

**PHILIPS**

*NeoPix Ultra 2<sup>TV+</sup>*

Home projector

# User Manual



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# Introduction

## Dear customer

Thank you for purchasing this projector.

We hope you enjoy this product and the many functions it offers!

## About this user manual

The quick start guide supplied with this product allows you to start using this product quickly and easily. Detailed descriptions can be found in the following sections of this user manual.

Read the entire user manual carefully. Follow all safety instructions in order to ensure proper operation of this product (**see General safety information, page 4**). The manufacturer accepts no liability if these instructions are not followed.

## Symbols used

### Notice



This symbol indicates tips that will help you use this product more effectively and easily.

### DANGER!



#### Danger of personal injury!

This symbol gives warning of danger of personal injury. Physical injury or damage can result from improper handling.

### CAUTION!

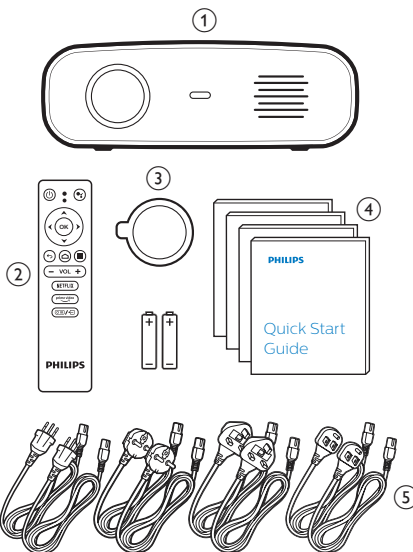


#### Damage to the product or loss of data!

This symbol gives warning of damage to the product and possible loss of data. Damage can result from improper handling.

## What's in the box

- ① NeoPix Ultra 2<sup>TV+</sup> projector (NPX644/INT)
- ② Android TV remote control with 2 AAA batteries
- ③ Lens cover
- ④ Quick Start Guide
- ⑤ AC power cable with plug x 4
- ⑥ HDMI cable
- ⑦ USB-C cable



## Customer service centre

The Support page, warranty card, and user manuals can be found here:

**Web:** [www.philips.com/support](http://www.philips.com/support)

### Support Contacts:

International Phone: +41 215 391 665

Please ask your provider for international call costs!

**Mail:** [philips.projector.eu@screeneo.com](mailto:philips.projector.eu@screeneo.com)

### Access our FAQ websites:

<https://support.philipsprojection.com>

<https://community.philipsprojection.com>

# 1 General safety information

Take note of all warning and safety notes indicated. Do not make any changes or settings that are not described in this user manual. Incorrect operation, and improper handling can lead to physical injury, damage to the product or loss of data.

## Setting up the product

This product is for indoor use only. Place the product securely on a stable, flat surface. To help avoid possible injuries to persons or damage to the product itself, position all cables in such a way that no one will trip over them.

Do not operate the product in damp rooms. Never touch the mains cable or the mains connection with wet hands.

Never operate the product immediately after moving it from a cold location to a hot location. When the product is exposed to such a change in temperature, moisture may condense on the crucial internal parts.

The product must have sufficient ventilation and must not be covered. Do not put the product in closed cabinets, boxes, or other enclosures when in use.

Protect the product from direct sunlight, heat, intense temperature fluctuations and moisture. Do not place the product in the vicinity of heaters or air conditioners. Observe the information on temperature listed in the technical data (**see Technical data, page 22**).

Prolonged operation of the product causes the surface to become hot. In case of overheating, the product automatically switches to standby mode.

Do not allow liquids to leak into the product. Turn off the product and disconnect it from the mains supply if liquids or foreign substances leaked into the product. Have the product inspected by an authorised service centre.

Always handle the product with care. Avoid touching the lens. Never place heavy or sharp objects on the product or on the power cable.

If the product gets too hot or emits smoke, shut it down immediately and unplug the power cable. Have your product checked by an authorised service centre. Keep the product away from open flames (e.g. candles).

### ⚠ DANGER!



#### **Risk of explosion with incorrect type of batteries!**

There is a risk of explosion if the wrong battery type is used.

Do not expose the batteries (battery pack or embedded batteries) to excessive heat such as sunshine, or open fire.

Under the following conditions, a layer of moisture can appear inside the product which can lead to malfunctions:

- if the product is moved from a cold to a warm area;
- after a cold room is heated;
- when the product is placed in a damp room.

Proceed as follows to avoid any moisture buildup:

- 1 Seal the product in a plastic bag before moving it to another room, in order for it to adapt to room conditions.
- 2 Wait one to two hours before you take the product out of the plastic bag.

The product should not be used in a very dusty environment. Dust particles and other foreign objects may damage the product.

Do not expose the product to extreme vibrations. This may damage the internal components.

Do not allow children to handle the product without supervision. The packing materials should be kept out of the hands of children.

For your own safety, do not use the product during thunderstorms with lightning.

## Repairs

Do not repair the product yourself. Improper maintenance can result in injuries or damage to the product. The product must be repaired by an authorised service centre.

Please find the details of authorised service centres on the warranty card supplied with this product.

Do not remove the type label from this product, as this will void the warranty.

## Power supply

Use only a power adapter which is certified for this product (**see Technical data, page 22**). Check whether the mains voltage of the power supply matches the mains voltage available at the setup location. This product complies with the voltage type specified on the product.

The power outlet shall be installed near the product and shall be easily accessible.

### CAUTION!



Always use the  button to turn the projector off.

Turn off the product and unplug from the power outlet before cleaning the surface (**see Cleaning, page 19**). Use a soft, lint-free cloth. Never use liquid, gaseous or easily flammable cleaners (sprays, abrasives, polishes, alcohol). Do not allow any moisture to reach the interior of the product.

### DANGER!

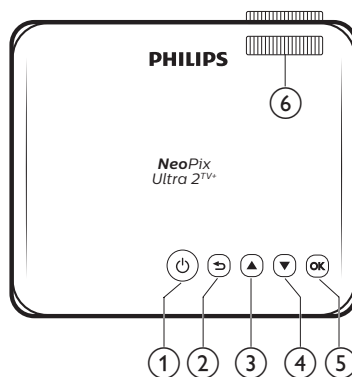






#### Risk of eye irritation!

This product is equipped with a high power LED (Light Emitting Diode), which emits very bright light. Do not look directly into the projector lens during operation. This could cause eye irritation or damage.

