



TV-Streamer+

User guide

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Introduction

Read this booklet carefully before using the device. Ask your hearing care professional if you have any questions.

Intended purpose

The TV-Streamer+ is intended to be a wireless connection to a television or other audio device for our wireless hearing aids.

The GN Hearing A/S TV Streamer+ may also be used together with Approved Cochlear Ltd or Cochlear Bone Anchored Solutions AB Partner Products.

Approved Partner Product refers to specific products released and marketed by Cochlear Ltd or Cochlear Bone Anchored Solutions AB partners.

Any Approved Partner Product compatibility will be subject to and the sole responsibility of partner.

Target group

The TV Streamer+ is intended to be used by lay persons.

Therapeutic indications


The accessory has no therapeutic indications in itself.

Contraindications

No known contraindications.

Symbols

The symbols below are used in this user guide, on the device, or on the packaging.

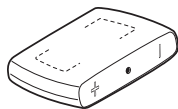
	CAUTION: Indicates a situation that could lead to minor and moderate injuries.		WARNING: Points out a situation that could lead to serious injuries.
	Date of manufacture.		Legal manufacturer.
	Regulatory compliance mark for EU.		Follow instructions for use. (Logo in blue)
	Catalogue number.		Unique Device Identification.
FCC ID	Device is subject to US certification.		Serial number.
	Regulatory compliance mark for Japan.		Regulatory compliance mark for Australia and New Zealand.
	Regulatory compliance mark for Malaysia.		Regulatory compliance mark for Taiwan.
	The Anatel certification label		Regulatory compliance mark for Korea.
	Equipment includes an RF transmitter.	CMII ID: XXXxyzzz	CMII ID: XXXxyzzz
			Follow local regulations when disposing of electronic devices.

Getting to know your device

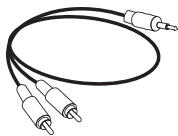
The device provides streamed audio from your TV, HiFi stereo, personal computer, or similar device directly to your hearing aids.

Depending on your TV, HiFi stereo, personal computer, or other audio set up, for the installation of the TV-Streamer+ see – 'How to install the device'. The connection guide will show you how to set up the physical connections.

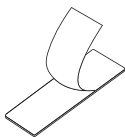
Unpacking — box contents



TV-Streamer+



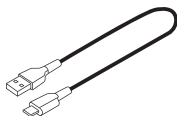
Analog audio cable



Hook and loop fastening
tape strip

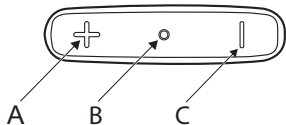


Digital (optical) audio cable (remove cable
plug covers before use)

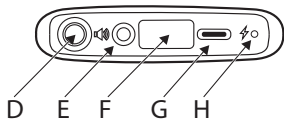


USB-A to USB-C cable (used to supply
power to the device)

Description



- A. Volume increase
- B. Power indicator
- C. Volume decrease



- D. Pairing/delay mode button
- E. Audio input: analog or digital (optical)
- F. Serial number
- G. Power connection: USB-C
- H. LED indicator: power

LED information

Streaming and pairing green LED light patterns.

LED patterns



constant ON

Process

Streaming

Description

Constant ON

Stand-by

Constant OFF



Pairing mode

Flashing



3 seconds

Successful pairing

Constant ON for 3 seconds



Firmware update

Fast flashing



Adjustable delay mode

Long flashing



Starting error

3 medium flashes repeating



3 seconds

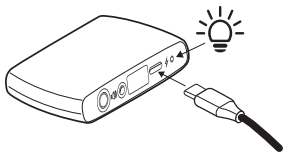
Firmware update
completed

Constant ON for 3 seconds

How to install the device

Connect the device to a power source

The device can be powered directly by the TV USB-A socket via the supplied USB-A to USB-C cable. The USB-A plug can alternatively be inserted into any suitable power source.



