User Manual

19HFL4010W



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1

Setting up

11

Read safety

Read the safety instructions that are supplied with the TV first before you use the TV.

12

Arm mounting

Handle

You can find the instructions for mounting the handle 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 Ouick Start Guide to download.

Arm mounting

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

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

To fix the bracket securely, use screws with a length indicated in the drawing.



• 19HFL4010W - VESA MIS-F 75x75, M4 Installed with handle bar: (Minimum 18mm, Maximum 22mm)

Installed without handle bar: (Minimum 12mm, Maximum 16mm)

Caution

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

according to the TV's weight. Also read the safety precautions before positioning the TV.

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

Note

Before mounting the TV to the arm, remove the existing VESA screws on the back panel.

Warning

Follow all instructions provided with the TV mount. TP Vision Europe B.V. bears no responsibility for improper TV mounting that results in accident, injury or damage.

To prevent damage to cables and connectors, leave a gap of at least 5.5 cm / 2.2 inches from the back of the TV.

Before you mount the TV to the arm, find the correct length of the screw. To find the length of the screw, add the thickness of your arm mount to the screw length.

13

Tips on placement

- Position the TV where light does not shine directly on the screen.
- Dim lighting conditions in the room for best Ambilight effect.*
- · Position the TV up to 15 cm away from the wall.
- The ideal distance to watch TV is 3 times its diagonal screen size. When seated, your eyes should be level with the centre of the screen.

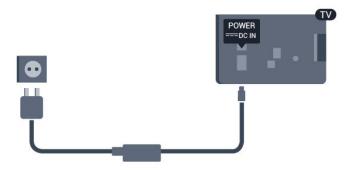


* Ambilight function is only for TVs with Ambilight.

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Power cable

- Make sure the power cable is securely inserted in the connector.
- Make sure that the power plug, in the wall socket, is accessible at all times.
- When you unplug the power cable, always pull the plug, never pull the cable.



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

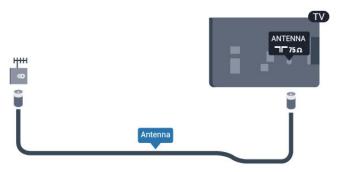
1.5

Antenna cable

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

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

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



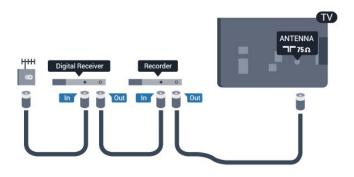
Connections

2.1

Tips on connections

Antenna

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

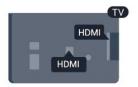


HDMI

HDMI CEC

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) or Ultra HD (UHD) TV signals. For best signal quality transfer, use a High speed HDMI cable and do not use an HDMI cable longer than 5 m.





EasyLink HDMI CEC

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

DVI to HDMI

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

AUDIO IN for sound, on the back of the TV.

Copy protection

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

HDMI ARC

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

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

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

In case you prefer to switch off ARC on the HDMI connections, enter the Professional Home Menu. Select TV settings > Sound > Advanced > HDMI ARC.

2.2

EasyLink HDMI CEC

EasyLink

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





EasyLink setup

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

HDMI CEC on other brands

The HDMI CEC functionality has different names on different brands. Some examples are: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink and Viera Link. Not all brands are fully compatible with EasyLink.

Example HDMI CEC branding names are property of their respective owners.

Operate devices

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



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

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

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

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

Note: Only devices that support EasyLink remote control function will respond to the TV remote control.

EasyLink settings

The TV comes with all EasyLink settings switched on. You can switch off any EasyLink setting independently.

EasyLink

To switch off EasyLink completely . . .

1 - Professional Mode: Off – Press 🏫 and select Setup and press OK.

Professional Mode: On – Enter the Professional Home Menu.

- 2 Select TV settings > General settings > EasyLink, and press OK.
- 3 Select Off and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

EasyLink Remote Control

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

In the EasyLink settings menu, select **EasyLink** remote control and select Off.

Pixel Plus Link

Some devices, a DVD or Blu-ray Disc player, might have their own picture quality processing. To avoid bad picture quality caused by interference with the TV processing, the picture processing of these devices should be disabled. The TV comes with Pixel Plus Link switched on and disables the picture quality processing of recent Philips devices connected to the TV

To switch off Pixel Plus Link, in the EasyLink settings menu, select Pixel Plus Link and select Off.

Auto subtitle shift

If you play a DVD or Blu-ray Disc on a Philips disc player that supports subtitles, the TV can move the subtitles upwards. Subtitles will be visible whatever Picture format you select. The TV comes with Auto subtitle shift switched on.

To switch off Auto subtitle shift, in the EasyLink settings menu, select **Auto subtitle shift** and select **Off**.

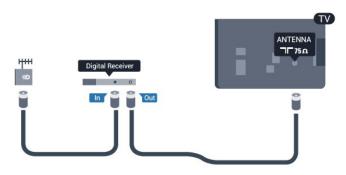
Auto switch off devices

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

2.3

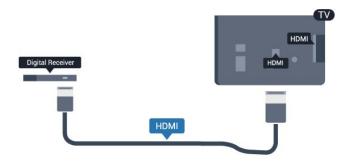
Set-top box - STB

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



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

Alternatively, you can use a SCART cable if the Set-top box has no HDMI connection.



Switch off timer

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

To switch off the Switch off timer:

Professional Mode: Off − Press ↑ and select Setup and press OK.

Professional Mode: On – Enter the Professional Home Menu.

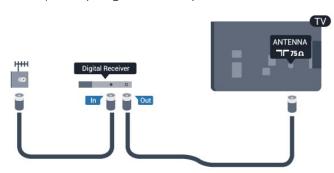
Select TV settings > General settings > Switch off timer and set the slider bar to Off.

 $\frac{1}{24}$

Home Theatre System - HTS

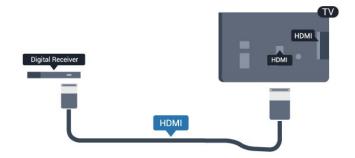
Connect HTS

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



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

Alternatively, you can use a SCART cable if the Set-top box has no HDMI connection.



Switch off timer

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

To switch off the Switch off timer:

Professional Mode: Off − Press ♠ and

select Setup and press OK.

Professional Mode: On - Enter the Professional

Home Menu.

Select TV settings > General settings > Switch off timer and set the slider bar to Off.

Audio Out settings

Audio Out delay

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

Automatic audio to video sync

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

Audio sync delay

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

To switch off the Audio Out delay . . .

1 - Professional Mode: Off **–** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Advanced > Audio out delay.
- 3 Select Off and press OK.
- 4 Press , repeatedly if necessary, to close the

menu.

Audio Out offset

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

To synchronise the sound on the TV . . .

Professional Mode: On **–** Enter the Professional Home Menu.

2 - Select TV

settings > Sound > Advanced > Audio out offset. 3 - Use the slider bar to set the sound offset and press OK.

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

Audio Out format

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

To set the Audio out format . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional Home Menu.

2 - Select TV

settings > Sound > Advanced > Audio out format.

3 - Select Multichannel or Stereo.

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

Audio Out levelling

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

To level the difference in volume . . .

1 - Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

2 - Select TV

settings > Sound > Advanced > Audio out levelling.

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

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

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

Problems with HTS sound

Sound with loud noise

If you watch a video from a plugged in USB flash drive or connected computer, the sound from your Home Theatre System might be distorted. This noise is heard when the audio or video file has DTS sound but the Home Theatre System has no DTS sound processing. You can fix this by setting the Audio out format of the TV to Stereo.

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On - Enter the Professional Home Menu.

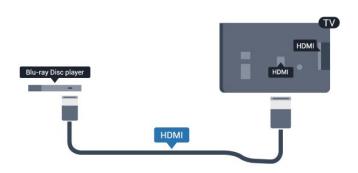
2 - Select Setup > TV settings > Sound > Advanced > Audio out format. No sound

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

- Check if you connected the HDMI cable to an HDMI ARC connection on the Home Theatre System. All HDMI connections on the TV are HDMI ARC connections.
- Check if the **HDMI ARC** setting on the TV is switched **On**.
 - Professional Mode: Off Press ♠ and select Setup and press OK.
 Professional Mode: On — Enter the Professional Home Menu.
 - Select Setup > TVsettings > Sound > Advanced > HDMIARC.

Blu-ray Disc player

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



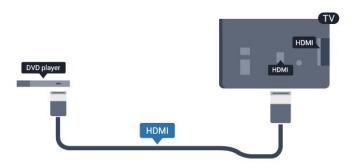
If the Blu-ray Disc player has EasyLink HDMI CEC, you can operate the player with the TV remote control.

2.6

DVD player

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

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



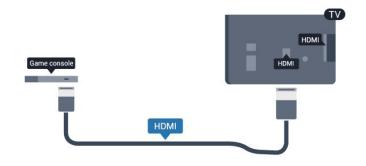
If the DVD player is connected with HDMI and has EasyLink CEC, you can operate the player with the TV remote control.

27

Game console

HDMI

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



28

USB flash drive

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

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



The TV detects the flash drive and opens a list showing its content.

If the contents list does not appear automatically, press SOURCE, select USB and press OK.

To stop watching the USB flash drive content, press TV or select another activity.

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

2.9

Photo camera

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

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

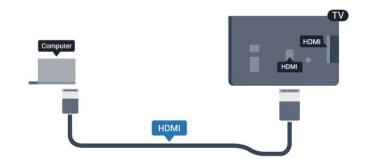


If the contents list does not appear automatically,

press SOURCE, select USB and press OK. Your camera might need to be set to transfer its content with PTP (Picture Transfer Protocol). Read the user manual of the digital photo camera.

Ultra HD on USB

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

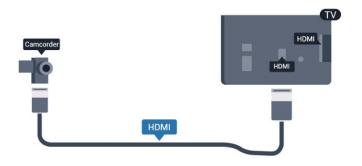


2.10

Camcorder

HDMI

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



7 11

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.

2.12

Headphones

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

To adjust the volume . . .

1 - Professional Mode: Off **-** Press ★ and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Headphones volume and press OK.
- 3 Press \triangle (up) or \bigvee (down) to adjust the volume.
- 4 Press , repeatedly if necessay, to close the menu.



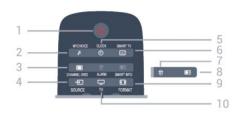
Remote control

3.1

Key overview

Top

Note: Remote control is not included in the set.



1- O Standby / On

To switch the TV On or back to Standby.

2 - MYCHOICE

To switch on mychoice.

3 - CHANNEL GRID

To open or close the channel grid.

4 - SOURCE

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

5 - CLOCK

To display the clock.

6 - SMART TV

To open the Smart TV start page.

(Only for Smart TV's)

7 - ALARM

To set the alarm.

8 - SMART INFO

To open the smart information page.

9 - FORMAT

To open or close the Picture format menu.

10 - TV

To switch back to watching TV.

Middle



1- HOME

To open or close the home menu.

2 - GUIDE

To open or close the TV guide.

3 - ADJUST

To open the Adjust menu.

4 - **→** BACK

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

5 - Play/Pause

- Play ▶, to playback.
- · Pause II, to pause playback.

6 - INFO

To open or close programme info.

7 - OK key

To confirm a selection or setting.

8 - Arrow / navigation keys

To navigate up, down, left or right.

9 - OPTIONS

To open or close the Options menu.

Bottom



1 - Channel

To switch to the next or previous channel in the channel list.

To open the next or previous page in Text or start the next or previous chapter on a disc.

2 - Colour keys

Follow on screen instructions. Blue key —, opens Help.

3 - Number keys and text keypad

To select a TV channel directly or to enter text.

4 - SUBTITLE

To switch subtitles on, off or Automatic.

5 - 🖊 Volume

To adjust the volume level.

