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Streamium

NP2900



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PHILIPS

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1 Important

Safety

Know these safety symbols



This 'bolt of lightning' indicates uninsulated material within your unit may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

The 'exclamation mark' calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems. **WARNING:** To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.

CAUTION: To prevent electric shock, fully insert the plug. (For regions with polarized plugs: To prevent electric shock, match wide blade to wide slot.)

Information for USA & Canada:

- ① Read these instructions.
- ② Keep these instructions.
- ③ Heed all warnings.
- ④ Follow all instructions.
- ⑤ Do not use this apparatus near water.
- ⑥ Clean only with dry cloth.

- ⑦ Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- ⑧ Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- ⑨ For countries with a polarized mains, do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- ⑩ **Caution:** To prevent electric shock, match the wide blade of the plug to the wide slot, fully insert:



- ⑪ Protect the power cord from being walked on or pinched, particularly at plugs.
- ⑫ **Battery usage CAUTION** to prevent battery leakage which may result in bodily injury, property damage, or damage to the unit:
 - Install all batteries correctly, + and - as marked on the unit.
 - Do not mix batteries (old and new or carbon and alkaline, etc.).
 - Remove batteries when the unit is not used for a long time.
- ⑬ Apparatus shall not be exposed to dripping or splashing.
- ⑭ Do not place any sources of danger on the apparatus (e.g. liquid filled objects, lighted candles).

- ⑮ Only use attachments/accessories specified by the manufacturer.
- ⑯ Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- ⑰ Unplug this apparatus during lightning storms or when unused for long periods of time.
- ⑱ Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- ⑲ This product may contain lead and mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: www.eiae.org.

Hearing Safety



Listen at a moderate volume:

Using headphones at a high volume can impair your hearing. This product can produce sounds in decibel ranges that may cause hearing loss for a normal person, even for exposure less than a minute. The higher decibel ranges are offered for those that may have already experienced some hearing loss. Sound can be deceiving. Over time your hearing 'comfort level' adapts to higher volumes of sound. So after prolonged listening, what sounds 'normal' can actually be loud and harmful to your hearing. To guard against this, set your volume to a safe level before your hearing adapts and leave it there.

To establish a safe volume level:

Set your volume control at a low setting.

Slowly increase the sound until you can hear it comfortably and clearly, without distortion.

Listen for reasonable periods of time:

Prolonged exposure to sound, even at normally 'safe' levels, can also cause hearing loss.

Be sure to use your equipment reasonably and take appropriate breaks.

Be sure to observe the following guidelines when using your headphones.

Listen at reasonable volumes for reasonable periods of time.

Be careful not to adjust the volume as your hearing adapts.

Do not turn up the volume so high that you can't hear what's around you.

You should use caution or temporarily discontinue use in potentially hazardous situations.

Do not use headphones while operating a motorized vehicle, cycling, skateboarding, etc.; it may create a traffic hazard and is illegal in many areas.

2 Mount NP2900 to a wall

! Caution

- Risk of product damage! Always consult professional personnel to safely mount the product to a wall.

! Warning

- Risk of injury! Ensure that no supply ducts such as gas, water or electricity are harmed when you drill the holes.

What's supplied in the mounting kit

- 1 x mounting bracket

What else you'll need

- Suitable screws and wall anchors for each of the holes in the provided mounting bracket
- electric drill
- screwdriver

Remove the stand:

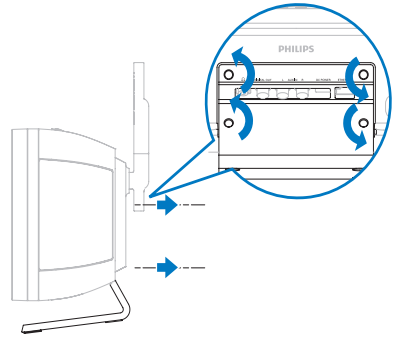
- 1 Use a screwdriver to remove the screws of the stand.

Keep the screws for the wall mounting bracket!

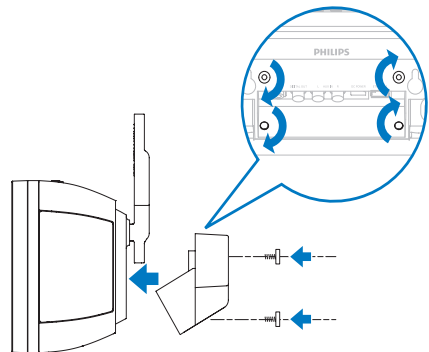
Mount NP2900:

- 1 Align the bracket in the chosen location on a wall. Use a pencil to mark the drilling positions.
- 2 Drill the holes as marked.
- 3 Fix suitable screws (not provided) and wall anchors (not provided) to the holes in the wall.

- 4 Use a screwdriver and fasten the bracket to the NP2900 with the screws that you removed from the stand as shown.



- 5 Hook / mount NP2900 in place as shown.



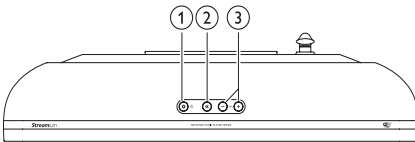
3 Your NP2900

Congratulations on your purchase and welcome to Philips!

To fully benefit from the support that Philips offers, register your product at www.philips.com/welcome.

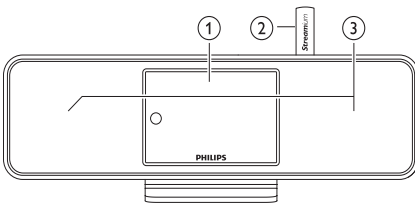
Overview

Top view



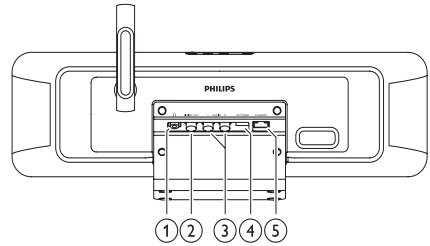
- ① ⏻ (On / Standby / Eco standby)
- ② 🔇 (mute the sound)
- ③ +VOL - (adjust the volume)

Front view



- ① Display
- ② Wi-Fi antenna
- ③ Loudspeakers

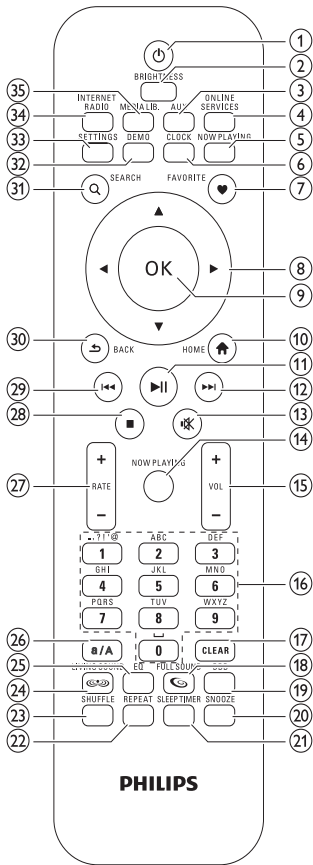
Rear view



- ① 🎧 headphone jack
- ② DIGITAL OUT (black) jack
- ③ AUX IN L / R (red/white) jacks
- ④ POWER SUPPLY jack
- ⑤ ETHERNET jack

Remote control

You can control NP2900 with the remote control.



- ① **⏻** (On / Standby)
- ② **BRIGHTNESS** (adjust display illumination)
- ③ **AUX** (select external source)
- ④ **ONLINE SERVICES** (go to optional online services menu)
- ⑤ **NOW PLAYING** (go to current play screen)
- ⑥ **CLOCK** (activate time display)
- ⑦ **FAVORITE** (mark current station as favorite)
- ⑧ **▲▼◀▶** (navigate)
- ⑨ **OK** (confirm)
- ⑩ **HOME** (go to Home menu)
- ⑪ **▶||** (play/pause current file / SuperPlay™ current list)
- ⑫ **▶|** (skip to next file)
- ⑬ **🔊** (mute/unmute sound)
- ⑭ **NOW PLAYING** (go to current play screen)
- ⑮ **+VOL -** (increase/decrease play volume)
- ⑯ **Alphanumeric buttons**
- ⑰ **CLEAR** (press to delete last character entry / press and hold to delete whole line entry)
- ⑱ **FULLSOUND** (activate/deactivate FullSound™)
- ⑲ **DBB** (activate/deactivate Dynamic Bass Boost)
- ⑳ **SNOOZE** (stop alarm sound for 15 minutes)
- ㉑ **SLEEP TIMER** (toggle through sleep timer options)
- ㉒ **REPEAT** (toggle through repeat play options)
- ㉓ **SHUFFLE** (activate/deactivate random order play)
- ㉔ **LIVINGSOUND** (deactivate/activate LivingSound™)
- ㉕ **EQ** (toggle through preset equalizer options)
- ㉖ **a/A** (change shift for alphanumeric entry)

- ②7 +RATE — (increase/decrease rating* of current music)
- ②8 ■ (stop)
- ②9 ⏮ (skip to previous file / clear last entry)
- ③0 BACK ↶ (go back to previous screen)
- ③1 SEARCH (search files)
- ③2 DEMO (activate demo play)
- ③3 SETTINGS (go to Settings menu)
- ③4 INTERNET RADIO (go to Internet radio menu)
- ③5 MEDIA LIB. (go to Media library menu)



Note

- *Rating current music is available only for music services that support rating.