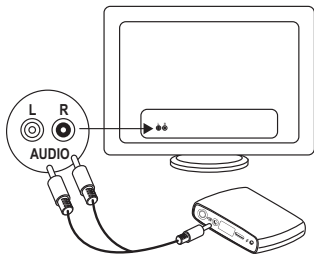
The USB-C plug is inserted into the device.

The LED light on the back of the device will show white to indicate activation after the power cable has been inserted to a power source.

You can use either the analog audio cable or digital (optical) audio cable to supply an audio signal into the TV-Streamer+.

Analog cable connection

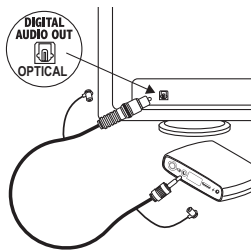
For TV with analog audio: insert the 2-into-1 audio plugs into the L and R AUDIO sockets on your TV and the other end into the TV-Streamer+.



Digital cable connection

The digital (optical) cable has a cover on each end of the cable that must be removed before use.

Insert the square plug into the TV DIGITAL AUDIO OUT socket and round plug into the TV-Streamer+.



Using the device for the first time

Before you can start using your device to stream sound to your hearing aids, the device must be connected to a power outlet, connected to the TV, and paired with your hearing aids.

Only connect the device to connections for which it is intended.

NOTE: It is recommended to affix the device on the TV back panel after connecting all cables and after pairing the device with your hearing aids

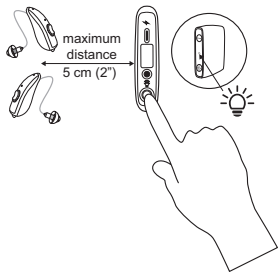
Pairing the device to your hearing aids

To transmit sound from the device to your hearing aids you need to pair the device to your hearing aids.

NOTE: To avoid accidental pairing, turn off all other nearby hearing aids. If it is not possible to turn off the hearing aids not to be paired, place them at least 1 meter (3 feet) from the device.

To pair the devices

1. The device and the hearing aids must be turned ON and be within 5 cm (2 inches) of each other.
2. Pairing mode will be activated by pressing the pairing button on back of the device. Press the button until the LED starts flashing green in short intervals.
3. The hearing aids will be paired one at the time.
4. The LED will stop flashing for 3 seconds after the first hearing aid is paired and then automatically continue to pair the second hearing aid.
5. After the device has been paired with your hearing aids, when powered ON, the device will start streaming sound to your hearing aids.



The pairing LED sequence

The TV-Streamer+ pairing option is open for 3 minutes, but streaming can start before the pairing search has finished.

- Flashing LED = first pairing (about 12 seconds)
- LED constant ON
- Flashing LED = second pairing (about 12 seconds)
- LED constant ON
- Flashing LED = searching for more hearing aids (about 15 seconds)
- LED constant ON = streaming.

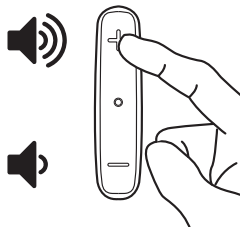
12 Using the device for the first time

Adjusting the volume

The sound level is set to provide a comfortable listening level from the moment it is activated. However, for your convenience, you may adjust the sound level at any time.

To change the volume: press the '+' button to raise the volume or '-' button to lower the volume.

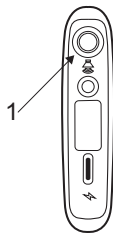
It is advised to set the volume before affixing the device to the TV.



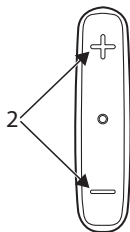
Adjustable delay mode

Some audio systems create a delay in the sound production. This delay may result in the image from the TV not matching the sound. The Delay mode allows you to match the TV image with the sound by increasing or decreasing the time between streaming of sound to your hearing aids.

1. Delay mode will activate after pressing the pairing/delay button for 10 seconds. The LED will flash green in long intervals to confirm you are in the Delay mode.



