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1

TV Tour

1.1 Professional Mode

What you can do

In Professional Mode ON, you can have access to a large number of expert settings that enable advanced control of the TV’s state or to add additional functions.

This mode is intended for installations of TV’s in places such as hotels, cruise ships, stadia or any other business area where such control is required.

If you use the TV at home, it is recommended to use it in Professional Mode OFF.

Please consult the Professional installation manual for further details.

Enter or Enable Hotel TV Home Menu

Enable Hotel TV Mode

The Hotel TV Mode will be already set to On for Hotel guests.
To change the setting:

1 - In the professional mode menu, select **Professional Settings menu** and press **OK**.
2 - Select **Professional settings** > **Professional mode** > **On**, and press **OK**:
   - **On**: Switch on professional mode. Hospitality features are enabled.
   - **Off**: Switch off professional mode. The TV operates as a normal consumer TV.

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

2.1 Read Safety

Read the safety instructions first before you use the TV.

2.2 TV Stand and Wall Mounting

TV Stand

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

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

Wall Mounting

Your TV is also prepared for a VESA-compliant wall mount bracket (sold separately). Use the following VESA code when purchasing the wall mount . . .

- 24HFL3014
  VESA MIS-F 75x75, M4 (min.: 8mm, max.: 10mm)
- 32HFL3014
  VESA MIS-F 100, M6 (min.: 10mm, max.:14mm)
- 43HFL3014
  VESA MIS-F 200x200, M6 (min.: 12mm, max.:16mm)
- 50HFL3014
  VESA MIS-F 200x200, M6 (min.: 10mm, max.:14mm)

Caution

Wall mounting the TV requires special skills and should only be performed by qualified personnel. The TV wall mounting should meet safety standards according to the TVs weight. Also read the safety precautions before positioning the TV.

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

Tips on Placement

- Position the TV where light does not shine directly on the screen.
- 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.
- When wall mounted, position the TV up to 15 cm away from the wall.

Note:

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

Power Cable

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

3.1 Key overview

Top

1 - Standby / On
To switch the TV on or back to Standby.

2 - TV GUIDE
To open or close the TV Guide.

3 - Alarm (Only in Professional Mode ON)
To set the alarm.

4 - Channel
To switch to the next or previous channel in the channel list.

5 - Sleep Timer
To set a sleep timer.

6 - SETTINGS (Only in Professional Mode ON)
To open the Quick settings menu.

Middle

1 - EXIT
To switch back to watching TV.

2 - BACK
• To switch back to the previous channel you selected.
• To return to previous menu.

3 - OPTIONS
To open or close the options menu.

4 - OK key
To confirm a selection or setting.

5 - Arrow / navigation keys
To navigate up  , down  , left  or right  .

6 - Home
To open the Home menu.

Bottom

1 - Volume
To adjust the volume level.

2 - Number keys
To select a channel directly.

3 - SUBTITLE
To switch Subtitles on, off or on during mute.

4 - CLOCK
To display the clock.

5 - Channel
To switch to the next or previous channel in the channel list.

6 - Mute
To mute the sound or to restore it.

7 - TEXT
To open or close Text/Teletext.

8 - Colour keys
Direct selection of options.
3.2

**IR Sensor**

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

⚠️ **Warning**

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

3.3

**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 bottom side of the remote control.

1 - Slide the battery door in the direction shown by the arrow.
2 - Replace the old batteries with 2 type AAA-R03-1.5V batteries. Make sure the + and the - ends of the batteries line up correctly.
3 - Reposition the battery door and slide it back until it clicks.

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

3.4

**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.
Switching On and Off

4.1 On or Standby

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

Switch on

Press \( \text{\textbullet} \) on the remote control to switch the TV on. Alternatively, press \( \text{\textbullet} \) Home. You can also press the small joystick key on the back of the TV (only available for 32" 43" 50") to switch the TV on in case you can’t find the remote control or its batteries are empty.

Switch to standby

To switch the TV to standby, press \( \text{\textbullet} \) on the remote control. You can also press the small joystick key (only available for 32" 43" 50") or power button (24") on the back of the TV.

24" :

32" 43" 50" :

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

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

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

4.2 Keys on TV

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

To open the basic menu...

1 - With the TV switched on, press the joystick key on the back of the TV (only available for 32" 43" 50") to bring up the basic menu.
2 - Press left or right to select \( \text{\textbullet} \) Volume, \( \text{\textbullet} \) Channel or \( \text{\textbullet} \) Sources.
3 - Press up or down to adjust the volume or tune to the next or previous channel. Press up or down to go through the list of sources, including the tuner selection. Press the joystick key to start the demo movie (only available for 32" 43" 50" while Professional mode is turned off).
4 - The menu will disappear automatically (only available for 32" 43" 50" while Professional mode is turned off).