6 - **∢x** Mute

To mute the sound or to restore it.

7 - TEXT

To open or close Text / Teletext.

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.



3.3

Batteries

- 1 Slide the battery door in the direction shown by the arrow.
- 2 Replace the old batteries with 2

type AAA-LR03-1.5V alkaline 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.

1

Switch on

4.1

On or Standby

Make sure you plugged in the mains power on the back of the TV before you switch on the TV.



With the TV in standby, press • on the remote control to switch the TV on.



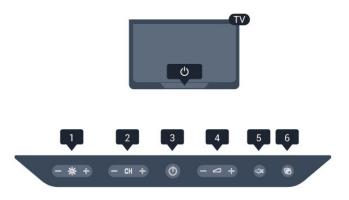
Switch to standby

To switch the TV to standby, press **o** on the remote control. The red indicator will light up.

4.2

Keys on TV

Use the front keypad to control the on-screen operation. The keypad consists of following key buttons:



- 1 Brightness: To adjust the brightness of the TV screen
- 2 Channel: To switch to the next or previous

channel in the channel list.

- 3 Power: To switch the TV On or back to Standby.
- 4 Volume: To adjust the volume level.
- 5 Mute: To mute the sound or to restore it.
- 6 Cleaning: Press this button(>1sec) to

temporarily deactivate all eight buttons on the front keypad. User can clean the keypad during this short deactivation.

Professional mode

5.1

What you can do

In professional mode, you can configure the TV for hotel use. Features include:

- Changing professional setup items, such as power and speaker settings.
- · USB cloning
- Downloading software via RF, including SSB firmware and hotel information.
- · Change TV settings, Install channels.

5.2

Enter Professional Home Menu

To enter the Professional Home Menu

1 - Press 3, 1, 9, 7, 5, 3 and **x**.

The professional setup menu appears.

The Professional Home Menu has items for:

- · Quick picture & sound settings and TV settings
- · Search for channels and Channel settings
- · Update software and Software settings
- · Professional settings menu

5.3

Enable Professional Home Menu

Enable professional mode

The Professional Mode will be already set to On if it was selected during the Virgin installation procedure. 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.

5 4

Professional settings menu

Professional settings

Dashboard

This provides the selection of **Default** or **Custom** dashboard (i.e. Home Menu)

Professional Settings Overview

To view the Professional settings.

Room ID

Set a room ID for the TV. Restricted to numeric characters only, with a maximum of four characters.

Channel setup

Here you can enter the channel setup menu to rename, reorder, mark as favourites, hide/unhide channels

Reset Professional Settings

To reset Professional mode settings to factory default values.

Switch on settings

Customise the way the TV behaves when it is switched on.

Switch on channel

Switches to a predefined channel.

Switch on vol

Switches to a predefined volume.

Max volume

Limits the maximum volume of the TV.

Switch On Feature

Starts up in Smart TV or MyChoice modes.

Switch on picture format

Switches to a predefined picture format.

Power Settings

Customise the way the TV behaves when it is switched on.

Power On

Determine whether the TV goes to standby when it is switched on.

Low Power Standby

Determine whether standby mode is [Fast] (regular) or [Green] (low energy).

Smart power

Enable or disable energy saving mode.

Wake on LAN

Switch on the TV via internet if the TV is in standby.

Welcome message

Create and display a welcome message for your guests.

Display message

Switch the welcome message [On] or [Off].

Line 1

Enter the first line of welcome text.

Line 2

Enter the second line of welcome text.

Clear

Clear the welcome message.

Message Time-out

Set how long to display the welcome message.

Welcome logo

Display logo

Enable or disable the welcome logo that appears when the TV starts.

USB to TV

Load the welcome message from USB to TV.

SmartInfo Settings

SmartInfo

This sets the way the SmartInfo is shown.

USB to TV

Load the information for SmartInfo from USB to TV.

Control settings

Local KB lock

Select **On** to lock all TV buttons except . Select [Off] or [All] to unlock or lock all buttons respectively.

RC lock

Select On to disable all buttons on the remote control. Note that you can still enter the professional setup menu by pressing 3, 1, 9, 7, 5, 3, $\blacktriangleleft \times$.

OSD display

Enable or disable on-screen information.

High security

Select On to restrict access to the professional setup menu.

Auto scart

Enable or disable the auto SCART feature – this feature allows a connected SCART device to turn the TV on or off.

USB break-in

Enable or disable access to various USB features.

Enable USB

Enable or disable access to a connected USB storage device.

SXP BaudRate

Select a baud rate value (38400 or 19200).

Enable teletext

Enable or disable access to Teletext.

Enable MHEG

Enable or disable access to MHEG channels. Applicable to UK only.

Enable EPG

Enable or disable access to the Electronic Programme Guide.

Enable subtitle

Enable or disable subtitles.

Enable subtitle

Enable or disable subtitles.

Subtitle On Startup

Enable or disable subtitles when the TV starts.

Blue mute

Turn the TV screen to blue and mute the sound if there is no signal detected.

Enable CI slot

Enable or disable the CI slot.

DirectShare

Enable or disable the DirectShare feature.

Scrambled Program OSD

When disabled, scrambled programmes will not be visible to guests.

Joint Space

Enable or disable the Joint Space feature.

Easylink Break-in/ Easylink control

Enable or disable access to various EasyLink features.

Enable Skype

Enable or disable Skype feature.

Digit Time Out

Sets the time out for the Digit OSD.

Selectable AV

The different AV connections can be selected to show up in the Source list.

Watch TV

To select which source to select when using the Watch TV icon / button.

Clock setup

External Clock

Enable or disable the external clock.

Clock brightness at Dim Light

This sets the level of brightness of the LCD clock when the environmental light conditions are dim

Clock brightness at Intense Light

This sets the level of brightness of the LCD clock when the environmental light conditions are bright

Clock Light Sensor Sensitivity

This sets the sensitivity level of the light sensor to sense environmental light conditions

Time Download

To select from which source the time will be retrieved. Manual, RF channel or IP channel.

Time Setting

Manually enter the time. This is only enabled when Time download is set to Manual.

Time Download Program

Define which channel to extract the time from. Only visible when **Time Download** is set to **RF**.

NTP Server URL

Define which URL to extract the time from. Only visible when Time Download is set to IP.

Country Selection

Set the country in which the TV is being installed.

Time Zone

Set the time zone in which the TV is being installed.

Daylight Saving

Enable or disable daylight saving.

Time offset

Add to or subtract from the extracted time value.

Reference Date

Define whether the date is referenced from the TV.

Reference Time

Define whether the time is referenced from the TV.

Speaker settings

Set the audio output of the TV. If independent external speakers are attached, they will match the audio of the TV speakers.

TV speaker enable

Enable or disable TV speakers.

Independent main speaker mute

Enable or disable external speakers.

Default main speaker volume

Define the default volume to be applied when speakers are unmuted.

Headphone detection

Enable or disable the detection of connected headphone. When this function is set to On, the main speaker will be disabled if the TV is connected to a headphone.

Installation

Blank Channel

Provides a list of the installed channels that can be selected to blank.

Free/scrambled

Select to install only Free To Air channels or also Scrambled channels.

Multi remote control

Pair up to four RCs to a TV. Each RC is associated with one of four colour keys.

MyChoice

Enable or disable access to premium channels (MyChoice).

SystemUI Settings

Source

Smart UI allows hotels to display a HTML portal when users select Browse Portal from the Home menu. Select Off] to disable this feature and hide Browse Portal from the Home menu. Selecting Server links to a URL and Local displays locally-stored HTML pages. The HTML files and supporting content (images, video etc.) stored in the TV should not exceed a total of 4 MB.

Fallback

If SmartUI is on, enabling the backup automatically launches locally-stored HTML content if the link to an external server or URL does not work.

Icon Label

Change the label of the Browse Portal icon.

Server URL

Enter the URL to access from Browse Portal.

Vsecure

Vsecure prevents unauthorised viewing and copying of video – use this setting to change modes, load and erase keys.

Vsecure over RF enable

To enable Vsecure feature for RF channels.

Load Key to USB

To load the Vsecure key to USB flash drive.

Load Key to TV

To load the Vsecure key from USB flash drive to TV.

Vsecure Self Test

To initiate self test for Vsecure.

Erase Key Option

To select which Key to be erased.

Erase Key

To effectively erase the selected Key.

Clone/Upgrade

Easily copy TV settings to a USB storage device, then clone the settings onto another Philips TV.

RF Clone Program Info

To set the frequency, the medium and the symbol rate of the channel for cloning via RF.

Clone to TV

Initiate cloning from USB flash drive to the TV.

Select Clone to TV

To select which clone file on the USB to clone to the TV.

Clone to USB

To initiate download of clone items from TV to USB flash drive.

Upgrade Mode

This sets the firmware upgrade mode to RF or IP.

Start Upgrade

To manually trigger instant firmware upgrade.

Auto Upgrade

Enable or disable automatic firmware upgrade.

5.5

MyChoice setup

Ask For PIN

To request for the pin code to enable MyChoice package.

Free Package

To select the list of channels to group in this package.

Package 1

To select the list of channels to group in this package.

Package 2

To select the list of channels to group in this package.

5.6

Combine channel list

This enables or disables a combined list of channels and AV sources.

6

TV channels

6 1

Watching TV channels

Switch channels

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

Alternatively, press \uparrow to open the Home menu and select Watch TV and press OK.



To switch channels, press CH + or CH -. 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 ullet.

To switch to a channel from a channel list

While watching a TV channel, press CHANNEL GRID to open the channel grid.



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

To close the channel lists without switching channels, press CHANNEL GRID again.

Radio channels

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

Channel list

Favourite channels

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

Create your favourite channel list

1 - Professional Mode: Off **—** While watching a TV channel, press **CHANNEL GRID** to open the channel list.

Professional Mode: On – In the Professional Home Menu , select **Professional Settings** menu and press OK.

Select Professional settings > Channel setup and press OK.

- 2 Select All to view all channels.
- 3 Select the channel, and press to mark as favourite.
- 4 The selected channel is marked with a .
- 5 To finish, press •. The channels are added to the Favourites list.

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

Reorder

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

- 1 In the channel list **Favourites**, highlight the channel you want to reposition.
- 2 Press -.
- 3 Select the channel to reorder and press **OK**.
- 4 Press the **Navigation buttons** to move the highlighted channel to another location and press **OK**.
- 5 Once complete, press to exit from the Favourite channel list.

You can highlight another channel and do the same.

Channel list views

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

Next to the channel list All, which holds all installed channels, you can set up a list of Favourites, view the installed Radio stations separately or discover the newly added channels in New.

Channel logos

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

To switch off Channel logos . . .

1 - Professional Mode: Off - Press 🛖 and

select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Channel logos and press OK.
- 3 Select Off and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

Rename channels

You can rename channels in the channel list.

- 1 Select the channel you want to rename in one of the channel lists.
- 2 Select the channel to rename.
- 3 Press —.

You can enter text with the remote control keyboard or open the on-screen keyboard.

With the on-screen keyboard

- \cdot To open the on-screen keyboard, place the cursor in the name text field and press **OK**.
- To delete the character in front of the cursor, press
 Backspace .
- To enter a character, select the character with the arrow keys and press **OK**.
- To select uppercase characters, press —.
- To select numbers or special characters, press —.
- When you are ready, press **to** close the onscreen keyboard.
- To finish renaming, select **Done** and press **OK**.

Lock a channel

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

Lock a channel

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

To lock a channel . . .

1 - Professional Mode: Off — While watching a TV channel, press **CHANNEL GRID** to open the channel list.

Professional Mode: On – In the Professional Home Menu, select **Professional Settings** menu and press **OK**.

Select Professional settings > Channel setup and press OK.

- 2 In any list, select the channel you want to lock.
- 3 Press OPTIONS and select Lock channel. In a

channel list, a locked channel is marked with a lock \mathbf{A} .

