under the terms and conditions of the APACHE LICENSE 2.0

Jackson Parser (2.x)

Ipepg client uses Jackson Parser for string manipulation. The original download site for this software is : <https://github.com/FasterXML/jackson-core>This piece of software is made available under the terms and conditions of the APACHE LICENSE 2.0

TP Vision Netherlands B.V. is grateful to the groups and individuals above for their contributions.

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David Turner, Robert Wilhelm, and
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[NOTE: The text of this Exhibit A may differ slightly from the text of

the notices in the Source Code files of the Original Code. You should

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Specifications

19.1

Environmental

European Energy Label

The European Energy Label informs you on the energy efficiency class of this product. The greener the energy efficiency class of this product is, the lower the energy it consumes.

On the label, you can find the energy efficiency class, the average power consumption of this product in use and the average energy consumption for 1 year. You can also find the power consumption values for this product on the Philips website for your country at www.philips.com/TV

Product Fiche

65HFL7111T

- Energy Efficiency Class : A+
- Visible Screen Size : 164 cm / 65 inch
- On Mode Power Consumption (W) : 111 W
- Annual Energy Consumption (kWh) * : 163 kWh
- Standby Power Consumption (W) ** : <0.3 W
- Display Resolution (Pixels) : 3840 x 2160
- Network Standby : <=2W

* Energy consumption kWh per year, based on the power consumption of the television operating 4 hours per day for 365 days. The actual energy consumption depends on how the television is used.

** When the TV is turned off with the remote control and no function is active.

End of Use

Disposal of your old product and batteries

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.



When this crossed-out wheeled bin symbol is attached to a product it means that the product is covered by the European Directive 2012/19/EU.



Disposal of Waste Equipment by Users in Private Household in the European Union.

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to your local rules and do not dispose of your old products with your normal household waste. Correct disposal of your old product helps to prevent potential negative consequences for the environment and human health.

Your product contains batteries covered by the European Directive 2006/66/EC, which cannot be disposed with normal household waste.



Please find out for yourself about the local rules on separate collection of batteries because correct disposal will help to prevent negative consequences for the environment and human health.

19.2

Power

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

Power

- Mains power : AC 220-240V +/-10%
- Ambient temperature : 0°C to 40°C
- Power saving features : Eco mode, Picture mute (for radio), Auto switch-off timer, Eco settings menu.

The power rating stated on the product typeplate is the power consumption for this product during

normal household use (IEC 62087 Ed.2). The maximum power rating, stated between brackets, is used for electrical safety (IEC 60065 Ed. 7.2).

19.3

Operating System

Android OS :

Android Lollipop 5.1

19.4

Reception

- Aerial input : 75 ohm coaxial (IEC75)
- Tuner bands : Hyperband, S-Channel, UHF, VHF
- DVB : DVB-T (terrestrial, antenna) COFDM 2K/8K, DVB-T2, DVB-C (cable) QAM
- Analogue video playback : SECAM, PAL
- Digital video playback : MPEG2 SD/HD (ISO/IEC 13818-2), MPEG4 SD/HD (ISO/IEC 14496-10)
- Digital audio playback (ISO/IEC 13818-3)

19.5

Display Type

Diagonal screen size

- 65HFL7111T : 164 cm / 65 inch

Display resolution

- 3840 x 2160p

19.6

Display Input Resolution

Video formats

Resolution — Refresh rate

- 480i - 60 Hz
- 480p - 60 Hz
- 576i - 50 Hz
- 576p - 50 Hz
- 720p - 50 Hz, 60 Hz
- 1080i - 50 Hz, 60 Hz
- 1080p - 24 Hz, 25 Hz, 30 Hz
- 3840 x 2160p - 24 Hz, 25 Hz, 30 Hz, 50 Hz, 60 Hz

Computer formats

Resolutions (amongst others)

