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EN User Manual

**PHILIPS**

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# 1 Important

## Safety

### Precautions

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

#### 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 spilled 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 place the TV, remote control or batteries near naked flames or other heat sources, including direct sunlight. To prevent the spread of fire, keep candles or other flames away from the TV, remote control and batteries at all times.



- Never insert objects into the ventilation slots or other openings on the TV.
- Never expose the remote control or batteries to rain, water or excessive heat.
- Avoid force coming onto power plugs. Ensure that the power plug is fully inserted into the power socket. Loose power plugs can cause arcing or fire.
- When the TV is swiveled, ensure that no strain is exerted on the power cord. Strain on the power cord can loosen connections and cause arcing.

- 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 damage to the TV!

- Two people are required to lift and carry a TV that weighs more than 25kg or 55lbs.
- When stand mounting the TV, use only the supplied stand. Secure the stand to the TV tightly. Place the TV on a flat, level surface that can support the combined weight of the TV and the stand.
- When wall mounting the TV, use only a wall mount that can support the weight of the TV. Secure the wall mount to a wall that can support the combined weight of the TV and wall mount. TP Vision Europe B.V. bears no responsibility for improper wall mounting that results in accident, injury or damage.
- If you need to store the TV, disassemble the stand from the TV. Never lie the TV on its back with the stand installed.
- 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.
- Parts of this product can be made of glass. Handle with care to avoid injury and damage.

### **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 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.
- Educate children about the dangers of climbing on furniture to reach the TV.

### **Risk of swallowing batteries!**

- The product/remote control may contain a coin type battery, which can be swallowed. Keep the battery 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 4 inches or 10 cm around the TV for ventilation. Ensure that curtains or other objects never cover the ventilation slots on the TV.

### **Risk of injury, fire or power cord damage!**

- Never place the TV or any objects on the power cord.
- Disconnect the TV from the power outlet and aerial before lightning storms. During lightning storms, never touch any part of the TV, power cord or aerial 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 matches room temperature before connecting the TV to the power outlet.

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## **Care**

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### **Screen**

- Risk of damage to the TV screen! 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 color fading, wipe off water drops as soon 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.


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### **Placement tips**

- Position the TV where light does not shine directly on the screen.
- The ideal viewing distance of this TV is three times its diagonal screen size. For example, if the diagonal screen size of the TV is 81cm / 32", the ideal viewing distance is ~2.5m / ~92" from the front of the screen.
- While seated, your eyes should be level with the center of the screen.

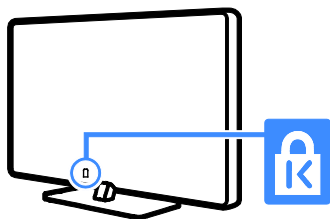
### **TV placement**

You can apply the best sound settings for your TV by selecting the TV placement (wall mount or stand mount).

1. Press .
2. Select **[Setup]**, then press **OK**.
3. Select **[TV settings] > [General settings] > [TV placement]**.
4. Select **[On a TV stand]** or **[Wall mounted]**, then press **OK**.

## Lock the TV

Your TV is equipped with a Kensington security slot at the base of the TV. To secure the TV, purchase a Kensington anti-theft lock (sold separately).



## Legal

### Notice

2014 © TP Vision Europe B.V. All rights reserved.

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

Specifications are subject to change without notice. TP Vision reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The written material packaged with the TV and the manual stored in the memory of the TV or downloaded from the Philips web site, are believed adequate for the intended use of the system. If the product is used for purposes other than those specified herein, TP Vision cannot guarantee the proper functioning and the safety of the product.

TP Vision cannot be held responsible 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 TP Vision will be adapted and published on the Philips support website as soon as possible.

### Terms of warranty

- The terms of warranty can be downloaded from the Philips support web site. Never attempt to repair the TV yourself because it gives risk of injury, damage to the TV or void of warranty!
- 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.
- Any operation expressly prohibited in this manual, or any adjustments and assembly procedures not recommended or authorized in this manual shall void the warranty.

### Pixel characteristics

This LED product has a high number of color pixels. Although it has effective pixels of 99.999% or more, black dots or bright points of light (red, green or blue) may appear constantly on the screen. This is a structural property of the display (within common industry standards) and is not a malfunction.

### 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:

"Intellectual Property Dept., TP Vision Europe B.V., Prins Bernhardplein 200, 1097 JB Amsterdam, The Netherlands".

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Java and all Java based trademarks are registered trademarks of Oracle and/or its affiliates, in the United States and other countries.



AstroTV product is a software system developed by TQTV that comprises of a complete implementation of the Ginga Middleware Standard, compliant with Brazilian SBTVD Standard nr. 6 (Vols 1, 2 3 and 4 – see references below).

Astro TV Middleware acknowledges the use of the following libraries internally:

Boost – <http://www.boost.org>

Libxml2v – <http://www.xmlsoft.org/>

Webkit / OWB –  
<http://www.sand-labs.org/owb>

Libjpeg - <http://www.iijg.org/>

Lua – <http://www.lua.org/>

OpenSSL – <http://www.openssl.org/>

SWIG – <http://www.swig.org>

Luajava –  
<http://www.keplerproject.org/luajava>

LibCURL – <http://curl.hazz.se>

All other registered and unregistered trademarks are the property of their respective owners.

## Sustainability

### Energy efficiency

This TV is designed with energy-efficient features. To access these features, press the **Green button** on the remote control.

- **Energy saving picture settings:** You can apply a combination of energy saving picture settings. While you watch TV, press the **Green button** and select **[Energy saving]**. Then select the **[Energy saving]** picture setting.
- **Screen off:** If you only want to listen to audio from the TV, you can switch off the TV display. Other functions continue to operate normally. While you watch TV, press the **Green button** and select **[Screen off]**.
- **Low standby power:** The advanced power circuitry reduces the power consumption of the TV to an extremely low level, without losing out on the constant standby functionality.
- **Auto switch off:** To conserve energy, set the TV to switch off automatically after a period of inactivity. While you watch TV, press the **Green button** and select **[Auto switch off]**. Then select the period after which the TV switches off.
- **Switch off inactive devices:** Switch off connected EasyLink HDMI-CEC (Consumer Electronic Control) compliant devices that are inactive. While you watch TV, press the **Green button** and select **[Inactive devices off]**.
- **Power management:** An advanced power management helps save the energy consumed by this TV. To view how your personalized TV settings affect the TV's relative power consumption, press **⏻** then select **[Setup] > [Watch demos] > [Active Control demo]**.

## Recycling

Your product is designed and manufactured with high quality materials and components, which can be recycled and reused.

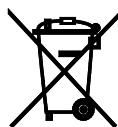


When this crossed-out wheeled bin symbol is attached to a product it means that the product is covered by the European Directive 2002/96/EC. Please inform yourself about the local separate collection system for electrical and electronic products.



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 inform yourself about the local rules on separate collection of batteries because correct disposal helps to prevent negative consequences for the environmental and human health.



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# Help and support

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## Visit Philips website

For more information, visit the Philips support website at [www.philips.com/support](http://www.philips.com/support).

At the Philips support website, you can also:

- Find answers to Frequently Asked Questions (FAQ)
- Download a printable PDF version of this user manual
- Email us a specific question
- Chat online with Philips TV Consumer Care (available in certain countries only)

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## Use the Philips connectivity guide

An easy-to-use connectivity guide gives you guidance on how to connect your TV to other devices. Visit <http://www.connectivityguide.philips.com>.

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## Search the TV forum

Your question may have already been answered by the Philips TV community of users. Visit [www.supportforum.philips.com](http://www.supportforum.philips.com).

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## Contact Philips

You can contact Philips TV Consumer Care in your country for support. The number is available in the leaflet accompanying this product, or online at [www.philips.com/support](http://www.philips.com/support).

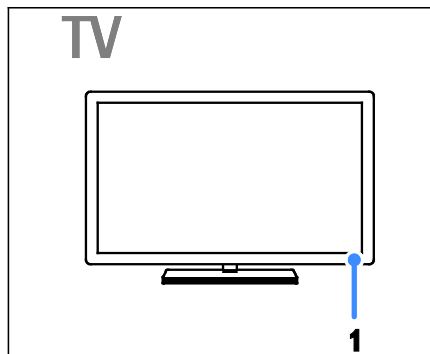
Before you contact Philips, write down the model and serial number of your TV. You can find this information on the back of your TV or on the TV packaging.