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

Parental rating

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

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

To set an age rating . . .

2 - Select Channel settings > Child lock > Parental rating and press OK.

- 3 Enter a 4-digit Child lock code and confirm. Now you can set an age rating.
- 4 Set the age and press OK.
- 5 Press , repeatedly if necessary, to close the menu.

To switch off the parental age rating, select **None** as age setting.

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

Set or change the lock code

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

- 2 Select Channel settings > Child lock > Change code and press OK.
- 3 If a code is set already, enter the current Child lock code and then enter the new code twice.

The new code is set.

Forgotten your code?

If you have forgotten your code to unlock, call Consumer Care in your country. Find the telephone number on the documentation that came with the TV or go to www.philips.com/support

Options for channels

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

Open the options menu

While watching a channel, press OPTIONS.



Universal access

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

Video selection

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

Subtitles

Switch Subtitles on or Subtitles off with this options. Select Automatic to show subtitles only when the sound is muted with $\blacktriangleleft P$.

Subtitle language

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

Audio languages

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

Dual I-II

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

HbbTV on this channel

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

MHP applications

Enable or disable the MHP applications.

Status

Select Status to view technical information on the

channel (if it is analogue or digital) or a connected device you are watching.

Picture format

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

To change the picture format . . .

- 1 While watching a TV channel, press FORMAT to open the **Picture format** menu.
- 2 Select a format from the list and press OK.

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

- · Auto fill
- · Auto zoom
- Super zoom
- · Movie expand 16:9
- · Wide screen
- Unscaled
- 4.3

Text / Teletext

Text pages

To open Text (Teletext) while you are watching TV channels, press TEXT.

To close Text, press TEXT again.



Select a Text page

To select a page . . .

- 1 Enter the page number with the number keys.
- 2 Use the arrow keys to navigate.
- 3 Press a colour key to select a colour-coded subject at the bottom of the screen.

Text sub-pages

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

To select a subpage, press \triangleleft or \triangleright .

T.O.P. Text pages

Some broadcasters offer T.O.P. Text.

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

Text options

In Text, press OPTIONS to select the following . . .

· Freeze page

To stop the automatic rotation of subpages.

· Dual screen / Full screen

To show the TV channel and Text alongside each other.

· T.O.P. overview

To open T.O.P. Text.

 $\cdot \ \mathsf{Enlarge}$

To enlarge the Text page for comfortable reading.

· Reveal

To unhide hidden information on a page.

· Cycle subpages

To cycle subpages when these are available.

Language

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

• Text 2.5

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

Text setup

Text language

Some digital TV broadcasters have several Text languages available.

To set your primary and secondary Text language . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select Channel settings > Language.
- 3 Select Primary Teletext or Secondary Teletext.
- 4 Select your preferred Text languages.
- 5 Press , repeatedly if necessary, to close the menu.

Text 2.5

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

To switch off Text 2.5 . . .

- 1 Press TEXT.
- 2 While watching the teletext, press OPTIONS.
- 3 Select Text 2.5 > Off.
- 4 Press , repeatedly if necessary, to close the menu.

Menu language

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

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Menu language and press OK.
- 3 Select the language you want and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

Audio languages

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 analogue 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 analogue channels, select between:

- · Main: Primary audio language or
- · SAP: Secondary audio language

Subtitles and languages

Subtitles

Switch subtitles on

To open the Subtitle menu, press SUBTITLE. You can set subtitles to On, Off or Automatic. To show subtitles when the broadcasted programme is not in your language — the language you set for the TV, select Automatic. Also, this setting will show subtitles when you mute the sound with ◀❷. For analogue channels, subtitles must be made available in Text.



Subtitles for digital channels

There is no need to set subtitles in Text for digital channels.

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

To set the primary and secondary subtitle language . .

.

1 - Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select Channel settings and select Languages > Primary subtitles language or Secondary subtitles language and press OK.
- 3 Select a language and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

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

- 1 Press OPTIONS.
- 2 Select **Subtitle language** and select a language you want temporarily and press **OK**.

Subtitles for analogue channels

For analogue channels, you need to make the subtitles available for each channel manually.

- 1 Switch to a channel and press **TEXT** to open Text.
- 2 Enter the page number for subtitles, usually 888.
- 3 Press TEXT again, to close Text.

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

To know if a channel is analogue or digital, switch to the channel and open **Status** in the **Options** menu.

Audio languages

To set the primary and secondary audio language . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select Channel settings and select Languages > Primary audio language or Secondary audio language and press OK.
- 3 Select a language and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

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

- 1 Press OPTIONS.
- 2 Select Audio language and select an audio language you want temporarily and press OK.



Audio languages for the hearing and visually

impaired

Some digital TV channels broadcast special audio and subtitles adapted for people who are hearing or visually impaired.

Menu language

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

- 2 Select TV settings > General settings > Menu language and press OK.
- 3 Select the language you want and press OK.
- 4 Press , repeatedly if necessary, to close the menu

Interactive TV

About iTV

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

HbbTV, MHEG, . . .

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

Visit the broadcaster's Internet website for more information.

What you need

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

HbbTV

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

- 1 Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.
- Professional Mode: On **–** Enter the Professional Home Menu.
- 2 Select TV settings and select General settings > HbbTV and press OK.

- 3 Select On and press OK.
- 4 Press , repeatedly if necessary, to close the menu

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

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

Use iTV

Open iTV pages

Most channels that offer HbbTV or iTV invite you to press the — key or OK key to open their interactive programme.

Navigate iTV pages

You can use the arrow and colour keys, the number keys and the ← key to navigate the iTV pages. You can use the II ► (Play and Pause) keys to watch videos within iTV pages.

Digital Text (UK only)

To open Digital Text, press TEXT. To close, press .

Close iTV pages

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

About interactive TV

With interactive TV, some digital broadcasters combine their normal TV programme with information or entertainment pages.

Note:

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

Visit the broadcaster's Internet website for more information.

6.2

Channel installation

Update channels

Automatic update

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

Automatic channel update

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

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

To switch off the message at start up . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select Channel settings and press OK.
- 3 Select Channel installation > Channel update message > Off.

To switch off the Automatic channel update . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select Channel settings and press OK.
- 3 Select Channel installation > Automatic channel update > Off and press OK.

Start an update

To start an update yourself . . .

- 2 Select Search for channels and press OK.
- 3 Select **Update channels** and follow the instructions on screen. The update may take a few minutes.

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

New channels

New channels added with the automatic channel update are easy to find in the channel list **New**. The same new channels are also stored in the **All** or **Radio** channel list.

New channels are kept in the channel list **New** as long as you don't mark them as a favourite or tune to them.

Reinstall channels

You can search for and reinstall channels and leave all other TV settings untouched. Alternatively, you can do a full new TV installation.

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

Reinstall channels

To reinstall the channels only . . .

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional
- Professional Mode: On Enter the Professional Home Menu.
- 2 Select Search for channels > Re-install channels and press OK.
- 3 Select the country where you install the TV.
- 4 Select Antenna (DVB-T) or Cable (DVB-C). The channel search may take a few minutes. Follow the instructions on screen.

Full installation

To redo a full TV installation . . .

- 1 Professional Mode: Off Press 🏫 and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > General settings > Reinstall TV and press OK. The installation may take a few minutes. Follow the instructions on screen.

Factory settings

Factory settings sets the TV back to the original TV settings for picture and sound. To switch back to the original Factory settings \dots

- 1 Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.
- Professional Mode: On **–** Enter the Professional Home Menu.
- 2 Select TV settings > General settings > Factory settings and press OK.
- 3 Press OK to confirm.
- 4 Press , repeatedly if necessary, to close the menu.

Channel list copy

Introduction

Channel list copy is intended for dealers and expert users. In some countries, Channel list copy is only available for copying satellite channels.

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

Conditions

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

Current version

You can check the current version of the TV software with Current software

Copy channel list

To copy a channel list . . .

- 1 Switch on the TV which has its channels installed. Plug in a USB memory device.
- 2 Professional Mode: Off Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 3 Select TV settings > General settings > Channel list copy > Copy to USB and press OK. To copy the channel list from this TV, you might be asked to enter the Child lock code you entered during the installation.
- 4 When copying is done, unplug the USB memory device.

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

Upload channel list

Upload a copied channel list

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

To a TV that is not yet installed

1 - Plug in the power plug to start the installation and select language and country. You can skip Search for channels. Finish the installation.

- 2 Plug in the USB memory device that holds the channel list of the other TV.
- 3 To start the channel list upload, press ♠ and select Setup and press OK.
- 4 Select TV settings > General settings > Channel list copy > Copy to TV and press OK. You might be asked to enter the Child lock code of this TV.
- 5 The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB memory device.

To an already installed TV

1 - Verify the country setting of the TV. (To verify this setting, press ♠ and select Setup and press OK. Select Search for channels > Re-install channels and press OK. Press ➡ and later Cancel to leave the Search for channels.)

If the country is correct continue with step 2. If the country is not correct, you need to start a reinstallation. To start the reinstallation, press ♠ and select Setup and press OK. Select TV settings > General settings > Reinstall TV > OK. Select the correct country and skip the Search for channels. Finish the installation. When done, continue with step 2.

- 2 Plug in the USB memory device that holds the channel list of the other TV.
- 3 To start the channel list upload, press 🏫 and select Setup and press OK.
- 4 Select TV settings > General settings > Channel list copy > Copy to TV and press OK. You might be asked to enter the Child lock code of this TV.
- 5 The TV notifies you if the channel list is copied to the TV successfully. Unplug the USB memory device.

DVB-T or DVB-C

DVB-T or DVB-C reception

If both DVB-T and DVB-C reception is available in your country and if this TV is ready to receive DVB-T and DVB-C for your country, you have selected one or the other during the channel installation.

If you want to change the DVB setting to start a new channel installation \dots

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select Channel settings and press OK.
- 3 Select Channel installation > Antenna connection > Antenna (DVB-T) or Cable (DVB-C) and press OK.
- 4 Select the DVB setting you want.
- 5 Press , repeatedly if necessary, to close the menu.

DVB-C channel installation

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

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

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

It might be necessary to adjust the scanning (full or quick scan) or enter a specific symbol rate in the **Settings** menu while installing. To set a **Symbol rate**, first set the Symbol rate to **Manual**.

Channel number conflicts

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

DVB-T + DVB-C

If you can use a DVB-T antenna input but also a DVB-C input, you can set up your TV for both DVB-T and DVB-C. Install one system followed by the other with the necessary settings.

Once each system is installed, you need to switch the antenna input signal on the **Antenna** connection on the back of the TV and set the TV in the appropriate system to view the installed channels on TV. To select the DVB-T or DVB-C setting, see above.

DVB settings

Access DVB settings

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On - Enter the Professional Home Menu

- 2 Select Search for channels and press OK.
- 3 Select Re-install Channels.
- 4 Select the country where you install this TV.
- 5 Select Cable (DVB-C).
- 6 Select Start to search channels, or select Settings for DVB-C settings .
- 7 Press , repeatedly if necessary, to close the menu.

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. However, the value you received could be in the predefined list of symbol rates already. Select Predefined symbol rates to check if your value is available automatically.

Predefined symbol rates

With the Symbol rate mode set to Automatic, the TV will use 1 of the predefined symbol rates as used by most cable providers in your country.

Symbol rate

With the Symbol rate mode set to Manual, you can enter the symbol rate value you received from your cable provider. To enter the value, use the number keys.

Symbol rate 2

With the Symbol rate mode set to Manual, you can enter a second symbol rate value you received from your cable provider. To enter the value, use the number keys.

Network frequency mode

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

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

Network frequency

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

Frequency scan

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

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

Frequency step size

The TV searches for channels in steps of 8MHz.