To switch the TV on standby, select \( \text{\textbullet} \) and press the joystick key (only available for 32" 43" 50").
Specifications

5.1 Environmental

European Energy Label

Product Fiche

24HFL3014
- Energy Efficiency Class : A+
- Visible Screen Size : 60 cm / 24 inch
- On Mode Power Consumption (W) : 18 W
- Annual Energy Consumption (kWh) * : 27 kWh
- Standby Power Consumption (W) ** : 0.3 W
- Display Resolution (Pixels) : 1366 x 768

32HFL3014
- Energy Efficiency Class : A+
- Visible Screen Size : 80 cm / 32 inch
- On Mode Power Consumption (W) : 28 W
- Annual Energy Consumption (kWh) * : 41 kWh
- Standby Power Consumption (W) ** : 0.3 W
- Display Resolution (Pixels) : 1366 x 768

43HFL3014
- Energy Efficiency Class : A++
- Visible Screen Size : 108 cm / 43 inch
- On Mode Power Consumption (W) : 34 W
- Annual Energy Consumption (kWh) * : 50 kWh
- Standby Power Consumption (W) ** : 0.3 W
- Display Resolution (Pixels) : 1920 x 1080

50HFL3014
- Energy Efficiency Class : A++
- Visible Screen Size : 126 cm / 50 inch
- On Mode Power Consumption (W) : 47 W
- Annual Energy Consumption (kWh) * : 69 kWh
- Standby Power Consumption (W) ** : 0.3 W
- Display Resolution (Pixels) : 1920 x 1080

* 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.

5.2 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.
5.3 Reception

- Aerial input: 75 ohm coaxial (IEC75)
- Tuner bands: UHF, VHF
- DVB: DVB-T2, DVB-C (cable) QAM, DVB-T
- Analogue video playback: SECAM, PAL, NTSC
- Digital video playback: MPEG2 SD/HD (ISO/IEC 13818-2), MPEG4 SD/HD (ISO/IEC 14496-10), HEVC*
- Digital audio playback (ISO/IEC 13818-3)
- Input frequency range: 45 to 866 MHz
- Input level range: 60 to 72 dBuv

5.4 Display Type

Diagonal screen size
- 60 cm / 24 inch
- 80 cm / 32 inch
- 108 cm / 43 inch
- 126 cm / 50 inch

5.5 Display Input Resolution

**Video formats**

Resolution — Refresh rate
- 480i - 60 Hz
- 480p - 60 Hz
- 576i - 50 Hz
- 576p - 50 Hz
- 720p - 50 Hz, 60 Hz
- 1080i - 50 Hz, 60 Hz
- 1080p - 24 Hz, 25 Hz, 30 Hz, 50 Hz, 60 Hz

**Computer formats**

Resolutions (amongst others)
- 640 x 480 - 60 Hz
- 800 x 600 - 60 Hz
- 1024 x 768 - 60 Hz
- 1280 x 800 - 60 Hz
- 1280 x 960 - 60 Hz
- 1360 x 768 - 60 Hz
- 1280 x 1024 - 60 Hz
- 1440 x 900 - 60 Hz
- 1920 x 1080 - 60 Hz

5.6 Connectivity

**TV Side**

- Common Interface slot: CI+ / CAM
- USB - USB 2.0
- Headphones – Stereo mini-jack 3.5 mm

**TV Back**

- HDMI 1 in – ARC – FHD
- HDMI 2 in – FHD
- VGA
- Antenna (75 ohm)
- SCART (RGB/CVBS)
- Audio in DVI/VGA
- Audio out – Optical Toslink

5.7 Dimensions and Weights

**24HFL3014**
- without TV stand:
  Width 559.65 mm - Height 335.78 mm - Depth 54.1 mm - Weight ± 3.15 kg
- with TV stand:
  Width 559.65 mm - Height 335.78 mm - Depth 124.1 mm - Weight ± 3.2 kg

**32HFL3014**
- without TV stand:
  Width 731.8 mm - Height 435.31 mm - Depth 77.3 mm - Weight ± 4.62 kg
- with TV stand:
  Width 731.8 mm - Height 455.52 mm - Depth 166.23 mm - Weight ± 4.68 kg

**43HFL3014**
- without TV stand:
  Width 969.64 mm - Height 565.58 mm - Depth 80.5 mm - Weight ± 7.2 kg
- with TV stand:
  Width 969.65 mm - Height 581.16 mm - Depth 218.06 mm - Weight ± 7.3 kg

**50HFL3014**
- without TV stand:
  Width 1127.63 mm - Height 655.3 mm - Depth 85.9 mm - Weight ± 11.15 kg
- with TV stand:
  Width 1127.63 mm - Height 676.3 mm - Depth 241.3 mm - Weight ± 11.4 kg
5.8

Sound

- Output power (RMS): 2x3W (24"), 2x8W (32"/43"/50"
- Dolby Audio
- Digital 2.0+Digital Out
Connect Devices

6.1 Connect Devices

Connectivity Guide

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

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

Antenna port

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

Operate devices

HDMI Quality

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

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

Copy protection

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

HDMI ARC

All of the HDMI connections on the TV have HDMI 1 ARC (Audio Return Channel).

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

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

HDMI CEC - EasyLink

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.

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

EasyLink HDMI CEC must be switched on on the TV and the connected device.
Note:

- EasyLink might not work with devices from other brands.
- The HDMI CEC functionality has different names on different brands. Some examples are: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink and Viera Link. Not all brands are fully compatible with EasyLink. Example HDMI CEC branding names are property of their respective owners.