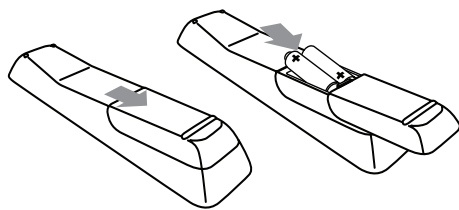
4 Prepare

Install remote control batteries



Caution

- Risk of explosion! Keep batteries away from heat, sunshine or fire. Never discard batteries in fire.
- Risk of decreased battery life! Never mix different brands or types of batteries.
- Risk of product damage! When the remote control is not used for long periods, remove the batteries.



Position NP2900



Caution

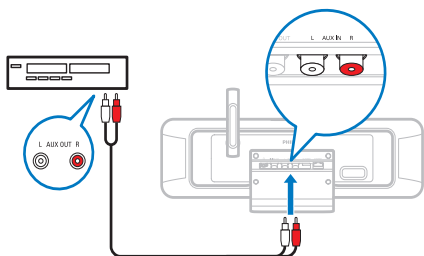
- Risk of product damage! Place NP2900 on a surface that is level, flat, and strong enough to support the weight of NP2900.

5 Connect

Connect external audio devices

You can play music from an external appliance that is connected to the red and white **AUX IN** jacks of NP2900.

- 1 Consult the user manual of the external appliance to connect the audio cable (sold separately) to the audio output jack of the external appliance.
- 2 Connect the other end of the audio cable (sold separately) to the **AUX IN L / R** jacks of NP2900.



- 3 On the remote control of NP2900 press **AUX**.
- 4 Operate the controls of the external appliance to play music.

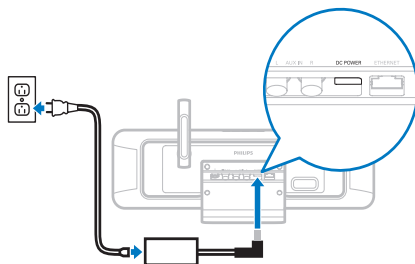
Connect AC power



Warning

- Risk of product damage! Ensure that the power supply voltage corresponds to the voltage printed on the back or the underside of the product.

- 1 Connect NP2900 to the power supply



- 2 Continue with the steps in chapter **First-time setup**.



Note


- The type plate information is located at the back or at the underside of the product.


6 Turn On and Switch to Active standby / Eco standby

You can select from the following status options:


- **On** (the full display and the remote control are active, button LED is off)
- **Active standby** (the clock display and the remote control are active, button LED is red)
- **Eco standby** (the display and the remote control are deactivated, button LED is off)

In status **On** or **Active standby**,

1 press the  on the remote control to toggle NP2900 between **Active standby** and **On**.

2 press and hold the  on NP2900 to switch to **Eco standby**.

In status **Eco standby**,

1 press the  button on NP2900 or on the remote control to turn the NP2900 **On**.




Note

- In stop (idle) mode, if no buttons are pressed for 20 minutes, NP2900 switches to Active standby.

7 First-time setup

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

When you connect NP2900 to the power supply for the first time, NP2900 displays the prompt for the language selection.

- 1 Select the language and confirm.
↳ NP2900 displays the prompt for the optional demo play.

You have two options:


- View the demo.
- Complete the first-time setup.



Tip

- After the first-time set-up, you can change the language in the Settings menu.

View the demo

- 1 Select “[Yes, show me the demo]”, to view the demo.
↳ The demo plays continuously until you exit the demo play.
- 2 To exit the demo play, press .




Note

- NP2900 remains in first-time setup status until you select **[No]** to decline the demo play.
- You can start the demo play again with the **DEMO** button on the remote control or in the Settings menu of NP2900.

First-time connection to home network

After you select **[No]** to decline to view the demo, NP2900 prompts you to select your location / time zone. NP2900 also reminds you to register NP2900 at www.philips.com/welcome and to install the PC software. This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

- 1 Select the location / time zone and confirm.
↳ NP2900 shows the prompt for the network connection.
- 2 Select **[Yes]**, to create a connection to the network.
↳ NP2900 shows the prompt for the network setup (if no network has been set up yet).
↳ Select **[No]** to exit the setup and go to the Home menu.
- 3 Continue with one of the following options:
 - First-time setup: **Wireless network connection with automatic IP address**
This setup requires the following:
 - A wireless access point or wireless router with broadband Internet access
 - Manual entry of your encryption key (for encrypted network connections only)
 - First-time setup: **Wireless network connection with static IP address**
This setup requires the following:
 - A wireless access point or wireless router with broadband Internet access
 - Manual entry of your IP address.

- Manual entry of your encryption key (for encrypted network connections only)
- First-time setup: **Wired (Ethernet) network connection with automatic IP address**

This setup requires the following:

- A wired access point or wired router with broadband Internet access and a free Ethernet port
- An Ethernet cable (sold separately).
- First-time setup: **Wired (Ethernet) network connection with static IP address**

This setup requires the following:

- A wired access point or wired router with broadband Internet access and a free Ethernet port
- Manual entry of your IP address.
- An Ethernet cable (sold separately).

First-time setup: Wireless connection with automatic IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** **↩** to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wireless setup with automatic IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Ensure that your network name and network password or encryption key are available.
- 2 Turn on your wireless access point or wireless router with broadband Internet access.
- 3 Follow the steps in chapter **First-time connection to home network** until NP2900 shows the prompt for the network setup.
- 4 Select **[Wireless (WiFi)]** to start the network setup process.
 - For wireless routers with Wi-Fi protection system (WPS) that supports push button configuration (PBC): On the router, press the WPS PBC push button to activate. On NP2900 press **OK** to confirm.)
 - For wireless routers with Wi-Fi protection system (WPS) that supports a personal identification number (PIN): On NP2900 select WPS PIN, then enter the displayed PIN on the router.
 - For other wireless routers:
 - ➡ NP2900 searches for networks.
- 1 Select your network from the list of found networks and confirm.
 - Enter the encryption key (if required) and confirm.
 - NP2900 acquires the automatic IP address.
 - NP2900 shows the confirmation for the connection to the network.
 - NP2900 shows the prompt for the connection to the Internet.

- 2 Select **[Yes]** to connect to the Internet.
 ↳ NP2900 shows the confirmation for the connection to the Internet.

Note

- You can enter more than one encryption key. In this case, NP2900 prompts you to select the default encryption key.

First-time setup: Wireless connection with static IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** **↩** to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.


The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wireless setup with static IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Ensure that your network name and network password or encryption key are available.
- 2 Turn on your wireless access point or wireless router with broadband Internet access.
- 3 Follow the steps in chapter **First-time connection to home network** until NP2900 shows the prompt for the network setup.
- 4 Select **[Wireless (WiFi)]** to start the network setup process.
 - For wireless routers with Wi-Fi protection system (WPS) that supports push button configuration (PBC): On the router, press the WPS PBC push button to activate. On NP2900 press **OK** to confirm.)
 - For wireless routers with Wi-Fi protection system (WPS) that supports a personal identification number (PIN): On NP2900 select WPS PIN, then enter the displayed PIN on the router.
 - For other wireless routers:
 ↳ NP2900 searches for networks.
- 1 Select your network from the list of found networks and confirm.
 - Enter the encryption key (if required) and confirm.
 - NP2900 tries to acquire an automatic IP address.
- 2 Press **BACK** **↩** to enter your IP address manually.
- 3 Enter your static IP address and confirm.
 ↳ NP2900 shows the confirmation for the connection to the network.
 ↳ NP2900 shows the prompt for the connection to the Internet.
- 4 Select **[Yes]** to connect to the Internet.
 ↳ NP2900 shows the confirmation for the connection to the Internet.

