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5231 series

User Manual

24PFS5231

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TV tour

1.1

Pause TV and recordings

If you connect a **USB Hard Drive**, you can pause and record a broadcast from a digital TV channel.

Pause your TV and answer that urgent phone call or simply take a break during a sports match, while the TV stores the broadcast on the USB Hard Drive. You can watch it again later.

With a USB Hard Drive connected, you can also record digital broadcasts. You can record while you are watching a programme or schedule a recording of an upcoming programme.

For more information, in **Help**, see chapter **Recording and pause TV**.

1.2

EasyLink

With **EasyLink** you can operate a connected device, like a Bluray Disc player, with the remote control of the TV.

EasyLink uses HDMI CEC to communicate with the connected devices.

1.3

Bluetooth connection (for 5231 series TV)

Your TV has Bluetooth technology inside.

The technology allows easy wireless connection to Bluetooth devices, such as smartphones, tablets or even laptops. So you can enjoy your favourite music and sound from videos or games wirelessly.

Setting up

2.1

Read safety

Read the safety instructions first before you use the TV.

To read the instructions, in **Help**, see chapter **Safety and care**.

2.2

TV stand and wall mounting

TV stand

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

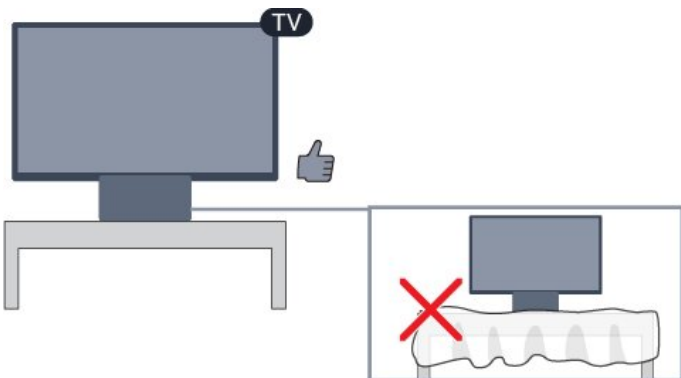
Use the model number of the TV to look for the **Quick Start Guide** to download.

2.3

Tips on placement

5231 series TV

- 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.

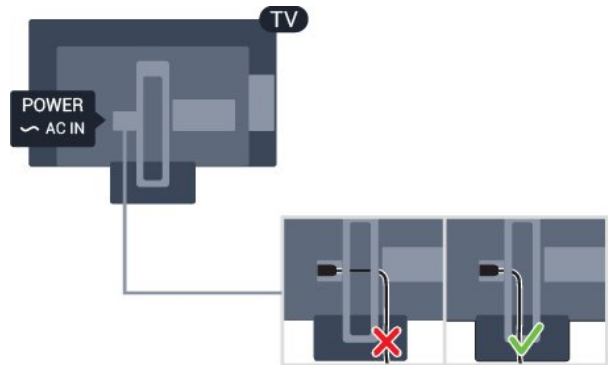
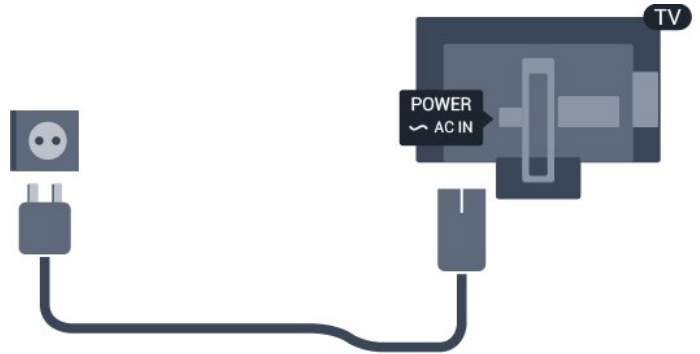


2.4

Power cable

5231 series TV

- 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.

For more information, in **Help**, see chapter **Switching On and Off**.

2.5

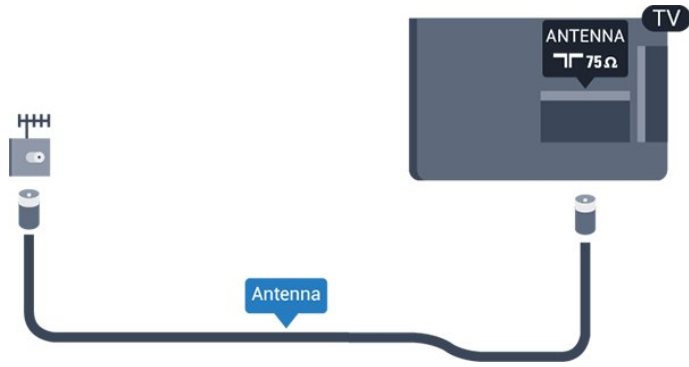
Antenna cable

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

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

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

input signals.



2.6

Satellite dish

- For PHS/PFS series TV

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



Connect devices

3.1

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.

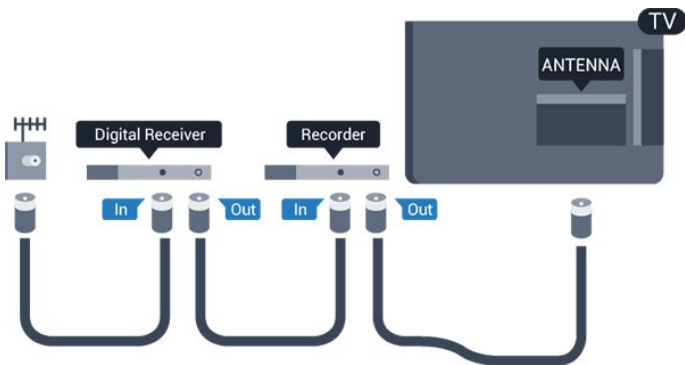
When you connect a device, the TV recognizes its type and gives each device a correct type name. You can change the type name if you wish. If a correct type name for a device is set, the TV automatically switches to the ideal TV settings when you switch to this device in the Sources menu.

If you need help to connect several devices to the TV, you can visit the Philips TV connectivity guide. The guide offers information on how to connect and which cables to use.

Go to www.connectivityguide.philips.com

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

Only HDMI 1 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 HDMI 1 connection 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.

In case you prefer to switch off ARC on HDMI 1 ARC, press , select **Sound** and press **OK**. Select **Advanced > HDMI 1 - ARC**.

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.

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. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **EasyLink**, press **➤** (right) and select **EasyLink** one step further.
3. Select **Off**.
4. Press **⬅️** (left) 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. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **EasyLink > EasyLink remote control** and press **OK**.
3. Select **On** or **Off** and press **OK**.
4. Press **⬅️** (left) 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).

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.



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.

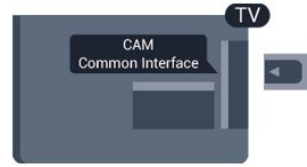
Insert the smart card into the CAM module. See the instruction you received from the operator.

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.



Passwords and PIN codes

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

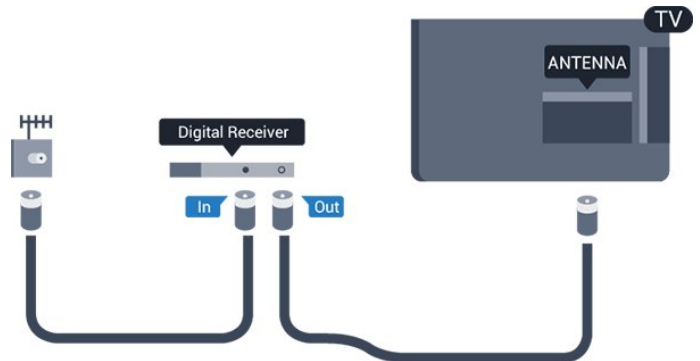
To set the PIN code for the CAM...

1. Press **SOURCES**.
2. Select the channel type you are using the CAM for.
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.

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.

Switch Off Timer

Switch off this automatic timer, if you only use the remote control of the Set-top box. Switch this timer off to prevent the TV from switching off automatically after a 4 hour period without a key press on the remote control of the TV.

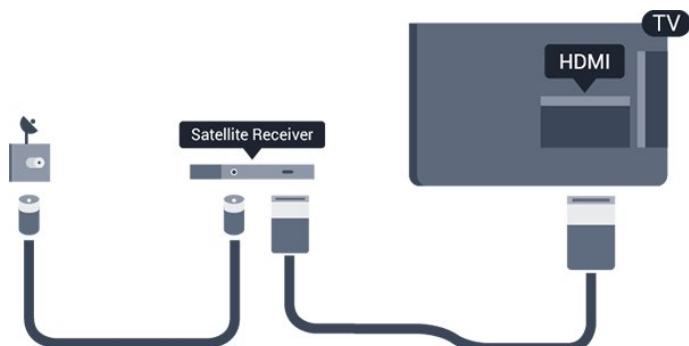
For more information, in **Help**, see chapter **Switching On and Off** > **Switch off timer**.

Satellite tuner

Connect the dish antenna cable to the Satellite receiver.

Next to the antenna connection, add an HDMI cable to connect the device to the TV.

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



Switch Off Timer

Switch off this automatic timer, if you only use the remote control of the Set-top box. Switch this timer off to prevent the TV from switching off automatically after a 4 hour period without a key press on the remote control of the TV.

For more information, in [Help](#), see chapter [Switching On and Off](#) > [Switch off timer](#).

3.4

Home Theatre System - HTS

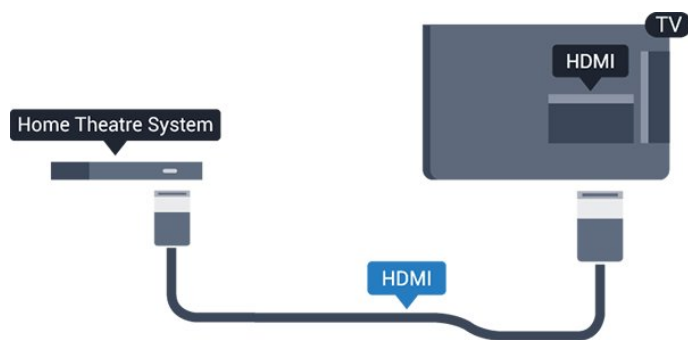
Connect with HDMI ARC

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 **HDMI 1** 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.