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

Digital channels

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

Analogue channels

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

Reception quality

If you receive digital channels, you can check the quality and signal strength of a channel.

If you have your own antenna, you can reposition the antenna to try and improve the reception.

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

- 1 Tune to the channel.
- 2 Press \spadesuit and select **Setup** and press **OK**.
- 3 Select Channel settings > Channel installation > Digital : reception test and press OK.

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

To enter a specific digital frequency yourself, use the remote control digit keys. Alternatively, select the frequency, position the arrows on a number with \triangleleft and \triangleright and change the number with \triangle and \blacktriangledown . To check the frequency, select Search and press OK.

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

Manual installation

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

To install analogue channels manually . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select Channel settings > Channel installation > Analogue : Manual installation and press OK.System

To set up the TV system, select **System** and press **OK**.

Select your country or the part of the world where you are now.

· Search channel

To find a channel, select Search channel and press OK. Select Search and press OK. You can also enter a frequency yourself. 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 \triangle or \blacktriangledown . If you want to store the channel found, select Done and press OK.

• Store current channel / Store as new channel You can store the channel on the current channel number or as a new channel number. Select Store current channel or Store as new channel.

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

Home menu

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

Open the Home menu to start watching TV or start watching a disc on your Home Theatre System.

Open the Home menu

- 1 To open the Home menu, press 🛖.
- 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 ←.



· Guest Menu

Select Guest Menu to install channels or adjust all TV settings.

Guest Menu - Select Guest Menu to adjust TV settings .

 \cdot TV

Select TV and press OK to watch TV channels.

Source

Select Source and select a connected device in the list underneath the icon. Press OK to switch to the selected device.

· TV guide

Select TV guide and press OK to open a list of the current and scheduled TV programmes of your channels.

· Smart Info

Select Smart Info to show information provided by the Hotel.

MyChoice

Select MyChoice to be able to select premium services made available through MyChoice service.

8

Settings

8 1

Setup menu

Quick picture settings

With Quick picture settings you can set your basic picture preferences in a few easy steps. The settings you made are stored under the Picture style – Personal. You can return to your picture preference if some settings were changed. You can set a preferred picture setting for every TV activity or connected device individually.

To return to your preferred picture setting, while watching a TV channel, press OPTIONS, select Picture and sound in the menu bar, select Picture style and select Personal.

To set a Quick picture setting . . .

- 1 Press \spadesuit , select an activity or a connected device (or its connection) and press **OK**.
- 2 Professional Mode: Off Press ♠ and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 3 Select **Quick picture settings** and press **OK**. Go through the steps and finish. The activity or connection has your personal preferences.

TV settings

In the TV settings menu you can set all Picture and Sound settings. The item General settings in the menu holds a collection of settings like Menu language, Sleep timer, Switch off timer, Universal access and more.

Search for channels

With Search for channels, you can update your current channel list and possible newly found channels are added to the channel list. You can also do a reinstallation of all channels. A channel update or a channel reinstall may take some time.

Channel settings

In the Channel settings menu, you can set your language preferences or switch on the Universal access for people who are hearing and visually impaired. You can set an age rating to prevent children from watching a rated programme and set or change your Child lock code. You can switch on the Automatic channel update, do a digital reception test or install analogue channels manually.

Languages

This bundles some language settings for digital channels.

Universal access

Bundles settings related to Universal access.

Channel installation

This bundles some settings for automatic and manual channel installation.

Child lock

Set a PIN code to lock or unlock channels and set an age for watching rated programs.

Connect to network

Select to make connection to your wired network.

Network settings

Here you can change settings related to your Network.

Update software

This item is related to updating TV software.

Software settings

Here you can see the current software version.

8.2

Picture

Picture style

For easy picture adjustment, you can select a preset setting with **Picture style**.

- 1 While watching a TV channel, press **OPTIONS** to open the **Options** menu.
- 2 Select Picture and sound in the menu bar and select Picture style.
- 3 Select a style and press OK.

The available Picture styles are . . .

- Personal Your preferences made in Quick picture settings
- · Vivid Ideal for daylight viewing
- · Natural Natural picture settings
- · Movie Ideal for watching movies
- · Standard Factory standard settings
- · Photo Ideal for viewing photos

Adjust a Picture style

You can adjust a Picture style . . .

- 1 Select the style and press OK.
- 2 Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 3 Select **TV** settings, navigate to the individual setting and adjust it.
- 4 Press , repeatedly if necessary, to close the menu.

To return to the original Picture style values . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On – Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Picture style and select the style you want to reset.
- 3 Press Reset . The style is reset.

Vivid

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

To set the TV for Home use . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 3 Select Home and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

Picture settings

Colour

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

To adjust the colour . . .

1 - Professional Mode: Off **–** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Colour.
- 3 Press \blacktriangleright (right) and adjust the value

with \blacktriangle (up) or \blacktriangledown (down).

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

Contrast

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

To adjust the contrast . . .

- 2 Select TV settings > Picture > Contrast.
- 3 Press \blacktriangleright (right) and adjust the value with \blacktriangle (up) or \blacktriangledown (down).

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

Sharpness

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

To adjust the sharpness . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.

Professional Mode: On — Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Sharpness.
- 3 Press \blacktriangleright (right) and adjust the value with \blacktriangle (up) or \blacktriangledown (down).

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

Advanced picture settings

Colour settings

Colour enhancement

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

To adjust the level . . .

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > Picture > Advanced > Colour
- > Colour enhancement.
- 3 Press ▶ (right) and select Maximum, Medium, Minimum or Off. 4 Press ♠, repeatedly if necessary, to close the menu.

Colour temperature

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

To select a preset . . .

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > Picture > Advanced > ColourColour temperature.
- 3 Press ▶ (right) and select Normal, Warm or Cool. Select Custom if you want to set a colour temperature yourself.
- 4 Press , repeatedly if necessary, to close the menu.

Custom colour temperature

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

To set a custom colour temperature . . .

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > Picture > Advanced > Colour> Custom colour temperature.
- 3 Press ▶ (right).
- 4 Select a setting with the arrow keys. (WP is white point and BL is black level.)
- 5 Press OK to confirm a setting. You can also select

one of the presets in this menu.

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

Contrast settings

Contrast modes

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

To adjust the level . . .

- 1 Professional Mode: Off Press 🏫 and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > Picture > Advanced > Contrast > Contrast modes.
- 3 Press ▶ (right) and select Best picture, Best power, Standard or Off.
- 4 Press , repeatedly if necessary, to close the menu.

Dynamic contrast

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

To adjust the level . . .

1 - Professional Mode: Off **–** Press ♠ and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Advanced > Contrast > Dynamic contrast.
- 3 Press \blacktriangleright (right) and

select Maximum, Medium, Minimum or Off.

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

Brightness

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

To adjust the level . . .

1 - Professional Mode: Off **-** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

2 - Select TV settings > Picture > Advanced >

Contrast > Brightness.

3 - Press \blacktriangleright (right) and adjust the value with \blacktriangle (up) or \blacktriangledown (down).

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

Video contrast

With Video contrast, you can decrease the range of the video contrast. Video contrast is the setting intended for expert users.

To adjust the level . . .

1 - Professional Mode: Off **—** Press **^** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Advanced > Contrast > Video contrast.
- 3 Press ▶ (right) and adjust the value with ↓ (up) or ▼ (down).
- 4 Press ←, repeatedly if necessary, to close the menu.

Gamma

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

To adjust the level . . .

1 - Professional Mode: Off - Press • and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Advanced > Contrast > Gamma.
- 3 Press \blacktriangleright (right) and adjust the value with \blacktriangle (up) or \blacktriangledown (down).
- 4 Press , repeatedly if necessary, to close the menu.

Sharpness settings

Super resolution

Home Menu.

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

To switch on or off . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional

2 - Select TV settings > Picture >

Advanced > Sharpness > Super resolution.

3 - Press ▶ (right) and select On or Off.

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

Noise reduction

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

To adjust the noise reduction . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On - Enter the Professional Home Menu.

- 2 Select TV settings > Picture > Advanced > Sharpness > Noise reduction.
- 3 Press ▶ (right) and select Maximum, Medium, Minimum or Off.
- 4 Press , repeatedly if necessary, to close the menu.

MPEG artefact reduction

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

To reduce the MPEG artefacts . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On - Enter the Professional Home Menu.

2 - Select TV settings > Picture > Advanced > Sharpness > MPEG artefact reduction.

3 - Press ► (right) and select Maximum, Medium, Minimum or Off.
4 - Press ←, repeatedly if necessary, to close the menu.

Game or computer

You can switch the TV to the ideal picture setting for gaming or for using the TV as a computer monitor. There is a different setting for Game or Computer. If a device has a correct type set in the Source menu - Game console or Computer - the TV switches automatically to the ideal setting when you switch to the device. If you switch the setting manually, do not forget to switch it off when you switch to watching TV or another connected device.

To switch the setting manually . . .

- 1 Press \spadesuit and select **Setup** and press **OK**.
- 2 Select TV settings > Picture > Advanced
- > Activity style.
- 3 Select Game, Computer or TV. The setting TV returns to the picture settings for watching TV.

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

Location

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

To set the TV to Shop location . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Location and press OK.
- 3 Select **Shop** and press **OK**.
- 4 Press , repeatedly if necessary, to close the menu.

8.3

Sound

Sound style

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

- 1 While watching a TV channel, press **OPTIONS** to open the **Options** menu.
- 2 Select Picture and sound in the menu bar and select **Sound style**.
- 3 Select a Sound style and press OK.

The different Sound styles are . . .

- Personal Your personal choices made in Personalise picture and sound
- · Original Factory standard
- · News Ideal for speech
- · Movie Ideal for watching movies
- · Game Ideal for gaming
- · Music Ideal for listening to music

Adjust a Sound style

You can adjust a Sound style . . .

- 1 Select the style and press **OK**.
- 2 Professional Mode: Off Press A and select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

3 - Select **TV** settings, navigate to the individual setting and adjust it.

Press to close the menu to store your setting.

To return to the original Sound style values . . .

1 - Professional Mode: Off - Press name

select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Sound style and select the style you want to reset.
- 3 Press Reset . The style is reset.

Sound settings

Bass

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

To adjust the level . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.

Professional Mode: On — Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Bass.
- 3 Press \blacktriangleright (right) and adjust the value with \blacktriangle (up) or \blacktriangledown (down).
- 4 Press , repeatedly if necessary, to close the menu.

Treble

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

To adjust the level . . .

1 - Professional Mode: Off **–** Press **↑** and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Treble.
- 3 Press ▶ (right) and adjust the value

with \blacktriangle (up) or \blacktriangledown (down).

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

Surround mode

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

To set the surround mode . . .

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Surround mode.
- 3 Press ▶ (right) and select Stereo or Incredible surround.
- 4 Press , repeatedly if necessary, to close the menu.

Headphones volume

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

To adjust the volume . . .

- 1 Press **OPTIONS** and select **Picture and sound** in the menu bar.
- 2 Press **▼** (down) and select **Headphones volume** and press **OK**.
- 3 Press \triangle (up) or ∇ (down) to adjust the volume.
- 4 Press , repeatedly if necessary, to close the menu

Advanced sound settings

Auto volume levelling

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

To switch on or off . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.
- Professional Mode: On **–** Enter the Professional Home Menu.
- 2 Select TV settings > Sound > Advanced > Auto volume leveling.
- 3 Press ▶ (right) and select On or Off.
- 4 Press , repeatedly if necessary, to close the menu.

TV speakers

You can send the TV sound to a connected audio device – a Home Theatre System or audio system. With TV speakers, you select where you want to hear the TV sound and how you want to control it.

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

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

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

With EasyLink or EasyLink autostart selected, you can still switch to TV speakers or device speakers in the Picture and sound menu.

To set the TV speakers . . .

1 - Professional Mode: Off - Press A and

select Setup and press OK.