### 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 \(\text{Home.Press } \downarrow\) Home. Press \(\downarrow\) and select Settings and press OK.
2. Select Sources > EasyLink, and press OK.
3. Select EasyLink, and press OK.
4. Select Off and press OK.
5. Press \(\leftarrow \text{BACK}\), repeatedly if necessary, to close the menu.

**Professional Mode ON** → Please refer to the installation manual.

### 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 Home. Press \(\downarrow\) (down), select Settings and press OK.
2. Select Sources > EasyLink, and press OK.
3. Select EasyLink Remote Control and press OK.
4. Select On or Off and press OK.
5. Press \(\leftarrow \text{BACK}\), repeatedly if necessary, to close the menu.

**Professional Mode ON** → Please refer to the installation manual.

### 6.2 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.
you remove the CAM, you will no longer be able to watch the scrambled channels supported by the CAM.

### 6.3 Receiver - Set-Top Box

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

![Diagram of Set-top box connection]

Next to the antenna connections, add an HDMI cable to connect the Set-top box to the TV.

### 6.4 Home Theatre System - HTS

#### Connect with HDMI ARC

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

**HDMI ARC**

If your Home Theatre System has an HDMI ARC connection, you can use any HDMI connection on the TV to connect. With HDMI ARC, you do not need to connect the extra audio cable. The HDMI ARC connection combines both signals. All HDMI connections on the TV can offer the Audio Return Channel (ARC) signal. But once you have connected the Home Theatre System, the TV can only send the ARC signal to this HDMI connection.

Audio to video synchronisation (sync)

If the sound does not match the video on screen, you can set a delay on most Home Theatre Systems with a disc player to match the sound with the video.

#### Connect with HDMI

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

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

Audio to video synchronisation (sync)

If the sound does not match the video on screen, you can set a delay on most Home Theatre Systems with a disc player to match the sound with the video.

### 6.5 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.
6.6 Headphones

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

6.7 USB Flash Drive

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

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

The TV detects the flash drive and opens a list showing its content.
If the contents list does not appear automatically...

Professional Mode
OFF  – Press Home, select Sources. Choose USB press OK.

Professional Mode On  – Press Home, select Sources. Choose Media Browser and press OK.

To stop watching the USB flash drive content, press or select another activity.
To disconnect the USB flash drive, you can pull out the flash drive anytime.

6.8 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 VGA
Use an VGA cable to connect the computer to the TV, and an audio cable (mini-jack 3.5mm) to AUDIO IN VGA on the back of the TV.
Ideal Setting

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

To set the TV to the ideal setting:

Professional Mode OFF — Press Home. Press (down), select Settings and press OK.
Select Picture and press (right) to enter the menu. Select Picture Style > Computer and press OK.
Select On or Off, and press OK.
Press repeatedly if necessary, to close the menu.

Professional Mode ON — Not available in this Mode.
(For Professional Mode information, please refer to installation manual.)
Videos, Photos and Music

7.1 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...

Professional Mode
OFF – Press  Home, select  Sources. Choose USB press OK.

Professional Mode On – Press  Home, select  Sources. Choose Media Browser and press OK.

You can browse your files in the folder structure you have organised on the drive.

To stop playing videos, photos and music, press .

7.2 Play your Videos

Play Videos

Open video folder

Professional Mode
OFF – Press  Home, select  Sources. Choose USB press OK.

Professional Mode On – Press  Home, select  Sources. Choose Media Browser and press OK.

To go back to the folder, press .

Play a video

Professional Mode
OFF – Press  Home, select  Sources. Choose USB press OK.

Professional Mode On – Press  Home, select  Sources. Choose Media Browser and press OK.

1 - Select  Videos and press OK.
2 - Select one of video, you can press  Play all to play all files in the folder or press  Mark as favourite to add the selected video to favourite menu - Favourites.

To pause the video, press OK. Press OK again to continue.

Control bar

To show or hide the control bar when a video is playing, press OK.

1 – Progress bar
2 – Playback control bar
   –  Jump to the previous video in a folder
   –  Jump to the next video in a folder
   –  Rewind
   –  Fast forward
   –  Pause the playback

3 – Mark as favourites
4 – Play all videos
5 – Subtitle: switch subtitles On, Off or On During Mute.
6 – Subtitle language: select a Subtitle Language (Not available for Professional Mode ON.)
7 – Audio language: select an audio language
8 – Shuffle: play your files in a random order
9 – Repeat: plays all videos in this folder once or continuously

Video Options

During the video playback, press OPTIONS, select Info and press OK to...

• Mark as Favourite – Set the selected video as favourite.
• Play All – Play all video files in this folder.
• Subtitles – If available, you can switch subtitles On, Off or On During Mute.
• Audio Language – If available, select an Audio Language.
• Shuffle – Play your files in a random order.
• Repeat – Plays all videos in this folder once or continuously.
7.3  
**View your Photos**

### View Photos

Open photo folder

**Professional Mode**

OFF – Press  
Home, select  
Sources.  Choose USB press  OK.