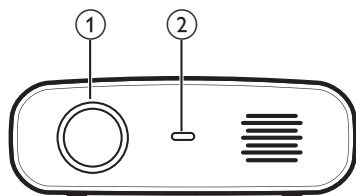
## 2 Overview

### Top view



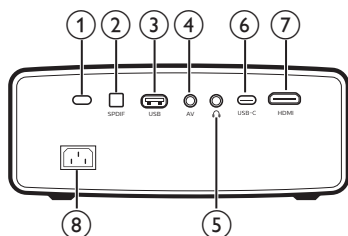
- ① 
  - Switch the projector on or to standby.
  - When the projector is on, the LED lights up in white. When the projector is on standby, the LED lights up in red.
- ② Return to the previous screen or exit the current screen.
- ③ 
  - Navigate menu options.
  - Increase volume.
- ④ 
  - Navigate menu options.
  - Decrease volume
- ⑤ **OK**
  - Select projector settings options.
  - Confirm a selection or entry.
- ⑥ **Focus adjustment knob**  
Adjust image sharpness.

## Front view



- ① Projection lens
- ② Front IR sensor

## Rear view



- ① Rear IR sensor
- ② SPDIF

Connect to the digital SPDIF audio input on a HiFi audio system.

### ③ USB port

- Connect to power USB devices like Amazon Fire TV stick®, Roku® streaming stick (it also works for mass storage if you install an app like VLC).
- Connect to a wired keyboard or mouse.

### ④ AV

3.5 mm audio/video input; connect to the analogue audio jacks and/or composite video jack on a playback device.

### ⑤

3.5 mm audio output; connect to external speakers or headphones.

### ⑥ USB-C

Connect to a USB-C output on a playback device.

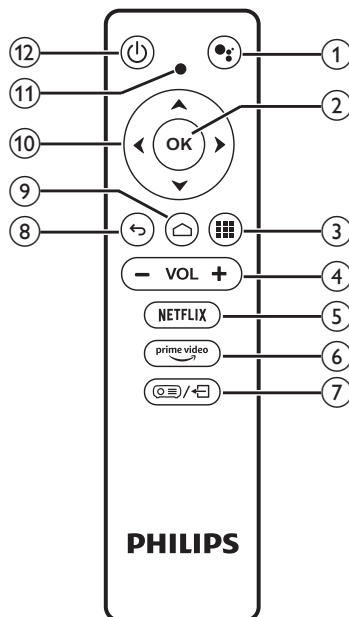
### ⑦ HDMI

Connect to an HDMI output on a playback device.

### ⑧ Power socket

Connect to an AC power supply.

## Remote control



### ①

Access the voice command or search function (Google Assistant).

### ② OK

Confirm a selection or entry, or turn an option on or off.

### ③

Display installed apps and access the app store.

### ④ VOL +/-

Increase or decrease the volume.

### ⑤ NETFLIX

Quick access to the Netflix service.

### ⑥ prime video

Quick access to the Amazon Prime Video service.

### ⑦

Access or exit the projector settings options.

### ⑧

Return to the previous screen or exit the current screen.

### ⑨

Access the Android TV home screen.

### ⑩ Navigation buttons (Up, Down, Left, Right)

- Navigate items on the screen.
- Press ◀▶ to move backward or forward

in the current video.

#### ⑪ LED indicator

- Each time you press a button on the remote control, the LED lights up briefly then off.
- Blue light indicates the remote control is in Android TV mode and you can use it to navigate the Android TV user interface.
- Red light indicates the remote control is accessing the projector settings options and you cannot use it to navigate the Android TV user interface.

#### ⑫

Switch the projector on or to standby.

## 3 Initial setup

### Notice



Make sure all devices are disconnected from their power supplies before establishing or changing any connections.

## Place the projector


Place the projector on a flat surface such as a table in front of the projection surface.

You can also install the projector in different configurations (see **Placement**, page 9).

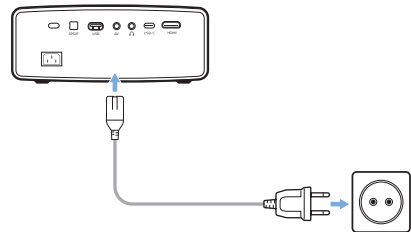
## Connect to power supply

### CAUTION!



Always use the  button to turn the projector on and off.

- 1 Select a supplied power cable with the correct plug (EU/UK/US/CH).
- 2 Connect one end of the power cable to the power socket on the back of the projector and the other end to an electrical socket.
  - The LED on the projector lights up in red.



## Prepare the remote control

### CAUTION!



The improper use of batteries can lead to overheating, explosion, risk of fire and injury. Leaking batteries can possibly damage the remote control.

Never expose the remote control to direct sunlight.

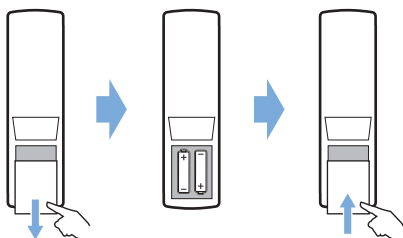
Avoid deforming, dismantling or charging the batteries.

Avoid exposure to open fire and water.

Replace empty batteries immediately.



Remove the batteries from the remote control if not in use for long periods of time.

- 1 Open the battery compartment.
- 2 Insert the supplied batteries (type AAA) with correct polarity (+/-) indicated.
- 3 Close the battery compartment.



- When using the remote control with infrared signals, point the remote control at the IR sensor on the projector, and make sure there is no obstacle between the remote control and the IR sensor.

## Power on and set up the projector

- 1 Press  to turn on the projector. The LED on the projector turns from red to white.
- To turn off the projector, press  twice. The projector enters standby mode and its LED turns from white to red. To fully shut down the projector, disconnect the power cable from the electrical socket.
- The distance between the projector and the projection surface determines the actual screen size.