HDMI 1 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.

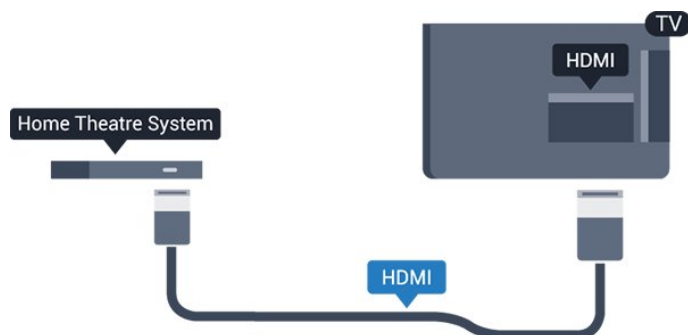


Audio to video synchronisation (sync)

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 Audio Out Delay...

1. Press **⚙**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out delay** and press **OK**.
3. Select **Off**.
4. Press **◀** (left) 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. Press **⚙**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out offset** and press **OK**.
3. Use the slider bar to set the sound offset and press **OK**.
4. Press **◀** (left) 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. Press **⚙**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out format** and press **OK**.
3. Select **Multichannel** or **Stereo**, then press **OK**.
4. Press **◀** (left) 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. Press **⚙**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out levelling** and press **OK**.
3. Select **More**, **Medium**, or **Less**, then press **OK**.
4. If the volume difference is large, select **More**. If the volume difference is small, select **Less**.
5. Press **◀** (left) 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**.

Press **⚙** for **Sound > Advanced > Audio out format**.

No sound

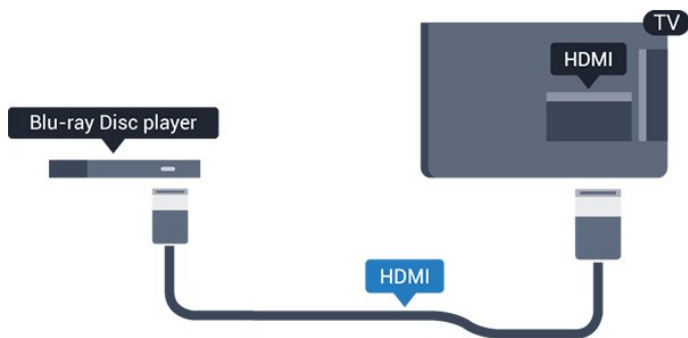
If you cannot hear the sound from the TV on your Home Theatre System, check the following . . .

- Check if you connected the HDMI cable to a **HDMI 1 ARC** connection on the Home Theatre System.
 - Check if the **HDMI 1 ARC** setting on the TV is switched **On**.
- Press **⚙** for **Sound > Advanced > HDMI 1-ARC**.

3.5

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.

3.6

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.

For more information on EasyLink, in **Help**, see chapter Settings > General settings > EasyLink.





3.7

Headphones

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



To adjust the volume...

1. Press , select Sound > Headphones volume and press **OK**.
2. Press the arrows  (up) or  (down) to adjust the value.
3. Press  (left) repeatedly if necessary, to close the menu.

3.8

Game console

HDMI

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



Scart

If your game console 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.

Ideal setting

Before you start playing a game from a connected game console, we advise you to set the TV in the ideal setting **Game**.

When you finish playing a game and start watching TV again, remember to switch the **Game or computer** setting back to **Off**.

To set the TV to the ideal setting...

1. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Game or computer**, and select the device type you want to use. To switch back to TV, select **Off**.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

3.9

USB hard drive

What you need

If you connect a USB Hard Drive, you can pause or record a TV broadcast. The TV broadcast must be a digital broadcast (DVB broadcast or similar).

To Pause

To pause a broadcast, you need a USB compatible Hard Drive with a minimum of 4GB disk space.

To Record

To pause and record a broadcast, you need a minimum of 32GB disk space.

For more information, in **Help**, see chapter **Recording and pause TV**.

Installation

Before you can pause or record a broadcast, you must connect and format a USB Hard Drive. Formatting removes all files from the USB Hard Drive.

1. Connect the USB Hard Drive to the **USB** connection on the TV.
2. Switch on the USB Hard Drive and the TV.
3. When the TV is tuned to a digital TV channel, press **⏸** (Pause). Trying to pause will start the formatting.

Follow the instructions on screen.

When the USB Hard Drive is formatted, leave it connected permanently.

Warning

The USB Hard Drive is formatted exclusively for this

TV, you cannot use the stored recordings on another TV or PC. Do not copy or change recording files on the USB Hard Drive with any PC application. This will corrupt your recordings. When you format another USB Hard Drive, the content on the former will be lost. A USB Hard Drive installed on your TV will need reformatting for use with a computer.

Formatting

Before you can pause or record a broadcast, you must connect and format a USB Hard Drive. Formatting removes all files from the USB Hard Drive.

Warning

The USB Hard Drive is formatted exclusively for this TV, you cannot use the stored recordings on another TV or PC. Do not copy or change recording files on the USB Hard Drive with any PC application. This will corrupt your recordings. When you format another USB Hard Drive, the content on the former will be lost. A USB Hard Drive installed on your TV will need reformatting for use with a computer.

To format a USB Hard Drive...

1. Connect the USB Hard Drive to the **USB** connection on the TV.
2. Switch on the USB Hard Drive and the TV.
3. When the TV is tuned to a digital TV channel, press **⏸** (Pause). Trying to pause will start the formatting. Follow the instructions on screen.

When the USB Hard Drive is formatted, leave it connected permanently.

3.10

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 the **USB** connection 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 EXIT** or select another activity.

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

For more information on watching or playing content from a USB flash drive, in **Help**, see chapter **Photos, videos and music**.

3.11

Photo camera

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

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

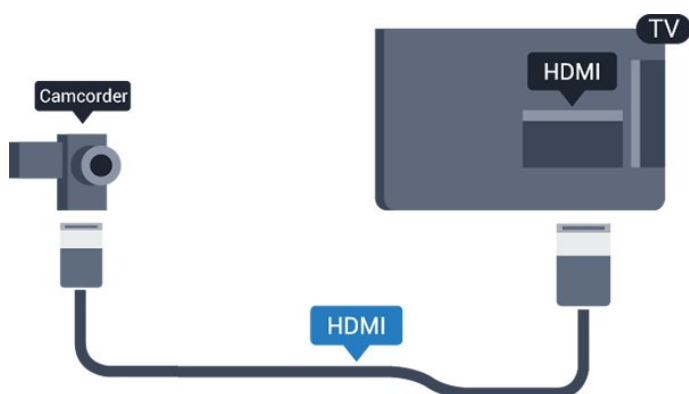
If the contents list does not appear automatically, press **⏏ SOURCES**, and select **USB**. Your camera might need to be set to transfer its content with PTP (Picture Transfer Protocol). Read the user manual of the digital photo camera.

For more information on watching or playing content from a USB flash drive, in **Help**, see chapter **Photos, videos and music**.

3.12

Camcorder -HDMI

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



3.13

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.

Ideal setting

If you connect a computer, we advise you to give the connection, on which the computer is connected, the correct device type name in the Source menu. If you then switch to **Computer** in the Source menu, the TV is set to the ideal Computer setting automatically.

You can manually switch the ideal setting to **Off** for watching TV or **Game** for playing a game from a connected game console (remember to switch back to **Off** when you stop playing a game).

If you switch to a source and change the **Game** or **computer** setting, it will be stored for this selected source.

To set the TV to the ideal setting...

1. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Game or computer**, and press **OK**.
3. Select **Game** (for gaming) or select **Computer** (for watching a movie).
4. Press **⬅** (left) repeatedly if necessary, to close the menu.

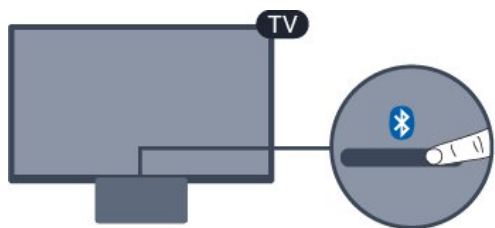
Remember to set **Game** or **computer** setting to **Off** when you stop playing the game.

3.14

Bluetooth sound station (for 5231/5242 series TV)

What you need

You must press bluetooth button on the top of the bluetooth sound station, then you can turn on the device.



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.

Turn on or off

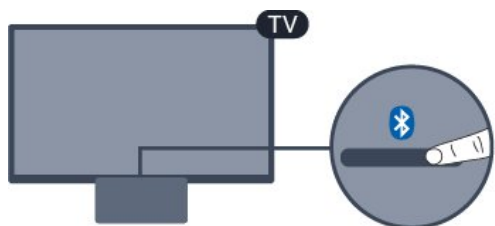
To turn the sound station on...

1. Press **SOURCES**, select **Bluetooth** and press **OK**.
2. The Bluetooth LED indicator will light blue.
3. You can share music from your bluetooth devices, such as smartphones, tablets or even laptops.

Connect via Bluetooth

Launch via bluetooth button

1. Press Bluetooth button on the top of bluetooth sound station.
2. Turn on Bluetooth on your Bluetooth devices, such as smartphones, tablets or even laptops.
3. Search bluetooth sound station on your Bluetooth device, then select the item starts with "Philips TV 2016A...".
3. The LED on bluetooth sound station will light blue.
4. Bluetooth is connected and ready to play music from your Bluetooth device.
5. Select one song on your Bluetooth device, then you will hear the sound from bluetooth sound station.



⚠ Warning

Do not put bluetooth sound station on soft surface, that will impact the audio play effect.