Professional Mode On – Press  
Home, select  
Sources.  Choose Media Brower and press  OK.

Select  Photos and press  OK.

**View a photo**

**Professional Mode**

OFF – Press  
Home, select  
Sources.  Choose USB press  OK.

Professional Mode On – Press  
Home, select  
Sources.  Choose Media Brower and press  OK.

Select  Photos and press  OK.

Select Photos and select one of photos, you can press  Slide show to play all files in the folder or press  Mark favourite to add the selected photo to favourite menu -  Favourites.

**Control bar**

1. Playback control bar
   - : Jump to the previous photo in a folder
   - : Jump to the next photo in a folder
   - : Pause the slideshow playback

2. Mark as favourites
3. Start a slideshow
4. Rotate the photo

5. Shuffle: play your files in a random order
6. Repeat: plays all photos in this folder once or continuously
7. Stop the music playing in the background (Not available in Professional Mode ON)

**Photo Options**

During the video playback, press  OPTIONS, select  Info and press  OK to...

• Mark as favourites
• Start a slideshow
• Rotate the photo
• Shuffle: play your files in a random order
• Repeat: plays all photos in this folder once or continuously
• Stop the music playing in the background (Not available in Professional Mode ON)
• Set the speed of the slide show

7.4  
**Play your Music**

### Play Music

Open Music folder

**Professional Mode**

OFF – Press  
Home, select  
Sources.  Choose USB press  OK.

Professional Mode On – Press  
Home, select  
Sources.  Choose Media Brower and press  OK.

Select  Music and press  OK.

**Play music**

**Professional Mode**

OFF – Press  
Home, select  
Sources.  Choose USB press  OK.
During playing the music, press OPTIONS, select Info and press OK to...

- Mark as favourites
- Play all music
- Shuffle: play your files in a random order
- Repeat: plays all music in this folder once or continuously
TV Guide

8.1 Using the TV Guide

Open the TV Guide

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

Press TV GUIDE again to close.

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

9.1 About the Home screen

From the Home Screen, you can start any activity you can do with the TV.

The Professional Menu is organised in rows...

- Channels •
  This row contains all channels.
  - Press OK to open TV guide.
  - Press > (left) to view channels with channel logos, or select see all to view all channels.

- Sources •
  This row contains available sources in this TV.

- Features •
  This row contains TV Features which are available for user.

- Settings •
  This row contains settings which are available for user.

9.2 Open the Home screen

Professional Mode OFF - Please refer to Chapter "Consumer TV Home Screen".

Professional Mode ON - To open the Home screen and open an item...

1 - Open the Home screen by Pressing Home.
2 - Select an activity by using the arrow keys and press OK to start the activity.
3 - To close the Professional Menu without changing the current activity, press ‹.

9.3 Channels

Channel Lists

About Channel Lists

After a channel installation, all channels appear on the channel list. Channels are shown with their name and logo if this information is available.

With a channel list selected, press the arrows < (left) or > (right) to select a channel, then press OK to watch the selected channel. You only tune to the channels in that list when using = + or = - keys.

Radio stations

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.

Open a Channel List

To open the current channel list...

1. Press TV, to switch to TV.
2. Press = CHANNELS to open the current channel list.
3. Press = CHANNELS again to close the channel list.

About Channels and Switch Channels

To watch TV channels

- Press TV. The TV tunes to the TV channel you last watched.
- Press = + or = - to switch channels.
- 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.

9.4 Sources

Switch Source

To view the list of available sources

Select Home > Sources, and press OK.

- To switch to a connected device, select the device with the arrows (up) or (down) and press OK.
9.5 Features

View TV utilities

To view the list of TV utilities
Select Home > Features, and press OK.

- TV guide
Select Home > Features > TV guide, and press OK.

With the TV guide you can view a list of the current and scheduled TV programmes of your channels. Not all channels offer TV guide information.

- Channels
Select Home > Features > Channels, and press OK.

To open the channels list.

- Media Browser
Select Home > Features > Media Browser, and press OK.

With USB, you can browse your photos, videos and music stored on a connected USB device and play these files on TV.

- Sleep timer
Select Home > Features > Sleep timer, and press OK.

Set the TV to switch to Standby automatically after a preset time.

Press the arrows (up) or (down) to adjust the value. The value 0 (Off) deactivates the automatic switch off.

- Alarm
Select Home > Features > Alarm, and press OK.

An alarm can be set on the TV. The TV can wakeup on a defined alarm time. Alternatively, alarm time can be set by pressing the button on the remote control.

- Clock
Select Home > Features > Clock, and press OK.

The standard setting for the TV clock is Automatic. The time information comes from the broadcasted UTC - Coordinated Universal Time information.

9.6 Settings

View settings offered

To view the list of TV settings
Select Home > Settings, and press OK.

- Picture Style
Select Home > Settings > Picture style, and press OK.

Switch between the preset picture styles. There are ideal styles for watching movies or photos, etc.

- Picture Format
Select Home > Settings > Picture format, and press OK.

Select a picture format that fits the screen.

- Sound style
Select Home > Settings > Sound style, and press OK.

Switch between the preset sound styles. There are ideal styles for watching movies, listening to music or playing a game.