## 2 Use your TV

### TV controls

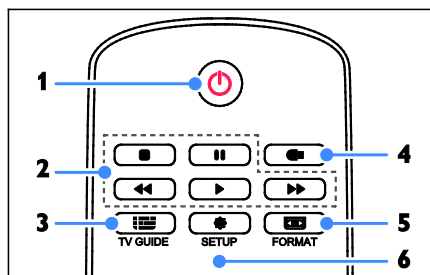
#### Sensors and indicators



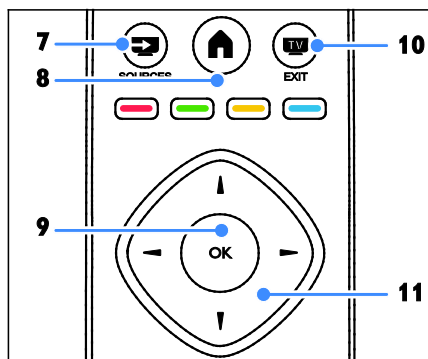
#### 1. Standby indicator LED and remote control sensor

The standby LED indicates when your TV is in standby. Point the remote control at the sensor. Make sure that the line of sight between the remote control and the TV is not blocked.

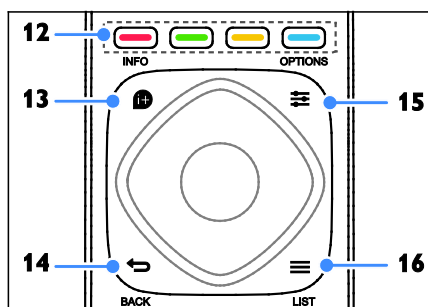
#### Remote control



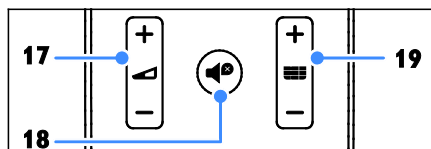
1. **⏻ (Standby):** Switch the TV on or to standby.
2. **Play buttons:** Control playback of multimedia files.
3. **TV GUIDE:** Access TV guide.
4. **USB:** Access USB storage device.
5. **FORMAT:** Change the picture format to suit the video source.
6. **SETUP:** Access picture and sound menus.



7. **SOURCES:** Watch a connected device.
8. **Home (Home):** Access the Home menu.
9. **OK:** Confirm an entry or selection.
10. **TV EXIT:** Exit from menus or TV functions to watch TV.
11. **Navigation buttons:** Navigate through menus and select items.



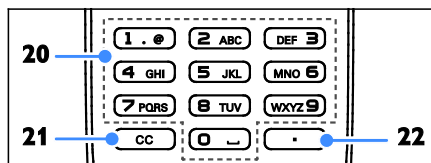
12. **Color buttons:** Select tasks or options. The buttons function according to the services offered by the service provider.
13. **INFO:** Display information about current activity.
14. **Back:** Return to the previous menu page or exit from a TV function.
15. **OPTIONS:** Access currently available options, picture and sound menus.
16. **LIST:** Access the TV channel list.



17. +/- (Volume): Adjust volume.

18. (Mute): Mute or restore audio.

19. +/-: Switch channels.



20. 0-9 (Numeric buttons): Select TV channels or enter text.

21. CC (Closed captions): Switch on or off closed captions. For programs that support closed captions.

22. . (Dot): Enter digital sub-channels.

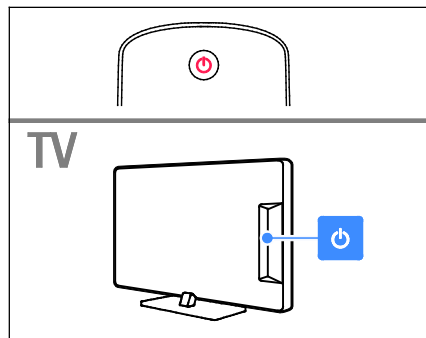
## EasyLink controls

If you connect your TV to HDMI-CEC enabled devices, such as a Blu-ray player or home theater, you can control them at the same time with one remote control. Simply switch on EasyLink after connection.

Read more about Easylink in **Connect your TV > Set up Easylink devices > Control devices** (Page 33).

## Watch TV

### Switch TV on or off



#### Switch the TV on

- Connect the TV to the mains outlet and switch on the main power.
- If the standby LED is lit, press on the remote control.

**Note:** There is a short delay before the TV responds.

**Tip:** If you cannot find your remote control and want to switch on the TV from standby, press on the TV. The standby LED switches off, then press again.

#### Switch TV to standby

Press on the remote control.

The standby LED on the TV switches to red.

#### Switch off the TV

Press on the TV.

The standby LED switches to off.

**Note:** Though your TV consumes very little energy when it is in standby or switched off, it does use some energy. If you are not going to use the TV for an extended period of time, disconnect the TV from the mains plug.

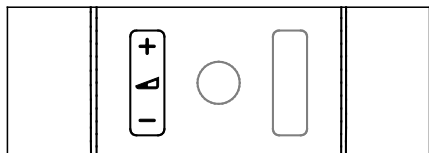
#### Automatic switch off

You can save energy with this TV's energy efficiency settings, which are enabled by default. If there is no user interaction (such as pressing a remote control button or a control on the TV) for four hours, the TV will automatically switch to standby.

### To disable automatic switch off

1. While you watch TV, press the **Green button** on the remote control.
2. Select **[Auto switch off]**, then press **OK**.
3. Use the **Navigation buttons** to make a selection, then press **OK**.

### Adjust TV volume



#### Increase or decrease the TV volume

- Press +/- on the remote control.

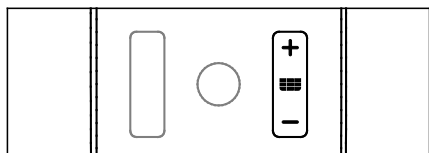
#### Mute or restore the TV volume

- Press on the remote control to mute the volume.
- Press again to restore the volume.

#### Adjust headphone volume

1. Press .
2. Select **[Setup] > [TV settings] > [Sound] > [Headphone volume]**, then press **OK**.
3. Select a level.

### Switch TV channels



- Press +/- on the remote control.
- Press the **Numeric buttons** to enter a channel number.

### Manage favorite channels

You can view all channels or only a list of your favorite channels.

#### Create a list of your favorite channels

1. Press **LIST**.  
The channel list is displayed.
2. Select the channel to mark as favorite, then press **OPTIONS**.
3. Select **[Add/remove favorites]**, then press **OK**.

The selected channel is marked with a star.

To remove a channel from the favorites list, select **[Add/remove favorites]**, and then press **OK**.

#### Display your list of favorite channels

1. Press **LIST**, then press **OPTIONS**.
2. Select **[List] > [Favorites]** to display channels in the favorite list.
3. Press **OK** to confirm.

### Manage channel lists

After the channels are installed, you can:

- Filter channels.
- Switch between antenna and cable channels.
- Rename channels.
- Lock a channel.


#### Filter channels

1. While you watch TV, press **LIST**.
2. Press **OPTIONS**, then select **[Filter]**.
3. Select an option, then press **OK**.
  - **[Digital + Analog]**: Display all channels in the channels list.
  - **[Digital TV channels]**: Display only digital channels.
  - **[Analog channels]**: Display only analog channels.

**Note:** The filtering options may vary according to your broadcaster.



## Switch between antenna and cable channels

You can switch between antenna and cable channels.

1. While you watch TV, press .
2. Select **[Setup]** > **[Channel settings]** > **[Channel installation]** > **[Antenna connection]**.
3. Select **[Antenna]** to watch antenna channels or **[Cable]** to watch cable channels, then press **OK**.



## Rename channels

When you select a channel, its name appears. You can change this channel name.

1. While you watch TV, press  **LIST**.  
The channel list is displayed.
2. Select the channel to rename, then press  **OPTIONS**.
3. Select **[Rename]**, then press **OK**.  
The onscreen keyboard is displayed.
4. Press the **Navigation buttons** to select each character, then press **OK**.
5. Once complete, select **[Done]**, then press **OK** to confirm.

## Lock a channel

You can prevent unauthorized access to channels by locking them.

1. While you watch TV, press  **LIST**.  
The channel list is displayed.
2. Select the channel to lock, then press  **OPTIONS**.
3. Select **[Lock channel]**, then press **OK**.
4. If prompted, enter the pin code.  
The channel is marked with a lock icon in the channels list.

**Tip:** To watch a locked channel, enter the pin code when prompted.

---


## Watch connected devices

Before you can watch a device, connect the device to the TV. See **Connect your TV > Connect devices** (Page 25).

### Select a device with SOURCES

1. Press  **SOURCES**.
2. Select a device, then press **OK**.

### Select a device from the Home menu

1. Press .
2. Select **[Source]**, then press **OK**.
3. Select the device, then press **OK**.


To add or manage your connected devices, see **Connect your TV > Watch connected devices > Change device settings** (Page 32).

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## Use picture and sound presets

Your TV comes with predefined picture and sound settings. You can apply these settings or customize them.

### Select your preferred picture settings

1. While you watch TV, press  **OPTIONS**.
2. Select **[Picture and sound]** > **[Picture style]**, then press **OK**.
3. Select an option, then press **OK**:
  - **[Personal]**: Apply your personalized picture settings.
  - **[Vivid]**: Rich and dynamic settings, ideal for daytime viewing.
  - **[Football]**: Ideal settings for football matches.
  - **[Standard]**: Default settings that suit most environments and types of video.
  - **[Movie]**: Ideal settings for movies.
  - **[Photo]**: Ideal settings for photos.
  - **[Energy saving]**: Settings that conserve the most energy.