Launch via source menu

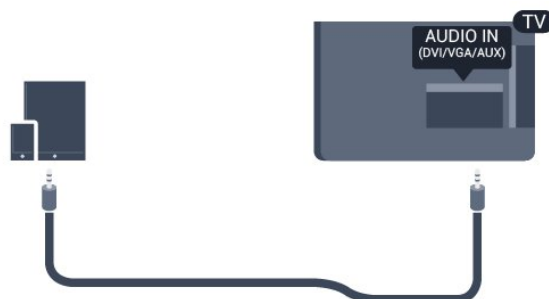
1. Press **SOURCES** on the remote control, then select **Bluetooth**.
2. Turn on Bluetooth on your Bluetooth devices, such as smartphones, tablets or even laptops.
3. Search bluetooth sound station on your Bluetooth device, then select the item starts with "Philips TV 2016A...".
3. The LED on bluetooth sound station will light blue.
4. Bluetooth is connected and ready to play music from your Bluetooth device.
5. Select one song on your Bluetooth device, then you will hear the sound from bluetooth sound station.

⚠ Warning

Do not put bluetooth sound station on soft surface, that will impact the audio play effect.

Connect via audio cable

1. Connect your AUX compatible device with TV on port **AUDIO IN (DVI/VGA/AUX)**.
2. Select one song on your Bluetooth device, then you will hear the sound from bluetooth sound station.



⚠ Warning

Do not put bluetooth sound station on soft surface, that will impact the audio play effect.

Switching On and Off

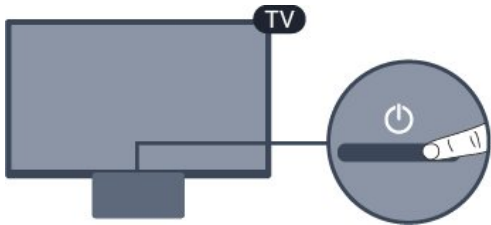
On or standby


5231 series TV

Before you switch on the TV, make sure you plugged in the mains power in the **POWER** connector on the back of the TV.

Switch On

If the indicator light is off, press the power button on the top of the bluetooth sound station to switch on the TV - the red indicator will go off.



When the TV is in standby, press  on the remote control to switch the TV on.

Switch to standby

To switch the TV to standby, press  on the remote control.



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.

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 , select **General settings > Sleep timer** and press **OK**.
2. With the slider bar you can set the time to up to 180 minutes in increments of 5 minutes. If set to 0 minutes, the Sleep Timer is switched off. You can always switch off your TV earlier or reset the time during the countdown.
3. Press  (left) repeatedly if necessary, to close the menu.

Switch off timer

If the TV receives a TV signal but you don't press a key on the remote control during a 4 hour period, the TV switches off automatically to save energy. Also, if the TV does not receive a TV signal nor a remote control command for 10 minutes, the TV switches off automatically.

If you use the TV as a monitor or use a digital receiver to watch TV (a Set-Top Box - STB) and you do not use the remote control of the TV, you should deactivate this automatic switch off.

To deactivate the Switch Off Timer ...

1. Press , select **Eco settings** and press  (right) to enter the menu.
2. Select **Switch off timer** and press **OK**.
3. Press the arrows  (up) or  (down) to adjust the value. The value **0** deactivates the automatic switch off.
4. Press  (left) repeatedly if necessary, to close the menu.

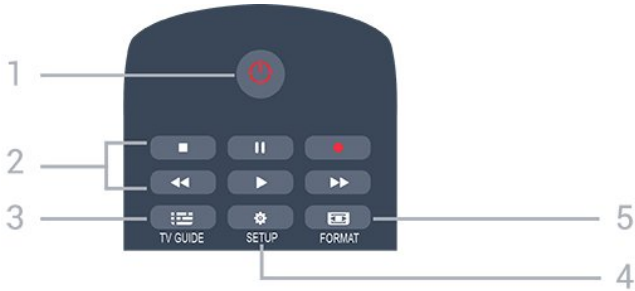
For more information on environmentally friendly TV settings, see chapter **Settings > Eco settings**.

Remote control

5.1

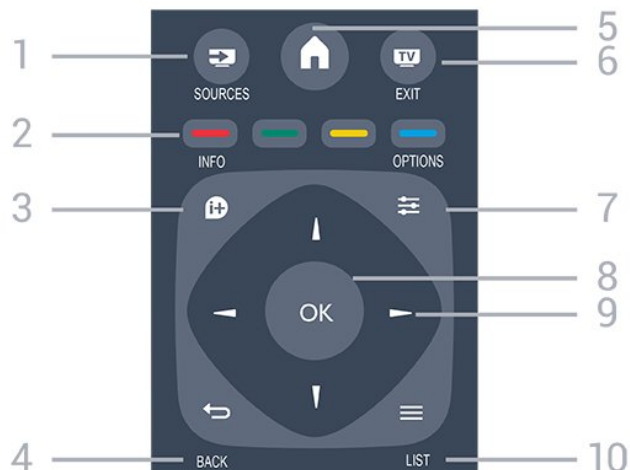
Key overview

Top



1. **⏻ Standby / On**
To switch the TV on or back to Standby.
2. **Playback keys**
 - Play **▶**, to playback
 - Pause **⏸**, to pause playback
 - Stop **■**, to stop playback
 - Rewind **⏮**, to rewind
 - Fast forward **⏭**, to go fast forward
 - Record **●**, to record now
3. **📺 TV GUIDE**
To open or close the TV Guide.
4. **⚙️ SETUP**
To open the Settings menu.
5. **🖼️ FORMAT**
To open or close the Picture format menu.

Middle



1. **📺 SOURCES**

To open or close the Sources menu - the list of connected devices.

2. Colour keys

The buttons function follow the on-screen instructions.

3. **📺 INFO**

To open or close programme information.

4. **⏮ BACK**

To switch back to the previous channel you selected.
To close a menu without changing a setting.

5. **🏠 HOME**

To open or close the home menu.

6. **📺 EXIT**

To switch back to watching TV.

7. **☰ OPTIONS**

To open or close the Options menu.

8. **OK key**

To confirm a selection or setting.

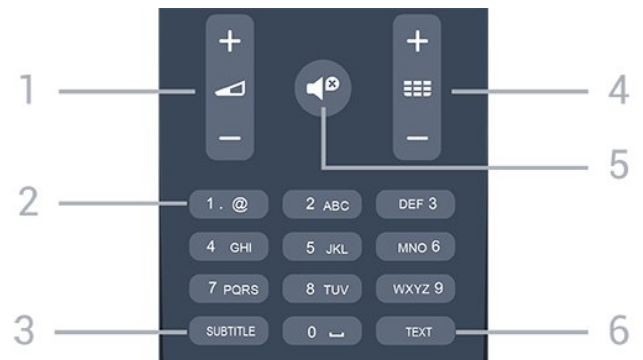
9. **Arrow / navigation keys**

To navigate up, down, left or right.

10. **☰ LIST**

To open or close the channel list.

Bottom



1. **🔊 Volume**

To adjust the volume level.

2. **Number keys and text keypad**

To select a TV channel directly or to enter text.

3. **SUBTITLE**

To switch subtitles on, off or Automatic.

4. **📺 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.

5. **🔇 Mute**

To mute the sound or to restore it.

6. **TEXT**

To open or close Text / Teletext.

5.2

IR sensor (for 4031/5231/5242 series TV)

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



⚠ Warning

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

5.3

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.
4. Remove the batteries if you are not using the remote control for a long time.

Safely dispose of your old batteries according to the end of use directions.

For more information, in [Help](#), see chapter [Specifications > Environmental > End of use](#).

5.4

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

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 select **Channels** and press **OK**.
- 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 lists.
- The channel list 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.

Channel icons

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

Radio 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.

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

Channel options

Open options

While watching a channel, you can set some options.

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

To open the options menu...

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

Subtitles

Switch on

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

You can switch subtitles **Subtitle on** or **Subtitle off**. Alternatively you can select **Automatic**.

Automatic

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

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

Preferred subtitle languages

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

To set the primary and secondary subtitle language...

1. Press **Settings**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Languages** and press **➤** (right) to enter the menu.
3. Select **Primary subtitle language** or **Secondary subtitle language**, and press **OK**.
4. Select the language you need and press **OK**.
5. Press **◀** (left) repeatedly if necessary, to close the menu.

Select a subtitle language

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

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

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

Subtitles for analogue channels

For analogue channels, 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 **Status** in the **Options** menu.

Audio language

Preferred audio language

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

To set the primary and secondary audio language...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Languages** and press **➤** (right) to enter the menu.
3. Select **Primary audio language** or **Secondary audio language**, and press **OK**.
4. Select the language you need and press **OK**.
5. Press **◀** (left) repeatedly if necessary, to close the menu.

Select an audio language

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

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

1. Press **≡** **OPTIONS**.
2. Select **Audio language** and select one of the languages as audio temporarily.

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.

Mono / Stereo

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

To switch to Mono or Stereo...

1. Tune to an analogue channel.
2. Press **≡** **OPTIONS**, select **Mono/Stereo** and press **➤** (right).
3. Select **Mono** or **Stereo** and press **OK**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Clock

Display time on the corner of the TV screen.

Status

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

6.3

Lock a channel

Lock and unlock a channel

To prevent children from watching a channel or a programme, you can lock channels or lock age rated programmes.

You can lock a channel to prevent children from watching it. To watch a locked channel you need to enter the Child lock code. You cannot lock programmes from connected devices.

To lock a channel . . .

1. While watching a TV channel, press **≡** **LIST** to open the channel list.
2. In any list, select the channel you want to lock.
3. Press **≡** **OPTIONS** and select **Lock channel**. In a channel list, a locked channel is marked with a lock **🔒**.





To unlock a channel, select the locked channel in the channel list, press **≡** **OPTIONS** , then select **Unlock channel**. You will need to enter the Child lock code.

Parental rating

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

Some digital broadcasters have age rated their programmes. When the age rating of a programme is equal to or higher than the age you have set as age rating for your child, the programme will be locked. To watch a locked programme you must enter the child lock code. The parental age rating is set for all channels.





To set an age rating . . .

1. Press , select **Child lock** and press  (right) to enter the menu.
2. Select **Parental rating** and press  (right) to enter the menu.
3. Enter a 4-digit Child lock code. Enter a 4-digit Child lock code and confirm. Now you can set an age rating.
4. Set the age and press **OK**. To switch off the parental age rating, select **None** as age setting.
5. Press  (left) repeatedly if necessary, to close the menu.