## Screen size adjustment

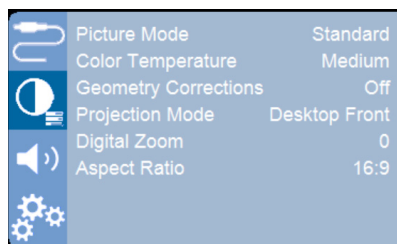
The projection screen size (or size of images) is determined by the distance between the lens of the projector and the projection surface.

This projector has a projection distance of 80 cm to 200 cm, and thus creates a screen size of 20" to 120".

## Digital zooming

You can use the digital zoom to reduce the screen size.

- 1 Press  to access the projector settings options and select *Digital Zoom*.



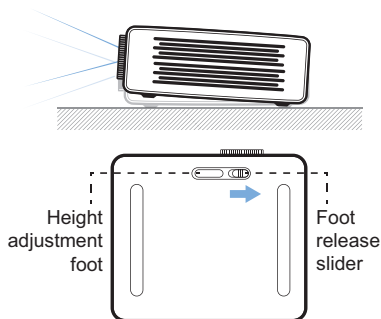
- 2 Press  to adjust the screen size.

## Screen height adjustment

You can adjust the screen height when placing the projector on a flat surface such as a table.

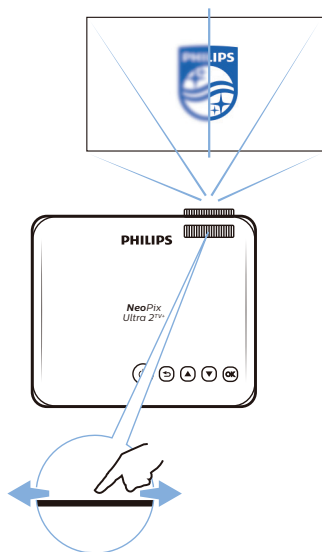
- 1 Find the height adjustment foot and the foot release slider on the bottom of the projector.  
To unlock the height adjustment foot, push the foot release slider in the direction of the arrow shown below and hold the slider. Then the foot will extend outwards when the bottom of the projector points downwards.  
Adjust the length of the foot when the foot is unlocked and extends outwards.
- 2 Release the slider to lock the foot when the desired screen height is reached.





## Image focus adjustment

To adjust image focus, turn the focus adjustment knob at the top of the projector.

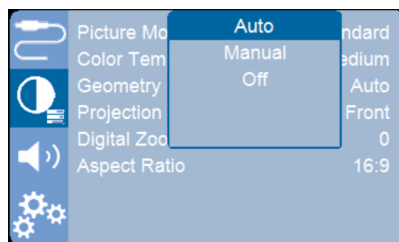


## Image shape adjustment

### Auto correction

You can turn on auto keystone correction to automatically make the image rectangular.

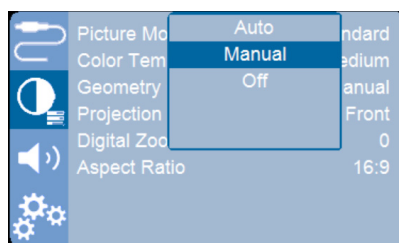
- 1 Press / to access the projector settings options and select *Geometry Corrections - Auto*.



### Manual correction

You can manually correct the keystone and make the image rectangular.

- 1 Press / to access the projector settings options and select *Geometry Corrections - Manual*.



- 2 On the image shape adjustment screen, press the **OK** button on the remote control to switch between different angles, and press the navigation buttons on the remote control to adjust image shape.

## Placement

You can install the projector in four different configurations. Follow the guidelines below when installing the projector.

### Notice

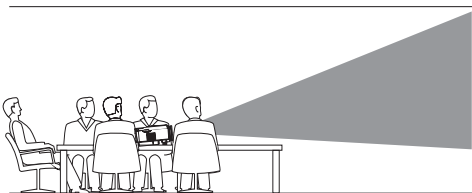
For overhead mounting on ceiling, purchase a projector mount recommended by an installation professional and follow the instructions that come with the mount.

Before mounting on the ceiling, make sure the ceiling can support the weight of the projector and mounting kit.

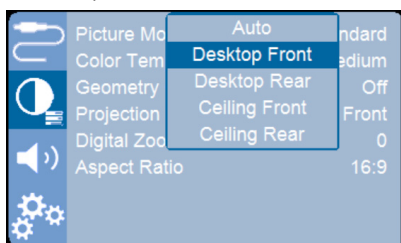
For ceiling installation, this product must be securely attached to the ceiling in accordance with the installation instructions. An improper ceiling installation may result in accident, injury or damage.

## Desktop front

- 1 Place the projector on a table in front of the projection screen. This is the most common way to position the projector for quick setup and portability.

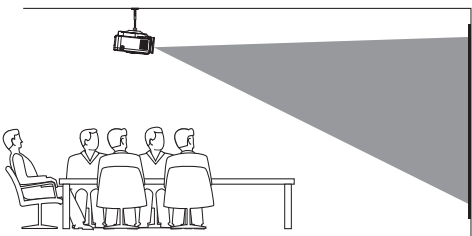


- 2 The projector automatically adjusts for the correct projection orientation.  
If the projection orientation is incorrect, press / to access the projector settings options and select *Projection Mode - Desktop Front*.



## Ceiling front

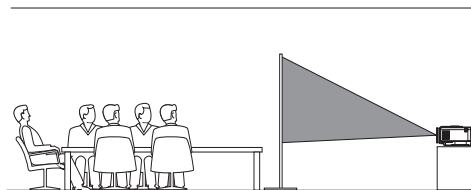
- 1 Mount the projector on the ceiling with upside up in front of the projection screen. A projector mount is required to mount the projector on the ceiling.



- 2 The projector automatically adjusts for the correct projection orientation.  
If the projection orientation is incorrect, press / to access the projector settings options and select *Projection Mode - Ceiling Front*.

## Desktop rear

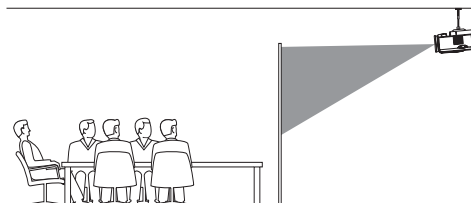
- 1 Place the projector on a table behind the projection screen. A special rear projection screen is required.