- You can enter more than one encryption key. In this case, NP2900 prompts you to select the default encryption key.

First-time setup:Wired connection with automatic IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character, press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.


The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wired setup with automatic IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Connect an Ethernet cable (sold separately) to the **ETHERNET** jack of NP2900 and the Ethernet jack of the wired router.

- 2 Ensure that the wired router is turned on and has broadband Internet access.
- 3 Follow the steps in chapter **First-time connection to home network** until NP2900 shows the prompt for the network setup.
- 4 Select **[Wired (Ethernet)]** to start the network setup process.
 - ↳ NP2900 acquires the automatic IP address.
 - ↳ NP2900 shows the confirmation for the connection to the network.
 - ↳ NP2900 shows the prompt for the connection to the Internet.
- 5 Select **[Yes]** to connect to the Internet.
 - ↳ NP2900 shows the confirmation for the connection to the Internet.

First-time setup:Wired connection with static IP address


This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character, press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wired setup with static IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Connect an Ethernet cable (sold separately) to the **ETHERNET** jack of NP2900 and the Ethernet jack of the wired router.
- 2 Ensure that the wired router is turned on and has broadband Internet access.
- 3 Follow the steps in chapter **First-time connection to home network** until NP2900 shows the prompt for the network setup.
- 4 Select **[Wired (Ethernet)]** to start the network setup process.
 - ↳ NP2900 tries to acquire an automatic IP address.
 - ↳ Press **BACK**  to enter your IP address manually.
- 5 Enter your static IP address and confirm.
 - ↳ NP2900 shows the confirmation for the connection to the network.
 - ↳ NP2900 shows the prompt for the connection to the Internet.
- 6 Select **[Yes]** to connect to the Internet.
 - ↳ NP2900 shows the confirmation for the connection to the Internet.

8 Play

You need the remote control to view and play media files.
This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** **↩** to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The play and pause operations on the remote control of NP2900 are the same for any media source that you choose:

- 1 Press **HOME**.
- 2 Select the source.
- 3 Select the options.
- 4 Press **▶||** to play.
 - Press **▶||** to toggle between pause and play.
- 5 Press **■** to stop.



Tip

- The following chapters explain the play options and media sources that are available.

Adjust volume

- 1 During play, press **+VOL** **—** to adjust the volume.

Mute the sound

- 1 During play, press **MUTE** to toggle the sound off and on.

Shuffle play

You can play the audio files of the current selection in random order (shuffled).

- 1 During play, press **SHUFFLE** to toggle the shuffle function on and off.

Repeat play

You can repeat one or all audio files of the current selection.

- 1 In play mode, press **REPEAT** to toggle the repeat function as follows:
 - **[Repeat 1]**
 - The current audio file is continuously repeated until another mode or setting is selected.
 - **[Repeat all]**
 - All audio files of the current selection are continuously repeated until another mode or setting is selected.
 - **[Off]** (default)
 - Audio files are played once (normal play).

Wirelessly stream music and pictures from a computer

You can wirelessly stream music and pictures to NP2900 from a connected computer. The following chapters show you how to

- install the software on your computer
- configure the computer to share your music and pictures



Note

- If Media Browser for Philips or Twonky Media is already installed on the computer, you can skip the installation section and continue with the configuration.
- For any other media players, refer to the instructions of the player.

Install Media Browser software

- 1 On the computer, insert the supplied software CD.
 - ↳ Installation of the following software starts:
 - ↳ Media Browser for Philips (on a PC)
 - ↳ Twonky Media (on a MAC)
- 2 Follow the instructions on the computer to install the software.

Configure a PC to share music and pictures

You can share music and pictures from a PC with NP2900. This chapter shows you how to configure the PC to share music and pictures.

- 1 Follow the instructions to install Media Browser for Philips.
- 2 On the PC, click **Start > Programs > Media Browser > Run Media Browser**.
- 3 Go to **Settings > Server Settings** to check that you have selected the correct server.
- 4 Choose **Basic Settings**.
- 5 In the **Basic Setting** of the Configuration Page,
 - to manually locate the music and pictures, click **Browse**
 - to manually add a new content directory, click **Add**
- 6 On the remote control of NP2900, press **HOME**.
- 7 Select **[Media Library]** and confirm with **OK**.
 - ↳ The display shows **[Searching for UPnP music servers...]**.
- 8 Press **▲▼** to select the server name and confirm with **OK**.

Configure a MAC to share music and pictures

You can share music and pictures from a MAC with NP2900. This chapter shows you how to configure the MAC to share music and pictures.

- 1 Follow the instructions to install Twonky Media software.
- 2 On the MAC, click **Go > Applications > Twonky Media**.
- 3 On the desktop, click **Configure Twonky Media**.
- 4 In the **Basic Setup** of the Configuration Page, click on **Sharing**.
 - ↳ The content directories are scanned.
 - ↳ To manually locate the content directory, click **Browse**.
 - ↳ To manually add a new content directory, click **Add new content directory**.
 - ↳ To save the changes, press **Save Changes**.
- 5 On the remote control of NP2900, press **HOME**.
- 6 Select **[Media Library]** and confirm with **OK**.
 - ↳ The display shows **[Searching for UPnP music servers...]**, followed by the list of media servers.
- 7 Press **▲▼** to select the server name and confirm with **OK**.

Alphanumeric search

You can perform an alphanumeric search for specific media files on a connected UPnP device.

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.

- Press **BACK** ↩ to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

This is how to use the alphanumeric search feature:

- 1 Turn on NP2900.
- 2 Press **MEDIA LIB..**.
↳ The display shows the available servers.
- 3 Select the server.
↳ The display shows the available lists.
- 4 Select the list.
- 5 Press **SEARCH**.
↳ The display shows a text box.
- 6 Press the alphanumeric buttons on the remote control to enter the search word.
- 7 Press **OK** to start the search.
↳ The display shows the closest alphabetical match.
- 8 To stop the search, press ■.
 - Press **HOME** to go to the Home menu.

Quick jump navigation

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
- To delete the whole last line entry from the display, press and hold **CLEAR**.

The quick jump feature of NP2900 behaves like the text input method commonly used on mobile phones.

- 1 While inside a list, press an alphanumeric button once or more to select a character.
↳ The quick jump feature displays the first object in the current list that begins with the selected character (e.g. a track name inside the track list) .

SuperScroll / Scroll at high speed

You can quickly find a file with SuperScroll™. The SuperScroll™ feature enables you to scroll through all files in the current list and control the speed.

- 1 Turn on NP2900.
- 2 When a list is displayed, press and hold ▲ ▼ to scroll through the list at high speed.
- 3 Release the button, to stop the scroll.

Internet radio

Note

- Internet radio features require broadband Internet access.

Listen to Internet radio

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to broadband Internet.
- 3 Press **INTERNET RADIO** to view the options menu
 - **[Favorite stations]** (lists the Internet radio stations that you have marked as Favorite Station)
 - **[Recently played]** (lists the most recently played Internet radio stations)
 - **[Search]** (lets you search for Internet radio stations)
 - **[All stations]** (lists all Internet radio stations, categorized by genres)
 - **[Recorded shows]** (lists all recorded Internet radio shows)
 - **[My Media]** (lists the Internet radio stations that you have entered at **Club Philips** under **Streamium Management**)
- 4 Press **▲** or **▼**, then **►** to select the option.
 - To listen to a specific Internet radio station, select option **[Search]**, then use the alphanumeric buttons to enter the radio station name.
 - Press **HOME** to go to the Home menu.

Note

- Internet radio features require broadband Internet access.

Play preset Internet radio stations

The Internet radio feature includes presets that are customized to the regional settings of NP2900. You can choose from a selection of 10 default Internet radio stations. You can also overwrite these presets with your own choices.

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to the Internet.
- 3 Select **[Internet Radio]** > **[Presets]**.
 ↳ The list of presets is displayed.
- 4 Press an alphanumeric button (0 to 9) to play the Internet radio station that is assigned to the preset of that number.

Save Internet radio stations to presets

This chapter shows how to save the currently playing Internet radio station to a preset.

Important: This action overwrites any other Internet radio station that was previously stored under the selected preset.

- 1 While you listen to Internet radio, press and hold an alphanumeric button (0 to 9) to save the current station to the preset of that number.
 ↳ The current station is saved under the selected preset number.

Mark radio stations as Favorites

You can mark Internet radio stations as your Favourites so next time you want to listen to a station, it is easy to find.