Professional Mode: On **–** Enter the Professional Home Menu.

- 2 Select TV settings > Sound > Advanced > TV speakers.
- 3 Press ▶ (right) and select Off, TV speakers, EasyLink or EasyLink autostart.
- 4 Press ←, repeatedly if necessary, to close the menu.

To switch speakers directly . . .

- 1 While watching TV, press **OPTIONS** and select **Picture and sound**.
- 2 Select **Speakers** and select **TV** or **Amplifier** (audio device).
- 3 Press ←, repeatedly if necessary, to close the menu

Clear sound

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

To switch on or off . . .

- 1 Professional Mode: Off Press A and select Setup and press OK.

 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > Sound > Advanced > Clear sound.
- 3 Press ▶ (right) and select On or Off.
- 4 Press , repeatedly if necessary, to close the menu.

HDMI ARC

If you do not need an Audio Return Channel (ARC) on any of the HDMI connections, you can switch the ARC signal off.

Audio Out format

With Audio Out format you can set the audio out signal of the TV to fit the sound processing capabilities of your Home Theatre System.

Audio Out levelling

With Audio Out leveling you can level the sound volume of the Home Theatre System with the volume of the TV when you switch over from one to another.

Audio Out delay

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

Audio Out offset

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

TV placement

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

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > General settings > TV placement and press OK.
- 3 Select On a TV stand or Wall mounted and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

8 4

Universal access

Switch on

With **Universal access** switched on, the TV is set for use for hearing and visually impaired people.

Switch on

If you did not switch on **Universal access** during the installation, you can still switch it on in **Setup**. To switch on Universal access . . .

- 1 Professional Mode: Off Press ↑ and select Setup and press OK.
 Professional Mode: On Enter the Professional Home Menu.
- 2 Select TV settings > General settings > Universal access and press OK.
- 3 Select On and press OK.
- 4 Press ←, repeatedly if necessary, to close the menu.

With Universal access switched on in Setup, the Universal access option is added in the Options menu.

Hearing impaired

Switch on

Digital TV channels can broadcast special audio commentary describing what is happening on screen. To be able to set the visually impaired audio and effects, you have to switch on Audio description first. Also, before you can switch on Audio description, you have to switch on Universal access.

Audio description

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

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

- 1 With Universal access switched on, press
 OPTIONS and select the Options tab in the menu bar.
- 2 Select Audio description and press OK.
- 3 Select On and press OK.

You can check if an audio commentary is available. In the Options menu, select **Audio language** and look for an audio language marked with a **6**+.

Speakers / Headphones

With Speakers / Headphones, you can select where you want to hear the audio commentary. On the TV speakers only, on the headphones only or on both.

To set Speakers / Headphones . . .

- 1 Press A and select Setup and press OK.
- 2 Select Channel settings > Languages > Audio description > Speakers / Headphones and press OK.
- 3 Select Speakers, Headphones or Speakers + headphones and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

Visually impaired

Mixed volume

You can mix the volume of the normal audio with the audio commentary.

To mix the volume . . .

- 1 Press **OPTIONS** and select **Universal access** in the menu bar.
- 2 Select Mixed volume and press OK.
- 3 Use the arrows up and down to set the slider bar.
- 4 Press **OK** to confirm.

Audio effect

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

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

- 1 Press \spadesuit and select **Setup** and press **OK**.
- 2 Select Channel settings > Languages > Audio description > Audio effects and press OK.
- 3 Select On or Off and press OK.
- 4 Press , repeatedly if necessary, to close the menu.

Speech

The audio commentary can also hold subtitles for the words which are spoken.

To switch on these subtitles (if available) . . .

- 1 Press \spadesuit and select **Setup** and press **OK**.
- 2 Select Channel settings > Languages > Audio description > Speech and press OK.
- 3 Select **Descriptive** (audio) or **Subtitles** and press **OK**.
- 4 Press , repeatedly if necessary, to close the menu.

Key beep

Key beep gives an audio feedback each time you press a key on the remote control. The volume of the beep is fixed.

To switch on Key beep . . .

- 1 Press **OPTIONS**, select **Universal access** and press **OK**.
- 2 Select Key beep and select On.

If Universal access does not appear in the Options menu, switch on **Universal access** in **Setup**.

TV guide

9

What you need

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

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

9.2

Using the TV guide

Open the TV guide

To open the TV guide, press GUIDE.

Press GUIDE again to close.



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

Tune to a programme

Switch to a programme

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

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

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

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

View programme details

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

Change day

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

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

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

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

Set a reminder

You can set reminders that alert you of the start of a programme with a message on screen.

- To set a reminder, select the programme in the schedule and press for Set reminder. The programme is marked with a clock.
- To cancel the reminder, press the **—** for **Clear** reminder.
- To view a list of all reminders you have set, press OPTIONS, and select All reminders.

Search by genre

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

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

Sources

10.1

Sources list

In the list of connections - the Source menu - you can find the devices connected to the TV. From this Source menu, you can switch to a device.

Sources menu

To open the Sources menu, press SOURCE.

To switch to a connected device, select the device with the arrows ◀ (left) or ▶ (right) and press OK. For some devices (HDMI-CEC devices), you can select an activity directly in the list underneath the device icon.

Select the device and select an activity and press OK. To close the Source menu without switching to a device, press SOURCE again.



10.2

From standby

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

Play

To switch on both disc player and TV from standby and start playing the disc or programme immediately, press II ▶ (play and pause) on the TV remote control.

The device should be connected with an HDMI cable and both TV and device must have HDMI CEC switched on.



Home Theatre System

You can switch on your Home Theatre System to listen to an audio disc or a radio channel and leave

the TV in standby.

To only switch on the HTS, with the TV in standby, press SOURCE on the TV remote control.



10.3

EasyLink

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

Timers and clock

11.1

Sleeptimer

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

To set the sleep timer . . .

1 - Press ♠ and select Setup* and press OK.

*Professional Mode : Off - Setup

*Professional Mode: On - Guest Menu

2 - Select TV settings* > General settings* > Sleep timer

*Professional Mode : Off **– TV settings** > **General** settings

*Professional Mode: On — Select Sleep timer. With the slider bar you can set the time to up to 240 minutes in increments of 30 minutes. If set to Off, the sleep timer is switched off. You can always switch off your TV earlier or reset the time during the countdown.

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

11.2

Clock

To know what time it is, press **CLOCK** on the remote control.

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

To correct the TV clock . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Clock
- > Auto clock mode, a nd select Country dependent.
- 3 Select **Daylight saving** and select the appropriate setting
- 4 Press ←, repeatedly if necessary, to close the menu

To set the TV clock manually . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Clock
- > Auto clock mode, a nd select Manual.
- 3 Select Day and Time to adjust.

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

11 3

Switch off timer

If you do not press a key on the remote control during a 4 hour period, or if the TV receives no input signal nor remote control commands for 10 minutes, the TV switches off automatically to save energy.

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

To deactivate the Switch off timer . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional Home Menu.

- 2 Select TV settings > General settings > Switch off timer and set the slider bar to Off.
- 3 Press , repeatedly if necessary, to close the menu

11.4

Alarm

Only available if Professional Mode: On.

An alarm can be set on the TV. The TV can wakeup on a defined alarm time.

To set the alarm follow following steps:

- 1 Press \spadesuit and select Guest menu and press OK.
- 2 Select Alarm. To set the alarm select On.
- 3 Select Alarm time and press OK. The time can be changed by \triangle or \blacktriangledown . Select On to program the alarm time that has been set.
- 4 A Wakeup volume can be set. Adjust the slider bar to set the desired volume level.
- 5 A Wakeup tune can be selected. There are 4 predefined tunes available to select.
- 6 Alternatively a **Wakeup channel** can be selected from the list.

Alternatively, alarm time can be set by pressing the ALARM button on the remote control.

<u>1</u>2

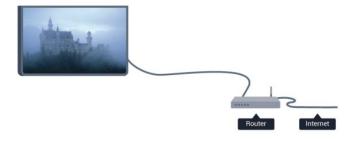
Network

12 '

Wired network

What you need

You need a network **router** to connect the TV to the Internet. Use a router with a high-speed (broadband) connection to the Internet.



File sharing

On this TV, you can open photos, music and videos stored on your computer. Use a recent version of media server software like Philips MediaManager*, Windows Media Player 11, Twonky™ or similar. Install the media server software on your computer and set it up to share your media files with the TV. Read the manual of the media server software for more information. This software must be running on your computer to view or play your files on TV.

* You can download the Philips MediaManager software from the Philips support site www.philips.com/support

Connect the router

To connect and setup the router follow steps 1 to 5.

- 1 Connect the router to the TV with a network cable (Ethernet cable**).
- 2 Make sure that the router is switched on.
- 3 Professional Mode: Off **-** Press ♠ and select **Setup** and press **OK**.

Professional Mode: On **–** Enter the Professional Home Menu.

- 4 Select Connect to network and press OK.
- 5 Select Wired and press OK.

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

Network configuration

If the connection fails, you can check the DHCP

setting of the router. DHCP should be set to **On**. Alternatively, if you are an advanced user and want to install your network with static IP addressing, set the TV to Static IP.

To set the TV to Static IP:

Professional Mode: Off − Press ♠ and

select **Setup** and press **OK**. Professional Mode: On **—** Enter the Professional

Home Menu

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

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

12.2

Network settings

To open the Network settings . . .

1 - Professional Mode: Off - Press A and select Setup and press OK.

Professional Mode: On - Enter the Professional Home Menu.

2 - Select Network settings and press OK.

· View network settings

All current network settings are shown here. The IP and MAC address, signal strength, speed, encryption method, etc.

- · Network settings
- Network type

Sets the network to Wired or Wireless.

- Network configuration

Sets the network configuration to DHCP or Static IP.

· Static IP configuration

If Static IP is selected in Network Settings menu, you can set all necessary static IP settings here.

· Reset Wi-Fi Miracast group

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

· Clear Internet memory

With Clear Internet memory, you can clear all Internet files stored on your TV. You clear your Philips Smart TV registration and parental rating settings, your video store app logins, all Smart TV app favourites, Internet bookmarks and history. Interactive MHEG applications can also save so-called 'cookies', on

your TV. These files will also be cleared.

Your photos, videos and music

13 1

From a USB connection or computer

What you need

You can view your photos or play your music and videos from a connected USB flash drive or USB Hard Drive. If you have a computer in your home network, you can view and play your files from your computer on the TV.

From a USB device

With the TV switched on, plug in a USB flash drive or USB Hard Drive to one of the USB connections. The TV detects the device and lists your files. If the list does not appear automatically, press SOURCE, select Browse USB and press OK.



Warning

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

Menu bar and sorting

With a USB device connected, the TV sorts the files by type. Navigate to the menu bar and select the type of file you are looking for.

If you browse files from a computer, you can only browse the files and folders as they are organized on the computer.

The menu bar

Navigate to the menu bar and select the type of file you want to watch or play.

Select Photos, Music or Videos.

Alternatively, you can open the Folders view and browse your folders to look for a file.

Sorting

To browse your photos by date, month, year or alphabetically by name, press — Sort . To browse your music by album, artist, genre or alphabetically by name, press — Sort . Videos are sorted alphabetically.

View photos

To view photos, select **p** Photos in the menu bar, select a photo thumbnail and press **OK**.

If there are several photos in the same folder, select a photo and press — Slide show to start a slide show of all photos in this folder.

To jump to the next or previous photo, press CH +or CH -.

To stop the slide show or close the photo, press II.

You can play music with a slide show.

Start the slide show after you started the music.

- 1 Select a song or a folder with songs and press **OK**.
- 2 Press CHANNEL GRID and select Photos .
- 3 Select a photo or a folder with photos and pressSlide show .

Info

To view info on a photo (size, creation date, file path, etc.), select a photo and press INFO.