### Select your preferred sound settings

1. While you watch TV, press **≡** **OPTIONS**.
2. Select **[Picture and sound]** > **[Sound style]**, then press **OK**.
3. Select an option, then press **OK**:
  - **[Personal]**: Apply your personalized sound settings.
  - **[Original]**: Settings that suit most environments and types of audio.
  - **[Movie]**: Ideal settings for movies.
  - **[Music]**: Ideal settings for listening to music.
  - **[Game]**: Ideal settings for games.
  - **[News]**: Ideal settings for spoken audio, such as the news.

### Change picture format

You can change the picture format to suit the video source.

1. Press **⏏** **FORMAT**.
2. Select a picture format, then press **OK**.

The available picture formats depend on the video source:

- **[Auto fill]**: Adjust the picture to fill the screen (subtitles remain visible). Recommended for minimal screen distortion but not for HD or PC.
- **[Auto zoom]**: Enlarge the picture to fill the screen. Recommended for minimal screen distortion but not for HD or PC.
- **[Super zoom]**: Remove the black bars on the sides of 4:3 broadcasts. Not recommended for HD or PC.
- **[Movie expand 16:9]**: Scale 4:3 format to 16:9. Not recommended for HD or PC.
- **[Wide screen]**: Shows widescreen format content unstretched. Not recommended for HD or PC.
- **[Unscaled]**: Provide maximum detail for PC. Only available when PC mode is selected in the Picture menu.
- **[16:9 stretch]**: Scale 4:3 format to 16:9.
- **[4:3]**: Display the classic 4:3 format.

## View program guide

### What you can do

You can view channel schedules and program synopses for digital TV channels using program guides provided by the broadcasters. The availability of program guides is dependent on your broadcaster.

You cannot view a channel's program guide information if:

- the age rating of the channel is equal or higher than the age rating set on your TV.
- the channel is locked.

### From the broadcaster

#### Access broadcaster program guide

1. Press **⏏**.
2. Select **[TV guide]**, then press **OK**.
3. If you are viewing the program guide for the first time, follow the onscreen instructions to update the guide.

#### Customize broadcaster program guide

You can customize the displayed information to:

- Remind you when programs start.
- Change day of display.

**Note:** Options may vary according to the program information available from the broadcaster.

1. In the program guide, press **≡** **OPTIONS**.
2. Select an option, then press **OK**:
  - **[Update TV guide]**: Update program guide information.
  - **[Change day]**: Select the day to display program guide.
  - **[Search by genre]**: Search programs by genre.

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## Play multimedia files

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### What you can do

You can play videos, photos, and music on your TV from a USB device connected to the TV.

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### Play files from USB device

If you have photos, videos or music files on a USB storage device, you can play the files on TV.

#### Caution:

- Do not overload the USB port. If you connect a USB storage device that consumes more than 500mA power, make sure that it is connected to its own external power supply.

#### Browse USB device

1. Connect the USB device to the USB connector on the TV.
2. Press  **SOURCES**, select **[USB]**, and then press **OK**.
3. Select a file from the content browser, then press **OK** to start play.
4. Press the **Play buttons** to control play.






#### Tips:

- Select any of the options on the left of the content browser to filter your files by type.


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## Play options

### Watch video



1. Select .
2. Press the **Navigation buttons** to select a video file, then press **OK** to control play.
  - Press  to exit the content browser.
  - To search forward or backward, press  or . Press repeatedly to toggle between different speeds.
  - To stop the video, press .

### Video options






While you play video, press  **OPTIONS**, then press **OK** to select an option:

- **[Subtitles]**: Switch on or off closed captions. You can also select to display the closed captions only when the TV is muted.
- **[Audio language]**: Select an audio language.
- **[Repeat]**: Select **[Play once]** to play all of the video files once. Select **[Repeat]** to play all of the video files repeatedly.
- **[Show info]**: Display the video information.
- **[Eco settings]**: Adjust to save energy.

#### Note:

To view information about a video (for example, played position, duration, title, or date), select the video, then press  **INFO**. To hide the information, press  **INFO** again.

### Listen to music

1. Select .
2. Press the **Navigation buttons** to select a music track, then press **OK** to control play.
  - Press  to exit the content browser.
  - To search forward or backward, press  or . Press repeatedly to toggle between different speeds.
  - To stop the music, press .

## Music options

While you play music, press **≡** **OPTIONS**, then press **OK** to select an option:

- **[Repeat]**: Select **[Play once]** to play all of the music files once. Select **[Repeat]** to play all of the music files repeatedly.
- **[Shuffle]**: Enable or disable random play of tracks.
- **[Show info]**: Display the music information.
- **[Eco settings]**: Adjust to save energy.

### Note:

To view information about a song (for example, title, artist or duration), select the song, then press **ⓘ** **INFO**.

To hide the information, press **ⓘ** **INFO** again.

## View photos

1. Select **📷**.
2. Press the **Navigation buttons** to select a picture, then press **OK** to start the slideshow.

## Slideshow options

While you play a slideshow, press **≡** **OPTIONS**, then press **OK** to select an option:

- **[Rotate image]**: Select to rotate the image.
- **[Repeat]**: Select **[Play once]** to watch all of the slideshows once. Select **[Repeat]** to watch all of the slideshows repeatedly.
- **[Shuffle]**: Enable or disable random display of pictures in the slideshow.
- **[Slideshow frequency]**: Select the display time for each picture in the slideshow.
- **[Slideshow transitions]**: Select the transition from one photo to the next.
- **[Show info]**: Display the picture name, date, size and next picture in the slide show.
- **[Eco settings]**: Adjust to save energy.

# Interactive TV

## What you can do

### For certain models only.

With interactive TV, you can view additional information or entertainment pages provided by digital TV broadcasters.

### Note:

- You cannot download files to your TV with this feature.
- Not all TV programs, commercials and features include closed captioning information.
- You cannot respond to the digital content.

Visit the broadcaster's website for more information to see which interactive system is available in your country.

Here are some examples of interactive activities you can enjoy:

- View information about TV programs.
- Play games (for certain games only).

## What you need

To enjoy this service, you need digital channels with interactive services.

## Access interactive TV

You can identify channels that offer interactive services by a message that invites you to press the **Red button** or **OK** to access an interactive program.

1. Switch to a digital channel with interactive services.
2. Press the **Red button** or **OK** to launch the interactive application.
3. Follow the onscreen instructions and use your remote control to navigate the interactive pages.

# 3 Use more of your TV

---

## Play games

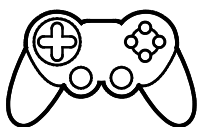
---

### What you can do

On this TV, you can play regular games in full-screen with optimized picture settings for games.

---

### What you need



- Connect your game console to this TV. See **Connect your TV > Connect devices > Game console** (Page 27).

---

### Start gaming

1. Press **SOURCES**.
2. Select the game console, then press **OK**.
3. If needed, load a game disc on the game console, then select a game to play.
4. Follow the onscreen instructions to start gaming.

---

### Game settings

#### Picture setting for games

You can optimize the TV display for gaming without picture lag.

1. Press **HOME**.
2. Select **[Setup] > [TV settings] > [Picture]**, then press **OK**.
3. Select **[Game or computer] > [Game]**.

#### Sound preset for games

You can optimize sound effects for gaming.

1. Press **≡ OPTIONS**.
2. Select **[Picture and sound] > [Sound style] > [Game]**, then press **OK**.

The TV is ready for gaming.

**Note:** When your gaming session ends, switch back to your usual sound setting.

---

## Set locks and timers

---

### Clock

You can display a clock on the TV. The clock displays the time that is broadcast by your TV service operator.

#### Display the TV clock

1. While you watch TV, press **≡ OPTIONS**.
2. Select **[Clock]**, then press **OK**.

The clock is displayed on the top right-hand corner of the TV screen.

#### Change the clock mode

You can change the clock mode to automatic or manual. By default, it is set to automatic mode, which automatically synchronizes it to Coordinated Universal Time (UTC). If your TV cannot receive UTC transmissions, change the clock mode to **[Manual]**.

1. While you watch TV, press **HOME**.
2. Select **[Setup] > [TV settings] > [General settings]**.
3. Select **[Clock] > [Auto clock mode]**.
4. Select **[Automatic]** or **[Manual]**, then press **OK**.

#### Change the time zone

In countries with clock transmission data, you can change the time zone if **[Auto clock mode] > [Automatic]** is selected.

1. In the **[Clock]** menu, select **[Time zone]**.
2. Select your time zone, then press **OK**.



## Set the clock manually

You can set the date and time manually. Before you start, set the clock mode to **[Manual]**.