The TV will ask for the code to unlock the programme. For some broadcasters / operators, the TV only locks programmes with a higher rating.

Set or change the lock code

To set the lock code or to change the current code . . .

1. Press , select **Child lock** and press  (right) to enter the menu.
2. Select **Change code** and press  (right) to enter the menu.
3. If a code is set already, enter the current Child lock code and then enter the new code twice.
4. Press  (left) repeatedly if necessary, to close the menu.

The new code is set.

Forgotten your code?

To override and enter a new child lock code in case you forget it, enter **8888**.

6.4

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**.

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 subpage

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. Press , select **General settings** and press  (right) to enter the menu.
2. Select **Languages** and press  (right) to enter the menu.
3. Select **Primary teletext** or **Secondary teletext** , and press **OK**.

4. Select the language you need and press **OK**.
5. Press **◀** (left) 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.

Channel lists

7.1

Open a channel list

To open the current channel list...

1. Press **TV**, to switch to TV.
2. Press **≡ LIST** to open the current channel list.
3. Press **≡ LIST** again to close the channel list.

7.2

Filter a channel list

You can filter a list with all channels. You can set the channel list to show only TV channels or only Radio stations.

To set a filter on a list with all channels...

1. While watching a TV channel, press **≡ LIST** to open the channel list.
2. Press **≡ OPTIONS** to open Option menu.
3. Select **List**, then you can select **All**, **Favourites**, **Radio**, and **New channels**.

7.3

Rename a channel

You can rename channels in the channel list.





1. Select the channel you want to rename in one of the channel lists.
2. Select the channel to rename.
3. Press **— Rename**.
4. You can enter text with the on-screen keyboard.
5. To finish renaming, select **Done** and press **OK**.

Favourite channels



About favourite channels

You can create a favourite channel list that only holds the channels you want to watch. With the Favourite channel list selected, you will only see your favourite channels when you switch through channels.



Create a favourites list

1. While watching a TV channel, press  LIST to open the channel list.
2. Select the channel, and press  Mark as favourites to mark as favourite.
3. The selected channel is marked with a .
4. To finish, press  BACK . The channels are added to the Favourites list.

Select a favourite list




1. While watching a TV channel, press  LIST to open the channel list.
2. Press  OPTIONS to open Option menu.
3. Select List, then you can select Favourites.

Remove channel from the favourites list


To remove a channel from the favourites list, select the channel with , then press  Unmark as favourite again to unmark as favourite.

Reorder channels

You can reorder — reposition — channels in the Favourite channel list.

1. While watching a TV channel, press  LIST to open the channel list.
2. Press  OPTIONS to open Option menu.
3. Select List, select Favourites, and press OK.
4. Press  Move.
5. Select the channel to reorder and press OK.
6. Press the Navigation buttons to move the

highlighted channel to another location and press OK.

7. Once complete, press  Close to exit from the Favourite channel list.

TV Guide

9.1

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 (e.g the channels you watch with Watch TV). The TV cannot collect the TV guide information for channels viewed from a digital receiver.

9.2

Using the TV guide

Open the TV guide

To open the TV guide, press **TV GUIDE**.

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 in the TV.

Tune to a programme

Switch to a programme

From the TV guide, you can switch to a current programme.

To select a programme, use the arrow keys to highlight the programme name.

Navigate to the right to view programmes scheduled later that day.

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

View programme details

To call up the details of the selected programme, press **INFO**.

Change day

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

If the TV guide information comes from the broadcaster, you can press **+** to view the schedule of one of the next days. Press **-** to go back to the previous day.

Alternatively, you can press **OPTIONS** and select **Change day**.

Select **Previous day**, **Today** or **Next day** and press **OK**, to select the day of the schedule.

Set a reminder

You can set a reminder for a programme. A message will alert you at the start of the programme. You can tune to this channel immediately.

In the TV Guide a programme with a reminder is marked with a **🕒** (clock).

To set a reminder...

1. Press **TV GUIDE** and select an upcoming programme.
2. Press **Set reminder** and press **OK**.

To clear a reminder...

1. Press **TV GUIDE** and select a programme with the reminder, which is marked with a **🕒** (clock).
2. Press **Clear reminder**, and select **Yes**, then press **OK**.

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, press **OPTIONS** and select **Search by genre**. Select a genre and press **OK**. A list with the found programmes appears.

List of reminders

You can view a list of the reminders you have set.

List of Reminders


To open the list of reminders...



1. Press **TV GUIDE**.
2. Press **OPTIONS** and select **All reminders**.
3. In the list of reminders, select **Clear selected** and press **➤** (right) to select the reminder you want to remove.

4. Select **Close** to close the list of reminders.



Set a recording

You can set a recording in the TV Guide.



In the TV Guide, a programme set to be recorded is marked with .

To see the recording list, press  **Recordings**, a programme set to be recorded is marked with a  (red dot) on the front of the programme name.

To record a programme...

1. Press  **TV GUIDE** and select a future or ongoing programme.
2. Press the colour key  **Record**.

To cancel a recording...

1. Press  **TV GUIDE** and select the programme set for recording.
2. Press the colour key  **Clear Recording**.

Recording and pause TV

Recording

What you need

You can record a digital TV broadcast and watch it later.

To record a TV programme you need...

- a connected USB Hard Drive formatted on this TV
- digital TV channels installed on this TV
- to receive channel information for the on screen TV Guide
- a reliable TV clock setting. If you reset the TV clock manually, recordings may fail.

You cannot record when you are using Pause TV.

In terms enforcement of copyright legislation, some DVB providers can apply different restriction by means of DRM (Digital Right Management) technology. In case of broadcasting protected channels, recording, record validity or number of views may be restricted. Recording may be completely prohibited. In case of trying to record a protected broadcasting or play back an expired recording, an error message can appear.

Note:

Recording function is only for digital TV broadcast. It is not possible to record content from external devices (e.g. HDMI).

Record a programme

Record now

To record the programme you are watching right now, press **●** (Record) on the remote control. The recording will start immediately.

To stop the recording, press **■** (Stop).

When TV Guide data is available, the programme you are watching will be recorded from the moment you pressed the recording key until the programme ends. If no TV Guide data is available, the recording will only last 30 minutes. You can adjust the end time of the recording in the list of **Recordings**.

Schedule a recording

You can schedule a recording of an upcoming programme for today or a few days from today (maximum of 8 days away). The TV will use the data from the TV Guide to start and end the recording.

To record a programme...

1. Press **☰** TV GUIDE.
2. On the TV guide, select the channel and programme you wish to record. Press **▶** (Right) or **◀** (Left) to scroll through the programmes of a channel.
3. With the programme highlighted, press the colour key **●** Record . The programme is scheduled for recording. A warning will show automatically when overlapping recordings are scheduled. If you plan to record a programme in your absence, remember to leave the TV switched to Standby and the USB Hard Drive switched on.

List of recordings

You can view and manage your recordings in the list of recordings. Next to the list of recordings, there is a separate list for scheduled recordings and reminders.

To open the list or recordings...

1. Press **☰** TV GUIDE.
2. Press the colour key **●** Recordings .
3. In the list of recordings, select the tabs **New**, **Watched** or **Expired** and press **OK** to filter your view.
4. With a recording selected in the list, you can remove the recording with the colour key **●** Remove or stop an ongoing recording with the colour key **●** Stop Recording . You can rename a recording with the colour key **●** Rename.

Broadcasters can limit the number of days a recording can be viewed. When this period expires, the recording will be marked as expired. A recording in the list can show the number of days before it expires.

When a scheduled recording was prevented by the broadcaster or when the broadcast was interrupted, a recording is marked as **Failed**.

Manual recording

You can schedule a recording that is not linked to a TV programme. You set the tuner type, channel and the start and end time yourself.

To schedule a recording manually...

1. Press **☰** TV GUIDE.
2. Press the colour key **●** Recordings .
3. At the top of the screen, select **⌚** Scheduled and press **OK**.

4. Press **≡** OPTIONS, select **Schedule** and press **OK**.
5. Select the tuner from where you want to record and press **OK**.
6. Select the channel to record from and press **OK**.
7. Select the day of the recording and press **OK**.
8. Set the start and end time of the recording. Select a button and use the **▲** (up) or **▼** (down) keys to set the hours and minutes.
9. Select **Schedule** and press **OK** to schedule the manual recording.

The recording will appear in the list of scheduled recordings and reminders.

Watch a recording

To watch a recording...

1. Press **≡** TV GUIDE.
2. Press the colour key **■ Recordings**.
3. In the list of recordings, select the recording you need and press **OK** to start watching.
4. You can use the keys **⏸** (pause), **▶** (play), **◀** (rewind), **▶▶** (fast forward) or **■** (stop).
5. To switch back to watch TV, press **TV** EXIT.

10.2

Pause TV

What you need

You can pause a digital TV broadcast and resume watching it a bit later.

To pause a TV programme you need...

- a connected USB Hard Drive formatted on this TV
- digital TV channels installed on this TV
- to receive channel information for the on screen TV Guide

With the USB Hard Drive connected and formatted, the TV continuously stores the TV broadcast you are watching. When you switch to another channel, the broadcast of the former channel is cleared. Also when you switch the TV to standby the broadcast is cleared.

You cannot use Pause TV when you are recording.

Pause a programme

To pause and resume a broadcast...

To pause a broadcast, press **⏸** (Pause). A progress bar at the bottom of the screen appears briefly.

To call up the progress bar, press **⏸** (Pause) again.

To resume watching, press **▶** (Play).

With the progress bar on screen, press **◀** (Rewind) or press **▶▶** (Forward) to select from where you want to start viewing the paused broadcast. Press these keys repeatedly to change speed.

You can pause a broadcast for a maximum time span of 90 minutes.

To switch back to the live TV broadcast, press **■** (Stop).

Replay

Since the TV stores the broadcast you are watching, you can mostly replay the broadcast for a few seconds.

To replay a current broadcast...