Press again to hide the info.

Options

Press OPTIONS.

· Shuffle

Shows your photos in a random order.

Repeat

Plays the slide show continuously.

· Slide show speed

Sets the speed of the slide show.

· Slide show transition

Sets the style of the photo transitions.

To close Browse USB, press \spadesuit and select another activity.

Play music

To play music, select **JJ** Music in the menu bar, select a song and press OK.

If there are more songs in the same folder, press — Play all to play all songs in this folder.

To jump to the next or previous song,

press CH + or CH -.

To pause the music, press **OK**. Press **OK** again to continue.

To make a 10-second jump in a song or 10-second jump back, press \blacktriangleright or \blacktriangleleft .

To rewind or fast forward, press **→** or **◄**. Press the

keys several times to speed up – 2x, 4x, 8x, 16x, 32x. To stop the music playback, press \blacksquare (Stop).

If you press , the music keeps on playing.

Info

To view song info (title, artist, duration, etc.), select the song and press INFO.

Press again to hide the info.

Options

Press OPTIONS.

· Shuffle

Plays your music randomly.

Repeat

Plays the song once or continuously.

· Screen off

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

To switch off the screen, press OPTIONS, select **D** Eco settings in the menu bar, select Screen off and press OK. To switch the screen back on, press any key on the remote control.

To close Browse USB, press \spadesuit and select another activity.

Play videos

To play a video, select **Videos** in the menu bar, select a video and press **OK**.

If there are more videos in the same folder,

press — Play all to play all videos in this folder.

To jump to the next or previous

video, press CH + or CH -.

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

To make a 10-second jump forward or backward in a video, press \triangleright or \triangleleft .

To rewind or go fast forward, press \rightarrow or \triangleleft . Press the keys several times to speed up - 2x, 4x, 8x, 16x, 32x.

To stop the video playback, press II.

Info

To view info on a video (playhead position, duration, title, date, etc.), select the video and press INFO. Press again to hide the info.

Options

Press OPTIONS.

Subtitles

If available, you can switch subtitles On, Off or On during mute.

· Shuffle

Plays your videos in a random order.

Repeat

Plays a video once or continuously.

To close Browse USB, press \spadesuit and select another activity.

<u>14</u>

Specifications

14

Environmental

Saving energy

The Eco settings bundle the settings that help the environment.

Energy saving

This Picture style sets the picture in the most ideal energy conscious setting.

Screen off

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

Select **Screen off** and press **OK**. To switch the screen back on, press any key on the remote control.

Switch off timer

If you do not press a key on the remote control during a 4 hour period, or if the TV receives no signal for 10 minutes, the TV switches off automatically to save energy.

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

In addition to the Eco settings, your TV also has environmentally friendly technology with regard to power consumption.

Inactive devices off

Switch off connected EasyLink HDMI-CEC (Consumer Electronic Control) compliant devices that are inactive.

European energy label

The European Energy Label informs you on the energy efficiency class of this product. The greener the energy efficiency class of this product is, the lower the energy it consumes.

On the label, you can find the energy efficiency class, the average power consumption of this product in use and the average energy consumption for 1 year. You can also find the power consumption values for this product on the Philips website for your country at www.philips.com/TV

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 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 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.

14.2

Reception

- · Aerial input : 75 ohm coaxial (IEC75)
- · Tuner bands : Hyperband; S-Channel; UHF; VHF
- · DVB :
- For models xxHFL4010: DVB-T, DVB-C, DVB-T2
- Digital video playback : MPEG2 SD/HD (ISO/IEC 13818-2); MPEG4 SD/HD (ISO/IEC 14496-10)
- · Digital audio playback (ISO/IEC 13818-3)

Note: See selected countries on the TV type plate

Display

Type

· Diagonal screen size :

- 47 cm / 19 inch

· Display resolution: 1366x768p

19HFL4010W

Input resolution for HD/FHD TVs

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 480p - 60 Hz

· 800 x 600p - 60 Hz

· 1024 x 768p - 60 Hz

· 1280 x 768p - 60 Hz

· 1360 x 765p - 60 Hz

· 1360 x 768p - 60 Hz

· 1280 x 1024p - 60 Hz

· 1920 x 1080p - 60 Hz

14.4

Power

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

Power

Main adaptor: 100-240Vac +/-10%

 \cdot Ambient temperature : 0°C to 40°C

Standby power consumption : < 0.5W

• Power saving features : Energy saving, Screen off, Light sensor*, Switch off timer, Inactive devices off.

The power rating stated on the product typeplate is the power consumption for this product during normal household use (IEC 62087 Ed.2). The maximum power rating, stated between brackets, is used for electrical safety (IEC 60065 Ed. 7.2). 14.5

TV power information

DC Input:12Vdc, 19W Max.

14.6

Adaptor information

This external adaptor is a forming part of the device.

External Adaptor: FSP/FSP065-DHCM1 Input: 100-240Vac, 2.0-1.0A, 50-60Hz

Output: 12Vdc, 5.42A

14.7

Dimensions and weights

19HFL4010W

· without handle:

Width 445.7 mm - Height 292.8 mm - Depth 38.2 mm

- Weight ±2.38 kg

· with handle installed:

Width 445.7 mm - Height 330.7 mm - Depth 47.2 mm

- Weight ±2.64 kg

14.8

Wall mounting

· 19HFL4010W - VESA MIS-F 75x75, M4

Warning:

Follow all instructions provided with the TV mount. TP Vision Europe B.V. bears no responsibility for improper TV mounting that results in accident, injury or damage.

To prevent damage to cables and connectors, leave a gap of at least $5.5 \ \text{cm} \ / \ 2.2$ inches from the back of the TV.

Before you mount the TV on the wall, find the correct length of the screw. To find the length of the screw, add the thickness of your wall mount to the screw length (y), as shown in the graphic.

Connectivity

TV Rear

- 1x Antenna
- · 1x HDMI
- · Network LAN: RJ45
- · Bathroom speaker audio out

TV Side

- · 1x HDMI
- 1x USB 2.0
- · Headphones: Stereo mini-jack 3.5mm

14.10

Multimedia

Connections

· USB 2.0

Supported USB file systems

· FAT 16, FAT 32, NTFS

Playback formats

- Containers : 3GP, AVCHD, AVI, MPEG-PS, MPEG-TS, MPEG-4, Matroska (MKV), Quicktime (MOV, M4V, M4A), Windows Media (ASF/WMV/WMA)
- · Video Codecs : MPEG-1, MPEG-2, MPEG-4 Part 2,

MPEG-4 Part 10 AVC (H264), VC-1, WMV9

- Audio Codecs: AAC, HE-AAC (v1/v2), AMR-NB, Dolby Digital, Dolby Digital Plus, DTS 2.0 + Digital Out™, MPEG-1/2/2.5 Layer I/II/III (includes MP3), WMA (v2 to v9.2), WMA Pro (v9/v10)
- · Subtitles :
- Formats: SAMI, SubRip (SRT), SubViewer (SUB),
 MicroDVD (TXT), mplayer2 (TXT), TMPlayer (TXT)
- Character encodings: UTF-8, Central Europe and Eastern Europe (Windows-1250), Cyrillic (Windows-1251), Greek (Windows-1253), Turkish (Windows-1254), Western Europe (Windows-1252)
- · Image Codecs : JPEG
- · Limitations :
- Maximum supported total bit rate for a media file is 30Mbps
- Maximum supported video bit rate for a media file is 20Mbps.
- MPEG-4 AVC (H.264) is supported up to High Profile @ L4.1.
- VC-1 is supported up to Advanced Profile @ L3.

ESD regulations

This apparatus meets performance criteria B for ESD. In case the apparatus does not recover in file sharing mode due to electrostatic discharge, user interference is required.

Software

15

Software update

Update from USB

It might be necessary to update the TV software. You need a computer with an high-speed Internet connection and a USB memory device to upload the software on the TV. Use a USB memory device with 256MB free space. Make sure that write protection is switched off.

1 - To Start the update on TV

Professional Mode: Off – Press 🏫 and select Setup and press OK.

Professional Mode: On – Enter the Professional Home Menu.

2 - Identify the TV

Insert the USB memory into one of the USB connections of the TV.

Select **Start** and press **OK**. An identification file is written on the USB memory device.

3 - Download the TV software

Insert the USB memory into your computer. On the USB memory device, locate the file update.htm and double click it. Click on Send ID.

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. Do not place this file in a folder.

4 - 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 . . .

- · use the remote control
- · 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. At the end of the update, the message **Operation successful** appears on screen. Remove the USB memory device and press **Operation operation operati**

Do not . . .

- press () twice
- press the power switch on the TV

The TV switches itself off (for 10 seconds) and then back on again. Please wait.

The TV software has been updated. You can use the TV again.

To prevent an accidental update of the TV software, delete the autorun.upg file from the USB memory device.

15.2

Software version

To view the current TV software version . . .

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional Home Menu.

- 2 Select Software settings and press OK.
- 3 Select Current software info and see Release Version .
- 4 Press , repeatedly if necessary, to close the menu.

15.3

Open source software

This television contains open source software. TP Vision Europe B.V. hereby offers to deliver, upon request, a copy of the complete corresponding source code for the copyrighted open source software packages used in this product for which such offer is requested by the respective licences.

This offer is valid up to three years after product purchase to anyone in receipt of this information. To obtain the source code, please write in English to .

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

15.4

Open source license

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

This is a document describing the distribution of the source code used on the Philips TV, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain source code for this software can be found in the user manual.

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

Freetype (2.4.3)

FreeType is a software font engine that is designed to be small, efficient, highly customizable, and portable while capable of producing high-quality output (glyph images).

This piece of software is made available under the terms and conditions of the FreeType Project license, which can be found below.

Source: http://freetype.sourceforge.net

zlib (1.2.3)

The 'zlib' compression library provides in-memory compression and decompression functions, including integrity checks of the uncompressed data.

This piece of software is made available under the terms and conditions of the zlib license, which can be found below.

Source: http://www.zlib.net/

Fraunhofer AAC Ecnoder (3.3.3)

AAC Ecnoder.

Source: Android JB source code

unicode (3.2)

This library is used to perform UNICODE string manipulation.

This piece of software is made available under the terms and conditions of the ICU license, which can be found below.

Source: http://www.icu-project.org/

libpng (1.2.43)

PNG decoder.

This piece of software is made available under the terms and conditions of the libpng license, which can be found below.

Source: http://www.libpng.org/pub/png/libpng.html

libjpg (6b)

This library is used to perform JPEG decoding tasks. This piece of software is made available under the terms and conditions of the libjpg license, which can be found below.

Source: http://www.ijg.org/

libmng (1.0.10)

libmng -THE reference library for reading, displaying, writing and examining Multiple-Image Network Graphics.MNG is the animation extension to the popular PNG image-format.

This piece of software is made available under the terms and conditions of the libmng license, which can be found below.

Source:

http://sourceforge.net/projects/libmng/files/

u-Boot loader (1.3.4)

Used by boot loader and only linked with boot loader, GPL license.

This piece of software is made available under the terms and conditions of the u-Boot loader license, which can be found below.

Source: http://sourceforge.net/projects/u-boot/files/u-boot/U-Boot-1.1.4/u-boot-1.1.4.tar.bz2/download

Libcurl (7.21.7)

HTTP client; libcurl is a free and easy-to-use client-side URL transfer library, supporting FTP, FTPS, HTTP, HTTPS, SCP, SFTP, TFTP, TELNET, DICT, LDAP, LDAPS, FILE, IMAP, SMTP, POP3 and RTSP. libcurl supports SSL certificates, HTTP POST, HTTP PUT, FTP uploading, HTTP form based upload, proxies, cookies, user+password authentication (Basic, Digest, NTLM, Negotiate, Kerberos4), file transfer resume, http proxy tunneling and more!