1. In the **[Clock]** menu, select **[Date]** or **[Time]**, then press **OK**.
2. Set the time or date with the **Navigation buttons**.
3. Select **[Done]**, then press **OK**.

---

## Sleep timer

You can switch the TV to standby after a specified time. During the countdown to the specified time, you can switch off your TV earlier or reset the sleep timer.

1. Press **▲**.
2. Select **[Setup] > [TV settings] > [General settings] > [Sleep timer]**.
3. Select the sleep timer duration. The sleep timer can be set up for 180 minutes. To switch off the sleep timer, set it to zero minutes.
4. Press **OK** to activate the sleep timer. After the specified time, the TV switches to standby.

---

## Child lock

To protect children from unsuitable TV programs, you can lock the TV or block age rated programs.

### Set or change the child lock code

1. Press **▲**.
2. Select **[Setup] > [Channel settings] > [Child lock]**.
3. Select **[Set code]** or **[Change code]**.
4. Enter the code with the **Numeric buttons**.

**Tip:** If you access the channels from the channel list, you are prompted to enter your lock code. If you forget your code, enter '8888' to override any existing codes.

## Lock or unlock channels

1. In the child lock menu, select **[Channel lock]**.
2. Enter the child lock code with the **Numeric buttons**.
3. Select the channels to lock or unlock. Restart the TV to activate the lock.

### Note:

If you access the channels from the channel list, you are prompted to enter your lock code.

---

## Age rating

You can set your TV to display only programs with age ratings lower than your child's age. This restriction only applies to digital channels from broadcasters that rate their programs according to age.

1. Press **▲**.
2. Select **[Setup] > [Channel settings]**.
3. Select **[Child lock] > [Age ratings lock]**. You are prompted to enter the child lock code.
4. Enter the child lock code with the **Numeric buttons**.
5. Select an age rating, then press **OK**. All programs above the selected age rating are blocked.

For information on child lock codes, see **Use more of your TV > Set locks and timers > Child lock** (Page 17).

---

## Content rating

You can block programs with objectionable content.

1. Press **▲**.
2. Select **[Setup] > [Channel settings]**.
3. Select **[Child lock] > [Content ratings lock]**. You are prompted to enter the child lock code.
4. Enter your code with the **Numeric buttons**.
5. Select the content to block, then press **OK**.

The selected content is blocked.

# 4 Change your TV settings


---

## Picture and sound

---

### Settings assistant


You can select picture and sound settings with the help of the settings assistant, which demonstrates the effect of your chosen setting immediately.

1. While you watch TV, press .
2. Select **[Setup]** > **[Quick picture and sound settings]**, then press **OK**.
3. Select **[Continue]**, then press **OK**.
4. Follow the onscreen instructions to choose your preferred settings.

---

### More picture settings

You can change the settings in the Picture menu.

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[Picture]**, then press **OK**.
3. Select a setting to change, then press **OK**.
  - **[Picture style]**: Select a predefined picture setting.
  - **[Restore style]**: Restore the last-selected predefined picture setting.
  - **[Backlight]**: Adjust the brightness of the display backlight.
  - **[Color]**: Adjust the color saturation of the picture.
  - **[Sharpness]**: Adjust the sharpness of the picture.
  - **[Noise reduction]**: Select the amount of noise reduction for the picture.
  - **[MPEG artifact reduction]**: Smoothen transitions and haziness in the digital picture.
- **[Digital Crystal Clear]**: Fine-tune each pixel to match surrounding pixels and produce a brilliant, high-definition image.
  - **[Advance sharpness]**: Enable superior sharpness, especially on lines and contours in the picture.
  - **[Dynamic contrast]**: Dynamically enhance the details in the dark, medium, and light areas of the picture.
  - **[Dynamic backlight]**: Select a backlight level to optimize dynamic power consumption and picture contrast.
  - **[Color enhancement]**: Dynamically enhance the vividness and details of colors.
- **[Advanced]**: Access advanced settings such as gamma, tint settings and video contrast settings.
  - **[Gamma]**: Adjust the non-linear setting for picture luminance and contrast.
  - **[Color temp.]**: Select a predefined color temperature.
  - **[Custom color temperature]**: Customize color temperature setting. Only available if **[Color temp.]** > **[Custom]** is selected.
  - **[Video contrast]**: Adjust video contrast.
  - **[Brightness]**: Adjust screen brightness.
  - **[Tint]**: Change the color balance. (For ATV and in NTSC system only.)
- **[Game or computer]**: When viewing content from a connected game console, select **[Game]** to apply game settings. When a computer is connected through HDMI, select **[Computer]**.
- **[Format and edges]**: Access advanced settings to control the display format of the picture.
  - **[Picture format]**: Change the picture format.
  - **[Screen edges]**: Change the picture size.
  - **[Picture shift]**: If available, move the position of the picture.

## More sound settings

You can change the settings in the Sound menu.

1. Press **⬆**.
2. Select **[Setup] > [TV settings] > [Sound]**, then press **OK**.
3. Select a setting to change, then press **OK**.
  - **[Sound style]**: Access predefined sound settings.
  - **[Restore style]**: Restore the last-selected predefined sound setting.
  - **[Bass]**: Adjust the bass level of the speaker and headphones.
  - **[Treble]**: Adjust the treble level of the speaker and headphones.
  - **[Surround mode]**: Select a surround sound mode to enhance your audio experience.
  - **[Headphone volume]**: Adjust headphone volume.
  - **[Advanced]**: Access advanced settings to enhance your audio experience.
    - **[Auto volume leveling]**: Enable the reduction of sudden volume changes, for example, when switching channels.
    - **[TV speakers]**: Select the preferred speakers to stream audio from the TV. See **Connect your TV > Set up EasyLink devices > Select speaker output** (Page 33).
    - **[Clear sound]**: Enhance sound quality.
    - **[Audio Out format]**: Select the type of audio output through the digital audio output connector. Choose between **[Multichannel]** and **[Stereo]**.
    - **[HDMI side - ARC]**: Enable audio output from the ARC-compliant device connected to the HDMI side connector.
    - **[Audio out delay]**: Automatically sync the image on the TV to the audio from a connected home theater. You do not need to use this setting when connecting the TV to a Philips home theater.
    - **[Audio out offset]**: Adjust the setting for audio output delay. Available if **[Audio out delay]** is switched on.

## Audio format

If an analog TV channel broadcaster streams stereo audio in multiple formats, you can select an audio format.

1. Press **⬆**.
2. Select **[Setup] > [Channel settings] > [Mono/Stereo]**.
3. Select a setting, then press **OK**.

## Reset picture and sound

You can restore the default picture and sound settings, while the channel installation settings remain the same.

1. While you watch TV, press **⬆**.
2. Select **[Setup] > [TV settings] > [General settings] > [Factory settings]**, then press **OK**.
3. Select **[OK]**, then press **OK**.

All TV settings (except for channel settings) are reset to the default factory settings.

## Channels

### Automatic installation

When the TV was switched on for the first time, a full installation of channels was performed.

To change your language, country, and reinstall all available TV channels, you can run this full installation again.

#### Start installation

**Note:** If you are prompted to enter a code, enter '8888'.

1. Press **⬆**.
  2. Select **[Setup] > [Search for channels] > [Reinstall channels]**, then press **OK**.
  3. Select your country, then press **OK**.
  4. Select your network, then press **OK**:
    - **[Antenna]**: Access free-to-air antenna transmissions.
    - **[Cable]**: Access cable transmissions.
  5. Follow the onscreen instructions to select other options, if any.
- The start menu for channel search is displayed.

6. Select **[Start]**, then press **OK**.
7. Once the channel search is complete, select **[Finish]**, then press **OK**.

**Tip:** Press **≡ LIST** to see the channel list.

**Note:** When digital TV channels are found, the list of installed channels may display empty channel numbers. You can rename these channels.

---

## Install digital channels

If you know the channel frequency of the channels you want to install, you can search and store digital channels one by one. For best results, contact the service provider.

1. Press **⬆**.
2. Select **[Setup] > [Channel settings] > [Channel installation]**.
3. Select **[Digital: Reception test] > [Search channel]**, then press **OK**.
4. Press the **Numeric buttons** to enter the channel frequency.
5. Select **[Search]**, then press **OK**.
6. When the channel is found, select **[Store]**, then press **OK**.

---

## Update channel list

1. Press **⬆**.
2. Select **[Setup] > [Search for channels] > [Update channels]**, then press **OK**.
3. Follow the onscreen instructions to update the channels.

---

## Copy channels

**ATTENTION:** This feature is intended for dealers and service personnel.

You can copy channel lists from one Philips TV to another through a USB storage device. You do not need to search for channels or install them again on the second TV. The channel list file is small enough to fit on any USB storage device.