- 2 The projector automatically adjusts for the correct projection orientation.  
If the projection orientation is incorrect, press / to access the projector settings options and select *Projection Mode - Desktop Rear*.

## Ceiling rear

- 1 Mount the projector on ceiling with upside up behind the projection screen. To mount the projector on the ceiling behind the screen, a projector mount and a special rear projection screen are required.



- 2 The projector automatically adjusts for the correct projection orientation.  
If the projection orientation is incorrect, press / to access the projector settings options and select *Projection Mode - Ceiling Rear*.

# Set up Android TV

When you turn on the projector for the first time or after it was reset to its factory default settings, Android TV will start and prompt you to set it up by making some basic settings.

After the setup, Android TV will sign in to your Google account and connect to a Wi-Fi network.



## What you need

- A Wi-Fi internet connection
- A Google account

## Step 1: Pair the remote control with the projector

Follow the on-screen instructions to pair the remote control with the projector.

After the pairing, the Welcome screen appears and you can use this remote control to navigate the on-screen user interface of Android TV and initiate voice commands or search queries.

**Tip:** Press /  on the remote control to switch to Android TV mode if the buttons on the remote control are invalid for Android TV navigation.

## Step 2: Select the display language

To select the display language for Android TV, press the down or up navigation button on the remote control to select your preferred language and press the **OK** button to confirm.


**Note:** The default display language is **English (United States)** and not all languages are available.


## Step 3: Set up your Android TV

There are 2 options to set up your Android TV:

- Quick Start with an Android phone
- Set up with the remote control

### Set up with Quick Start

- 1 When your Android TV says, “Quickly set up your TV with your Android phone?”, use the remote control to choose **Continue**.
- 2 Ensure your Android phone has the Google app  installed and is connected to a Wi-Fi network.

- 3 On your phone, open the Google app  and sign in if you haven't already.
- 4 Type or say “set up my device.”
- 5 Follow the instructions on your phone until you get a code. Enter the code on your Android TV.
- 6 On your phone, tap the name of your Android TV when it shows up.
- 7 To finish setup, follow the instructions on your Android TV screen.

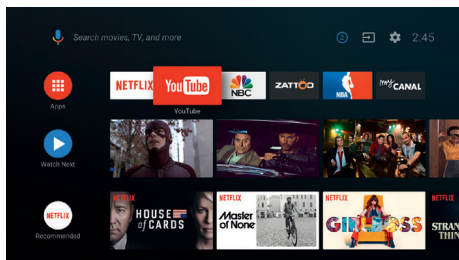
**Tip:** After the setup, your Android TV automatically signs in to your Google Account and connects to the same Wi-Fi network as your phone.

### Set up with the remote control

- 1 When your Android TV says, “Quickly set up your TV with your Android phone?”, use the remote control to choose **Skip**.
- 2 Connect your Android TV to a Wi-Fi network. **Note:** Your Android TV may need some time to update after it is connected to the internet.
- 3 Choose **Sign in**.
- 4 Sign in to your Google Account.
- 5 To finish setup, follow the on-screen instructions.

## 4 Use Android TV

You will see the Android TV home screen similar to the one below after completing the setup.



The Android TV home screen is the jumping-off point for starting all activities on your Android TV entertainment device. On this screen, you can browse for shows and movies to watch. You'll also find the shows and movies you've started, suggested videos, and personalized recommendations.

Android TV offers you various features, such as:

- Watch a wide range of movies and shows from across your favourite apps.
- Stream music from music apps.
- Get apps from Google Play.
- Play online games from Google Play Games.
- Voice input for commands and universal search across multiple services.

### Navigate Android TV

You can use the dedicated Android TV remote control to navigate the on-screen user interface of Android TV and initiate voice commands or search queries.

- Press / on the remote control to switch to Android TV mode if the buttons on the remote control are invalid for Android TV navigation.
- Press on the remote control to access the Android TV home screen.
- Press on the remote control to display the installed apps and access the app store.

- Press on the remote control to access voice search function.

## Configure Android TV

On the home screen (press ), you can navigate to select in the upper right corner of the screen and access various Android TV related settings, e.g. apps/privacy/security management, picture and sound settings (see **Change Android TV settings, page 16**).

## Use a wired keyboard/mouse

- Connect the USB plug of your wired mouse or keyboard to the **USB** port on the projector.
- Use the keys on the keyboard for screen navigation, selection and text input, just like the keyboard operation with a computer.
- Use the wheel and left button on the mouse for navigation and selection. Press the right button on the mouse to return to the previous screen.

## Use a Bluetooth device

You can pair a Bluetooth device (keyboard, mouse, gamepad, speaker, etc.) with the projector. After completing the pairing, you can use the Bluetooth device with your Android TV.

To pair a Bluetooth device, follow the steps below:



- 1 On your Android TV, go to the home screen.
- 2 Select in the upper right corner of the screen.
- 3 Select **Remotes & Accessories** and then **Add accessory**. On your screen, you'll see a list of nearby Bluetooth devices.
- 4 Put your Bluetooth device in pairing mode. The device will be added to the on-screen list.
- 5 Select your Bluetooth device.
- 6 When your Android TV says, "Pair with this device?", choose **Pair**. The device will be paired within a few seconds.


## Cast content to Android TV

Your Android TV has Chromecast built-in. This allows you to cast content (e.g. videos, photos and music) from a mobile device (Android or iOS device) to your Android TV.


**Important:** You can only cast from the latest version of a Chromecast-enabled app or a Chrome browser on a device connected to the same Wi-Fi network as your Android TV.

To start casting, follow the steps below:

- 1 Connect your device to the same Wi-Fi network as your Android TV.
- 2 Open the app that has the content you want to cast.
- 3 In the app, find and select Cast .
- 4 On your device, select the name of your Android TV.
- 5 When Cast  changes color, you're successfully connected.

To stop casting, on your device, select Cast  and then **Disconnect**.