This piece of software is made available under the terms and conditions of the Libcurl license, which can be found below.

Source: http://curl.haxx.se/

c-ares (1.7.4)

c-ares is a C library that performs DNS requests and name resolves asynchronously.

This piece of software is made available under the terms and conditions of the c-ares license, which can be found below.

Source: http://c-ares.haxx.se/c-ares-1.7.1.tar.gz

openssl (1.0.0d)

OpenSSL is an open source implementation of the SSL and TLS protocols. The core library (written in the C programming language) implements the basic cryptographic functions and provides various utility functions. Wrappers allowing the use of the OpenSSL library in a variety of computer languages are available.

This piece of software is made available under the terms and conditions of the 1.7.4 license, which can be found below.

Source:

http://www.openssl.org/source/openssl-1.0.0.tar.gz

Expat (2.01)

xml paser; Expat is an XML parser library written in C. It is a stream-oriented parser in which an application registers handlers for things the parser might find in the XML document (like start tags). An introductory article on using.

This piece of software is made available under the terms and conditions of the Expat license, which can be found below.

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

DirectFB include SAWMAN (1.4.0)

It is a software library for GNU/Linux/UNIX based operating system with a small memory footprint that provides graphics acceleration, input device handling and abstraction layer, and integrated windowing system with support for translucent windows and multiple display layers on top of the Linux framebuffer without requiring any kernel modifications.

This piece of software is made available under the terms and conditions of the DirectFB license, which can be found below.

Source: http://sourceforge.net/projects/jointspace/files/remote_applications_SDK/remote_spplications_SDK_v1.3.1/DirectFB141_source_1.3.1.7z/download

SAWMAN

SquashFS is a compressed read-only file system for Linux. SquashFS compresses files, inodes and directories, and supports block sizes up to 1 MB for greater compression. SquashFS is also the name of free/open software, licensed under the GPL, for accessing SquashFS filesystems.

Source: http://squashfs.sourceforge.net/

Linux Kernel (3.0)

The Linux kernel is an operating system kernel used by the Linux family of Unix-like operating systems. This piece of software is made available under the terms and conditions of the Linux Kernel license, which can be found below.

Source: http://www.kernel.org

SQLite (3.7.2)

SQLite is a in-process library that implements a selfcontained, serverless, zero-configuration, transactional SQL database engine.

This piece of software is made available under the terms and conditions of the SQLite license, which can be found below.

Source: http://www.sqlite.org/download.html

SquashFS (3.4)

SquashFS is a compressed read-only file system for Linux. SquashFS compresses files, inodes and directories, and supports block sizes up to 1 MB for greater compression. SquashFS is also the name of free/open software, licensed under the GPL, for accessing SquashFS filesystems.

This piece of software is made available under the terms and conditions of the SquashFS license, which can be found below.

Source: http://squashfs.sourceforge.net/

glibc (2.6.1)

Any Unix-like operating system needs a C library: the library which defines the "system calls" and other basic facilities such as open, malloc, printf, exit...The GNU C library is used as the C library in the GNU system and most systems with the Linux kernel

This piece of software is made available under the terms and conditions of the glibc license, which can be found below.

Source: http://www.gnu.org/software/libc/

mtd-utils (1)

The aim of the system is to make it simple to provide a driver for new hardware, by providing a generic interface between the hardware drivers and the upper layers of the system. Hardware drivers need to know nothing about the storage formats used, such as FTL, FFS2, etc., but will only need to provide simple routines for read, write and erase. Presentation of the device's contents to the user in an appropriate form will be handled by the upper layers of the system. This piece of software is made available under the terms and conditions of the mtd-utils license, which can be found below.

Source: http://www.linuxmtd.infradead.org/index.html

libusb (1.0.6)

This is the home of libusb, a library that gives user level applications uniform access to USB devices across many different operating systems. libusb is an open source project licensed under the GNU Lesser General Public License version 2.1.Many participants in the libusb community have helped and continue to help with ideas, implementation, support and improvements for libusb.

This piece of software is made available under the terms and conditions of the libusb license, which can be found below.

Source:

http://libusb.wiki.sourceforge.net http://www.libusb.org/

libusb-compat (0.1.3)

Library to enable user space application programs to communicate with USB devices.

This piece of software is made available under the terms and conditions of the libusb-compat license, which can be found below.

Source:

http://libusb.wiki.sourceforge.net/LibusbCompat0.1

NTFS-3G Read/Write Driver (2010.5.22)

NTFS-3G is an open source cross-platform implementation of the Microsoft Windows NTFS file system with read-write support. NTFS-3G often uses the FUSE file system interface, so it can run unmodified on many different operating systems. It is runnable on Linux, FreeBSD, NetBSD, OpenSolaris, BeOS, QNX, WinCE, Nucleus, VxWorks, Haiku, MorphOS, and Mac OS X It is licensed under either the GNU General Public License or a

either the GNU General Public License or a proprietary license. It is a partial fork of ntfsprogs and is under active maintenance and development. This piece of software is made available under the terms and conditions of the NTFS-3G Read/Write

Driver license, which can be found below.

Source: http://www.tuxera.com

WPA Supplicant (0.5.10 & 0.6.7)

These packages are used to provide WiFi access. The supplier for these tools is Atheros. These pieces of software are made available under the terms and conditions of the GPL v2 license, which can be found below.

This piece of software is made available under the terms and conditions of the WPA Supplicant license, which can be found below.

Source: http://hostap.epitest.fi/wpa_supplicant/

ntfsprogs (2.0.0)

Some useful tool for ntfs file sytem.

This piece of software is made available under the terms and conditions of the ntfsprogs license, which can be found below.

Source: http://sourceforge.net/projects/linux-ntfs

fuse (2.8.4)

Fuse is a simple interface for userspace programs to export a virtual filesystem to the linux kernel. This piece of software is made available under the terms and conditions of the fuse license, which can be found below.

Source: http://fuse.sourceforge.net/

libiconv (1.11.1)

This library provides an iconv() implementation, for use on systems which don't have one, or whose implementation cannot convert from/to Unicode. . This piece of software is made available under the terms and conditions of the libiconv license, which can be found below.

Source: http://ftp.gnu.org/pub/gnu/libiconv

electric-fence (2.1.13)

Used for memory corruption detection.

This piece of software is made available under the terms and conditions of the electric-fence license, which can be found below.

Source: http://perens.com/FreeSoftware/ElectricFence/electric-fence_2.1.13-0.1.tar.gz

liveMedia

When Wifi Display or streaming RtspPlayer are enabled.

This piece of software is made available under the terms and conditions of the electric-fence license, which can be found below.

Source: www.live555.com

QT (4.7.0)

Netflix skpe besttv pandora picasa? will use QT. This piece of software is made available under the terms and conditions of the QT license, which can be found below.

Source: http://qt.nokia.com/

e2fsprogs (1.41.14)

e2fsprogs provides the filesystem utilities for use with the ext2 filesystem, it also supports the ext3 and ext4 filesystems.

This piece of software is made available under the terms and conditions of the e2fsprogs license, which can be found below.

Source: http://e2fsprogs.sourceforge.net/

alsa (1.0.24.1)

Advanced Linux Sound Architecture (ALSA).

This piece of software is made available under the terms and conditions of the alsa license, which can be found below.

Source: http://www.alsa-project.org

lvm2 (2.02.89)

DM_VERITY.

This piece of software is made available under the terms and conditions of the lvm2 license, which can be found below.

Source.

ftp://sources.redhat.com/pub/lvm2/releases/

encfs (1.3.2)

A library provides an encrypted filesystem in userspace.

Source: http://www.arg0.net/encfs

boost (1.15.0)

A library provides free peer-reviewed portable C++ source libraries is used for encfs.

Source: http://www.boost.org

rlog (1.4)

A library that provides a flexible message logging facility for C programs and libraries is used for encfs. Source: http://www.arg0.net/rlog

iptables (1.4.15)

For Cross connection.

Source: http://www.netfilter.org/projects/iptables/

bash (3.2.48)

Bash is the shell, or command language interpreter, that will appear in the GNU operating system. Bash is an sh-compatible shell that incorporates useful features from the Korn shell (ksh) and C shell (csh).

It is intended to conform to the IEEE POSIX P1003.2/ISO 9945.2 Shell and Tools standard. It offers functional improvements over sh for both programming and interactive use.

In addition, most sh scripts can be run by Bash without modification.

Source: http://www.gnu.org/software/bash/

coreutils (6.9)

The GNU Core Utilities are the basic file, shell and text manipulation utilities of the GNU operating system.

These are the core utilities which are expected to exist on every operating system.

Source: http://www.gnu.org/software/coreutils/

findutils (4.2.31)

The GNU Find Utilities are the basic directory searching utilities of the GNU operating system. These programs are typically used in conjunction with other programs to provide modular and powerful directory search and file locating capabilities to other commands.

Source: http://www.gnu.org/software/findutils/

gawk (3.1.5)

If you are like many computer users, you would frequently like to make changes in various text files wherever certain patterns appear, or extract data from parts of certain lines while discarding the rest. To write a program to do this in a language such as C or Pascal is a time-consuming inconvenience that may take many lines of code.

The job is easy with awk, especially the GNU implementation: gawk.

Source: http://www.gnu.org/software/gawk/

grep (2.5.1a)

The grep command searches one or more input files for lines containing a match to a specified pattern. By default, grep prints the matching lines.

Source: http://www.gnu.org/software/grep/

gzip (1.3.12)

GNU Gzip is a popular data compression program originally written by Jean-loup Gailly for the GNU project. Mark Adler wrote the decompression part. Source: http://www.gnu.org/software/gzip/

inetutils (1.4.2)

Inetutils is a collection of common network programs.

Source: http://www.gnu.org/software/inetutils/

iputils (s20101006)

The iputils package is set of small useful utilities for Linux networking. It was originally maintained by Alexey Kuznetsov.

Source: http://www.skbuff.net/iputils/

module-init-tools (3.12)

Provides developer documentation for the utilities used by Linux systems to load and manage kernel modules (commonly referred to as "drivers"). Source: https://modules.wiki.kernel.org/index.php/Main_Page

ncurses (5.7)

The Ncurses (new curses) library is a free software emulation of curses in System V Release 4.0, and more.

It uses Terminfo format, supports pads and color and

multiple highlights and forms characters and functionkey mapping, and has all the other SYSV-curses enhancements over BSD Curses.

Source: http://www.gnu.org/software/ncurses/

net-tools (1.6)

The Net-tools?package is a collection of programs for controlling the network subsystem of the Linux kernel.

Source: http://www.linuxfromscratch.org/blfs/view/6. 3/basicnet/net-tools.html

procps (ps, top) (3.2.8)

procps is the package that has a bunch of small useful utilities that give information about processes using the /proc filesystem.

The package includes the programs ps, top, vmstat, w, kill, free, slabtop, and skill.

Source: http://procps.sourceforge.net/index.html

psmisc (22.13)

This PSmisc package is a set of some small useful utilities that use the proc filesystem. We're not about changing the world, but providing the system administrator with some help in common tasks. Source: http://psmisc.sourceforge.net/

sed (4.1.5)

sed (stream editor) isn't an interactive text editor. Instead, it is used to filter text, i.e., it takes text input, performs some operation (or set of operations) on it, and outputs the modified text.

sed is typically used for extracting part of a file using pattern matching or substituting multiple occurrences of a string within a file.

Source: http://www.gnu.org/software/sed/

tar (1.17)

GNU Tar provides the ability to create tar archives, as well as various other kinds of manipulation. For example, you can use Tar on previously created

archives to extract files, to store additional files, or to update or list files which were already stored.

Source: http://www.gnu.org/software/tar/

util-linux-ng (2.18)

Various system utilities.