- 640 x 480 - 60 Hz
- 800 x 600 - 60 Hz
- 1024 x 768 - 60 Hz
- 1280 x 800 - 60 Hz
- 1280 x 960 - 60 Hz
- 1280 x 1024 - 60 Hz

- 1366 x 768 - 60 Hz
- 1440 x 900 - 60Hz
- 1600 x 1200 - 60Hz
- 1920 x 1080 - 60 Hz
- 3840 x 2160 - 60 Hz

19.7

Dimensions and Weights

65HFL7111T

- without TV stand:

Width 1455.1 mm - Height 837.2 mm - Depth 50.3 mm
- Weight ± 30,85 kg

- with TV stand:

Width 1455.1 mm - Height 837.2 mm - Depth 304.4 mm - Weight ± 33,55 kg

19.8

Connectivity

TV Side

- HDMI 3 in - ARC
- HDMI 4 in - ARC
- USB 2 - USB 3.0
- USB 3 - USB 2.0
- 1x Common Interface slot: CI+/CAM
- Headphones - Stereo mini-jack 3.5mm

TV Rear

- Audio In (DVI to HDMI) - Stereo mini-jack 3.5mm
- SCART: Audio L/R, CVBS in, RGB
- YPbPr : Y Pb Pr, Audio L/R

TV Bottom

- HDMI 1 in - ARC
- HDMI 2 in - ARC
- USB 1 - USB 2.0
- Audio out - Optical Toslink
- Network LAN - RJ45
- Antenna (75Ω)

19.9

Sound

- HD Stereo
- Output power (RMS) : 30W
- Dolby Audio
- DTS Premium Sound

Multimedia

Connections

- USB 2.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11a/b/g/n/ac (built-in)
- BT2.1 with EDR & BT4.0 with BLE

Supported USB file systems

- FAT 16, FAT 32, NTFS

Playback formats

- Containers : 3GP, AVCHD, AVI, MPEG-PS, MPEG-TS, MPEG-4, Matroska (MKV), Quicktime (MOV, M4V, M4A), Windows Media (ASF/WMV/WMA)
- Video Codecs : MPEG-1, MPEG-2, MPEG-4 Part 2, MPEG-4 Part 10 AVC (H264), H.265 (HEVC), VC-1, WMV9, VP9
- Audio Codecs : AAC, HE-AAC (v1/v2), AMR-NB, Dolby Digital, Dolby Digital Plus, DTS Premium Sound™, MPEG-1/2/2.5 Layer I/II/III (includes MP3), WMA (v2 to v9.2), WMA Pro (v9/v10)
- Subtitles :
 - Formats : SAMI, SubRip (SRT), SubViewer (SUB), MicroDVD (TXT), mplayer2 (TXT), TmPlayer (TXT)
 - Character encodings : UTF-8, Central Europe and Eastern Europe (Windows-1250), Cyrillic (Windows-1251), Greek (Windows-1253), Turkish (Windows-1254), Western Europe (Windows-1252)
- Image Codecs : JPEG, JPS, MPO
- Limitations :
 - Maximum supported total bit rate for a media file is 30Mbps.
 - Maximum supported video bit rate for a media file is 20Mbps.
 - MPEG-4 AVC (H.264) is supported up to High Profile @ L5.1.
 - H.265 (HEVC) is supported upto Main / Main 10 Profile up to Level 5.1
 - VC-1 is supported up to Advanced Profile @ L3.

Wi-Fi Certified

This TV supports Miracast certified devices.

Supported media server software (DMS)

- You can use any DLNA V1.5 certified media server software (DMS class).
- 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.

ESD regulations

This apparatus meets performance criteria B for ESD. In case the apparatus does not recover in file sharing mode due to electrostatic discharge, user interference is required.

Help and Support

20.1

Register your TV

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

Go to www.philips.com/welcome

20.2

Troubleshooting

Switch On and Remote Control

The TV does not switch on

- Disconnect the power cable from the power outlet. Wait for one minute then reconnect it.
- Make sure that the power cable is securely connected.