### Notice


 For better casting performance, use a 5GHz Wi-Fi network.  
Copy-protected (DRM) content cannot be cast.

**Tip:** For more tips about using Android TV, visit <https://support.google.com/androidtv>.

Google, Google Play, YouTube, Android TV and other marks are trademarks of Google LLC. Google Assistant is not available in certain languages and countries.

## 5 Connect to playback devices

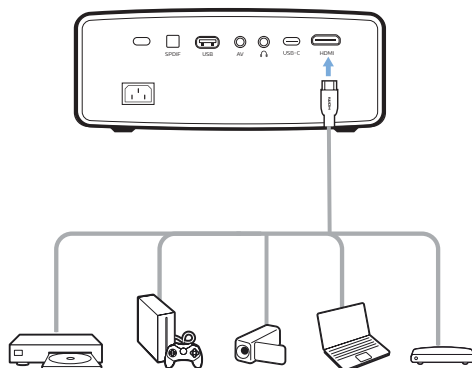
### Notice



 Make sure all devices are disconnected from their power supplies before establishing or changing any connections.

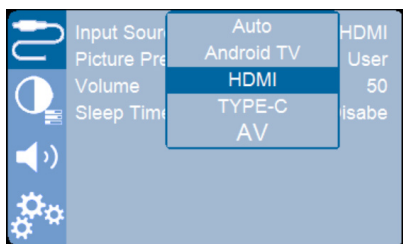
## Connect to devices through HDMI

You can connect a playback device (e.g. a Blu-ray player, gaming console, camcorder, digital camera or PC) to the projector through HDMI connection. With this connection, images are shown on the projection screen, and audio is played on the projector.

- 1 Using the supplied HDMI cable, connect the **HDMI** port on the projector to the HDMI output port on a playback device.



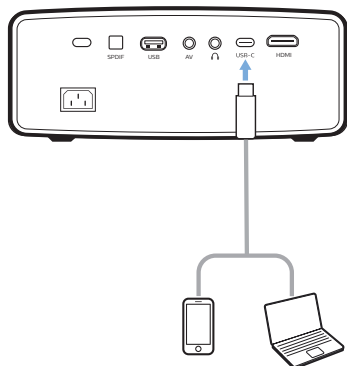
- 2 The projector automatically switches to HDMI input when an HDMI connection is made. The projection screen shows images. If the projection screen does not show images, select HDMI input manually. Press /  to access the projector settings options and select *Input Source - HDMI*.





## Connect to devices through USB-C

You can connect a playback device (e.g. a mobile phone or PC) to the projector through USB-C connection. With this connection, images are shown on the projection screen, and audio is played on the projector.

- 1 Using the supplied USB-C cable, connect the **USB-C** port on the projector to the USB-C output port on a playback device.

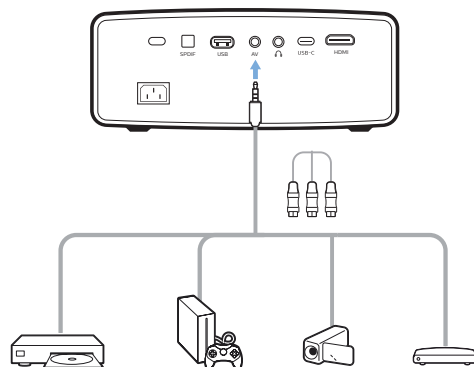


- 2 The projector automatically switches to USB-C input when an USB-C connection is made. The projection screen shows images. If the projection screen does not show images, select USB-C input manually. Press /  to access the projector settings options and select *Input Source* - *TYPE-C*.



## Connect to devices through AV

You can connect a playback device (e.g. a DVD player, gaming console, camcorder or digital camera) to the projector through AV connection. With this connection, images are shown on the projection screen, and audio is played on the projector.

- 1 Using a RCA cable with 3.5 mm plug (not included in the box), connect the **AV** jack (3.5 mm) on the projector to the analogue audio output jacks (red and white) and/or composite video output jack on a playback device.



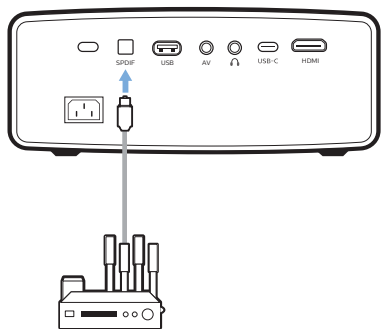
- 2 The projector automatically switches to AV input when an AV connection is made. The projection screen shows images.

If the projection screen does not show images, select AV input manually. Press /  to access the projector settings options and select *Input Source* - *AV*.

## Connect to devices through SPDIF

Connect a digital device (e.g. a home cinema system or sound bar) to the projector through SPDIF connection. With this connection, audio is streamed to the connected digital device.

- 1 Using an SPDIF optical cable (not included in the box), connect the SPDIF connector on the projector to the SPDIF input on a digital device.
  - The SPDIF input on a digital device might be labeled OPTICAL or OPTICAL IN.



- 2 To output audio to the external device, make sure external speaker output is activated. Press / to access the projector settings options and select **Audio Output - SPDIF**.



## Connect to external speakers or headphones

You can connect external speakers or headphones to the projector. With this connection, audio from the projector is played through the external speakers or headphones.

### **⚠ DANGER!**



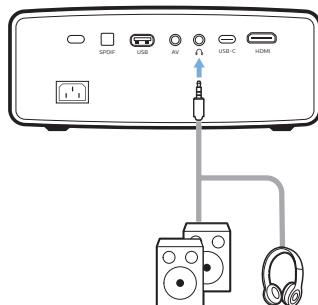
#### **Danger of hearing damage!**

Before connecting the headphones, turn down the volume on the projector.

Do not use the projector over a longer time at high volume – especially when using headphones. This could lead to hearing damage.

- 1 Using a 3.5 mm audio cable (not included in the box), connect the jack on the projector to the analogue audio input (3.5 mm jack, or red and white jacks) on external speakers. Or connect the jack on the projector to headphones.

- The internal speakers of the projector are deactivated automatically when external speakers or headphones are connected to the projector.