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to broadband Internet.
- 3 When you listen to Internet radio, press **FAVORITE** to mark the station.
 - Press **HOME** to go to the Home menu.
 - The next time you connect to the Internet radio, the radio station is shown in the Favorite Stations menu.

Note

- Internet radio features require broadband Internet access.

Tip

- You can also place bookmarks for Internet radio stations when you log on at www.philips.com/welcome and on the registered product site click the link **Streamium Management**.

Listen to Favorite Stations

When you place bookmarks for Internet radio stations, you can find them under Favorite Stations.

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to broadband Internet.
- 3 Press **INTERNET RADIO**.
- 4 Select **[Favorite stations]**.
- 5 Select the station.
 - Press **HOME** to go to the Home menu.

Note

- Internet radio features require broadband Internet access.

Remove a Favorite Station

You can remove Internet radio stations from your Favorites:

- 1 While listening to an Internet radio station that is bookmarked as a Favorite, press **FAVORITE**.
 - ↳ The current station is removed from your list of Favorites.

Note

- Internet radio features require broadband Internet access.

Manually add Internet radio stations

This chapter explains how to register with Philips and add individual URL addresses for Internet radio stations on the PC. The easiest way to register is to visit www.philips.com/welcome and follow the on-screen instructions to register NP2900.

Alternatively, you have the option to register NP2900 on the device:

- 1 Ensure that NP2900 is turned on.
- 2 Ensure that NP2900 is connected to the Internet.
- 3 On NP2900, select **[Settings]** > **[Register now]** > **[Register on the device]**.
 - ↳ The registration display is shown.
- 4 Press alphanumeric buttons on the remote control to enter your valid email address.
- 5 Press **OK**.
 - ↳ The display confirms the automated email dispatch to your mailbox.
- 6 Check the email inbox for a message from **ConsumerCare@Philips.com** with the subject **Your Streamium Registration....**
- 7 Follow the instructions in the email to complete your registration process on the Philips website.

- 8 On the registered product site, click the link **Streamium Management**.
- 9 Select **My Media**.
- 10 Click on the tab **Music**.
- 11 Enter the URL address of Internet radio station in the first column.
- 12 Enter a nickname in the second column.
 - ↳ The nickname is the Internet radio stations identification that is displayed NP2900.
- 13 Enter a description in the third column.
- 14 Click on **Save** to confirm your entries.

Note

- If the manually added Internet radio station is available and broadcast in a compatible format, you can listen to it on NP2900.
- You can find the manually added Internet radio stations in the My Media list on NP2900.
- Internet radio features require broadband Internet access.

Listen to My Media

When you manually add an Internet radio station, the Internet radio station is found under **[My Media]**.

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to broadband Internet.
- 3 Press **INTERNET RADIO**.
- 4 Select **[My Media]**.
 - ↳ The display shows the list of Internet radio stations stored under **[My Media]**.
- 5 Press **OK** to start play.
 - To return to the Home menu, press **HOME**.

Note

- The feature **My Media** requires registration with **Club Philips**.
- Internet radio features require broadband Internet access.

Listen to Rhapsody® music services

Note

- This feature requires broadband Internet access.
- This feature requires a Rhapsody® account.
- This feature is only available in some regions.

Rhapsody® is an on-line music service that offers streaming on-demand access to its library of digital music. You can use this online service with NP2900.

Available features can include:

- **[My Library]** (built from your Rhapsody Music Library)
- **[Channels]** (lets you select virtual Internet radio channels with different genre options and other features)
- **[Search]** (lets you search for music in the Rhapsody Music Library)
- **[Music guide]** (guides you through the Rhapsody Music Services)
- **[My Rhapsody]** (lets you create and select your albums, dynamic playlists, ratings)
- **[Account management]** (helps you manage your Rhapsody Account)

- 1 Turn on NP2900.
- 2 Ensure that NP2900 is connected to broadband Internet.
- 3 Press **HOME**.
- 4 Select **[Rhapsody]**.
- 5 Follow the instructions that are displayed:
 - Rhapsody® instructions to select the services available to you.
 - **Account management** instructions to sign in with a full account.
- 6 Press **▲** or **▼**, then **OK** to select.
 - Press **HOME** to go to the Home menu.

Note

- The on-line Rhapsody® services that are available depend on the type of account you hold.
- Rhapsody® and the Rhapsody logo are registered trademarks of RealNetworks, Inc.

Rate Rhapsody® music

You can use the remote control to rate the music of those music services that support rating.

- 1 While you navigate through Rhapsody® music on NP2900, press **+RATE -** to rate the current track in the display.
 - ↳ The selected rating is indicated in stars.
 - ↳ Press **HOME** to go to the Home menu.



Note


- The on-line Rhapsody® services that are available depend on the type of account you hold.

9 Settings

The following settings are available to you:

- [Play mode]
- [Sound settings]
- [Display settings]
- [Slideshow settings]
- [Album art]
- [Clicker sound]
- [Alarm clock settings]
- [Network settings]
- [Clock settings]
- [Location and time zone]
- [Language]
- [Device ID and information]
- [User registration]
- [Check for software upgrades]
- [Demo mode]
- [Call centre numbers]
- [Restore factory settings]
- [Legal]

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

This is how you change settings:

- 1 Turn on NP2900.
- 2 Press **SETTINGS**.
- 3 Select menu option and confirm.

Play mode

NP2900 offers play mode options that can be toggled with buttons on the remote control.

- Shuffle play
 - Repeat play
- You can also change the play mode options in the Settings menu:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select
 - [Repeat] or
 - [Shuffle].
- 3 Select your option and confirm.

Sound settings

The sound settings of NP2900 offer the following options:

- LivingSound™
- FullSound™
- Equalizer
- Aux in volume

LivingSound

NP2900 offers a pre-configured sound setting called **LivingSound™**. The **LivingSound™** feature enlarges the area in which stereo sound is heard, so that the listener need not sit directly in front of NP2900 to hear stereo sound.

- 1 Press **LIVINGSOUND** to toggle the **LivingSound™** feature off and on (default).



Note

- The **LivingSound™** feature is not supported with the use of headphones.

FullSound

NP2900 offers a pre-configured sound setting called **FullSound™**. The **FullSound™** feature restores sonic details to compressed music and provides a full sound experience without any distortion.

- 1 Press **FULLSOUND** to toggle the **FullSound™** feature off and on (default).

Equalizer settings

You can choose between the following equalizer options:

- [FullSound]
- [Dynamic Bass Boost]
- [Rock]
- [Pop]
- [Jazz]
- [Classic]
- [Off]

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Sound settings] > [Equalizer]**.
- 3 Select a menu option and confirm.

Slideshow settings

The slideshow settings of NP2900 offer the following options:

- [Shuffle]
- [Repeat]
- [Time per slide]

Display settings

The display settings of NP2900 offer the following display illumination options:

- Brightness when NP2900 is turned on.
- Brightness when when NP2900 is switched to standby.

Brightness settings when NP2900 is turned on

You can choose between the following brightness 'when on' settings:

- [Bright]
- [DIM]

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Brightness when on]**.
- 3 Select a menu option and confirm.

Brightness settings when NP2900 is switched to standby

You can choose between the following brightness 'when standby' settings:

- [Bright]
- [DIM]
- [Off]

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Brightness when standby]**.
- 3 Select a menu option and confirm.

Aux in settings

The Aux in volume settings of NP2900 offer the following options:

- [High]
- [Mid]
- [Low]

Clicker sound

NP2900 can give you an audible feedback (clicker sound) every time you press a button on the remote control.

You can toggle the clicker sound on or off:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Clicker sound]**.
- 3 Highlight the option, then press **OK**.

Album art

NP2900 can display album art as a background or as a thumbnail in the music play screen. Album art must be available to be displayed. For albums without available album art, NP2900 displays a default icon.

You can toggle the album art display on or off:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Album art]**.
- 3 Highlight the option, then press **OK**.

Clock settings

NP2900 has a clock with alarm functions. The clock must be set for the alarm function to be functional.

This is how to set the clock:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Clock settings] > [Date and time]**, to enter the date and time settings.
- 3 You can select the following options:
 - **[Current date and time] > [Automatic (Internet)]**, to sync the time automatically via the Internet (requires Internet connection).
 - **[Current date and time] > [Manual]**, to set the time manually.

To set the date and time manually:

- 1 Press **▲** or **▼** to adjust the setting.
- 2 Press **OK** to confirm.
In the date and time settings, you can set the following formats:
 - **[Time format]** - Set your option in the time format sub-menu.
 - **[Date format]** - Set your option in the date format sub-menu.
 - **[Daylight saving time]** - Mark the box to select this option.
 - ↳ When daylight saving time is selected, the clock is advanced by one hour for summertime setting.
 - ↳ To return to wintertime and set the clock back by one hour, deselect this option.