- Menu language
Change the language of the TV menu and messages

- Options
Select Home > Settings > Options, and press OK.

Subtitles
Switch subtitles to Subtitle on or Subtitle off.

Status
Select Status to view technical information on the channel.

Clock
Display time on the corner of the TV screen.
Consumer TV Home Screen

10.1 About the consumer TV Home Screen

From the Consumer Home Screen, you can start any activity you can do with the TV.

The Consumer Home Screen is organised in rows...

• Channels
  This row contains all channels.
  - Press OK to open TV guide.
  - Press (left) to view channels with channel logos, or select see all to view all channels.
• Sources
  This row contains available sources in this TV.
• Utilities
  This row contains TV Utilities which are available for user.
• Settings
  This row contains settings which are available for user.

10.2 Open the consumer TV Home Screen

Professional Mode ON - please refer to the installation manual.

Professional Mode OFF - To open the TV Home Screen and open an item...

1 - Press Home.
2 - Select an activity using the arrow keys and press OK to start the activity.
3 - To close the Home menu without changing the current activity, press .

10.3 Language

Change the language of the TV menu and messages.

Home > Settings > Region and language > Languages > Menu language

Select your language by pressing < or > and press OK.

10.4 Channels

About Channels and Switch Channels

Install Channel

Antenna and Cable

Manually Search for Channels and Channel Settings

Search for Channels

Update existing channel list

(Home) > Settings > Antenna/cable installation > Search for channels > Update channels

Re-install all channels

(Home) > Settings > Antenna/cable installation > Search for channels > Re-install channels

1. Select the country where you are now and press OK.
2. Select Antenna (DVB-T) or Cable (DVB-C), and select one item you need to re-install.
3. Select **Digital and analogue channels**, **Only digital channels**, or **Only analogue channels**.
4. Select **Start** and press **OK** to update channels. This can take a few minutes.

### Channel Settings

- **(Home) > Settings > Antenna/cable installation > Search for channels > Re-install channels**

1. Select the country where you are now and press **OK**.
2. Select **Antenna (DVB-T)** or **Cable (DVB-C)**, and select one item you need to re-install.
3. Select **Digital and analogue channels**, **Only digital channels**, or **Only analogue channels**.
4. Select **Settings** and press **OK**.
5. Press **OK** (red) to reset, or press **OK** (green) when complete the settings.

### Frequency scan

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

### 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**.

### Symbol rate

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

### 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**.

### Digital: Reception Test

- **(Home) > Settings > Antenna/cable installation > Digital: Reception test**

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, select **Symbol rate**, and use the number keys or **▲** and **▼**.

### Analogue: Manual Installation

- **(Home) > Settings > Antenna/cable installation > Analogue: Manual Installation**

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

### 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 **OK**, 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 and press OK. The new channel number is shown briefly.
You can redo these steps until you have found all available analogue TV channels.

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
To switch on Subtitles, press SUBTITLE.
You can switch subtitles Subtitle on or Subtitle off.

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.

Subtitles 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.

Status
Select Status to view technical information on the channel.

Clock
Display time on the corner of the TV screen.

Channel List
Channel List Options
Open Option Menu
To open the channel list option menu...
1. Press Ô, to switch to TV.
2. Press CHANNELS to open the current channel list.
3. Press OPTIONS, and select one of options.
4. Press CHANNELS again to close the channel list.

Sources
Source List
- To open the sources menu, press (Home) > SOURCES.
- To switch to a connected device, select the device with the arrows (up) or (down) and press OK.

Rename Device
- Only HDMI, VGA (if available), SCART (if available) sources can be renamed or replace device icon
1. Press press (Home) > SOURCES. Select HDMI or VGA (if available).
2. Press Edit and press OK.
3. Select one of the device icons and press OK, the preset name appears in the typing field.
4. Select Rename, then enter new name using on-screen keyboard.
- Press (red) key to enter with lower-case
- Press (green) key to enter with upper-case
- Press (yellow) key to enter number and symbol
- Press (blue) key to delete a character
5. Select Done when complete the editing.
10.6 Utilities

TV guide
The TV Guide shows the channels of the selected tuner.

Channels
View channel list.

Update software
For more information, in User manual, see chapter Software.

10.7 Quick Settings and All Settings

Quick settings menu:
Press  SETTINGS key on the remote control to find frequently used settings in Quick settings menu.

- **Picture style**: Select one of preset picture styles for ideal picture viewing.
- **Picture format**: Select one of preset picture format which fits the screen.
- **Sound style**: Select one of preset sound styles for ideal sound settings.
- **Headphone volume**: Adjust the volume of a connected headphone.
- **Audio out**: Set the TV to play the sound on TV or on the connected audio system.
- **Clock**: Display clock on the right-top corner TV screen.
- **Sleep timer**: Set the TV to switch to standby automatically after a preset time.
- **All settings**: View all settings menu.
- **Help**: Easily get software updated, reset TV to default settings, and read user manual.

All settings menu:
Press  (home) key on the remote control, select  Settings, and press  OK.