1. Press **⏸** (Pause)
2. Press **◀** (Rewind). You can press **◀** repeatedly to select from where you want to start viewing the paused broadcast. Press these keys repeatedly to change speed. At one point you will reach the start of the broadcast storage or the maximum time span.
3. Press **▶** (Play) to watch the broadcast again.
4. Press **■** (Stop) to watch the broadcast live.

Home menu

About the Home menu

Channels

This row contains all channels.

Sources

This row contains available sources in this TV.

Utilities

This row contains TV functions which are available for user.

Quick settings

This row contains settings which are available for user.

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


12.1

Switch to a device

Sources menu

To open the Sources menu, press  **SOURCES** .
 To switch to a connected device, select the device with the arrows  (left) or  (right) and press **OK**.
 To close the Source menu without switching to a device, press  **SOURCES** again.

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.

12.2

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.

12.3

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. Press , select **Picture > Advanced > Game or computer** and press **OK**.
2. Select **Game**, **Computer** or **Off**.
3. Press  (left) repeatedly if necessary, to close the menu.

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

Videos, photos and music

13.1

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 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 EXIT.

Warning

If you try to pause or record a programme with a USB Hard Drive connected, the TV will ask you to format the USB Hard Drive. This formatting will delete all current files on the USB Hard Drive.

13.2

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 pause the video, 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 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 .

Progress Bar

To show the progress bar when a video is playing, press INFO.

Press again to hide the info.

Video options

During the video playback, press OPTIONS to...

Subtitles

Display the subtitles if available, select On, Off, or On during mute.

Audio language

Play the audio language if available.

Shuffle on, Shuffle off

Play videos in sequence or at random.

Repeat, Play once

Play videos repeatedly or once.

Show info

Display file information, like sound mode.

Subtitle settings

Set subtitle colour, font size, position, time sync offset if available.

13.3

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. Select a photo, press OPTIONS on the remote control.
3. Select Start Slideshow.

- 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 .

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 **↶**.
3. Enter the folder with photos, then select a photo.
4. Press **≡** **OPTIONS**, then select **Start Slideshow**.
5. Now use the navigation arrows to select the folder with photos.
6. To stop the slideshow, press **↶**.

Photo options

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

Start slideshow

Start slideshow.

Slideshow transitions

Set the transition from one picture to the next.

Shuffle off, Shuffle on

View the pictures in sequential order, or at random.

Repeat, Play once

View the pictures repeatedly or once only.

Slideshow frequency

Select the display time for each photo.

Rotate image

Rotate photo.

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 or previous song, press **≡ +** or **≡ -**.
- To make a 10-second jump in a song or 10-second jump back, press **>** or **<**.
- To go back to the folder, press **↶**, 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 **INFO**. Press again to hide the info.

Music options

Options for playing music...

Stop playback

Stop music play.

Shuffle on, Shuffle off

Play songs in sequence or at random.

Repeat, Play once

Play songs repeatedly or once.

Show info

Display file information, like sound mode.

Settings

Quick settings

Eco settings

For more information, in [Help](#), see chapter [Eco settings](#).

Picture style

For more information, in [Help](#), see chapter [Picture style](#).

Picture format

For more information, in [Help](#), see chapter [Picture format](#).

Sound style

For more information, in [Help](#), see chapter [Sound style](#).

Headphones volume

For more information, in [Help](#), see chapter [Headphones volume](#).

Speakers

For more information, in [Help](#), see chapter [TV speakers](#).

Clock

For more information, in [Help](#), see chapter [Clock](#).

Sleep timer



For more information, in [Help](#), see chapter [Sleep timer](#).

Picture

Picture style

Select a style

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

1. While watching a TV channel, press .
2. Select **Picture** > **Picture style**, and select one of the styles in the list.
3. Press  (left) repeatedly if necessary, to close the menu.

The available Picture 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
- **Energy saving** - Energy-efficient settings




Customise a style

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

Restore a style

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. While watching a TV channel, press .
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  (left) repeatedly if necessary, to close the menu.

Home or Shop

If the **Picture style** is switched back to **Vivid** every time you switch on the TV, the TV location is set to **Shop**. A setting meant for in-store promotion.

To set the TV for Home use...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Location > Home** and press **OK**.
3. Press **◀** (left) 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. Press **⚙️**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Colour** and press **➤** (right).
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Contrast

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

To adjust the contrast...

1. Press **⚙️**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Contrast** and press **➤** (right).
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Sharpness

With **Sharpness**, you can adjust the level of sharpness in fine detail of the picture.

To adjust the sharpness...

1. Press **⚙️**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Sharpness** and press **➤** (right).
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value.
4. Press **◀** (left) 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 to the ideal settings for gaming or computer manually...

1. Press **⚙️**, select **Picture > Advanced > Game or computer** and press **OK**.
2. Select **Game**, **Computer** or **Off**.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

Colour settings

Colour enhancement

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

To adjust the level...

1. Press **⚙️**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Colour > Colour enhancement** and press **OK**.
3. Select **Maximum**, **Medium**, **Minimum** or **Off**.
4. Press **◀** (left) 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. Press **⚙️**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Colour > Colour temperature** and press **OK**.
3. Select **Normal**, **Warm** or **Cool**. Or select **Custom** if you want to customise a colour temperature yourself.

4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Colour > Custom colour temperature** and press **OK**.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value. WP is white point and BL is black level. You can also select one of the presets in this menu.
4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Contrast > Contrast modes** and press **OK**.
3. Select **Standard**, **Best power**, **Best picture**, or **Off**.
4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Contrast > Dynamic contrast** and press **OK**.
3. Select **Maximum**, **Medium**, **Minimum** or **Off**.
4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Contrast > Brightness**, and press **OK**.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value.
4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Contrast > Video contrast**, and press **OK**.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value.
4. Press ◀ (left) 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. Press ⚙, select **Picture** and press ▶ (right) to enter the menu.
2. Select **Advanced > Contrast > Gamma**, and press **OK**.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value.
4. Press ◀ (left) 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. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Sharpness > Super Resolution**, and press **➤** (right) to enter the menu.
3. Select **On** or **Off**.
4. Press **◀** (left) 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. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Sharpness > Noise reduction**, and press **➤** (right) to enter the menu.
3. Select **Maximum**, **Medium**, **Minimum** or **Off**.
4. Press **◀** (left) 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. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Advanced > Sharpness > MPEG artefact reduction**, and press **➤** (right) to enter the menu.
3. Select **On** or **Off**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Format and edges

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. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Format and edges > Picture format**, and press **➤** (right) to enter the menu.
3. Select a format from the list and press **OK**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

To change the picture format while watching TV ...

1. While watching a TV channel, press **⏏** to open

the **Picture format** menu.

2. Select a format from the list and press **OK**.

Screen edges

With **Screen edges**, you can slightly enlarge the picture to hide distorted edges.

To adjust the edges ...

1. Press **⚙**, select **Picture** and press **➤** (right) to enter the menu.
2. Select **Format and edges > Screen edges**, and press **➤** (right) to enter the menu.
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

14.3

Sound

Sound style

Select a style

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

1. While watching a TV channel, press **⚙**.
2. Select **Sound** and press **➤** (right) to enter the menu.
3. Select **Sound style**, and select one of the styles in the list.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

The available Sound 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. While watching a TV channel, press .
2. Select **Sound** and press  (right) to enter the menu.
3. Select **Sound style** , and select the Sound Style you want to restore.
4. Press the colour key  **Restore style**. The style is restored
5. Press  (left) 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. Press , select **Sound** and press  (right) to enter the menu.
2. Select **Bass** and press  (right).
3. Press the arrows  (up) or  (down) to adjust the value.
4. Press  (left) 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. Press , select **Sound** and press  (right) to enter the menu.
2. Select **Treble** and press  (right).
3. Press the arrows  (up) or  (down) to adjust the value.
4. Press  (left) repeatedly if necessary, to close the menu.

Surround mode

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

To set the surround mode...






1. Press , select **Sound** and press  (right) to enter the menu.
2. Select **Surround mode** and press  (right) to enter the menu.
3. Select **Stereo** or **Incredible surround**.
4. Press  (left) repeatedly if necessary, to close the menu.

Advanced sound settings

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. Press , select **Sound** and press  (right) to enter the menu.
2. Select **Advanced** and press  (right) to enter the menu.
3. Select **Auto volume levelling** and press  (right) to enter the menu.
4. Select **On** or **Off**.
5. Press  (left) repeatedly if necessary, to close the menu.

TV speakers

You can send the TV sound to a connected audio device - a Home Theatre System or audio system.

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






- If you select **TV speakers** > **Off**, you permanently switch off the TV speakers.
- If you select **TV speakers** > **On**, the TV speakers are always on.

With an audio device connected with HDMI CEC, you can use one of the EasyLink settings.



- If you select **EasyLink**, the TV sends the TV sound to the audio device. The TV will switch off the TV speakers when the device is playing the sound.
- If you select **EasyLink autostart**, the TV will switch on the audio device, send the TV sound to the device and switch off the TV speakers.

With EasyLink or EasyLink Autostart selected, you can still switch to TV speakers if necessary.

To set the TV speakers...

1. Press , select **Sound** and press  (right) to enter the menu.
2. Select **Advanced** and press  (right) to enter the menu.
3. Select **TV speakers** and press  (right) to enter the menu.
4. Select **On**, **Off**, **EasyLink**, or **EasyLink autostart** .
5. Press  (left) repeatedly if necessary, to close the menu.

To switch to speakers directly...

1. While watching TV, press .
2. Select **Quick settings** > **Speakers** and select **TV** or **Amplifier** (audio system).
3. Press  (left) 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. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Clear Sound** and press **OK**.
3. Select **On** or **Off**, then press **OK**.
4. Press **◀** (left) 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. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out format** and press **OK**.
3. Select **Multichannel** or **Stereo**, then press **OK**.
4. Press **◀** (left) 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. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out levelling** and press **OK**.
3. Select **More**, **Medium**, or **Less**, then press **OK**.
4. If the volume difference is large, select **More**. If the volume difference is small, select **Less**.
5. Press **◀** (left) repeatedly if necessary, to close the menu.