Alarm settings

NP2900 has an alarm function. The clock must be set for the alarm function to be functional. This is how to set the alarm:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Clock settings] > [Alarm]**, to enter the alarm settings.
- 3 You can select the following options:
 - **[Alarm off]** (default)
 - **[Music]**
 - **[Buzzer]**

To set the alarm time:

- 1 Press **▲** or **▼** to adjust the setting.
- 2 Press **OK** to confirm.

Network settings


You can choose between different setups. This manual explains the following options:

- **Wireless network connection with automatic IP address**
This is the most common network setup. This setup requires the following:

- A wireless access point or wireless router with broadband Internet access
- Manual entry of your encryption key (for encrypted network connections only)
- Wireless network connection with static IP address
This setup requires the following:
 - A wireless access point or wireless router with broadband Internet access
 - Manual entry of your IP address.
 - Manual entry of your encryption key (for encrypted network connections only)
- Wired (Ethernet) network connection with automatic IP address
This setup requires the following:
 - A cable modem or PC with broadband Internet access and a free Ethernet port
 - An Ethernet cable (sold separately).
- Wired (Ethernet) network connection with static IP address
This setup requires the following:
 - A cable modem or PC with broadband Internet access and a free Ethernet port
 - An Ethernet cable (sold separately).
 - Manual entry of your IP address.

Wireless connection with automatic IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or

repeatedly until you see the number or alphabetic character in the display of NP2900.

- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wireless setup with automatic IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Ensure that your network name and network password or encryption key are available.
- 2 Turn on your wireless access point or wireless router with broadband Internet access.
- 3 Turn on NP2900.
- 4 Press **SETTINGS**, to go to the Settings menu.
- 5 Select **[Wireless (WiFi)]** to start the network setup process.
 - For wireless routers with Wi-Fi protection system (WPS) that supports push button configuration (PBC): On the router, press the WPS PBC push button to activate. On NP2900 press **OK** to confirm.)
 - For wireless routers with Wi-Fi protection system (WPS) that supports a personal identification number (PIN): On NP2900 select WPS PIN, then enter the displayed PIN on the router.
 - For other wireless routers:
 - ➡ NP2900 searches for networks.

- 1 Select your network from the list of found networks and confirm.
 - Enter the encryption key (if required) and confirm.
 - NP2900 acquires the automatic IP address.
 - NP2900 shows the confirmation for the connection to the network.
 - NP2900 shows the prompt for the connection to the Internet.
- 2 Select **[Yes]** to connect to the Internet.
 - ↳ NP2900 shows the confirmation for the connection to the Internet.

The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wireless setup with static IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

Note

- You can enter more than one encryption key. In this case, NP2900 prompts you to select the default encryption key.

Wireless connection with static IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** **↩** to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character, press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

- 1 Ensure that your network name and network password or encryption key are available.
- 2 Turn on your wireless access point or wireless router with broadband Internet access.
- 3 Turn on NP2900.
- 4 Press **SETTINGS**, to go to the Settings menu.
- 5 Select **[Wireless (WiFi)]** to start the network setup process.
 - For wireless routers with Wi-Fi protection system (WPS) that supports push button configuration (PBC): On the router, press the WPS PBC push button to activate. On NP2900 press **OK** to confirm.)
 - For wireless routers with Wi-Fi protection system (WPS) that supports a personal identification number (PIN): On NP2900 select WPS PIN, then enter the displayed PIN on the router.
 - For other wireless routers:
 - ↳ NP2900 searches for networks.
- 1 Select your network from the list of found networks and confirm.
 - Enter the encryption key (if required) and confirm.
 - NP2900 tries to acquire an automatic IP address.
- 2 Press **BACK** **↩** to enter your IP address manually.
- 3 Enter your static IP address and confirm.
 - ↳ NP2900 shows the confirmation for the connection to the network.

↳ NP2900 shows the prompt for the connection to the Internet.


- 4 Select **[Yes]** to connect to the Internet.
↳ NP2900 shows the confirmation for the connection to the Internet.

Note

- You can enter more than one encryption key. In this case, NP2900 prompts you to select the default encryption key.

Wired connection with automatic IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.
- To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.


The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wired setup with automatic IP address. You can also follow the onscreen prompts for

advanced configurations that are not described in this manual.

- 1 Connect an Ethernet cable (sold separately) to the **ETHERNET** jack of NP2900 and the Ethernet jack of the wired router.
- 2 Ensure that the wired router is turned on and has broadband Internet access.
- 3 Turn on NP2900.
- 4 Press **SETTINGS**, to go to the Settings menu.
- 5 Select **[Wired (Ethernet)]** to start the network setup process.
 - ↳ NP2900 acquires the automatic IP address.
 - ↳ NP2900 shows the confirmation for the connection to the network.
 - ↳ NP2900 shows the prompt for the connection to the Internet.
- 6 Select **[Yes]** to connect to the Internet.
 - ↳ NP2900 shows the confirmation for the connection to the Internet.

Wired connection with static IP address

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK**  to go back to the previous screen.
- Press **HOME** to go to the Home menu.

The alphanumeric buttons of the remote control are multi-function buttons:

- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
- To cycle through the alphanumeric characters that are available, press a button repeatedly.

- To delete the last character entry from the display, press **CLEAR**.
- To delete the whole last line entry from the display, press and hold **CLEAR**.

The onscreen display guides you through the process of connecting NP2900 to your home network and the Internet. This section describes the typical wired setup with static IP address. You can also follow the onscreen prompts for advanced configurations that are not described in this manual.

- 1 Connect an Ethernet cable (sold separately) to the **ETHERNET** jack of NP2900 and the Ethernet jack of the wired router.
- 2 Ensure that the wired router is turned on and has broadband Internet access.
- 3 Turn on NP2900.
- 4 Press **SETTINGS**, to go to the Settings menu.
- 5 Select [**Wired (Ethernet)**] to start the network setup process.
 - ↳ NP2900 tries to acquire an automatic IP address.
 - ↳ Press **BACK** ↩ to enter your IP address manually.
- 6 Enter your static IP address and confirm.
 - ↳ NP2900 shows the confirmation for the connection to the network.
 - ↳ NP2900 shows the prompt for the connection to the Internet.
- 7 Select [**Yes**] to connect to the Internet.
 - ↳ NP2900 shows the confirmation for the connection to the Internet.

Location and time zone

This is how you can change the location and time zone settings of NP2900:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select [**Location and time zone**].
- 3 Select a menu option and confirm.
 - ↳ NP2900 applies the new location and time zone settings.
 - ↳ Press **BACK** ↩ to go back to the previous screen.
 - ↳ Press **HOME** to go to the Home menu.

Language

This is how you can change the language of the display:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select [**Language**].
- 3 Select a menu option and confirm.
 - ↳ The display language changes to the new setting.
 - ↳ Press **BACK** ↩ to go back to the previous screen.
 - ↳ Press **HOME** to go to the Home menu.

Register NP2900

Registration of NP2900 requires a valid email address and mailbox access.

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** ↩ to go back to the previous screen.
- Press **HOME** to go to the Home menu.

- The alphanumeric buttons of the remote control are multi-function buttons:
- To select a number or an alphanumeric character; press a button once or repeatedly until you see the number or alphabetic character in the display of NP2900.
 - To cycle through the alphanumeric characters that are available, press a button repeatedly.
 - To delete the last character entry from the display, press **CLEAR**.
 - To delete the whole last line entry from the display, press and hold **CLEAR**.

This is how you can register NP2900 with Philips:

The easiest way to register is to visit www.philips.com/welcome and follow the on-screen instructions to register NP2900.

Alternatively, you have the option to register NP2900 on the device:

- 1 Ensure that NP2900 is turned on.
- 2 Ensure that NP2900 is connected to the Internet.
- 3 On NP2900, select **[Settings] > [Register now] > [Register on the device]**.
↳ The registration display is shown.
- 4 Press alphanumeric buttons on the remote control to enter your valid email address.
- 5 Press **OK**.
↳ The display confirms the automated email dispatch to your mailbox.
- 6 Check the email inbox for a message from **ConsumerCare@Philips.com** with the subject **Your Streamium Registration....**
- 7 Follow the instructions in the email to complete your registration process on the Philips website.

Unregister NP2900

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **OK** to confirm a selection.
- Press **BACK** **↩** to go back to the previous screen.
- Press **HOME** to go to the Home menu.