10.8 All Settings

Picture Settings

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

 (Home) > Settings > Picture > Picture style

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
- **Movie** - Ideal for watching movies
- **Game** - Ideal for gaming

Adjust, Contrast, Sharpness, Brightness

Adjust the picture colour
 (Home) > Settings > Picture > Colour

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

Adjust the picture contrast
 (Home) > Settings > Picture > Contrast

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

You can decrease contrast value to reduce power consumption.

Adjust the picture sharpness
 (Home) > Settings > Picture > Sharpness

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

Advanced Picture Settings

Colour Settings

 (Home) > Settings > Picture > Advanced > Colour

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

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

Customise colour temperature
Select Custom in Colour temperature menu to customise a colour temperature yourself. Press the arrows (up) or (down) to adjust the value.

Contrast Settings
Contrast Modes
Select Normal, Optimized for picture, Optimized for energy saving to set the contrast, for best power consumption or for best picture experience, or select Off to switch off the adjustment.

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

Video Contrast, Gamma
Video contrast
Press the arrows (up) or (down) to adjust the video contrast level.

Gamma

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

Noise reduction
Select Maximum, Medium, Minimum to set the level for removing the noise in video content. Noise is mostly visible as small moving dots in on-screen picture.

MPEG Artefact Reduction
Select On to smoothen the digital transitions in the picture. MPEG artefacts are mostly visible as small blocks or jagged edges in on-screen images.

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.

Screen Edges
With Screen edges, you can slightly enlarge the picture to hide distorted edges.
Sound Settings

Sound Style

Select a style
For easy sound adjustment, you can select a preset sound style.

(Home) > Settings > Sound > Sound style
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

Bass, Treble

Bass
(Home) > Settings > Sound > Bass
Press the arrows (up) or (down) to adjust the level of low tones in the sound.

Treble
(Home) > Settings > Sound > Treble
Press the arrows (up) or (down) to adjust the level of high tones in the sound.

Surround Sound

(Home) > Settings > Sound > Surround mode
Select the surround sound effect for the internal TV speakers.

Headphone Volume

(Home) > Settings > Sound > Headphone volume
Press the arrows (up) or (down) to adjust the volume of a connected headphone separately.

TV Placement

(Home) > Settings > Sound > TV placement
Select On a TV stand or On the wall to have best sound reproduction according to the setting.

Advanced Sound Settings

Volume Control

Auto volume levelling
(Home) > Settings > Sound > Advanced > Auto volume levelling
Select On to automatically level out sudden volume differences. Typically when you are switching channels.

Delta volume
(Home) > Settings > Sound > Advanced > Delta volume
Press the arrows (up) or (down) to adjust the delta value for TV speaker volume.

Audio Out Settings

(Home) > Settings > Sound > Advanced > Audio out
Set the TV to play the sound on TV or on the connected 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, the TV speakers are always on.

With an audio device connected with HDMI CEC, select HDMI sound system. The TV will switch off the TV speakers when the device is playing the sound.

Clear Sound

(Home) > Settings > Sound > Advanced > Clear sound
Select On to improve the sound for speech. Ideal for news programmes.
Digital Output Settings

Digital output settings are available for optical and HDMI ARC sound signals.

Digital output format

- If you have a Home Theatre System (HTS) with multichannel sound processing capabilities, set **Digital output 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**.

Digital out leveling

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

Digital out delay

- 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.

Eco Settings

Set energy saving level

- Select **Minimum**, **Medium**, or **Maximum** to have different degrees for energy saving, or select **Off** to switch off energy saving mode.

Set screen off to save energy consumption

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

Set TV switch off timer

- Press the arrows **(up)** or **(down)** to adjust the value. The value **0 (Off)** deactivates the automatic switch off.
- Select **Switch off timer**, the TV switches off automatically to save energy.

General Settings

Connection Related Settings

USB Hard Drive

- You need to set up and format a USB Hard Drive before you record a channel.

CAM Operator Profile

- To switch on operator profile for CI+/CAM for easy channel installation and updates.
HDMI-CEC Connection - EasyLink

Connect HDMI CEC-compatible devices to your TV, you can operate them with the TV remote control. EasyLink HDMI CEC must be switched on on the TV and the connected device.

Switch on EasyLink

(Home) > Settings > General settings > EasyLink > EasyLink > On.

Operate HDMI CEC-compatible devices with TV remote control

(Home) > Settings > General settings > EasyLink > EasyLink remote control > On.

Note:
- EasyLink might not work with devices from other brands.
- The HDMI CEC functionality has different names on different brands. Some examples are: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink and Viera Link. Not all brands are fully compatible with EasyLink. Example HDMI CEC branding names are property of their respective owners.

Region and Language Settings

Language

(Home) > Settings > Region and language > Language

Change the language of the TV menu and messages

(Home) > Settings > Region and language > Language > Menu language

Set audio preference language

(Home) > Settings > Region and language > Language > Primary audio language, Secondary audio language

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

Set subtitle preference language

(Home) > Settings > Region and language > Language > Primary subtitle language, Secondary subtitle language

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

Set teletext preference language

(Home) > Settings > Region and language > Language > Primary text, Secondary text

Some digital TV broadcasters have several Text languages available.