Creaking sound at startup or switch off

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

TV does not respond to the remote control

The TV requires some time to start up. During this time, the TV does not respond to the remote control or TV controls. This is normal behaviour. If the TV continues to be unresponsive to the remote control, you can check if the remote control is working by means of a mobile phone camera. Put the phone in camera mode and point the remote control to the camera lens. If you press any key on the remote control and you notice the infra red LED flicker through the camera, the remote control is working. The TV needs to be checked. If you do not notice the flickering, the remote control might be broken or its batteries are low. This method of checking the remote control is not possible with remote controls which are wirelessly paired with the TV.

The TV goes back to standby after showing the Philips startup screen

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

and reconnected to the power supply, the startup screen is displayed at the next startup. To switch on the TV from standby, press **⏻** on the remote control or on the TV.

The standby light keeps on blinking

Disconnect the power cable from the power outlet. Wait 5 minutes before you reconnect the power cable. If the blinking reoccurs, contact Philips TV Consumer Care.

Channels

No digital channels found during the installation

See the technical specifications to make sure that your TV supports DVB-T or DVB-C in your country. Make sure that all cables are properly connected and that the correct network is selected.

Previously installed channels are not in the channel list

Make sure that the correct channel list is selected.

Picture

No picture / distorted picture

- Make sure that the antenna is properly connected to the TV.
- Make sure that the correct device is selected as the display source.
- Make sure that the external device or source is properly connected.

Sound but no picture

- Make sure that the picture settings are set correctly.

Poor antenna reception

- Make sure that the antenna is properly connected to the TV.
- Loud speakers, unearthed audio devices, neon lights, high buildings and other large objects can influence reception quality. If possible, try to improve the reception quality by changing the antenna direction or moving devices away from the TV.
- If reception on only one channel is poor, fine-tune this channel with Manual Installation.

Poor picture from a device

- Make sure that the device is connected properly.
- Make sure that the picture settings are set correctly.

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.

Picture format keeps changing with different channels

Select a non 'Auto' picture format.

Picture position is incorrect

Picture signals from some devices may not fit the screen correctly. Check the signal output of the connected device.

Computer picture is not stable

Make sure that your PC uses the supported resolution and refresh rate.

Sound

No sound or poor sound quality

If no audio signal is detected, the TV automatically switches the audio output off — this does not indicate malfunction.

- Make sure that the sound settings are correctly set.
- Make sure that all cables are properly connected.
- Make sure that the volume is not muted or set to zero.
- Make sure that the TV audio output is connected to the audio input on the Home Theatre System. Sound should be heard from the HTS speakers.
- Some devices may require you to manually enable HDMI audio output. If HDMI audio is already enabled, but you still do not hear audio, try changing the digital audio format of the device to PCM (Pulse Code Modulation). Refer to the documentation accompanying your device for instructions.

HDMI and USB

HDMI

- Note that HDCP (High-bandwidth Digital Content Protection) support can delay the time taken for a TV to display content from an HDMI device.
- If the TV does not recognise the HDMI device and no picture is displayed, switch the source from one device to another and back again.
- If the picture and sound of a device connected with HDMI is distorted, check if a different **HDMI Ultra HD** setting can solve this problem.
- If there are intermittent sound disruptions, make sure that output settings from the HDMI device are correct.
- If you use an HDMI-to-DVI adapter or HDMI-to-DVI cable, make sure that an additional audio cable is connected to AUDIO IN (mini-jack only), if available.

HDMI EasyLink does not work

- Make sure that your HDMI devices are HDMI-CEC

compatible. EasyLink features only work with devices that are HDMI-CEC compatible.

No volume icon shown

- When an HDMI-CEC audio device is connected and you use the TV Remote Control to adjust the volume level from the device, this behaviour is normal.

Photos, videos and music from a USB device do not show

- Make sure that the USB storage device is set to Mass Storage Class compliant, as described in the storage device's documentation.
- Make sure that the USB storage device is compatible with the TV.
- Make sure that the audio and picture file formats are supported by the TV.