This is how you can unregister NP2900 with Philips:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[User registration] > [Unregister]**.
↳ NP2900 prompts you to confirm.
- 3 Confirm to unregister.
↳ The display shows a confirmation that NP2900 is unregistered with your email account.

Registration information

This is how you can check the registration status of NP2900:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[User registration] > [Registration status]**.
↳ NP2900 shows the registration information.
↳ Press **BACK** **↩** to go back to the previous screen.
↳ Press **HOME** to go to the Home menu.

Check for SW upgrades

This is how to navigate and select with the remote control:

- Press **▲** or **▼** to select a menu option.
- Press **▶** to confirm a selection.
 - Press **OK** to confirm an alphanumeric entry.
- Press **HOME** to go to the Home menu.

This is how you can check for software updates for NP2900:

- 1 Ensure that NP2900 is connected to the Internet.
- 2 Press **SETTINGS**, to go to the Settings menu.
- 3 Select **[Check for software upgrades]** and confirm.
 - ↳ NP2900 checks for a new software version.
- 4 Read the information shown in the display of NP2900.


New software is available for NP2900:

- 1 Follow the instructions shown in the display to complete the update.
 - ↳ NP2900 prompts you to accept the conditions and download of the software.
 - ↳ NP2900 restarts after the update.

Note


- Mandatory updates do not require your acceptance or confirmation.

NP2900 already has the latest software installed:

- Press **BACK**  to go back to the previous screen.
 - Press **HOME** to go to the Home menu.

Information

This is how you can find information about NP2900:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Device ID and information]**.
- 3 Press **OK** to confirm.
 - ↳ The device information is shown on the display of NP2900.
 - ↳ Press **BACK**  to go back to the previous screen.
 - ↳ Press **HOME** to go to the Home menu.

Demo mode

You can access the demo mode in the Settings menu:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select **[Demo mode]**.
 - ↳ The demo plays continuously until you exit the demo play.
- 3 To exit the demo play, press **⏻**.



Tip

- You can start the demo play more quickly with the **DEMO** button on the remote control.

Call center numbers

This is how you can find the call center numbers:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select [**Call centre numbers**].
- 3 Press **OK** to confirm.
 - ↳ The call center numbers are shown on the display of NP2900.
 - ↳ Press **BACK** ↩ to go back to the previous screen.
 - ↳ Press **HOME** to go to the Home menu.

Legal information

This is how you can find additional legal information about NP2900:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select [**Legal**].
- 3 Press **OK** to confirm.
 - ↳ The legal information is shown on the display of NP2900.
 - ↳ Press **BACK** ↩ to go back to the previous screen.
 - ↳ Press **HOME** to go to the Home menu.

Restore factory settings



Caution

- The following procedure erases all custom settings and resets NP2900 to the original status as set by the factory.

This is how to restore the factory settings of NP2900:

- 1 Press **SETTINGS**, to go to the Settings menu.
- 2 Select [**Restore factory settings**].
- 3 Select [**Yes**] to reconfirm.
 - ↳ NP2900 restarts.
 - ↳ The factory settings of NP2900 are restored.

10 Maintenance

This chapter tells you how to care for NP2900.

Cleaning



Note

- Avoid moisture and abrasion.

- 1 Clean NP2900 only with a soft dry cloth.

11 Technical data

General

AC Power	Voltage information is printed on the back or the underside of NP2900.
DC Power	12 V / 3.5 A
Dimensions (w x h x d)	346.5 x 99 x 69 mm
Weight (net)	Main unit: ~ 1,48 kg

Power consumption

On	< 40 W
Standby (active)	< 4 W
ECO (passive) standby	< 1 W

Audio output

SPDIF	1x chinch (coax), 0.5 V, 75 Ω
Headphones	1x 3.5 mm jack 30 - 18,000 Hz 16 - 150 Ω
Signal to noise ratio (headphones)	typically 85 dBA (IEC)
Distortion (line out / headphones)	< 0.15 %

Audio input

Aux in (line in)	2x cinch
Input sensitivity	500 mV
Input impedance	> 10 k Ω

Loudspeakers

Power handling	Front speakers: 10 W (RMS) / 15 W (MPO) Side speakers: 6 W (RMS) / 9 W (MPO)
Impedance	Front speakers: 8 Ω Side speakers: 12 Ω
Sensitivity	Front speakers: 80 dB / 1 m / W Side speakers: 83 dB / 0.5 m / W
Dimensions	Front speakers: 2.56 inches Side speakers: 1.56 inches
Frequency response	Front speakers: 50 Hz - 16 kHz Side speakers: 500 Hz - 16 kHz

Wireless

Wireless standard	802.11g, backwards compatible to 802.11b
Wireless security	WEP (64 or 128 bit), WPA/WPA2 (8-63 characters) WPS-PBC WPS-PIN
Frequency range	2412 - 2462 MHz (CH1-CH11) (for /79, /37, /55, /97) 2412 - 2472 MHz (CH1-CH13) (for /12, /05)
Antenna	2x internal, diversity mode enabled

Wired (LAN / Ethernet)

Wired standard	802.3 / 802.3 u
Speed	10 / 100 MBit/s
Mode	half / full duplex
Crossover detection (Auto MDIX)	Yes (Auto MDIX)

Decoding capabilities

MP3	8 - 320 kbps (CBR / VBR)
WMA	32 - 192 kbps (CBR / VBR)
AAC (M4A)	16 - 320 kbps (CBR / VBR)
PCM	1x (1.4 Mbps)
FLAC	Supported
Ogg Vorbis	Supported
JPEG	Supported

Playlist support

*.m3u, *.wpl	Supported
iTunes	Supported (via by-packed software)

Picture format support

JPEG	Supported
------	-----------

Display / Clock

Resolution	Dot matrix 320 x 240 dots (QVGA) Color TFT
Size	3.5 inches
Backlight	On / Off / Dimmed
Time / Date display	Supported
Automatic time sync via Internet (NPT)	Supported
Sleep timer	Supported
Key sound feedback	Clicker (internal)

Specifications and external appearance are subject to change without notice.

Supported audio file formats

NP2900 supports the following audio file formats:

- MP3 (8-320kbps and VBR)
- WMA (up to 192kbps)
- non DRM protected AAC (M4A) (16-320 kbps and VBR16)
- PCM (1.4 Mbps)
- FLAC
- Ogg Vorbis



Note

- The display of NP2900 supports directories with nesting up to a maximum of 8 levels.

Supported picture file formats

NP2900 supports the following picture file formats:

- JPEG



Note

- The display of NP2900 supports directories with nesting up to a maximum of 8 levels.

Supplied accessories

- Remote control
- 2 AAA batteries
- CD-Rom
- AC power adapter with cable
- Wall mounting bracket

Computer connection requirements

The minimum requirements for computer connections are:

- Windows 2000 SP4 (or above) / XP SP2 / Vista / Mac
- Pentium III 500MHz processor or higher
- 256MB RAM
- CD-ROM drive
- Adapter
 - Ethernet enabled (for wired connection)
 - Wireless network 802.11 b/g (for wireless connection)
- 500MB free hard disk space

12 Troubleshooting

No network connection, what do I do?

During network connection setup, the player may have assigned a pre-defined IP address and tries to establish a network connection with this pre-defined IP address. (The player tries to establish a wireless or wired network connection, depending on the type of setup you initially selected.)

Possible reasons:

- The static IP address failed to register (for example if you press **HOME** or exit the setup process by other means before you have entered the correct static IP address).
- The automatic IP address failed to register automatically through DHCP server (for example if the automatic connection to the DHCP server failed and the player prompts you to enter a static IP address, but you press **HOME** or exit the setup process by other means before you have entered the correct static IP address).

Solution:

Follow the instructions in chapter 'Network settings' in this user manual to setup your network correctly. The 'Network settings' allow you to change between wireless and wired network connection.

I cannot hear any sound or the sound is poor, what do I do?

- Press + **VOL** - to increase the volume.
- Press the **MUTE** button again to reactivate the sound output.

Is there a maximum distance of transmission between a wireless router and NP2900 for effective streaming?

Yes. The maximum distance of Wi-Fi transmission is 250m measured in open spaces. However, in a home environment, where solid obstacles such as walls and doors are present, the effective transmission distance is reduced to 50-100m. Reposition the devices if you experience transmission problems.

I have not received any registration email from ConsumerCare@Philips.com.

- Check that the email address that is entered in the user registration section is valid and spelled correctly.
- Check that the PC has an active Internet connection.
- The Internet server may be busy, try again later.
- Check if the email was redirected to the spam folder.