- 2 After connecting the speakers or headphones, press the volume control buttons on the remote control to adjust the volume to the desired level.

# 6 Change settings

This section helps you change the settings of the following two systems:

- Android TV
- Projector

## Change Android TV settings

- 1 On the home screen (press ) use the **Navigation buttons** on the remote control to select  in the upper right corner and then press the **OK** button to access various setting options.
- 2 Use the **Navigation buttons** and the **OK** button to select and change settings.

### Wi-Fi settings

Go to *Network & Internet* to connect the projector to a Wi-Fi network. Use the pop-up virtual keyboard or voice input to input letters and digits.

### Google account settings

Go to *Accounts & Sign In* to sign in or add a Google account.

### Language settings

Go to *Device Preferences - Language* to select a language for on-screen menus.

### Date and time settings

Go to *Device Preferences - Date & time* to access the following settings.

- Automatically update date and time, or manually set date, time and time zone.

### Keyboard settings

Go to *Device Preferences - Keyboard* to access various settings for keyboard.

### Bluetooth settings

Go to *Remotes & Accessories* to pair the projector with the projector's remote control, or a Bluetooth keyboard/mouse/gamepad/speaker.

### Apps settings

Go to *Apps* to access the following settings.

- View all the installed and system apps, and the storage used by each app.
- Set various permissions for the installed apps, e.g. location, contacts, camera, microphone, phone and SMS.
- Set security and restrictions for app installation.
- Check an app's version, storage used, cache size, etc.
- Clear an app's cache, disable or uninstall an app, view an app's permissions, etc.

### Display settings

Go to *TV settings - Display* to access the following settings.

- *Screen resolution*: Select a screen resolution to best support your video.
- *Screen position*: Scale down the projection image.

### Sound options

#### Internal speaker

Go to *Device Preferences - Sound* to access the following settings.

- *System Sound*: Turn the system sound on or off.
- *Surround Sound*: Enable or disable surround sound. You can let Android TV automatically select the formats supported by the projector or manually select the formats.

#### Audio output

Go to *TV settings - Audio Output* to access the setting below.

- *Dolby DRC Mode*: Select a DRC (Dynamic Range Compression) mode for reducing dynamic range of sound output. You can therefore watch movies without having to constantly readjust the volume with the remote control.

### Display Netflix activation code

- Go to *TV settings - Netflix ESN* to display the Netflix activation code.

### Factory reset Android TV Dongle

- 1 Go to *Device Preferences - About - Factory reset* and select *Factory reset*.
- 2 Follow the on-screen instructions to start factory resetting the built-in Android TV



Dongle.

## Notice



A factory reset erases all your personal information and downloaded apps and you can't reverse this action.

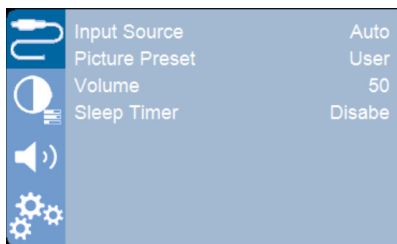
## Other system settings

Go to *Device Preferences* to access the following settings.

- **About:** View information about, update, or reset the built-in Android TV Dongle.
- **Storage:** Check the total, used and available space of the internal storage and removable storage.
- **Home screen:** Customize and organize the home screen.
- **Google Assistant:** Select the active Google account and customize Google Assistant's behaviour.
- **Chromecast built-in:** View information about Chromecast.
- **Screen saver:** Set the type of screen saver and how soon to activate the screen saver or put the built-in Android TV Dongle to sleep.
- **Location:** Check your location status and view the recent location requests.
- **Usage and Diagnostics:** Choose whether you want the built-in Android TV Dongle to automatically send diagnostic information to Google.
- **Accessibility:** Configure a variety of accessibility options, including captions and text to speech.
- **Reboot:** Restart the built-in Android TV Dongle.

## Change projector settings

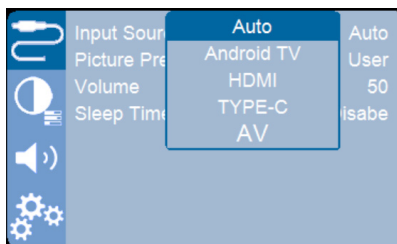
- 1 Press / on the remote control to access the projector settings options.
- 2 Use the navigation buttons and the **OK** button to select an option.
- 3 Press / or / to select a value.
- 4 Press the **OK** button to make the change.  
**Note:** For some options such as Digital Zoom and brightness, the change takes effect once you select a different value.
- 5 Press / to exit the projector settings options.



## Input source selection

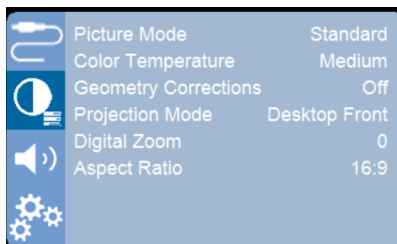
Go to *Input Source* to access the following settings.

- **Auto:** Automatically switch to the correct input source.
- **Android TV:** Select this when no playback device is connected.
- **HDMI:** Select this when an HDMI device is connected.
- **TYPE-C:** Select this when a USB-C device is connected.
- **AV:** Select this when an AV device is connected.



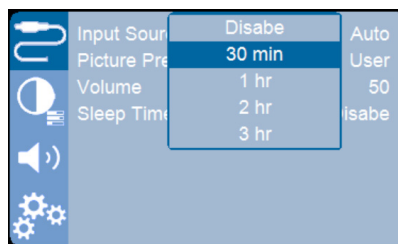
## Image options

You can access the following image setting options.



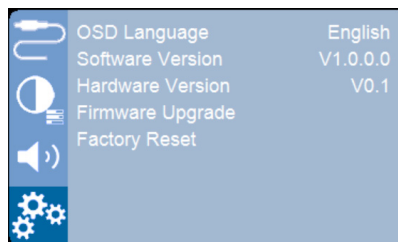
- **Picture Mode:** Select a predefined color brightness setting for picture and video display, or select *User* to customize color values on contrast, brightness, color, tint and sharpness.