Clock

(Home) > Settings > Region and language > Clock
Correct clock automatically
- The standard setting for the TV clock is Automatic. The time information comes from the broadcasted UTC - Coordinated Universal Time information.
- If the clock is not correct, you can set the TV clock to Country dependent.

Correct clock manually
- If none of the automatic settings display the time correctly, you can set the time manually.
- If you schedule recordings from the TV Guide, we recommend not to change the time and date manually.

Set time zone or set a time offset for your region
- Select one of the time zones.

Set the TV to switch to Standby automatically after a preset time
- Set the TV to switch to Standby automatically after a preset time. 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.

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

Switch on universal access settings

Universal access for hearing impaired people
- Some digital TV channels broadcast special audio and subtitles adapted for the hard of hearing or deaf people.
- Switched on, the TV automatically switches to the adapted audio and subtitles, if available.

Universal access for blind or partially sighted people
- Digital TV channels can broadcast special audio commentary describing what is happening on screen.
- Select Mixed volume, you can mix the volume of the normal audio with the audio commentary. Press the arrows (up) or (down) to adjust the value.
- Set Audio effect to On for extra audio effects in the commentary audio, like stereo or fading sound.
- Select Speech to set speech preference, Descriptive or Subtitles.

Child lock
- Set Code and Change Code
- Set new code or reset change code
- The child lock code is used to lock or unlock channels or programmes.
- If you forgot your PIN code, you can override the current code use 8888 and enter a new code.

Lock for Programme
- Set a minumum age to watch rated programmes.
CAM PIN

Set CAM PIN for recording.

Antenna/cable installation

Update existing channel list

Re-install all channels

1. Select the country where you are now and press OK.
2. Select Antenna (DVB-T) or Cable (DVB-C), and select one item you need to re-install.
3. Select Digital and analogue channels, Only digital channels, or Only analogue channels.
4. Select Start and press OK to update channels. This can take a few minutes.

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.

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.

Update Software

Search for Updates

1. Start the update on TV
2. Identify the TV
   - Insert the USB memory into one of the USB connections of the TV.
   - On the USB memory device, locate the file update.htm and double click it.
   - Click on Send ID.
   - Select your region
   - If new software is available, download the .zip file.
   - After the download, unzip the file and copy the file autorun.upg onto the USB memory device.
3. Update the TV software
   - Insert the USB memory into the TV again. The update starts automatically.
   - The TV switches itself off for 10 seconds and then back on again. Please wait.

Do not . . .

- remove the USB memory device from the TV
- If a power cut occurs during the update, never remove the USB memory device from the TV. When the power returns, the update will continue.
11 Open Source

11.1 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@tpv-tech.com

11.2 Open Source License

About Open Source License

README for the source code of the parts of TP Vision Netherlands B.V. TV software that fall under open source licenses.

This is a document describing the distribution of the source code used on the TP Vision Netherlands B.V. TV, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain copies of this software can be found in the Directions For Use.

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Open Source

uboot (201106)

U-Boot, a boot loader for Embedded boards based on PowerPC, ARM, MIPS and several other processors, which can be installed in a boot ROM and used to initialize and test the hardware or to download and run application code.

Source: [http://www.denx.de/wiki/U-Boot](http://www.denx.de/wiki/U-Boot)

vmlinux (3.1.10)

linux kernel


busybox (v1.23.2)

BusyBox is a multi-call binary that combines many common Unix utilities into a single executable. Most people will create a link to busybox for each function they wish to use and BusyBox will act like whatever it was invoked as.

Source: [http://www.busybox.net/](http://www.busybox.net/)

dlmalloc (2.8.4)

A Memory Allocator

Source: [http://g.oswego.edu/dl/html/malloc.html](http://g.oswego.edu/dl/html/malloc.html)

ftp://gee.cs.oswego.edu/pub/misc/

iniparser (3.0)

stand-alone ini parser library in ANSI C

Source: [http://ndevilla.free.fr/iniparser/](http://ndevilla.free.fr/iniparser/)

jpeg (6b.)

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

Source: [http://www.iij.org](http://www.iij.org)

png (1.2.32)

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

freetype (2.5.3)
FreeType is a freely available software library to render fonts.
Source: http://www.freetype.org/license.html

libc (2.16)
The GNU C Library is used as the C library in the GNU systems and most systems with the Linux kernel.
Source: http://www.gnu.org/software/libc/

cares (1.7.3)
c-ares is a C library for asynchronous DNS requests (including name resolves).
Source: https://c-ares.haxx.se/

curl (7.21.3)
curl is used in command lines or scripts to transfer data. It is also used in cars, television sets, routers, printers, audio equipment, mobile phones, tablets, settop boxes, media players and is the internet transfer backbone for thousands of software applications affecting billions of humans daily.
Source: https://curl.haxx.se/

iconv (1.13.1)
Other programs internally store strings in Unicode, to facilitate internal processing, and need to convert between internal string representation (Unicode) and external string representation (a traditional encoding) when they are doing I/O. GNU libiconv is a conversion library for both kinds of applications.
Source: http://www.gnu.org/software/libiconv/