How do I avoid Wi-Fi interferences from other devices that operate in the same (2.4GHz) frequency spectrum, such as Dect phones or bluetooth devices?

- Move NP2900 at least 3m away from such devices.
- Use a WEP/WPA encryption key when you create the wireless connection your PC / home network.
- Change the operating channel on the interfering devices.
- Turn the devices in different directions to minimize interference.

13 Glossary

A

AAC (Advanced Audio Coding)

An audio compression scheme defined as part of the MPEG-2 standard (also known as MPEG-2 AAC or MPEG-2 NBC, or Not Backwards Compatible). It offers better sound and a compression ratio that is superior by roughly 30 percent compared to the MPEG-1 MP3 format.

AC (alternating current)

An alternating current is an electrical current whose magnitude and direction vary cyclically, as opposed to DC (direct current), whose direction remains constant. The usual waveform of an AC power circuit is a sine wave, as this results in the most efficient transmission of energy. However certain applications use different waveforms, such as triangular or square waves.

Album art

Album art is a feature that displays the artwork (cover picture) of a music album. This display enables the user to quickly identify a music album. The artwork files for music albums can be downloaded from the Internet.

Amplifier

A device, either a single stage or a large scale circuit with multiple stages for creating gain, i.e. it makes small signals larger.

Antenna

A device, such as a rod or wire, which picks up a received radio frequency signal or radiates a transmitted RF signal.

Audio output

High-level (speaker) or line-level (RCA) signals sent from one system component to another; or the high-level signal from an amplifier to the system speakers.

Aux in

Auxiliary input that allows you to connect portable audio devices.

B

Bass

The lowest three octaves of the audio band. Low bass is the bottom octave (20-40Hz), mid-bass is the middle octave (40-80Hz), and upper bass is the 80-160Hz octave.

Bit / bits

A bit is a binary digit, taking a value of either 0 or 1. For example, the number 10010111 is 8 bits long.

Bit rate

Bit rate is the number of bits that are conveyed or processed per unit of time. The bit rate is usually measured in some multiple of bits per second (kilobits per second: kbps). The term bit rate is a synonym for data transfer rate (or simply data rate).

C

CBR (constant bit rate)

With CBR the encoder spends the same amount of bits on each frame, regardless of how much it may really need. Disadvantage of CBR: Bits are wasted in case of absolute blackness of a picture or complete silence in an audio frame. And pictures or audio frames with a lot of elements may need those bits.

CD (Compact Disc)

Format developed by Phillips, Sony, and Pioneer for conveying music and data. CDs record information by deforming the inner metal foil on the disc with tiny micro pits burned in by a laser.

CDDb

A centralized database of CDs, CD tracks, and artists on the Web, now known as Gracenote. The audio player or burner program can log on to CDDb. It uploads the ID of the CD

being played, and then downloads the title, artist, and track list.

Coaxial

A single copper conductor, surrounded with a layer of insulation, covered by a surrounding copper shield and finally, an insulating jacket. An unbalanced transmission line with constant impedance. In audio, this type is commonly used for low level, line signals terminated in RCA connectors.

Compression

In audio terms, this is a process of temporarily or permanently reducing audio data for more efficient storage or transmission. A temporary reduction in file size is called 'non-lossy' compression, and no information is lost. A permanent reduction in file size (such as with MP3 files) is called 'lossy' compression, and involves discarding unnecessary information which is irretrievably lost.

D

DC (direct current)

Direct current or continuous current is the constant flow of electric charge. This is typically in a conductor such as a wire. In direct current, the electric charges flow in the same direction, distinguishing it from AC (alternating current).

Decibel (dB)

A unit of measure used to express relative difference in power or intensity of sound.

DHCP

DHCP stands for Dynamic Host Configuration Protocol. It is a protocol for assigning dynamic IP addresses to devices on a network.

Digital

A method to encode information using a binary code of 0s and 1s. Many wireless phones and networks use digital technology.

Digital Audio

Digital Audio is a sound signal that has been converted into numerical values. Digital sound can be transmitted through multiple channels. Analog sound can only be transmitted through two channels.

Duplex (half/full)

Full duplex is the ability to send and receive data simultaneously. Duplex is synonymous with full duplex. Example: when a modem operates in full-duplex mode, it can transmit data in two directions simultaneously. In half-duplex mode it can transmit data in two directions, but not simultaneously.

E

Encryption key

An encryption key is an alphanumeric series that enables data to be encrypted and then decrypted so it can be safely shared among members of a network.

F

Frequency

The property or condition of occurring at frequent intervals. In sound, this simply refers to the regular occurrence of compression and rarification of air that we experience as sound.

Frequency Response

Is the range of frequencies that a speaker reproduces, lowest frequency to the highest. While the optimal normal is 20-20,000 Hz (Hertz), the range of human hearing for individuals is often much more restricted. A good full-range speaker system however, reproduces as much of this range as possible to cover all variations. Individual drivers are limited to reproduce only that part of the spectrum for which they were made, so their response is limited, but still a necessary point to consider when designing a complete sound system.

FullSound

FullSound™ is an innovative technology designed by Philips. FullSound™ faithfully restores sonic details to compressed music, enhancing it to provide a full sound experience without any distortion.

H

Hz (Hertz)

Cycles per second, named after Heinrich Hertz.

I

Impedance

The resistance to the flow of an electric current in a circuit. This is effectively the electrical load that a loudspeaker presents to the amplifier which drives it and is measured in ohms.

Input sensitivity

SPL (sound pressure level) a speaker produces, given one watt of power, measured from a one-meter distance at a typical input frequency (usually 1kHz unless otherwise noted on the speaker).

Interface

A device or protocol which facilitates the linking of any two devices or systems; or when used as a verb ('to interface'), the process of linking.

IP address

An IP (Internet Protocol) address is a unique computer address that enables electronic devices to communicate with and identify each other.

K

Kbps

Kilobits per second. A digital-data-rate measurement system which is often used with highly compressed formats such as AAC,

DAB, MP3 etc. The higher the amount, the better the quality generally is.

Kilo Hertz (kHz)

1000Hz or 1000 cycles per second.

L

LCD (Liquid Crystal Display)

Probably the most common way to show visual information on non-computer electronic equipment.

LivingSound

LivingSound™ is a sound processing algorithm provided by Philips that offers spatial enhancements and the listener perceives the sound as though the loudspeakers were located a greater than actual distance apart from one another.

Lossless compression

A system for reducing the number of data bits (density) in a musical signal without corrupting the original.

M

M4A

The audio file format used by Apple in their iTunes Music Store often appears on your system with the '.m4a' filename extension. M4A can produce better audio quality than MP3 using less physical space for the files.

MHz (Mega Hertz)

One million cycles per second.

Mono (monaural)

The operation of an amplifier in one channel for both input and output. Can refer to an amplifier with only one channel of amplification or operating in bridged mode. For low-frequency amplification applications, it provides better phase coherence and less distortion than stereo operation.

MP3

A file format with a sound data compression system. MP3 is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. With the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

Mute

A control found on receivers, and some mixers or signal processing units that silences (mutes) a signal path, or output.

O

Ohm

Measure of resistance to current (impedance). The lower the impedance of a speaker, the harder it is to drive.

P

PBC

The push button configuration (PBC) method is a router feature that allows connection by the push a button (actual or virtual).

PCM (Pulse Code Modulation)

Pioneering form of digital recording.

PIN

In Internet routing, the Personal Identification Number (PIN) method allows users to use a PIN to connect the router.

R

RF (radio frequency)

An alternating current or voltage with a frequency (or carrier wave) above about 100kHz. It is called radio frequency because these frequencies have a capacity to be radiated as electromagnetic waves by radio (and television) stations.

Rhapsody®

Rhapsody® is an on-line music service that offers streaming on-demand access to its library of digital music.

S

S/PDIF (SPDIF) (Sony/Philips Digital Interface)

A standard audio-file transfer-format that was developed jointly by Sony and Philips. S/PDIF allows the transfer of digital audio signals from one device to another, without the need to convert first to analog. This prevents the quality of the digital signal degrading during transfer to analog.

Sensitivity

Volume that a speaker offers for a specific voltage input, expressed in decibels per watt (dB/W).

Shuffle

A feature that plays audio files (tracks) in random order.

Signal to noise ratio

Represents the difference between the level of the audio signal, and any interference. The larger the figure, the purer the sound.