- **Color Temperature:** Set to *Warm* to enhance hotter colors such as red; set to *Cool* to make picture bluish; set to *Medium* for a moderate color temperature.
- **Geometry Corrections:** Select an option to correct the keystone and make the image rectangular.
  - *Auto:* Enable or disable auto correction of the image shape.
  - *Manual:* Manually correct the image shape.
  - *Off:* Disable correction of the image shape.
- **Projection Mode:** Adjust the projection to the correct position based on different installations of the projector.
- **Digital Zoom:** Scale down the projection image.
- **Aspect Ratio:** Toggles between the available aspect ratios (16:9 and 4:3).



## Other options

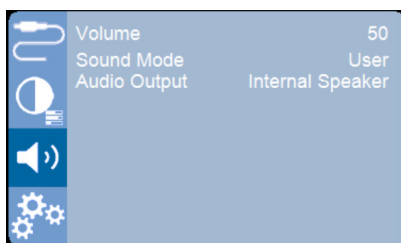
You can also access the following options.



- **OSD Language:** Select a language for on-screen menus.
- **Software Version:** Check software version of this product.
- **Hardware Version:** Check hardware version of this product.
- **Firmware Upgrade:** Software update via a USB device (**see Update software through USB, page 19**).
- **Factory Reset:** Restore the product to its factory default settings.

## Sound options

You can access the following sound setting options.



- **Volume:** Adjust volume of the projector.  
**Note:** You must press **VOL +/-** to adjust volume.
- **Sound Mode:** Select a preset sound effect or select *User* to manually adjust bass and treble.
- **Audio Output:** Switch the audio output between *Internal Speaker* and *SPDIF*. Select *SPDIF* if you want to output audio through **SPDIF** connection to a digital device (e.g. home cinema system or AV receiver).

## Scheduled shutdown

Go to *Sleep Timer* to select a period of time after which the projector turns off automatically. The default value is **Disable**.

# 7 Maintenance

## Cleaning

### DANGER!



#### Instructions for cleaning!

Use a soft, lint-free cloth. Never use liquid or easily flammable cleansers (sprays, abrasives, polishes, alcohol, etc.). Do not allow any moisture to reach the interior of the projector. Do not spray the projector with any cleaning fluids.

Wipe over the surfaces gently. Be careful that you do not scratch the surfaces.

## Cleaning the lens

Use a soft brush or lens cleaning paper for cleaning the lens of the projector.

### DANGER!



#### Do not use any liquid cleaning agents!

Do not use any liquid cleaning agents for cleaning the lens, to avoid damaging the coating film on the lens.

## Update software

The latest software for the projector can be found on [www.philips.com/support](http://www.philips.com/support) for you to get the best features and support from the projector.

Before you update the software of the projector, check the current software version. To learn how to do so, **see Other options, page 18.**

### CAUTION!

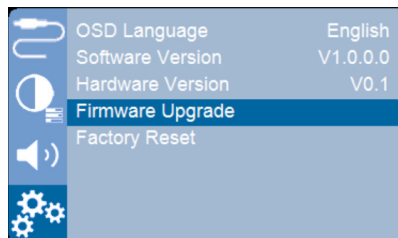


Do not turn off the projector or remove the USB flash drive during a software update.

## Update software through USB

- 1 Check the latest software version on [www.philips.com/support](http://www.philips.com/support). Find your product (model number: NPX644/INT), and locate 'Software and drivers'.
- 2 Download the zipped software file, then unzip and save it in the root directory of the USB flash drive.

- 3 Connect the USB flash drive (FAT32 formatted) to the projector.
- 4 Press / to access the projector settings options and select *Firmware Upgrade*.








- 5 Follow the on-screen instructions to complete the update.

# 8 Troubleshooting

## Power cycling

If a problem occurs and you cannot resolve it using the instructions in this user manual, try the following steps to resolve the problem.

- 1 Turn the projector off by pressing  twice.
- 2 Wait at least ten seconds.
- 3 Turn the projector on by pressing  once.
- 4 If the problem persists, contact our technical service center or your dealer.

Problems	Solutions
The projector cannot be turned on.	<ul style="list-style-type: none"><li>• Disconnect and reconnect the power cable, and try to turn the projector on again.</li></ul>
The projector cannot be turned off.	<ul style="list-style-type: none"><li>• Press and hold  longer than ten seconds. If this does not work, disconnect the power cable.</li></ul>
The remote control does not work.	<ul style="list-style-type: none"><li>• The remote control is not paired with the projector. Pair the remote control with the projector (<b>see Step 1: Pair the remote control with the projector, page 11</b>).</li><li>• The remote control is not in Android TV mode for Android TV menu navigation. Press  on the remote control to switch the remote control to Android TV mode (if the remote control is paired with the projector). When the remote control is in Android TV mode, the LED on the remote control flashes blue once each time you press a button on the remote control.</li><li>• Check the batteries of the remote control.</li></ul>
No sound output to the connected digital device.	<ul style="list-style-type: none"><li>• Check the cables to the external device.</li><li>• Check that the sound output is activated on the projector. Press  on the remote control to access the projector settings options and select <i>Audio Output - SPDIF</i>.</li></ul>
No image from the external HDMI device.	<ul style="list-style-type: none"><li>• Check if the correct HDMI input is selected.</li><li>• Disconnect the HDMI cable or switch off the HDMI device.</li><li>• Wait <b>three</b> seconds.</li><li>• Reconnect the HDMI cable or switch on the HDMI device again.</li></ul>
No sound from external HDMI output device.	<ul style="list-style-type: none"><li>• On the HDMI output device, set the audio setting to Multichannel (Raw data) &amp; Stereo (PCM).</li></ul>
No sound when you connect your computer via HDMI cable.	<ul style="list-style-type: none"><li>• Check that the sound is activated on the computer.</li></ul>
Cannot stream video from an app on my mobile phone.	<ul style="list-style-type: none"><li>• Make sure the correct setup is made and the app is Chromecast-enable (<b>see Cast content to Android TV, page 13</b>).</li></ul>