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

HDMI 1 - ARC

To switch on or off...

1. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > HDMI 1 - ARC** and press **OK**.
3. Select **On** or **Off**, then press **OK**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

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 Audio Out Delay...

1. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out delay** and press **OK**.
3. Select **Off**.
4. Press **◀** (left) 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. Press **⚙️**, select **Sound** and press **➤** (right) to enter the menu.
2. Select **Advanced > Audio out offset** and press **OK**.
3. Use the slider bar to set the sound offset and press **OK**.

4. Press ◀ (left) repeatedly if necessary, to close the menu.

Headphone volume

With **Headphones volume**, you can set the volume of a connected headphone separately.

To adjust the volume...

1. Press ⚙️, select **Sound** and press ▶ (right) to enter the menu.
2. Select **Headphones volume** and press OK.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value.
4. Press ◀ (left) repeatedly if necessary, to close the menu.

14.4

Eco settings

Energy saving

Eco settings 🌿 bundles the settings that help the environment.

Energy Saving

If you select Energy Saving, the TV switches to Picture Style - Standard automatically, the most ideal energy conscious setting for the picture.

To set the TV in Energy Saving...

- 1 - Press ⚙️, select **Eco settings** and press ▶ (right) to enter the menu.
- 2 - Select **Energy saving**, the Picture style is set to Standard automatically.
- 3 - Press ◀ (left) repeatedly if necessary, to close the menu.

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. Press ⚙️, select **Eco settings** and press ▶ (right) to enter the menu.
2. Select **Screen off**.
3. Press ◀ (left) repeatedly if necessary, to close the menu.

To switch the screen back on, press any key on the remote control.

Switch off timer

If the TV receives a TV signal but you don't press a key on the remote control during a 4 hour period, the TV switches off automatically to save energy. Also, if the TV does not receive a TV signal nor a remote control command for 10 minutes, the TV switches off automatically.

If you use the TV as a monitor or use a digital receiver to watch TV (a Set-Top Box - STB) and you do not use the remote control of the TV, you should deactivate this automatic switch off.

To deactivate the Switch Off Timer ...

1. Press ⚙️, select **Eco settings** and press ▶ (right) to enter the menu.
2. Select **Switch off timer** and press OK.
3. Press the arrows ▲ (up) or ▼ (down) to adjust the value. The value 0 deactivates the automatic switch off.
4. Press ◀ (left) repeatedly if necessary, to close the menu.

14.5

General settings

Languages

Menu language

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

1. Press ⚙️, select **General settings** > **Languages** > **Menu language** and press OK.
2. Select on the language you need.
3. Press ◀ (left) repeatedly if necessary, to close the menu.

Language preferences

Audio language

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

To set the primary and secondary audio language...

1. Press ⚙️, select **General settings** and press ▶ (right) to enter the menu.
2. Select **Languages** and press ▶ (right) to enter the menu.
3. Select **Primary audio language** or **Secondary audio language**,

and press **OK**.

4. Select the language you need and press **OK**.

5. Press **◀** (left) 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 one of the languages as audio temporarily.

Subtitles languages

Switch on

You can switch subtitles **Subtitle on** or **Subtitle off**. Alternatively you can select **Automatic**.

Automatic

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

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

Subtitle language settings

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

To set the primary and secondary subtitle language...

1. Press **⚙**, select **General settings** and press **➤** (right) to enter the menu.

2. Select **Languages** and press **➤** (right) to enter the menu.

3. Select **Primary subtitle language** or **Secondary subtitle language**, and press **OK**.

4. Select the language you need and press **OK**.

5. Press **◀** (left) 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 one of the languages as subtitles temporarily.

Subtitles from Text

Subtitles for analogue channels

For analogue channels, 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 **Status** in the **Options** menu.

Text / Teletex languages

Text pages

Select a Text page

To select a page . . .

1. Enter the page number with the number keys.

2. Use the arrow keys to navigate.

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

Text sub-pages

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

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

T.O.P. Text pages

Some broadcasters offer T.O.P. Text.

To open T.O.P. Text pages within Text,

press **≡** **OPTIONS** and select **T.O.P. overview**.

Text 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 subpage**

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. Press **⚙**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Languages** and press **➤** (right) to enter the menu.
3. Select **Primary teletext** or **Secondary teletext** , and press **OK**.
4. Select the language you need and press **OK**.
5. Press **◀** (left) 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.

Clock

Date and time

Automatic

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. Press **⚙**, select **General settings > Clock > Auto clock mode**, and select **Country dependent**.

2. Select **Daylight saving** and select the appropriate setting.

3. Press **◀** (left) repeatedly if necessary, to close the menu.

Manual

To set the TV clock manually...

1. Press **⚙**, select **General settings > Clock > Auto clock mode**, and select **Manual**.
2. Select **Date and Time to adjust**.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

Time zone

To set the time zone...

1. Press **⚙**, select **General settings > Clock > Time zone**, and press **OK**.
2. Select one of the time zones.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

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 **⚙**, select **General settings > Sleep timer** and press **OK**.
2. With the slider bar you can set the time to up to 180 minutes in increments of 5 minutes. If set to 0 minutes, the Sleep Timer is switched off. You can always switch off your TV earlier or reset the time during the countdown.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

Switch off timer

If the TV receives a TV signal but you don't press a key on the remote control during a 4 hour period, the TV switches off automatically to save energy. Also, if the TV does not receive a TV signal nor a remote control command for 10 minutes, the TV switches off automatically.

If you use the TV as a monitor or use a digital receiver to watch TV (a Set-Top Box - STB) and you do not use the remote control of the TV, you should deactivate this automatic switch off.

To deactivate the Switch Off Timer ...

1. Press **⚙️**, select **Eco settings** and press **➤** (right) to enter the menu.
2. Select **Switch off timer** and press **OK**.
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value. The value **0** deactivates the automatic switch off.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

EasyLink

EasyLink

To switch off EasyLink completely...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **EasyLink**, press **➤** (right) and select **EasyLink** one step further.
3. Select **Off**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

EasyLink remote control

To switch off EasyLink remote control...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **EasyLink > Easylink remote control**, and press **OK**.
3. Select **Off**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Location

If the TV is installed in a shop, you can set the TV to display an in store promotion banner. **Picture style** is set to **Vivid** automatically. **Switch off timer** is switched off.

To set the TV to Shop location...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Location > Shop**, and press **OK**.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

If you use the TV at home, set the TV in Home location.

Shop setup

If the TV is set to **Shop**, you can set the availability of a specific demo for in store use.

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **E-Sticker** and press **➤** (right) to enter the menu.
3. Select **On** or **Off**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Factory settings

You can set the TV back to the original TV settings (the factory settings).

To switch back to the original settings...

1. Press **⚙️**, select **General settings** and press **➤** (right) to enter the menu.
2. Select **Factory settings** and press **OK**.
3. Press **◀** (left) 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. Press **⚙️**, select **General settings** and select **Reinstall TV**.
2. Follow the instructions on screen. The installation may take a few minutes.

Channel list copy

For more information, in **Help**, see chapter **Channel installation > Channel list copy**.

Satellite list copy

For more information, in **Help**, see chapter **Channel installation > Channel list copy**.

Child lock

Parental rating

To set a minimum age to watch rated programmes...

1. Press **⚙**, select **Child lock** and press **➤** (right) to enter the menu.
2. Select **Parental rating**, and select one of the age in the list.
3. Press **◀** (left) repeatedly if necessary, to close the menu.

Set code / Change code

The Child Lock PIN code is used to lock or unlock channels or programmes.

To set the lock code or to change the current code...

1. Press **⚙**, select **Child Lock** and press **➤** (right) to enter the menu.
2. Select **Set code Change code** and press **OK**.
3. Enter a 4 digit code of your choice. If a code is set already, enter the current Child Lock code and then enter the new code twice.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

The new code is set.

Forgotten your Child Lock PIN code?

If you forgot your PIN code, you can override the current code and enter a new code.

1. Press **⚙**, select **Child lock** and press **➤** (right) to enter the menu.
2. Select **Change code** and press **OK**.
3. Enter the overriding code **8888**.
4. Now enter a new Child Lock PIN code and enter it again to confirm.
5. Press **◀** (left) repeatedly if necessary, to close the menu.

The new code is set.

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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Universal access** one step further.
3. Select **On** and press **OK**.
4. Press **◀** (left) 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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Hearing impaired** and press **➤** (right) to enter the menu.
3. Select **On** and press **OK**.
4. Press **◀** (left) repeatedly if necessary, to close the 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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Audio description** and press **➤** (right) to enter the menu.
3. Select **Audio description** one step further
4. Select **On** and press **OK**.
5. Press **◀** (left) repeatedly if necessary, to close the menu.

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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Audio description > Speakers/Headphones** and press **OK**.
3. Select **Speaker**, **Headphone** or **Speaker + Headphone** and press **OK**.
4. Press **◀** (left) 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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Audio description > Mixed volume** and press **OK**.
3. Press the arrows **▲** (up) or **▼** (down) to adjust the value.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Audio effects

Some audio commentary can hold extra audio effects, like stereo or fading sound.

To switch on **Audio effects** (if available)...

1. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Audio description > Audio effects** and press **OK**.
3. Select **On** and press **OK**.
4. Press **◀** (left) 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. Press **⚙**, select **Universal access** and press **➤** (right) to enter the menu.
2. Select **Audio description > Speech** and press **OK**.
3. Select **Descriptive** or **Subtitle** and press **OK**.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Channel installation

15.1

Antenna/cable installation

Update channels

Automatic channel update



If you receive digital channels, you can set the TV to automatically update the list with new channels. Alternatively, you can start a channel update yourself.

Automatic channel update

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



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

To switch off the message at start up . . .

1. Press , select **Antenna/cable installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Automatic channel update** and press **OK**.
4. Select **Off** and press **OK**.
5. Press  **BACK** to close the menu.

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

To switch off the message...


1. Press , select **Antenna/cable installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Channel update message** and press **OK**.
4. Select **Off** and press **OK**.
5. Press  **BACK** to close the menu.