## What you need

Two Philips TVs that have these properties:

- The same country setting
- The same year range
- The same hardware type, as indicated by the sticker on the back of the TV (for example TPM10.1LLA)
- Compatible software versions

**Note:** If you are prompted to enter a code, enter '8888'.

### Step 1: Check the country setting

1. Switch on the first TV (with the channels that you want to copy to the second TV).
2. Press **⬆**.
3. Select **[Setup] > [Search for channels] > [Reinstall channels]**, then press **OK**. The country menu is displayed.
4. Make a note of the current setting.
5. Press **⬅**.
6. Press **[Cancel]** to exit.

### Step 2: Copy channel list to USB

1. Connect a USB storage device to the first TV (with the channels installed on it).
2. Press **⬆**.
3. Select **[Setup] > [Channel settings]**.
4. Select **[Channel installation] > [Copy channel list] > [Copy to USB]**, then press **OK**.

The channel list is copied to the USB storage device.

5. Disconnect the USB storage device.

### Step 3: Copy channels to a TV with no channels installed

1. Switch on the second TV, on which you want to copy the channel list. Initial installation starts.
2. Follow the onscreen instructions and select the same country as the TV whose channel list you want to copy.
3. Skip the search for channels.
4. Connect the USB storage device.
5. Press **⬆**.
6. Select **[Setup] > [Channel settings]**.
7. Select **[Channel installation] > [Copy channel list] > [Copy to TV]**, then press **OK**.

The channel list is copied to the TV.

8. Disconnect the USB storage device.

### Step 3: Copy channels to a TV with pre-installed channels

1. Switch on the second TV, on which you want to copy the channel list.
2. Press **⏠**.
3. Select **[Setup] > [Search for channels] > [Reinstall channels]**, then press **OK**.  
The country menu is displayed.
4. Make sure that the country setting is the same as the first TV.
5. Press **⏮**.
6. Press **[Cancel]** to exit.
7. If the country setting is different, reinstall the second TV to match the country setting of the first TV. See **Change your TV settings > Reset all** (Page 23).
8. Connect the USB storage device to the second TV.
9. Press **⏠**.
10. Select **[Setup] > [Channel settings]**.
11. Select **[Channel installation] > [Copy channel list] > [Copy to TV]**, then press **OK**.  
The channel list is copied to the second TV.
12. Disconnect the USB storage device.

## Language settings

### Menu language

1. While you watch TV, press **⏠**.
2. Select **[Setup] > [TV settings] > [General settings] > [Menu language]**.
3. Select a menu language from the list, then press **OK**.

### Audio language

If the TV channel broadcasts multiple or dual audio languages, you can select your preferred audio language.

1. While you watch TV, press **≡** **OPTIONS**.
2. For digital channels, select **[Audio language]**. For analog channels, select **[Alternate audio]**. Press **OK** to confirm your selection.
3. Select from the available languages, then press **OK**.

### Note:

If you have selected **[Alternate audio]** for analog channels, select between:

- **[Main]**: Primary audio language or
- **[SAP]**: Secondary audio language

### Closed captions

You can display closed captions at all times or only when the TV is muted.

**Note:** Digital TV interactive applications are not accessible when closed caption text is switched on.

- Not all TV programs, commercials and features include closed captioning information. See your local TV program listings about channels with closed captions. The captioned programs are typically listed with service marks, such as 'CC', in the TV listings.

### Switch on closed captions

1. While you watch TV, press **≡** **OPTIONS**.
2. Select **[Closed captions]**.
3. Select **[On]**, then press **OK**.

### Select type of closed captions

1. While you watch TV, press **≡** **OPTIONS**.
2. Select **[Caption service]**.
3. Select the correct type of closed captions, then press **OK**.


---

## Universal access settings

---

### Switch on

Some digital TV broadcasters provide special audio and subtitle features for people who are hearing or visually impaired. You can switch these features on or off.

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[General settings]**.
3. Select **[Universal access]** > **[On]** or **[Off]**, then press **OK**.

---

### Set audio feedback

When you press a button on the remote control or TV, you can set the TV to play a beep.

1. While you watch TV, press  **OPTIONS**.
2. Select **[Universal access]** > **[Key beep]** > **[On]**, then press **OK**.


---

## Other settings

---

### TV demo


You can watch a demo to find out more about the features on this TV.

1. While you watch TV, press .
2. Select **[Setup]** > **[Watch demos]**, then press **OK**.
3. Select a demo, then press **OK**.

---

### Home mode

Some TV settings may not be available in **Shop** mode. To make sure that the correct TV settings are applied, set the TV to **Home** mode.


1. While you watch TV, press .
2. Select **[Setup]**, then press **OK**.
3. Select **[TV settings]** > **[General settings]** > **[Location]**.
4. Select **[Home]** or **[Shop]**, then press **OK**.
5. Restart the TV.

---

## Update software

---

### Check version

1. Press .
2. Select **[Setup]** > **[Software settings]** > **[Current software info]**, then press **OK**.

The current software version is displayed.

**Caution:** Do not install a lower version of software than the current version installed on your product.

You can update the software using a USB storage device.

---

### Update with USB

#### What you need

- A USB storage device that has at least 256 megabytes of storage space, is FAT or DOS formatted, and has its write protection disabled.
- Access to a computer with a USB connector and Internet access.
- A file archiver program that supports the ZIP file format: for example, WinZip® for Microsoft® Windows®, or Stuffit® for Macintosh®.

**Note:** Do not use a USB hard drive.

#### Download the latest software

1. Connect the USB flash drive to your computer.
  2. On your computer, launch a browser such as Internet Explorer® or Safari®, and see [www.philips.com/support](http://www.philips.com/support).
  3. Find your TV and locate the software and drivers available for your TV set. The software upgrade is available as a compressed file (\*.zip).
  4. If the software version is higher than the version on your TV, click the software upgrade link.
  5. Accept the license agreement and download the ZIP file to the USB flash drive.
- Note:** Some Internet browsers, such as Mozilla® Firefox® or Google® Chrome®, may download the ZIP file directly to your computer. If this happens, copy the file to your USB flash drive.

6. **For Internet Explorer:** Using a file archiver, extract autorun.upg from the downloaded ZIP file. Do not copy or place the extracted file into a folder.

6. **For Safari:** When the download is complete, autorun.upg is automatically extracted from the ZIP file to your computer. Copy the file to the USB flash drive. Do not copy or place the file into a folder.

7. Eject and disconnect the USB flash drive from the computer.

## Upgrade the TV software

### Caution:

- Do not switch off the TV or remove the USB flash drive during the software upgrade.
- If a power failure occurs during the upgrade, do not remove the USB flash drive from the TV. The TV continues the upgrade as soon as power is restored.
- If an error occurs during the upgrade, retry the upgrade from the beginning. If the error reoccurs, contact Philips TV Consumer Care.



1. Remove all USB devices such as a Wi-Fi adapter from the TV, then switch on the TV.

2. Connect the USB flash drive to the TV.

The software upgrade starts automatically.

The upgrade is complete when a notification message appears on screen.

3. Before you restart the TV, disconnect the USB flash drive from the TV.


4. Press  on the remote control — do not press  more than once.

The TV switches off, then back on again. The upgrade is complete.

5. To prevent accidental updates to the TV software, reconnect the USB flash drive to your computer and delete autorun.upg.

## Reset all

You can reset all picture and sound settings and reinstall all TV channels on your TV.

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[Reinstall TV]**, then press **OK**.
3. Follow the onscreen instructions.

# 5 Connect your TV

## About cables

### Cable quality

Before you connect devices to the TV, check the available connectors on the device. Connect the device to the TV with the highest quality connection available. Good quality connectors transfer picture and sound better.

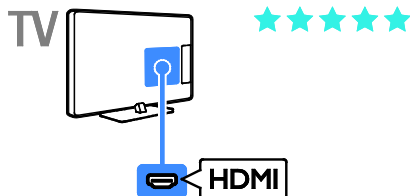
The connections shown in this user manual are recommendations only. Other solutions are possible. For more examples, visit <http://www.connectivityguide.philips.com>.

**Tip:** If your device has only composite or RCA connectors, use a composite (CVBS) cable to connect the device to the CVBS/Y connector on the TV.

### HDMI

An HDMI connection has the best picture and sound quality.

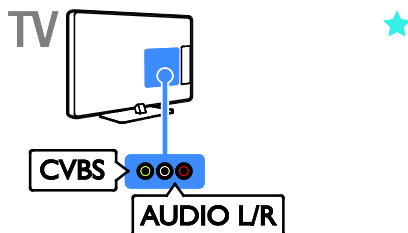
- An HDMI cable combines video and audio signals. Connect HDMI for high-definition (HD) TV signals, and to switch on EasyLink.
- An HDMI Audio Return Channel (ARC) connector allows output of TV audio to an HDMI ARC compliant device.
- Connect HDMI cables shorter than 5 meters/16.4 feet.



### CVBS

CVBS only transmits video. For sound, also connect to Audio Left/Right.