Problems	Solutions
When I view videos, the sound or the picture is sometimes distorted or the sound is not synchronized to the picture.	<ul style="list-style-type: none"> <li>• The available WiFi bandwidth is insufficient for sending the video flawlessly from the smartphone to the projector. This can happen if one or more WiFi networks operate in the same frequency range nearby. Certain IoT devices (e.g. ZigBee enabled devices) also operate in this frequency range.</li> <li>• Your smartphone is not fast enough to compress the data and send it simultaneously over WiFi.</li> </ul>
The temperature of the projector's surface is warm.	<ul style="list-style-type: none"> <li>• For this projector it is normal to generate moderate heat during operation.</li> </ul>
The projector turns itself off.	<ul style="list-style-type: none"> <li>• When the projector is running for a long period of time, the surface becomes hot.</li> <li>• Check that the power cable is connected correctly.</li> </ul>
What to do if the projector does not work when connecting to a notebook PC?	<ul style="list-style-type: none"> <li>• Check that the HDMI cable is plugged in correctly.</li> <li>• Make sure that the notebook PC has been switched to projector display.</li> </ul>

# 9 Appendixes

## Technical data

### Technology/optical

Display technology .....	LCD
Light source .....	LED
Color space .....	100% REC 709
Resolution .....	1920 × 1080 pixels
LED lifetime .....	over 30,000 hours
Contrast ratio .....	3000:1
Aspect ratio .....	16:9
Throw ratio .....	1.4:1
Screen size (diagonal) .....	20" to 120"
Screen distance .....	80 cm - 200 cm / 24" - 60"
Keystone correction .....	automatic (vertical) or manual (vertical and horizontal)
Projection modes .....	front, rear, front, ceiling
Focus adjustment .....	manual
Digital zoom .....	yes (60-100%)
Auto rotate .....	yes

### Sound

Built-in speakers .....	2 x 10W
Surround sound .....	yes
Built-in powerful DSP .....	yes

### Connection

Wi-Fi .....	802.11a/b/g/n/ac, 2.4+5GHz, Chromecast built in
Bluetooth .....	connection for remote control, keyboard, mouse, gamepad, earphones, etc.
USB .....	x1
HDMI .....	x1
USB-C .....	x1
AV in .....	x1
Audio output .....	SPDIF (optical out) 3.5 mm headphone jack

### Power source

Power consumption .....	operating: 100 W standby: 0.3 W
Power supply .....	100-240V~, 50/60Hz

### Apps

Pre loaded apps .....	Android TV™ / full catalog of apps
-----------------------	------------------------------------

### Internal 4K Android TV™

CPU .....	Amlogic S905Y2
Operating system .....	Android™ 10.0
DRAM .....	DDR 2GB
Flash .....	eMMC 8GB

### Product details

Dimensions (W × D × H) .....	391 x 351 x 203 mm
Weight .....	4.3 kg
Operating temperature .....	5 °C - 35 °C
Storage temperature .....	< 60 °C

### Package content

1. NeoPix Ultra 2<sup>TV+</sup> projector
2. Smart remote control with mic
3. Power cables (EU, UK, US, CH)
4. HDMI cable
5. USB-C cable
6. Lens cover
7. AAA batteries for the remote control
8. Quick Start Guide
9. Warranty card

### Model

NPX644/INT
EAN: 7640186961042
UPC: 793565993459

# CE statement

- The product shall only be connected to a USB interface of version USB 2.0 or higher.
- Adapter shall be installed near the equipment and shall be easily accessible.
- The operating temperature of the EUT can't exceed 35°C and shouldn't be lower than 5°C.
- The plug is considered as disconnect device of adapter.
- The UNII Band 5150-5250 MHz is for indoor use only.
- The device complies with RF specifications when the device is used at 20 cm from your body.

Hereby, Screeneo Innovation SA declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU.



The Declaration of Compliance can be consulted on the site [www.philips.com](http://www.philips.com).

Frequency bands	Maximum output power
BT EDR (EIRP)	9.09 dBm
BT BLE (EIRP)	4.85 dBm
Wi-Fi 2.4GHz (EIRP)	17.88 dBm
Wi-Fi 5GHZ (EIRP)	17.89 dBm

# FCC statement

## 15.19 Labeling requirements.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## 15.21 Information to the user.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## 15.105 Information to user.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

During operation, the separation distance between the user and the antenna shall be at least 20 cm. This separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements.

FCC ID: 2ASRT-NPX644/INT

# Canada regulatory compliance

This device complies with Industry Canada CAN ICES-3 (B)/NMB-3(B)

**RSS-Gen & RSS-247 statement:** This device complies with Industry Canada RSS standard(s). Operation is subject to the following two conditions:

- 1 This device may not cause interference, and
- 2 This device must accept any interference, including interference that may cause undesired operation of the device.

**RF Radiation Exposure statement:** The device meets the exemption from the routine evaluation limits in section 2.5 of RSS102 and users can obtain Canadian information on RF

exposure and compliance.

This device should be installed and operated with a minimum distance of 7.8 inches (20 centimetres) between the device and your body.

## Other notice

Preservation of the environment as part of a sustainable development plan is an essential concern of Screeneo Innovation SA. The desire of Screeneo Innovation SA is to operate systems respecting the environment and consequently it has decided to integrate environmental performances in the life cycle of these products, from manufacturing to commissioning use and elimination.



**Packaging:** The presence of the logo (green dot) means that a contribution is paid to an approved national organisation to improve package recovery and recycling infrastructures. Please respect the sorting rules set up locally for this kind of waste.

**Batteries:** If your product contains batteries, they must be disposed of at an appropriate collection point.



**Product:** The crossed-out waste bin symbol on the product means that the product belongs to the family of electrical and electronic equipment. In this respect, the European regulations ask you to dispose of it selectively:

- At sales points in the event of the purchase of similar equipment.
- At the collection points made available to you locally (drop-off centre, selective collection, etc.).

In this way you can participate in the reuse and upgrading of Electrical and Electronic Equipment Waste, which can have an effect on the environment and human health.

The paper and cardboard packaging used can be disposed of as recyclable paper. Have the plastic wrapping recycled or dispose of it in the non-recyclable waste, depending on the requirements in your country.

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**NeoPix Ultra 2<sup>TV+</sup>**

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**EN**