Source: http://userweb.kernel.org/ $\mbox{$\mathbb{N}$}$ kzak/util-linuxng/

udhcpc (0.9.8cvs20050303-3)

Udhcpc is a very small?DHCP?client geared towards?embedded systems.

Source: http://udhcp.sourcearchive.com/downloads/0.9.8cvs20050303-3/

Libxml2 (2.7.8)

The "libxml2" library is used in AstroTV as a support for the execution of NCL application. This library was developed for the GNOME software suite and is

available under a "MIT" license. Source: http://www.xmlsoft.org

uriparser (0.7.7) For MPEG-DASH

Source: http://uriparser.sourceforge.net/

xerces-c++ (3.1.1) For MPEG-DASH

Source: http://xerces.apache.org/

webp (0.2.1) For Netflix

Source: https://code.google.com/p/webp/

wget (1.10.2)

GNU Wget is a free software package for retrieving files using HTTP, HTTPS and FTP, the most widely-used Internet protocols.

It is a non-interactive commandline tool, so it may easily be called from scripts,?cron?jobs, terminals without X-Windows support, etc.

Source:

http://ftp.gnu.org/gnu/wget/wget-1.10.2.tar.gz

wireless_tools (0.29)

The Wireless Tools (WT)?is a set of tools allowing to manipulate the Wireless Extensions.

They use a textual interface and are rather crude, but aim to support the full Wireless Extension.

Source: http://www.hpl.hp.com/personal/Jean_Tourri lhes/Linux/Tools.html

ezxml (0.8.6)

ezXML is a C library for parsing XML documents. Used inside Philips libraries.

Source: http://sourceforge.net/projects/ezxml/

SQLite (3.7.7.1)

SQLite is a in-process library that implements a selfcontained, serverless, zero-configuration, transactional SQL database engine.

Source: http://www.sqlite.org/download.html

AES (aes-src-29-04-09.zip)

Advanced Encryption Standard (AES) is a specification for the encryption of electronic data. Used inside Philips libraries.

Source: http://gladman.plushost.co.uk/oldsite/AES/

microhttpd (libmicrohttpd-0.9.9.tar.gz)

GNU libmicrohttpd is a small C library that is supposed to make it easy to run an HTTP server as part of another application.

The original download site for this software is: http://www.gnu.org/software/libmicrohttpd/This piece of software is made available under the terms and conditions of the LGPL v2.1 license

Source: http://ftp.gnu.org/gnu/libmicrohttpd/libmicrohttpd-0.9.9.tar.gz

yajl (lloyd-yajl-2.0.1-0-gf4b2b1a.tar.gz)

YAJL is a small event-driven (SAX-style) JSON parser written in ANSI C, and a small validating JSON generator. YAJL is released under the ISC license. The original download site for this software is: http://lloyd.github.com/yajl/This piece of software is made available under the terms and conditions of the

Source: http://pkgs.fedoraproject.org/repo/pkgs/yajl/lloyd-yajl-2.0.1-0-gf4b2b1a.tar.gz/df6a751e7797b9c2182efd91b5d64017/lloyd-yajl-2.0.1-0-gf4b2b1a.tar.gz

HMAC-SHA1 (0.1)

keyed-hash message authentication code (HMAC) is a specific construction for calculating a message authentication code (MAC) involving a cryptographic hash function in combination with a secret cryptographic key.

As with any MAC, it may be used to simultaneously verify both the data integrity and the authentication of a message.

Any cryptographic hash function, such as MD5 or SHA-1, may be used in the calculation of an HMAC; the resulting MAC algorithm is termed HMAC-MD5 or HMAC-SHA1 accordingly.

Source:

http://www.deadhat.com/wlancrypto/hmac_sha1.c

gSoap (2.7.15)

The gSOAP toolkit is an open source C and C++ software development toolkit for SOAP/XML Web services and generic (non-SOAP) C/C++ XML data bindings.

Part of the software embedded in this product is gSOAP software. Portions created by gSOAP are Copyright 2000–2011 Robert A. van Engelen, Genivia inc. All Rights Reserved.

Source: http://sourceforge.net/projects/gsoap2/

jquery (1.10.2)

jQuery is a fast and concise JavaScript Library that simplifies HTML document traversing, event handling, animating, and Ajax interactions for rapid web development.

Source: http://jquery.com/

Libupnp (1.2.1)

The Linux* SDK for UPnP* Devices (libupnp) provides developers with an API and open source code for building control points, devices, and bridges that are compliant with Version 1.0 of the UPnP Device Architecture Specification.

Source: http://upnp.sourceforge.net/

mDNSResponder (mDNSResponder-320.10.80) The mDNSResponder project is a component of Bonjour,

Apple's ease-of-use IP networking initiative:http://developer.apple.com/bonjour/

In our project, Bonjour is used for the automatic discovery of devices and services
Source: http://developer.apple.com/bonjour/

Troubleshooting and support

16.1

Troubleshooting

Channels

No digital channels found during the installation

See the technical specifications to make sure that your TV supports DVB-T or DVB-C in your country. Make sure that all cables are properly connected.

Previously installed channels are not in the channel list

Make sure that the correct channel list is selected.

General

The TV does not switch on

- Disconnect the power cable from the power outlet. Wait for one minute then reconnect it.
- Make sure that the power cable is securely connected.

Creaking sound at startup or switch off

When you are turning the TV on, off or to standby, you hear a creaking sound from the TV chassis. The creaking sound is due to the normal expansion and contraction of the TV as it cools and warms up. This does not affect performance.

TV does not respond to the remote control

The TV requires some time to start up. During this time, the TV does not respond to the remote control or TV controls. This is normal behaviour. If the TV continues to be unresponsive to the remote control, you can check if the remote control is working by means of a mobile phone camera. Put the phone in camera mode and point the remote control to the camera lens. If you press any key on the remote control and you notice the infra red LED flicker through the camera, the remote control is working. The TV needs to be checked.

If you do not notice the flickering, the remote control might be broken or its batteries are low.

This method of checking the remote control is not

This method of checking the remote control is not possible with remote controls which are wirelessly paired with the TV.

The TV goes back to standby after showing the Philips startup screen

When the TV is in standby, a Philips startup screen is

displayed, then the TV returns to standby mode. This is normal behaviour. When the TV is disconnected and reconnected to the power supply, the startup screen is displayed at the next startup. To switch on the TV from standby, press on the remote control or the TV

The standby light keeps on blinking

Disconnect the power cable from the power outlet. Wait 5 minutes before you reconnect the power cable. If the blinking reoccurs, contact Philips TV Consumer Care.

Wrong menu language

Change the language back to your language.

1 - Professional Mode: Off - Press ↑ and select Setup and press OK.
 Professional Mode: On - Enter the Professional

- 2 Select TV settings > General settings > Menu language and press OK.
- 3 Select the language you want and press OK.
- 4 Press **5**, repeatedly if necessary, to close the menu.

Picture

Home Menu.

No picture / distorted picture

- $\boldsymbol{\cdot}$ Make sure that the antenna is properly connected to the TV.
- Make sure that the correct device is selected as the display source.
- Make sure that the external device or source is properly connected.

Sound but no picture

· Make sure that the picture settings are set correctly.

Poor antenna reception

- $\boldsymbol{\cdot}$ Make sure that the antenna is properly connected to the TV.
- Loud speakers, unearthed audio devices, neon lights, high buildings and other large objects can influence reception quality. If possible, try to improve the reception quality by changing the antenna direction or moving devices away from the TV.
- If reception on only one channel is poor, fine-tune this channel.

Poor picture from a device

- · Make sure that the device is connected properly.
- · Make sure that the picture settings are set correctly.

Picture settings change after a while

Make sure that [Location] is set to [Home] . You can change and save settings in this mode.

A commercial banner appears

Make sure that [Location] is set to [Home].

Picture does not fit the screen

Change to a different picture format. Press FORMAT.

Picture format keeps changing with different channels

Select a non 'Auto' picture format.

Picture position is incorrect

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

Computer picture is not stable

Make sure that your PC uses the supported resolution and refresh rate.

Sound

No sound or poor sound quality

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

- · Make sure that the sound settings are correctly set.
- · Make sure that all cables are properly connected.
- Make sure that the volume is not muted or set to zero.
- Make sure that the TV audio output is connected to the audio input on the Home Theatre System. Sound should be heard from the HTS speakers.
- Some devices may require you to manually enable HDMI audio output. If HDMI audio is already enabled, but you still do not hear audio, try changing the digital audio format of the device to PCM (Pulse Code Modulation). Refer to the documentation accompanying your device for instructions.

Connections

HDMI

- Note that HDCP (High-bandwidth Digital Content Protection) support can delay the time taken for a TV to display content from an HDMI device.
- If the TV does not recognise the HDMI device and no picture is displayed, switch the source from one device to another and back again.
- If there are intermittent sound disruptions, make sure that output settings from the HDMI device are correct.
- If you use an HDMI-to-DVI adapter or HDMI-to-DVI cable, make sure that an additional audio cable is connected to AUDIO IN (mini-jack only), if available.

EasyLink does not work

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

No volume icon shown

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

Photos, videos and music from a USB device do not show

- Make sure that the USB storage device is set to Mass Storage Class compliant, as described in the storage device's documentation.
- Make sure that the USB storage device is compatible with the TV.
- Make sure that the audio and picture file formats are supported by the TV.

Choppy playback of USB files

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

16.2

Online help

To solve any Philips TV related problem, you can consult our online support. You can select your language and enter your product model number.

Go to www.philips.com/support.

On the support site you can find your country's telephone number to contact us as well as answers to frequently asked questions (FAQs). In some countries, you can chat with one of our colaborators 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.

16.3

Consumer Care / Repair

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

TV model number and serial number

You might be asked to provide the TV product model number and serial number. Find these numbers on the packaging label or on the type label on the back or bottom of the TV.

Warning

Do not attemp to repair the TV yourself. This may cause severe injury, irrepairable damage to your TV or void your warranty.

<u>17</u>

Safety and care

17.1

Safety

Important

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

Secure the TV from falling over

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

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

Risk of electric shock or fire

- Never expose the TV to rain or water. Never place liquid containers, such as vases, near the TV. If liquids are spilt on or into the TV, disconnect the TV from the power outlet immediately. Contact Philips TV Consumer Care to have the TV
- 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.
- 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.

17 2

Screen care

- Never touch, push, rub or strike the screen with any object.
- · Press the Cleaning button before cleaning.
- Clean the TV screen separately. Wipe the screen surface gently with a soft cloth dampened with a small amount of water. Substances such as alcohol, cleaning detergents, chemicals or household cleaners are strictly prohibited for screen cleaning. If needed for better cleaning, use monitor specific cleaner only.
- Clean the TV and frame with a soft damp cloth and wipe gently. You can use alcohol, but it is necessary to dilute the alcohol with water on 1:1 scale. Never use undiluted alcohol on the TV's parts as it may damage the TV. Damp the cloth with diluted solution before cleaning. Do not spray the diluted solution directly on the TV.
- To avoid deformations and colour fading, wipe off water drops as quickly as possible.
- Avoid stationary images as much as possible. Stationary images are images that remain onscreen for extended periods of time. Stationary images include onscreen menus, black bars, time displays, etc. If you must use stationary images, reduce screen contrast and brightness to avoid screen damage.

Terms of use, copyrights and licenses

<u>18 1</u>

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

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property of the display (within common industry standards) and is not a malfunction. CE compliance This product is in compliance with the essential requirements and other relevant provisions of Directives 2006/95/EC (Low Voltage), 2004/108/EC (EMC) and 2011/65/EU (ROHS). Compliance with EMF TP Vision Europe B.V. 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 Philips' 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. Philips is committed to develop, produce and market 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. Philips plays an active role in the development of international EMF and safety standards, enabling Philips to anticipate further developments in standardisation for early integration in its products.

18.2

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