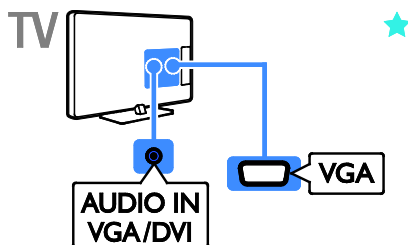
CVBS connections provides standard picture quality.



### VGA

You can connect VGA to display PC content on the TV.

VGA only transmits video. For sound, also connect to AUDIO IN.





## Connect antenna

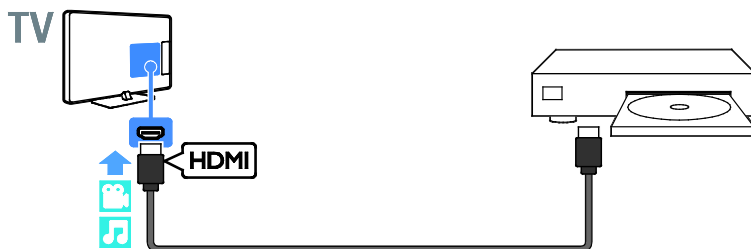
Connect the antenna to the TV.



## Connect devices

### Blu-ray or DVD disc player

Connect the disc player with an HDMI cable to the TV.



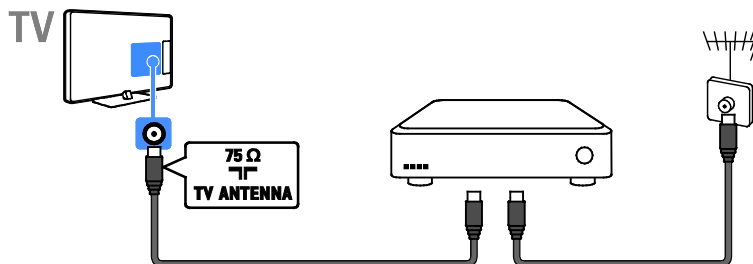
Connect the disc player with a composite cable (CVBS) and an audio L/R cable to the TV.



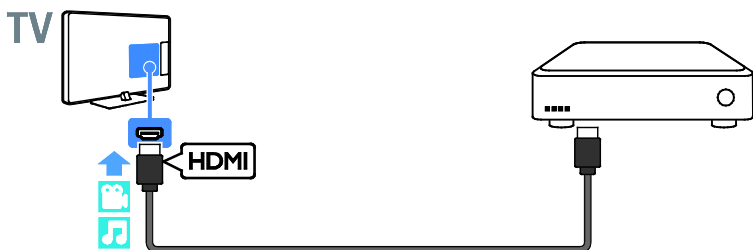
---

## TV receiver

Connect the digital TV receiver with an antenna cable to the TV.



Connect the satellite or digital TV receiver with an HDMI cable to the TV.

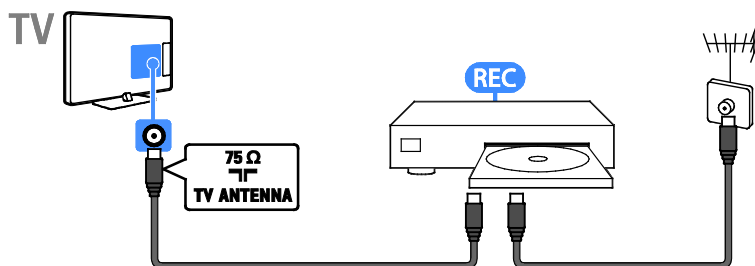


Connect the digital TV receiver with a composite cable (CVBS) and an audio L/R cable to the TV.



## Video recorder

Connect the recorder with an antenna cable to the TV.



Connect the recorder with a composite cable (CVBS) and an audio L/R cable to the TV.



## Game console

Connect the game console with an HDMI cable to the TV.

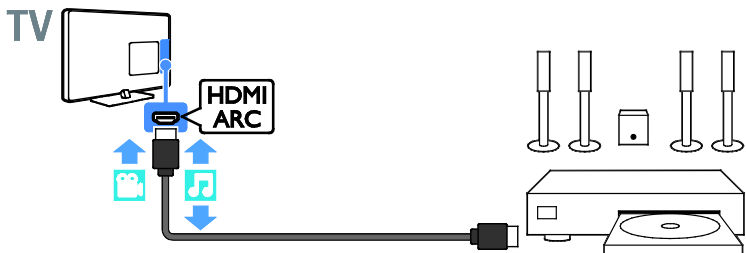


Connect the game console with a composite cable (CVBS) and an audio L/R cable to the TV.

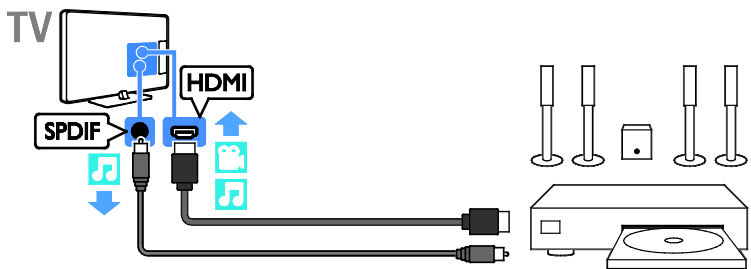


## Home theater

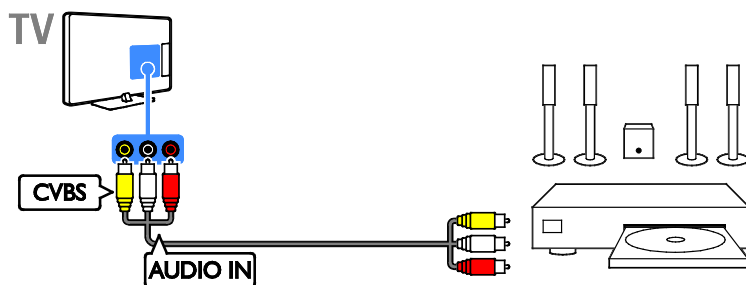
Connect an HDMI-ARC compliant home theater with an HDMI cable to the TV.



Connect the home theater with an HDMI cable and a coaxial audio cable to the TV.



Connect the home theater with a composite cable (CVBS) and an audio L/R cable to the TV.



---

## Digital camera

Connect the digital camera with a USB cable to the TV.



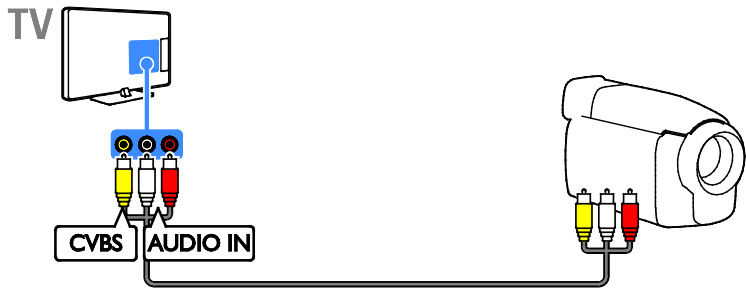
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## Digital camcorder

Connect the digital camcorder with an HDMI cable to the TV.



Connect the digital camcorder with a composite cable (CVBS) and an audio L/R cable to the TV.



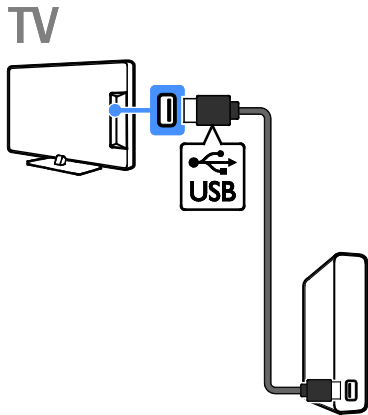
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## Connect more devices

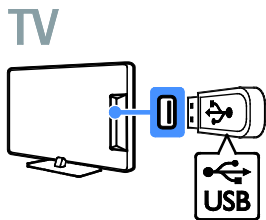
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### USB storage device

Connect the USB hard drive with a USB cable to the TV.



Connect the USB flash drive with a USB cable to the TV.

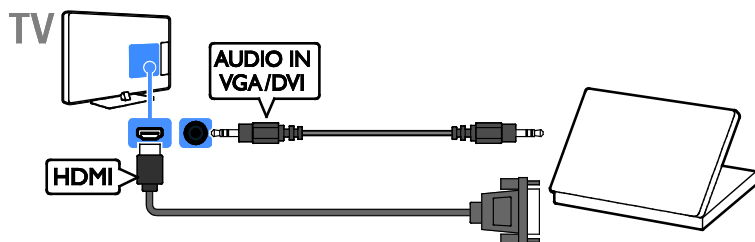


## Computer

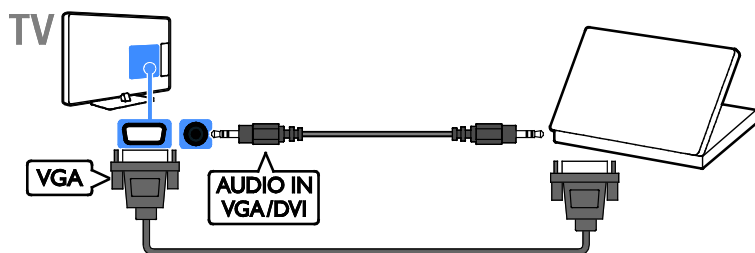
Connect the computer with an HDMI cable to the TV.