Choppy playback of USB files

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

Wi-Fi, Internet and Bluetooth

Wi-Fi network not found or distorted

- Microwave ovens, DECT phones or other Wi-Fi 802.11b/g/n devices in your proximity might disturb the wireless network.
- Make sure that the firewalls in your network allow access to the TV's wireless connection.
- If the wireless network does not work properly in your home, try the wired network installation.

Internet does not work

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

The PC and Internet connection are slow

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

DHCP

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

Bluetooth lost connection

- Position the wireless speaker within a range of 5 meters from the TV.
- Places with a high amount of wireless activity – apartments with lots of wireless routers – can hamper the wireless connection. Keep the router and wireless speaker as close to the TV as possible.

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.

Online Help

To solve any Philips TV related problem, you can consult our online support. You can select your language and enter your product model number.

Go to www.philips.com/support .

On the support site you can find your country's telephone number to contact us as well as answers to frequently asked questions (FAQs). In some countries, you can chat with one of our collaborators and ask your question directly or send a question by email. You can download new TV software or the manual to read on your computer.

Support and Repair

For support and repair, call the Consumer Care hotline in your country. Our service engineers will take care of a repair, if necessary.

Find the telephone number in the printed documentation that came with the TV.

Or consult our website www.philips.com/support and select your country if needed.

Support app

You can also look up the **Support** app in the Apps row of the Home menu.

Open this app to find the telephone number to contact us.

TV model number and serial number

You might be asked to provide the TV product model number and serial number. Find these numbers on the packaging label or on the type label on the back or bottom of the TV.

Warning

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

Safety and Care

21.1

Safety

Important

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

Secure the TV from Falling Over

You can download the guide from www.philips.com

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

Risk of Electric Shock or Fire

- Never expose the TV to rain or water. Never place liquid containers, such as vases, near the TV. If liquids are spilt on or into the TV, disconnect the TV from the power outlet immediately. Contact Philips TV Consumer Care to have the TV checked before use.
- Never expose the TV, remote control or batteries to excessive heat. Never place them near burning candles, naked flames or other heat sources, including direct sunlight.
- Never insert objects into the ventilation slots or other openings on the TV.
- Never place heavy objects on the power cord.
- Avoid force coming onto power plugs. Loose power plugs can cause arcing or fire. Ensure that no strain is exerted on the power cord when you swivel the TV screen.
- To disconnect the TV from the mains power, the power plug of the TV must be disconnected. When disconnecting the power, always pull the power plug, never the cord. Ensure that you have full access to the power plug, power cord and outlet socket at all times.

Risk of Injury or Damage to the TV

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

safely bear the weight of the TV set. TP Vision bears no responsibility for improper wall mounting that results in accident, injury or damage.

- Parts of this product are made of glass. Handle with care to avoid injury or damage.

Risk of damage to the TV !

Before you connect the TV to the power outlet, ensure that the power voltage matches the value printed on the back of the TV. Never connect the TV to the power outlet if the voltage is different.

Risk of Injury to Children

Follow these precautions to prevent the TV from toppling over and causing injury to children:

- Never place the TV on a surface covered by a cloth or other material that can be pulled away.
- Ensure that no part of the TV hangs over the edge of the mounting surface.
- Never place the TV on tall furniture, such as a bookcase, without anchoring both the furniture and TV to the wall or a suitable support.
- Teach children about the dangers of climbing on furniture to reach the TV.

Risk of swallowing batteries !

The remote control may contain coin-type batteries which can easily be swallowed by small children. Keep these batteries out of reach of children at all times.

Risk of Overheating

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

Lightning Storms

Disconnect the TV from the power outlet and antenna before lightning storms. During lightning storms, never touch any part of the TV, power cord or antenna cable.