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

Manual channel update

You can always start an channel update yourself.

To start a channel update manually...

1. Press , select **Antenna/cable installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Search for channels** and press **OK**.

4. Select **Update channels** and press **OK**.
5. Press  **BACK** to close the menu.



Reinstall channels

Reinstall all channels

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

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



To reinstall channels...

1. Press , select **Antenna/cable installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Search for channels** and press **OK**.
4. Select **Re-install channels**, and press **OK**.
5. Select the country where you are now and press **OK**.
6. Select **Antenna (DVB-T)** or **Cable (DVB-C)**, and select one item you need to re-install.
7. Select **Start** and press **OK** to update channels. This can take a few minutes.
8. Press  **BACK** 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 - Press , select **General Settings > Reinstall TV** and press **OK**.
- 2 - Enter your PIN code if necessary.
- 3 - Select **Yes** and press **OK** to confirm.
- 4 - The TV will reinstall completely. All settings will be reset and installed channels will be replaced. The installation can take a few minutes.
- 5 - Press  **BACK** to close the menu.

DVB-T or DVB-C

DVB-T or DVB-C reception

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

DVB-C Channel Installation

For ease of use, all DVB-C settings are set to automatic.

If your DVB-C operator gave you specific DVB-C

values, the network ID or network frequency, enter these values when the TV asks for them during installation.



Channel Number Conflicts

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

DVB settings

Access DVB settings

To access DVB settings...

1. Press , select **Antenna/cable installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Search for channels** and press **OK**.
4. Select **Re-install channels**, and press **OK**.
5. Select the country where you are now and press **OK**.
6. Select **Cable (DVB-C)**.
7. Select **Digital and analogue channels, Only digital channels**, or **Only analogue channels**, and press **OK**. (Items will be different depends on the country you select)
8. Select **Start to search channels**, or select **Settings** for DVB-C settings.
9. After setting, select **Done** to save the settings.
10. Press  **BACK** to close the menu.

Frequency scan

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

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

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

Network frequency mode

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

If you received a specific network frequency value to

search for channels, select **Manual**.

Network frequency

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

Frequency step size

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

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

Symbol rate mode

If your cable provider did not give you a specific **symbol rate** value to install the TV channels, leave the **Symbol rate mode** setting on **Automatic**.

If you received a specific symbol rate value, select **Manual**.

With the **Symbol rate mode** set to **Manual**, you can enter the symbol rate value by using the number keys.

Network ID

You can enter the network ID value by using the number keys.

Digital channels

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

Analogue channels

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

Free / Scrambled

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

Reception quality

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

To check the reception quality of a digital channel...

1. Tune to the channel.
2. Press **⚙️**, select **Antenna/cable Installation** and press **OK**. Enter your PIN code if necessary.
3. Select **Digital: Reception test** and press **OK**.

The digital frequency is shown for this channel. If the reception is poor, you can reposition your antenna. To check the signal quality of this frequency again, select **Search** and press **OK**.

To enter a specific digital frequency yourself, use the remote control digit keys. Alternatively, select the frequency, position the arrows on a number with **<** and **>** and change the number with **▲** and **▼**. To check the frequency, select **Search** and press **OK**.

If you use DVB-C to receive channels, the option **Symbol rate mode** is available. For Symbol rate mode, select **Automatic**, unless your cable provider gave you a specific symbol rate value. To enter the symbol rate value, use the number keys.

Manual installation

Analogue TV channels can be manually installed, channel by channel.

To install analogue channels manually...

1. Press **⚙️**, select **Antenna/cable Installation** and press **OK**. Enter your PIN code if necessary.
2. 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**.

- Fine tune

To fine tune a channel, select **Fine tune** and press **OK**. You can fine tune the channel with **▲** or **▼**.

If you want to store the channel found, 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 shown briefly.

You can redo these steps until you have found all available analogue TV channels.

15.2

Satellite installation

About installing satellites

Up to 4 Satellites

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

Unicable

You can use a Unicable system to connect the antenna dish to the TV. You can select Unicable for 1 or for 2 satellites at the start of the installation.

MDU - Multi-Dwelling-Unit

The built-in satellite tuners support MDU on the Astra satellites and for Digiturk on the Eutelsat satellite. MDU on Türksat is not supported.

Start the installation

Update channels

You can always start an channel update yourself.



To start a channel update manually...

1. Press **⚙️**, select **Satellite installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Search for satellite** and press **OK**.
4. Select **Update channels** and press **OK**.
5. Press **↩** **BACK** to close the menu.

Reinstall channels

You can always start an channel update yourself.

To start a channel update manually...

1. Press , select **Satellite installation** and press **OK**.
2. Enter your PIN code if necessary.
3. Select **Search for satellite** and press **OK**.
4. Select **Re-install channels**, and press **OK**.
5. Select **Reinstall**, and press **OK**.
6. Select one item you need to re-install.
7. Select **Start** and press **OK** to update channels. This can take a few minutes.
5. Press  **BACK** to close the menu.

Add a satellite


You can add an additional satellite to your current satellite installation. The installed satellites and their channels stay untouched. However, some satellite operators do not allow adding a satellite.

The additional satellite should be seen as an extra, it is not your main satellite subscription or not the main satellite of which you use its channel package. Typically, you would add a 4th satellite when you have 3 satellites already installed. If you have 4 satellites installed, you might consider removing one first to be able to add a new satellite.

Settings

If you currently have only 1 or 2 satellites installed, the current installation settings might not allow adding an extra satellite. If you need to change the installation settings, you must redo the complete satellite installation. You cannot use **Add satellite** if a change of settings is needed.


To add a satellite . . .

1. Press , select **Satellite installation** and press **OK**. Enter your PIN code if necessary.
2. Select **Search for satellite** and press **OK**.
3. Select **Add satellite** and press **OK**. The current satellites are shown.
4. Select **Add** and press **OK**. The TV will search for new satellites.
5. If the TV has found one or more satellites, select **Install** and press **OK**. The TV installs the channels of the found satellites.
6. To store the channels and radio stations, select **Finish** and press **OK**.

Remove a satellite

You can remove one or more satellites from your current satellite installation. You remove the satellite and its channels. However, some satellite operators do not allow removing a satellite.

To remove satellites . . .

1. Press , select **Satellite installation** and press **OK**. Enter your PIN code if necessary.
2. Select **Search for satellite** and press **OK**.
3. Select **Remove satellite** and press **OK**. The current satellites are shown.
4. Use the arrows keys to select the satellite you want to remove.
5. Press **OK** to mark a satellite to remove. Press **OK** again to unmark.
6. Select **Remove**, press **OK** and confirm. The satellites are removed.
7. Select **Exit** and press **OK** to close Remove satellite.

Manual installation

Manual Installation is intended for expert users.

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

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

To install a transponder...

1. Press , select **Satellite installation** and press **OK**. Enter your PIN code if necessary.
2. Select **Search for satellite** and press **OK**.
3. Select **Manual installation** and press **OK**.
4. If you have more than 1 satellite installed, select **LNB** for which you want to add channels.
5. Set the **Polarisation** you need. If you set the **Symbol rate Mode** to **manual**, you can enter the symbol rate in **Symbol rate** manually.
6. Press the arrows  (up) or  (down) to adjust the frequency, and select **Done**.
7. Select **Search** and press **OK**. The signal strength is shown on screen.
8. If you want to store the channels of a new transponder, select **Store** and press **OK**.

Satellite installation settings

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

To change the satellite installation settings...

1. Start the satellite installation.
2. On the screen where you can start searching for

satellites, select **Settings** and press **OK**.

3. Select the number of satellites you want to install or select one of the Unicable systems. When you select Unicable, you can choose the User Band Numbers and enter the User Band Frequencies for each tuner.

4. When you're done, select **Next** and press **OK**.

5. On the Settings menu, press the colour key **Done** to return to the screen to start searching for satellites.

Homing Transponder and LNB

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

Channel Packages

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

If you choose a subscription package, the TV might ask you to select a Quick or Full installation.

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

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

Unicable setup

The unicable system

You can use a Unicable system to connect the antenna dish to the TV. A Unicable system uses one cable to connect the satellite dish to all satellite receivers in its system. Unicable is typically used in

apartment buildings. If you use a Unicable system, the TV will ask you to assign a user band number and corresponding frequency during the installation. You can install 1 or 2 satellites with Unicable on this TV.

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

User band number

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

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

User band frequency

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

Automatic channel update

If you receive digital channels, you can set the TV to automatically update the list with new channels. Alternatively, you can start a channel update yourself.

Automatic channel update


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

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

To switch off the message at start up . . .

1. Press **Settings**, select **Satellite installation** and press **OK**. Enter your PIN code if necessary.
2. Select **Channel update message > Off**.

To switch off the Automatic channel update . . .

1. Press , select **Satellite installation** and press **OK**. Enter your PIN code if necessary.
2. Select **Automatic channel update > Off**.

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

Homing transponder and LNB

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

LNB Power

By default, LNB Power is set to On.

22 kHz Tone

By default, the Tone is set to Auto.

Low LO Frequency / High LO Frequency

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

Problems

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

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

A dual head LNB cannot find a second satellite

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

Changing the installation settings did not solve my problem

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

All satellite channels are gone

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

is using the same user band number.

Some satellite channels seem to have disappeared from the channel list

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

I cannot remove a satellite

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

Sometimes the reception is poor

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

15.3

Channel list copy

Introduction

Channel List Copy is intended for dealers and expert users.


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

Conditions

- Both TVs are from the same year range.
- Both TVs have the same hardware type. Check the hardware type on the TV type plate on the back of the TV. Typically noted as Q . . . LA
- Both TVs have compatible software versions.


Current software version

To check the current version of the TV software...

1. Press , select **Update Software** and press **➤** (right) to enter the menu.
2. Select **Current software info** and press **OK**.
3. The version, release notes and creation date are shown. Also, the Netflix ESN Number is shown if available.
4. Press **◀** (left) repeatedly if necessary, to close the menu.

Copy a channel list


To copy a channel list...

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

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

Channel list version

Check the current version of the channel list...