Connect the computer with a DVI-HDMI cable and an audio cable to the TV.



Connect the computer with a VGA cable and an audio cable to the TV.



---


## Watch connected devices

---


### Select a device

Before you can watch a device, connect the device to the TV. See **Connect your TV > Connect devices** (Page 25).

#### Select a device with SOURCES

1. Press  **SOURCES**.
2. Select a device, then press **OK**.

#### Select a device from Home menu


1. Press .
2. Select **[Source]**, then press **OK**.
3. Select a device, then press **OK**.

---

## Change device settings


### Change the device type

You can change the device type to easily access it from the Source menu.

1. Press  **SOURCES**.
2. Select the device, then press **[Device type]**.
3. Select a suitable device type, then press **OK**.


### Rename a device

You can rename a device after it is connected to the TV.

1. Press  **SOURCES**.
2. Select the connector, then press **[Rename]**.
3. Use the onscreen keypad to enter a new name.
4. When complete, select **[Done]**, then press **OK**.

### Reset device settings

You can reset the type and name of the device to default settings.

1. In the **[Source]** menu, select the device and press  **OPTIONS**.
2. Select **[Reset]**, then press **OK**.

---

## Set up EasyLink devices

---

### What you can do

You can get the most out of your HDMI-CEC-compliant devices with Philips EasyLink enhanced control features. Connect your HDMI-CEC compliant devices through HDMI to your TV and control them at the same time with your TV remote control.


**Note:** Other brands describe HDMI-CEC functionality differently. Some examples are Anynet (Samsung), Aquos Link (Sharp) or BRAVIA Sync (Sony). Not all brands are fully compatible with Philips EasyLink.

After you switch on Philips EasyLink, the following features are available:

#### One-touch play

When you play an HDMI-CEC compliant device, the TV switches on from standby and switches to the correct source.

#### One-touch standby

When you press  on the TV remote control, the TV and all HDMI-CEC compliant devices switch to standby mode.

#### Auto switch off inactive devices

If a HDMI-CEC compliant device has been inactive for some time, it switches to standby mode.

#### EasyLink remote control

You can control multiple HDMI-CEC compliant devices with your TV remote control.

#### System audio control

If you connect an HDMI-CEC compliant device that includes speakers through the HDMI ARC connector, you can choose to hear the TV audio from those speakers instead of the TV speakers.

#### Retain picture quality

If your TV picture quality is affected by the picture-processing features of other devices, you can switch on Pixel Plus Link to retain picture quality.




## Maximize display for subtitled video

Some video subtitles can create a separate subtitle bar under the video, which limits the video display area. To maximize the video display area, you can switch on auto subtitle shift and display the subtitles on the video image.

### What you need

- Connect a HDMI-CEC compliant device to the TV. You can connect more than one HDMI-CEC device. See **Connect your TV > Connect devices** (Page 25).
- Configure each HDMI-CEC compliant device properly.
- Switch on EasyLink.


### Switch on EasyLink

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[EasyLink]**.
3. Select **[EasyLink]** > **[On]**, then press **OK**.



### Control devices

If you connect multiple HDMI-CEC devices that support this setting, you can control all such devices through the TV remote control.

**Note:** This is an advanced setting. Devices that do not support this setting cannot respond to the TV remote control.



1. Press .
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[EasyLink]** > **[EasyLink remote control]**.
3. Select **[On]** or **[Off]**, then press **OK**.

### Tips:

- To switch back to TV control, press , then select **[Watch TV]**.
- To control another device, press , then select the device from the Home menu.


## EasyLink buttons

You can control HDMI-CEC compliant devices with these buttons on the TV remote control:

- : Switch the TV and the connected device on or to standby.
- **Play buttons:** Control video or music play.
- **Numeric buttons:** Select a title, chapter or track.
- **OK:** Start, pause or resume play on the connected device, activate a selection, or access the device menu.
-  Display the TV Home menu.

### Switch off connecting devices


You can also set the TV to switch off the connecting HDMI-CEC compliant devices if they are not the active source. The TV switches the connecting device to standby after 10 minutes of inactivity.

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[EasyLink]**.
3. Select **[Auto switch off devices]** > **[On]**, then press **OK**.

### Select speaker output

If a connected device is HDMI Audio Return Channel (HDMI ARC) compliant, you can output TV audio through an HDMI cable. Additional audio cables are not required. Make sure you connect the device to the HDMI ARC connector on the TV. See **Connect your TV > About cables > HDMI** (Page 24).

### Switch on HDMI ARC

1. Press .
2. Select **[Setup]** > **[TV settings]** > **[Sound]** > **[Advanced]** > **[HDMI side - ARC]**.
3. Select one of the following, then press **OK**.
  - **[On]:** Hear the TV audio through the connected HDMI-ARC compliant device.
  - **[Off]:** Hear the TV audio through the TV speakers, or through a device connected through the digital audio out connector.

**Note:** Make sure that all HDMI-CEC settings are properly set up on the connected device.

### Set up TV speakers

1. Press **▲**.
2. Select **[Setup]** > **[TV settings]** > **[Sound]** > **[Advanced]** > **[TV speakers]**.
3. Select an option, then press **OK**:
  - **[Off]**: Switch off TV speakers.
  - **[On]**: Switch on TV speakers.
  - **[EasyLink]**: Switch off TV speakers, and stream TV audio to a connected HDMI-CEC audio device.
  - **[EasyLink autostart]**: When a HDMI-CEC audio device is connected, automatically switch off TV speakers and stream TV audio to the device.

### Change TV audio streaming

You can switch audio between TV speakers and a connected amplifier at any time.

1. Press **≡** **OPTIONS**.
2. Select **[Picture and sound]** > **[Speakers]**.
3. Select one of the following, then press **OK**.
  - **[TV]**: On by default.  
Stream TV audio through TV and the connected HDMI-CEC audio device until the connected device switches to system audio control. TV audio is then streamed through the connected device.
  - **[Amplifier]**: Stream audio through the connected HDMI-CEC device. If system audio mode is not enabled on the device, audio continues to stream from the TV speakers. If **[EasyLink autostart]** was selected, the TV prompts the connected device to switch to system audio mode.

---

### Retain picture quality

If your TV picture quality is affected by the picture-processing features of other devices, you can switch on Pixel Plus Link.

#### Switch on Pixel Plus Link

1. Press **▲**.
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[EasyLink]**.
3. Select **[Pixel Plus Link]** > **[On]**, then press **OK**.

---

### Maximize video display

Some subtitles create a separate subtitle bar under the video that limits the video display area. To maximize the video display area, you can switch on auto subtitle shift. The subtitles then display over the video image.

#### Switch on auto subtitle shift

1. Press **▲**.
2. Select **[Setup]** > **[TV settings]** > **[General settings]** > **[EasyLink]**.
3. Select **[Auto subtitle shift]** > **[On]**, then press **OK**.

# 6 Troubleshooting

## General issues

### 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.

### When you are turning the TV on, off or to standby, you hear a creaking sound from the TV chassis:

No action is required. 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.

### The TV does not respond to remote control or TV controls when switched on:

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 behavior.

If the TV continues to be unresponsive to the remote control, view the remote control sensor through a digital camera -- if you press any button on the remote control and notice red flickering at the sensor, the remote control is working but the TV may need to be checked by Philips TV Consumer Care. This troubleshooting procedure is not applicable to remote controls that are paired wirelessly with the TV.

### When the TV is in standby, a startup splash screen is displayed, then TV returns to standby mode:

This is normal behavior. 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 press any key on the TV.

### The standby light on the TV blinks red:

Disconnect the power cable from the power outlet. Wait until the TV cools down before you reconnect the power cable. If the blinking reoccurs, contact Philips TV Consumer Care.

### The TV audio is in the wrong language:

Change your audio language by pressing **≡** **OPTIONS**, then select **[Audio language]** or **[Alternate audio]**.

### The TV menu is in the wrong language:

Change the menu to your preferred language.

For more information, see **Change your TV settings > Language settings > Menu language** (Page 21).

### You forgot the 4-digit code to unlock the channel blocking feature (child lock):

Enter '8888'.

### You want to upgrade your TV software:

Visit [www.philips.com/support](http://www.philips.com/support) and download the latest software package for your TV. Software installation instructions and release notes indicating what's been updated are also available at the site. Full instructions on how to upgrade your TV software are also available at **Change your TV settings > Update software** (Page 22).

## Channel issues

### You want to install TV channels:

See **Change your TV settings > Automatic installation** (Page 19) for instructions on installing analog or digital channels.