Xml2 (2.7.7)
Libxml2 is the XML C parser and toolkit developed for the Gnome project (but usable outside of the Gnome platform), it is free software available under the MIT License.
Source: http://xmlsoft.org/

neon (0.30.1)
neon is an HTTP and WebDAV client library, with a C interface.
Source: http://www.webdav.org/neon/

openssl-0.9.8 (1.0.0)
OpenSSL is a robust, commercial-grade, and full-featured toolkit for the Transport Layer Security (TLS) and Secure Sockets Layer (SSL) protocols.
Source: http://www.openssl.org/source/license.html

sqlite (3.7.11)
SQLite is a self-contained, high-reliability, embedded, full-featured, public-domain, SQL database engine.
Source: https://www.sqlite.org/

zlib (1.2.8)
Interface of the ‘zlib’ general purpose compression library.
Source: http://www.zlib.net/zlib_license.html

cairo (1.10.2)
Cairo is a 2D graphics library with support for multiple output devices.
Source: https://cairographics.org/download/

libnl (3.2.24)
The libnl suite is a collection of libraries providing APIs to netlink protocol based Linux kernel interfaces.
Source: https://github.com/tgraf/libnl

alsa (1.0.23)
The Advanced Linux Sound Architecture (ALSA) provides audio and MIDI functionality to the Linux operating system.
Source: https://www.alsa-project.org/main/index.php/Main_Page

fontconfig (2.7.1)
Fontconfig is a library for configuring and customizing font access.
Source: https://www.freedesktop.org/wiki/Software/fontconfig/
icu (4.2.1)

ICU is a mature, widely used set of C/C++ and Java libraries providing Unicode and Globalization support for software applications.
Source: http://site.icu-project.org/home

pixman (0.19.6)

Pixman is a low-level software library for pixel manipulation, providing features such as image compositing and trapezoid rasterization.
Source: http://www.pixman.org/

pango (1.28.1)

Pango is a library for laying out and rendering of text, with an emphasis on internationalization.
Source: https://www.pango.org/

glib (2.24.2)

GLib provides the core application building blocks for libraries and applications written in C.
Source: https://directory.fsf.org/wiki/Glib

DFB (1.4.2)

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/
Help and Support

12.1 On-line 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.

12.2 Support and Repair

For support and repair, call the Consumer Care hotline in your country. Our service engineers will take care of a repair, if necessary.

Find the telephone number in the printed documentation that came with the TV.

Or consult our website www.philips.com/support and select your country if needed.

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

13.1 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.

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.

**13.2 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

2019 © TP Vision Europe B.V. All rights reserved.

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

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips N.V or their respective owners. TP Vision reserves the right to change products at any time without being obliged to adjust earlier supplies accordingly.

The written material packaged with the TV and the manual stored in the memory of the TV or downloaded from the Philips website www.philips.com/TVsupport are believed to be adequate for the intended use of the system.

The material in this manual is believed adequate for the intended use of the system. If the product, or its individual modules or procedures, are used for purposes other than those specified herein, confirmation of their validity and suitability must be obtained. TP Vision warrants that the material itself does not infringe any United States patents. No further warranty is expressed or implied. TP Vision cannot be held responsible neither for any errors in the content of this document nor for any problems as a result of the content in this document. Errors reported to Philips will be adapted and published on the Philips support website as soon as possible.

Terms of warranty - Risk of injury, damage to TV or void of warranty!

Never attempt to repair the TV yourself. Use the TV and accessories only as intended by the manufacturer. The caution sign printed on the back of the TV indicates risk of electric shock. Never remove the TV cover. Always contact Philips TV Customer Care for service or repairs. Find the telephone number in the printed documentation that came with the TV. Or consult our website www.philips.com/support and select your country if needed. Any operation expressly prohibited in this manual, or any adjustments and assembly procedures not recommended or authorised in this manual, shall void the warranty.

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

CE compliance
Hereby, TP Vision Europe B.V. declares that this television is in compliance with the essential requirements and other relevant provisions of Directives 2014/53/EU (RED), 2009/125/EC (Eco Design) and 2011/65/EC (RoHS).

Compliance with EMF
TP Vision manufactures and sells many products targeted at consumers which, like any electronic apparatus, in general have the ability to emit and receive electromagnetic signals. One of TP Vision’s leading business principles is to take all necessary health and safety measures for our products, to comply with all applicable legal requirements and to stay well within the Electro Magnetic Field (EMF) standards applicable at the time of producing the products.

TP Vision is committed to developing, producing and marketing products that cause no adverse health effects. TP Vision confirms that, as long as its products are handled properly for their intended use, they are safe to use according to scientific evidence available today. TP Vision plays an active role in the development of international EMF and safety standards, enabling TP Vision to anticipate further developments in standardisation for early integration in its products.
Health Care Facility Apparatus

If this TV is intended for entertainment purposes for use in a hospital, a nursing home, a medical-care center, or a similar health-care facility in which installation is limited to a nonhazardous area, it must be installed wall-mounted or ceiling mounted. It is not intended for use in a critical-care area in which a patient is treated with an externalized electrical conductor, such as a probe, a catheter, or other electrode, connected to the heart.
16

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