1. Press , select **General settings** > **Channel list copy** and press **OK**.
2. Select **Channel List Copy** and select **Current version**, then press **OK**.
3. Press **←** (left) repeatedly if necessary, to close the menu.

Upload a channel list

To not installed TVs

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


To a TV that is not yet installed

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

To installed TVs

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

To an already installed TV

1. Verify the country setting of the TV. (To verify this setting, see chapter Reinstall All Channels. Start this procedure until you reach the country setting. Press **↩ BACK** to cancel the installation.) If the country is correct continue with step 2. If the country is not correct, you need to start a reinstallation. See chapter Reinstall All Channels and start the installation. Select the correct country and skip the channels search. Finish the installation. When done, continue with step 2.
2. Plug in the USB flash drive that holds the channel list of the other TV.
3. To start the channel list upload, press , select **General settings** and press **OK**.
4. Select **Channel List Copy** > **Copy to TV** and press **OK**. Enter your PIN code if necessary.
5. The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB flash drive.

Software

16.1

Software version

To view the current TV software version...

- 1 - Press **⚙**, select **Update software > Current software Info** and press **OK**.
- 2 - The version, **Release Version** is shown.
- 3 - Press **⬅** (left) repeatedly if necessary, to close the menu.

16.2

Local updates

For dealers and expert users...

- 1 - Press **⚙**, select **Update Software > Local updates** and press **OK**.
- 2 - Follow the on-screen instruction.
- 3 - Press **⬅** (left) repeatedly if necessary, to close the menu.

16.3

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

16.4

Open source license

About open source license

Acknowledgements and License Texts for any open source software used in this Philips TV.

This is a document describing the distribution of the source code used on the Philips 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 source code for this software can be found in the user manual.

PHILIPS MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THIS SOFTWARE. Philips offers no support for this software. The preceding does not affect your warranties and statutory rights regarding any Philips product(s) you purchased. It only applies to this source code made available to you.

Open source license information

sqlite3 (3.7.14)

SQLite is a C library that implements an SQL database engine.

Programs that link with the SQLite library can have SQL database access without running a separate RDBMS process.

Source: <http://linuxappfinder.com/package/sqlite3-0>

libpng

libpng is the official PNG reference library. It supports almost all PNG features.

Source: www.libpng.org

OpenSSL (1.0.0.d)

The OpenSSL Project is a collaborative effort to develop a robust, commercial-grade, full-featured, and **Open Source** toolkit implementing the **Secure Sockets Layer (SSL v2/v3)** and **Transport Layer Security (TLS v1)** protocols as well as a full-strength general purpose cryptography library. The project is managed by a worldwide community of volunteers that use the Internet to communicate, plan, and develop the OpenSSL toolkit and its related documentation.

Source: www.openssl.org

libboost (1.51)

Boost provides free peer-reviewed portable C++ source libraries, and emphasize libraries that work well with the C++ Standard Library.

Boost libraries are intended to be widely useful, and usable across a broad spectrum of applications.

The Boost license encourages both commercial and non-commercial use.

Source: www.boost.org

libjpeg (6b)

Libjpeg is a widely used C library for reading and writing JPEG image files.

Source: <http://libjpeg.sourceforge.net/>

zlib (1.2.7)

A massively spiffy yet delicately unobtrusive compression library

Source: www.zlib.net

libdirectfb (1.4.11)

DirectFB is a thin library that provides hardware graphics acceleration, input device handling and abstraction, integrated windowing system with support for translucent windows and multiple display layers, not only on top of the Linux Framebuffer Device.

It is a complete hardware abstraction layer with software fallbacks for every graphics operation that is not supported by the underlying hardware. DirectFB adds graphical power to embedded systems and sets a new standard for graphics under Linux.

Source: <http://directfb.org/>

libTomMath (0.42.0)

LibTom Projects are open source libraries written in portable C under WTFPL. The libraries supports a variety of cryptographic and algebraic primitives designed to enable developers and students to pursue the field of cryptography much more efficiently.

Source: <http://libtom.org/>

MTD utility (1.5.0)

MTD subsystem (stands for Memory Technology Devices) provides an abstraction layer for raw flash devices. It makes it possible to use the same API when working with different flash types and technologies, e.g. NAND, OneNAND, NOR, AG-AND, ECC'd NOR, etc.

MTD subsystem does not deal with block devices like MMC, eMMC, SD, CompactFlash, etc. These devices

are not raw flashes but they have a Flash Translation layer inside, which makes them look like block devices. These devices are the subject of the Linux block subsystem, not MTD.

Source: <http://www.linux-mtd.infradead.org/source.html>

libscew

The aim of SCEW is to provide an easy interface around the XML Expat parser, as well as a simple interface for creating new XML documents. It provides functions to load and access XML elements without the need to create Expat event handling routines every time you want to load a new XML document.

SCEW is freely available for download under the terms of the GNU Lesser General Public License v2.1 (LGPL).

Source: <http://www.nongnu.org/scew/>

libexpat

Expat is an XML parser library written in C.

It is a stream-oriented parser in which an application registers handlers for things the parser might find in the XML document (like start tags).

Source: <http://expat.sourceforge.net/>

libdrm

libdrm provides core library routines for the X Window System to directly interface with video hardware using the Linux kernel's Direct Rendering Manager (DRM).

Source: <http://dri.freedesktop.org/libdrm/>

FFMpeg (0.6)

A complete, cross-platform solution to record, convert and stream audio and video.

Source: www.ffmpeg.org

Specifications

17.1

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

5231 series TV

24PFx5231

- Energy Efficiency Class : A
- Visible Screen Size : 60 cm / 24 inch
- On Mode Power Consumption (W) : 23 W
- Annual Energy Consumption (kWh) * : 34 kWh
- Standby Power Consumption (W) **: 0.30 W
- Display Resolution (Pixels) : 1920x1080p

* 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.



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.

17.2

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 : 5°C to 35°C
- Power saving features : Eco mode, Picture mute (for radio), Auto switch-off timer, Eco settings menu.

For power consumption information, see chapter **Product Fiche**.

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. 8.0).

17.3

Reception

For PxS series TV

- Aerial input : 75 ohm coaxial (IEC75)
- Tuner bands : Hyperband, S-Channel, UHF, VHF
- DVB : 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)
- Satellite aerial input : 75 ohm F-type
- Input frequency range : 950 to 2150MHz
- Input level range : 25 to 65 dBm
- DVB-S/S2 QPSK, symbol rate 2 to 45M symbols, SCPC and MCPC
- LNB : DiSEqC 1.0, 1 to 4 LNBS supported, Polarity selection 14/18V, Band selection 22kHz, Tone burst mode, LNB current 300mA max

17.4

Display type

5231 series TV

Diagonal screen size

- 24PFx5231: 60 cm / 24 inch

Display resolution

- 1920x1080p

17.5

Display input resolution

For PHx series TV

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

Computer formats

Resolutions (amongst others)

- 640 x 480p - 60 Hz
- 800 x 600p - 60 Hz
- 1024 x 768p - 60 Hz
- 1280 x 768p - 60 Hz
- 1360 x 765p - 60 Hz
- 1360 x 768p - 60 Hz

For PFX series TV

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

Computer formats

Resolutions (amongst others)

- 640 x 480p - 60 Hz
- 800 x 600p - 60 Hz
- 1024 x 768p - 60 Hz
- 1280 x 768p - 60 Hz
- 1360 x 765p - 60 Hz
- 1360 x 768p - 60 Hz
- 1280 x 1024p - 60 Hz
- 1920 x 1080p - 60 Hz

17.6

Dimensions and Weights

5231 series TV

24PFx5231

Width 547.9 mm - Height 410.05 mm - Depth 129.1 mm - Weight ± 4.35 kg

17.7

Connectivity

5231/12 series TV

TV Rear

- HDMI 1 ARC: HDMI Audio Return Channel
- HDMI 2
- SERV. U: Service port
- VGA: PC input
- SCART (RGB/CVBS): SCART adaptor
- AUDIO IN (DVI/VGA/AUX): Stereo 3.5mm mini-jack
- DIGITAL AUDIO OUT: SPDIF
- TV ANTENNA: 75 ohm coaxial (IEC)
- Satellite

TV Side

- CI: Common Interface
- USB
- Headphones: Stereo 3.5mm mini-jack

Sound

5231 series TV

- HD Stereo
- Output power (RMS) : 16W
- Dolby® Digital Plus
- DTS 2.0+ Digital out ™

Multimedia

Supported multimedia connections

- USB (FAT / FAT 32 / NTFS): only connect USB devices that consume 500 mA of power or less.

Supported image files

- JPEG, GIF, PNG, BMP

Supported audio files

- MP3, WAV, AAC, WMA (v2 up to v9.2)

Supported video files

- AVI, MKV, H.264/MPEG-4 AVC, MPEG1, MPEG2, MPEG4, WMV9/VC1, HEVC

Supported subtitle format

- SRT, SMI, SSA, SUB, ASS, TXT

Help and support

18.1

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

18.2

Using help

This TV offers help on screen.

Open Help

1. Press **Home** to open the Home menu.
2. Select **Utilities > Help** and press **OK**.

18.3

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 turning 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 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.

Connections

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 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.

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 a HDMI-CEC audio device is connected 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.

18.4

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.

Consumer care / Repair

For support and repair, call the Consumer Care hotline in your country. Find the telephone number in the printed documentation that came with the TV.
Or consult our website www.philips.com/support.

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

19.1

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

Always use the supplied wall bracket to secure the TV from falling over. Mount the bracket and secure the TV onto the bracket, even if you put the TV on the floor.

You can find the mounting instructions in the Quick Start Guide that came with the TV. In case you lost this guide, 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.

19.2

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. 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, copyrights and licenses

20.1

Terms of use

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This product was brought to the market by TP Vision Europe B.V. or one of its affiliates, hereinafter referred to as TP Vision, which is the manufacturer of the product. TP Vision is the warrantor in relation to the TV with which this booklet was packaged. Philips and the Philips Shield Emblem are registered trademarks of Koninklijke Philips N.V.

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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), 2010/30/EU (Energy Labelling) 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.

20.2

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