SPL (sound pressure level)

An acoustic measurement of sound energy. 1 dB SPL is the smallest increment in sound level to which the average human is sensitive. Theoretically, 0 dB SPL is the threshold of human hearing while approximately 120 dB is the threshold of pain.

Stereo

Literally means solid. Usually taken to refer to two channel stereo, though developments in digital audio facilitate multichannel stereo.

Streaming

A technique for transferring data such that it can be processed as a steady and continuous stream. Streaming technologies are often used on the Internet because many users do not have fast enough access to download large

multimedia files quickly, so the client browser or plug-in can start displaying the data before the entire file has been transmitted.

SuperPlay

SuperPlay™ is a special feature of the product, which enables the listener to play all the music under a top-level library category, such as artists or albums, without having to select playlist items.

SuperScroll

SuperScroll™ is a navigation feature of the double-action search keys of the product. SuperScroll™ allows easy speed control when scrolling through large libraries to swiftly find items within large libraries. Longer press of the button results in faster scroll speed.

T

Thumbnail

A thumbnail is reduced-size versions of a picture that is used to make it easier to recognize an them. Thumbnails serve the same role for images as a normal text index does for words.

U

UPnP (Universal Plug and Play)

Universal Plug and Play is a networking architecture developed by a consortium of companies to ensure easy connectivity between products from different vendors. UPnP devices should be able to connect to a network automatically, handling identification and other processes on the fly. The standards developed by the UPnP Forum are media-, platform-, and device-independent.

V

VBR (variable bit rate)

With VBR, the encoder takes as much bits as it needs. So black pictures get few bits and complex pictures get as much as they need.

While this provides the best quality the final size cannot be predicted at all.

Volume

Volume is the most common word used to specify the control of relative loudness of sounds. It also pertains to the function on many electronic devices that is used to control the loudness.

W

W (wattage)

A measurement of power. In speakers, wattage is a term that indicates power-handling characteristics in dealing with electrical voltage inputs from the amplifier.

WAP (Wireless Application Protocol)

Global protocol used in some wireless devices that allows the user to view and interact with data services. Generally used as a means to view Internet web pages using the limited transmission capacity and small display screens of portable wireless devices.

WAV

A format for sound files developed jointly by Microsoft and IBM. Built into Windows 95 to XP, which made it the de facto standard for sound on PCs. WAV sound files end with a '.wav' extension and works with nearly all Windows applications that support sound.

WEP (Wired Equivalent Privacy)

All 802.11b (Wi-Fi / wireless) networks use WEP as their basic security protocol. WEP secures data transmissions using 64-bit or 128-bit encryption; however, it does not offer complete security and is usually used in conjunction with other security measures such as EAP.

Wi-Fi

Wi-Fi (Wireless Fidelity) is a wireless technology brand owned by the Wi-Fi Alliance intended to improve the interoperability of wireless local area network products based on the IEEE 802.11 standards. Common

applications for Wi-Fi include Internet and VoIP phone access, gaming, and network connectivity for consumer electronics such as televisions, DVD players, and digital cameras.

Wireless

Telecommunications using electromagnetic waves rather than wires or cable to transmit information. Wireless communication can be used for free-ranging mobile systems such as cell phones and global positioning systems (GPS), which use satellite technology. Wireless systems can also be fixed, such as LANs that provide wireless communications within a limited area (such as an office), or wireless peripherals such as mice and keyboards.

WMA (Windows Media Audio)

An audio format owned by Microsoft, is a part of Microsoft Windows Media technology. Includes Microsoft Digital Rights Management tools, Windows Media Video encoding technology, and Windows Media Audio encoding technology.

WPA / WPA2 (Wi-Fi Protected Access)

A Wi-Fi standard that was designed to improve upon the security features of WEP. The technology is designed to work with existing Wi-Fi products that have been enabled with WEP (i.e. as a software upgrade to existing hardware), but the technology includes two improvements over WEP.

WPS

Wi-Fi Protected Setup (WPS) is a standard for easy and secure establishment of a wireless home network. The goal of the WPS protocol is to simplify the process of configuring security on wireless networks.

14 Contact information

Argentina	(54-11) 4544-2047
Australia	1300 363 391
Austria	0810 000 205
Belgium	78250145
Belarus	882000110068
Brazil	0800 701 02 03 (all except Sao Paulo)(11) 2121-0203 (Sao Paulo only)
Bulgaria	8001154424
Canada	1-888-744-5477
Chile	600 744 5477 (600-PHILIPS)
China	4008 800 008
Colombia	01 800 700 7445
Croatia	800222778
Czech Republic	800142840
Denmark	35258759
Estonia	8000100288
Finland	923113415
France	805025510
Germany	8000007520
Greece	80031221280
Hong Kong	852-2619 9663
Hungary	680018189
India	1860-180-1111
Ireland	16011777
Israel	9600900-09
Italy	800088774
Japan	0570-07-6666
Korea	080-600-6600
Latvia	80002794
Luxembourg	4066615644
Malaysia	1800 880 180
Mexico	01 800 504 6200
Netherlands	8000230076
New Zealand	0800 658 224

Norway	22708111
Pakistan	051 580 902-3
Peru	0800 00100
Philippines	(63 2) 667 9000
Poland	8003111318
Portugal	800780903
Romania	800894910
Russia Federation	(495)961-1111 (local rate)8-800-200-0880 (mobile phone - free)
Singapore	65 6882 3999
Slovakia	800004537
South Africa	(011) 471-5194
Spain	900800655
Sweden	857929100
Switzerland	844800544
Taiwan	0800 231 099
Thailand	66 2 652 8652
Turkey	0800 261 3302
Ukraine	8-800-500-69-70
United Kingdom	8003316015
United States	1-888-744-5477
Uruguay	(598-2) 619 6666
Venezuela	0800 100 4888

Streamium terms and conditions

Terms and Conditions of Use of your Philips Streamium-enabled Device

Congratulations on your purchase of a Philips Streamium-enabled Device ("Device"). These Terms and Conditions of Use give you the rights to use certain features on your Device relating to the streaming of content. You must agree to these Terms and Conditions of Use before using the Device. Your use of the Device constitutes your agreement to be bound by these Terms and Conditions of Use and will give you the right to access these features. If you do not agree to these Terms and Conditions of Use, you may return your Device to the point of purchase. These Terms and Conditions of Use supplement, and do not replace, any terms, conditions or disclaimers which were provided with your purchase of the Device. All such terms, conditions and disclaimers remain in full force and effect.

Eligibility for Registration.

You must be at least 14 years of age to assume the responsibilities of these Terms and Conditions of Use. If you are under 14 years of age, you may not use the Device unless one of your parents or legal guardians assumes the responsibilities of these Terms and Conditions of Use. Your use of the Device constitutes your representation that you are either 14 years of age or, if you are under 14 years of age, that your parent or legal guardian has assumed the responsibilities of these Terms and Conditions of Use.

Restrictions on Modification of your Device

Your Device provides access to certain streams of content. As a condition of obtaining access to those streams through the Device, you agree not to tamper with or otherwise modify or attempt to modify the Device in any way (including through the use of software or by making physical alterations to the Device). You agree that you will not circumvent or attempt to circumvent technological measures employed to control access to, or the rights in, any content. You agree that you will not circumvent or attempt to circumvent any copy management system by any means. You agree that you will not decipher or attempt to decipher cryptographic keys or otherwise defeat or attempt to defeat any security features implemented in the Device or in the content streams. You agree that you will not use the Device for any unauthorized purpose or in contravention of any law or regulation.

Disclaimers Regarding Content

The streams of content which are accessible through your Device are not controlled or programmed by Philips. Rather, they are provided by third parties. Think of your Device (in addition to its other features) as a form of "tuner" which allows you to receive the content broadcast by many others outside of your local area. Since the content is provided by others, PHILIPS HAS NO EDITORIAL CONTROL OVER ANY OF THAT CONTENT RECEIVED THROUGH YOUR DEVICE AND, THEREFORE IS NOT LIABLE FOR CONTENT OR ITS NATURE OR DELIVERY. PHILIPS DOES NOT ENDORSE ANY OPINIONS EXPRESSED IN ANY CONTENT RECEIVED THROUGH YOUR DEVICE. PHILIPS DOES NOT GUARANTEE THE TRUTHFULNESS, ACCURACY, RELIABILITY, COMPLETENESS OR TIMELINESS OF CONTENT. YOU AGREE THAT ANY RELIANCE ON CONTENT IS AT YOUR OWN RISK.

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restrictive license from a patent holder. Therefore, we insist that
any patent license obtained for a version of the library must be

consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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When a "work that uses the Library" uses material from a header file

that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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- d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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