Risk of Hearing Damage

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

Low Temperatures

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

Humidity

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

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

21.2

Screen Care

- Never touch, push, rub or strike the screen with any object.
- Unplug the TV before cleaning.
- Clean the TV and frame with a soft damp cloth and wipe gently. Avoid touching the Ambilight LEDs on the backside of the TV. Never use substances such as alcohol, chemicals or household cleaners on the TV.
- To avoid deformations and colour fading, wipe off water drops as quickly as possible.
- Avoid stationary images as much as possible.

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

Terms of Use

22.1

Terms of Use – TV

2018 © TP Vision Europe B.V. All rights reserved.

This product was brought to the market by TP Vision Europe B.V. or one of its affiliates, hereinafter referred to as TP Vision, which is the manufacturer of the product. TP Vision is the warrantor in relation to the TV with which this booklet was packaged. Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V.

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips N.V or their respective owners. TP Vision reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The written material packaged with the TV and the manual stored in the memory of the TV or downloaded from the Philips website www.philips.com/support are believed to be adequate for the intended use of the system.

The material in this manual is believed adequate for the intended use of the system. If the product, or its individual modules or procedures, are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained. TP Vision warrants that the material itself does not infringe any United States patents. No further warranty is expressed or implied. TP Vision cannot be held responsible neither for any errors in the content of this document nor for any problems as a result of the content in this document. Errors reported to Philips will be adapted and published on the Philips support website as soon as possible.

Terms of warranty – Risk of injury, damage to TV or void of warranty!

Never attempt to repair the TV yourself. Use the TV and accessories only as intended by the manufacturer. The caution sign printed on the back of the TV indicates risk of electric shock. Never remove the TV cover. Always contact Philips TV Customer Care for service or repairs. Find the telephone number in the printed documentation that came with the TV. Or consult our website www.philips.com/support 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 LCD/LED 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.

CE compliance

Hereby, TP Vision Europe B.V. declares that this television is in compliance with the essential requirements and other relevant provisions of Directives 2014/53/EU (RED), 2009/125/EC (Eco Design) and 2011/65/EC (RoHS).

Compliance with EMF

TP Vision manufactures and sells many products targeted at consumers which, like any electronic apparatus, in general have the ability to emit and receive electromagnetic signals. One of TP Vision's leading business principles is to take all necessary health and safety measures for our products, to comply with all applicable legal requirements and to stay well within the Electro Magnetic Field (EMF) standards applicable at the time of producing the products.




TP Vision is committed to developing, producing and marketing products that cause no adverse health effects. TP Vision confirms that, as long as its products are handled properly for their intended use, they are safe to use according to scientific evidence available today. TP Vision plays an active role in the development of international EMF and safety standards, enabling TP Vision to anticipate further developments in standardisation for early integration in its products.

22.2

Terms of Use – Smart TV

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

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

- 1 – Press  HOME to open the Home menu.
- 2 – Select  Apps to open Apps.
- 3 – Select  Support.

Copyrights

23.1

HDMI

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



23.2

Dolby Audio

Manufactured under license from Dolby Laboratories. Dolby, Dolby Audio, and the double-D symbol are trademarks of Dolby Laboratories.



23.3

DTS Premium Sound

DTS Premium Sound

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Windows Media

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Microsoft PlayReady

Content owners use Microsoft PlayReady™ content access technology to protect their intellectual property, including copyrighted content. This device uses PlayReady technology to access PlayReady-protected content and/or WMDRM-protected content. If the device fails to properly enforce restrictions on content usage, content owners may require Microsoft to revoke the device's ability to consume PlayReady-protected content. Revocation should not affect unprotected content or content protected by other content access technologies. Content owners may require you to upgrade PlayReady to access their content. If you decline an upgrade, you will not be able to access content that requires the upgrade.



23.5

Wi-Fi Alliance

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23.6

Kensington

(If applicable)



Kensington and Micro Saver are registered US trademarks of ACCO World Corporation with issued registrations and pending applications in other countries throughout the world.

Other Trademarks

All other registered and unregistered trademarks are the property of their respective owners.

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