### Previously installed channels do not appear in the channel list:

Make sure that the correct channel list is selected.

### No digital channels were found during the installation:

- See the technical specifications to make sure that your TV supports SATVD-T or SBTVD-T in your country.
- Make sure that all cables are properly connected and that the correct network is selected.

---

## Picture issues

**The TV is on, but there is no picture or the picture is distorted:**

- 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.

**There is sound but no picture:**

Make sure that the picture settings are set correctly.

**There is poor TV reception from an antenna connection:**

- 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.

**There is poor picture quality from connected devices:**

- Make sure that the devices are connected properly.
- Make sure that the picture settings are set correctly.

**The TV did not save your picture settings:**

Make sure that the TV location is set to **Home**. You can change and save settings in this mode.

**The picture does not fit the screen - it is too big or too small:**

Change to a different picture format.

**The picture format keeps changing with different channels:**

Instead of the picture format **[Auto zoom]**, select a different picture format.

**The picture position is incorrect:**

Picture signals from some devices may not fit the screen correctly. Check the signal output of the device.

**An "e-sticker" banner displaying information appears on the TV display:**

The TV is in **[Shop]** mode. To remove the e-sticker, set the TV to **[Home]** mode, then restart the TV. See **Change your TV settings > Other settings > Home mode** (Page 22).

**The computer display on the TV is not stable:**

- Make sure that your PC uses the supported resolution and refresh rate. See **Specifications > Display resolutions** (Page 38).
- Change the TV picture format to **[Unscaled]**.

---

## Sound issues

**There is picture but no sound from the TV:**

If no audio signal is detected, the TV automatically switches the audio output off — this does not indicate malfunction.

- 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 speakers setting is selected. Press **≡** **OPTIONS**, select **[Picture and sound] > [Speakers]**, and then select **[TV]**.
- Make sure that the TV audio output is connected to the audio input on the HDMI-CEC enabled or EasyLink compliant home theater device. Sound should be heard from the home theater 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.

**There is picture but sound quality is poor:**

Make sure that the sound settings are correctly set.

## Connection issues

There are problems with HDMI devices:

- 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 recognize 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 L/R or AUDIO IN (mini-jack only).

**You cannot use EasyLink features:**

Make sure that your HDMI devices are HDMI-CEC compatible. EasyLink features only work with devices that are HDMI-CEC compatible.

**If an HDMI-CEC compliant audio device is connected to the TV and the TV does not display any mute or volume icon when the volume is muted, increased or decreased:**

When a HDMI-CEC audio device is connected this behavior is normal.

**USB device content is not displayed:**

- 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.

**Audio and picture files on your USB storage device do not play or display smoothly:**

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

## Contact Philips

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

If are not able to resolve your problem, refer to the frequently asked questions (FAQs) for this TV at [www.philips.com/support](http://www.philips.com/support). You can also consult and contribute to the Philips TV community at [www.supportforum.philips.com](http://www.supportforum.philips.com).

If you wish to speak with or email a Philips representative, contact the Philips TV Consumer Care in your country. You can find the contact details in the leaflet accompanying this TV or at [www.philips.com/support](http://www.philips.com/support).

Take note of your TV model and serial number before you contact Philips. These numbers are printed on the back of the TV and on the packaging.

# 7 Specifications

---

## Power and reception

Product specifications are subject to change without notice.

### Power

- Mains power: AC 110-240 V~, 50-60 Hz
- Standby power consumption: < 0.5 W
- Ambient temperature: 5 to 40degree Celsius
- For power consumption, see the product specifications at [www.philips.com/support](http://www.philips.com/support).

### Reception

- Antenna input: 75 ohm coaxial (F-type)
- TV system: PAL M, PAL N, NTSC M, SATVD-T, SBTVD-T
- Video playback: NTSC, PAL

---

## Display and sound

### Picture / Display

- Display type: LED backlight Full HD
- Diagonal size:
  - 58.4 cm / 23 inches
  - 61 cm / 24 inches
  - 71 cm / 28 inches
- Aspect ratio: 16:9 (widescreen)
- Panel resolution:
  - For HD sets: 1360x768p @60Hz
  - For FHD sets: 1920x1080p @60Hz
- Picture enhancement: Digital Crystal Clear
- Perfect Motion Rate (PMR): 120 Hz

### Sound

- Output power (RMS): 10 W @ 10% THD
- Incredible Surround
- Clear Sound
- Mono / Stereo

---

## Display resolutions

### Computer formats - HDMI (Resolution - refresh rate)

640 × 480 - 60 Hz  
800 × 600 - 60 Hz  
1024 × 768 - 60 Hz  
1280 × 720 - 60 Hz  
1280 × 768 - 60 Hz  
1360 × 768 - 60 Hz

For Full HD TV only:  
1280 × 1024 - 60 Hz  
1680 × 1050 - 60 Hz  
1920 × 1080 - 60 Hz

### Video formats (Resolution - refresh rate)

480i - 60 Hz  
480p - 60 Hz  
576i - 50 Hz  
576p - 50 Hz  
720p - 50Hz, 60 Hz  
1080i - 50Hz, 60 Hz  
1080p - 24Hz, 25Hz, 30Hz, 50Hz, 60 Hz

---

## Multimedia

### Supported multimedia connections

**Note:** Multimedia file names must not exceed 128 characters.

- USB: Connect only those USB devices that consume 500mA of power or less.
  - NTFS, FAT 16 (Read only)
  - FAT 32

### Supported image files

- JPEG: \*.jpg, \*.jpeg, \*.mpo, \*.jps
- GIF (87a, 89a): \*.gif
- PNG: \*.png, \*.pns
- BMP: \*.bmp, \*.dib
- JPS: \*.jps
- PNS: \*.pns

## Supported audio/video formats

File Extensions	Container	Video codec	Maximum resolution	Max. Frame Rate (fps)	Max. Bit Rate (Mbps)	Audio codec
.mpg .mpeg .vob	PS	MPEG-1	1920x1080	25p, 30p, 50i, 60i	30	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2),
		MPEG-2	1920x1080	25p, 30p, 50i, 60i	30	
		MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	
		H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	
.ts	TS	MPEG-2	1920x1080	25p, 30p, 50i, 60i	30	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, Dolby Pulse
		MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	
		H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	
.ts .m2ts .mts .mt2	M2TS TTS	MPEG-2	1920x1080	25p, 30p, 50i, 60i	30	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, Dolby Pulse
		MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	
		H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	
.ts .m2ts .mts	AVCHD	MPEG-2	1920x1080	25p, 30p, 50i, 60i	30	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, Dolby Pulse
		MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	
		H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	
.m4v	M4V	H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	AAC
.mp4	MP4	MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, WMA, WMA-PRO
		H.264	1920x1080		30	
		WMV9/VC1	1920x1080	30p, 60i	30	
.mkv .mk3d	MKV	MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, WMA, WMA-PRO
		H.264	1920x1080		30	
.asf .wmv	ASF	MPEG-2	1920x1080	25p, 30p, 50i, 60i	20	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, WMA, WMA-PRO
		MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	20	
		WMV9/VC1	1920x1080	30p, 60i	20	
.avi .xvid	AVI	MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	4	MPEG-1 (L1&L2), MPEG-1,2,2.5 L3, AAC/HE-AAC (v1&v2), Dolby Digital, Dolby Digital Plus, WMA, WMA-PRO
.3gp .3g2	3GP	MPEG-4 ASP	1920x1080	25p, 30p, 50i, 60i	30	AAC/HE-AAC (v1&v2), AMR
		H.264	1920x1080	25p, 30p, 50p, 60p, 60i	30	

## Supported audio formats

File Extensions	Container	Video codec	Maximum resolution	Frequency (kHz)	Max. Bit Rate (Mbps)	Audio codec
.mp3	MP3	-	-	48	384	MPEG-1,2,2.5 L3
.wma .asf	WMA (V2 up to V9.2)	-	-	48	192	WMA
.wma	WMA Pro	-	-	96	768	WMA, WMA Pro
.wav (PC)	LPCM	-	-	192	768	LPCM
.alf (mac) .alff (mac)	LPCM	-	-	192	768	LPCM
.aac .mp4 .m4a	AAC	-	-	48	1024	AAC, HE-AAC (v1&v2)
.m4a	M4A	-	-	48	1024	AAC, HE-AAC (v1&v2)

---

## Connectivity

### Rear

- TV ANTENNA: 75 ohm coaxial
- Composite and Audio (AV IN) : CVBS/Y, Audio L/R
- HDMI 1
- AUDIO IN: DVI/VGA (stereo 3.5mm mini-jack)
- VGA: PC input
- SPDIF OUT: Cinch (Digital Audio Out)
- SERV. U: Service port

### Side

- USB
- HDMI 2 ARC (Audio Return Channel)
- Headphones: stereo 3.5mm mini-jack



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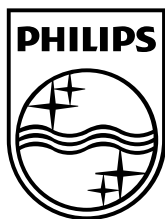
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