2. Press the + or - to increase or decrease the sound delay from the TV.



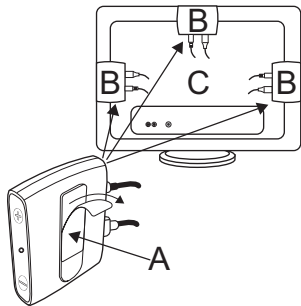
3. To leave Delay mode, press and hold the pairing/delay button for 3 seconds or reboot the TV-Streamer+ by removing and reinserting the power cable.

Placement of the device

Although you can place the TV-Streamer+ almost anywhere within the limitations of the cable length, it is recommended to affix the TV-Streamer+ on the back panel of the TV. Remove one of the plastic covers from the hook and loop sticky pads and place the sticky pad on the TV-Streamer+. Remove the remaining plastic cover from the pad and

use the sticky pad to place the device close to the edge or the top of the TV on the back panel.

- A. Hook and loop tape
- B. Recommend location options for affixing the TV-Streamer+
- C. Do not affix the TV-Streamer+ in the center of the TV



Daily use

ON / OFF

Turn ON your TV. To accept the TV sound in your hearing aids press the configured push button.

NOTE: The length of the press on your configured push button on your hearing aid to accept or reject the sound can be defined by your hearing care professional.

Sound from the TV will then mix in with the other sounds picked up by your hearing aids.

To turn OFF TV sound, press the hearing aid configured push button or turn OFF the TV.

When the TV-Streamer+ is not being used for longer periods, unplug the power supply from the wall socket



WARNING: When you disconnect a cable, grasp and pull the plug, do not pull the cable.

Other audio sources

You can use the device with other devices that have compatible outputs such as a personal computer or other audio systems.

Adjusting volume

The TV audio can be adjusted up/down on your hearing aids, the hearing aid remote control (optional), or the hearing aid app (optional).

Ask your hearing care professional for more information about these alternative options for operating your TV-Streamer+.

Connecting the device and hearing aid app

The device can be controlled via the same app that supports your hearing aids.

This will allow you to start and end the streaming and to adjust volume from the app.

The app provides access to a number of settings options such as Auracast™ broadcast audio and Sound delay.

If necessary, the app will provide notifications of firmware updates and product enhancements.

Download the app or ask your hearing care professional for more information.

NOTE: Partner-supplied devices may not have the same app functionality.

Phone calls

When using the device, you can still receive phone calls if your hearing aids are connected to your mobile device.

You will hear an alert in your hearing aids to signal an incoming call and your hearing aids will automatically stop the audio signal from the device if you choose to answer the incoming call – refer to your hearing aid or partner device user guide for more information on how to accept phone calls. The hearing aids automatically switch back to the device audio signal after the phone call ends.

Range

The streaming range from device to hearing aids is up to 7 meters (23 feet), depending on hearing aid. You do not have to have the device in your view; you can be in another room. However, environmental interference like walls or furniture may reduce the operating range.

If the hearing aids are out of range of the device, the audio transmission will stop. Once the hearing aids are back into the range of device, the audio signal will automatically resume streaming.

There is a time limit of 5 minutes for automatic reconnection. If you are out of range for more than 5 minutes, you will have to restart the streaming manually via your hearing aids or the app.

This device includes an RF transmitter that operates in the frequency range of 2.4 GHz to 2.48 GHz.

Resetting the device

The device can be reset to factory default settings.

To do a reset to factory settings, press and hold the volume + button for 10 seconds while simultaneously powering on the device.

General warnings and cautions



WARNING:

- The TV Streamer+ may be interfered with by other equipment.
When using the TV Streamer+ and the device is affected by electromagnetic interference, move away from the source.
- When using wireless functions, your TV Streamer+ sends low-powered digitally coded transmissions to communicate with other wireless devices. It is possible, but not likely, that other electronic devices will be affected. If this happens, move the TV Streamer+ away from the affected device.
- External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1:2005+A1:2012+A2:2020-1, IEC 60065, or IEC 60950-1, IEC 62368-1 as appropriate.
- No modification of this device is allowed.
- Keep the device and any cords and cables away from operating machinery.
- If the device experiences overheating, dropping, damage, or immersion in liquid, or its power adaptor, cable or plug is damaged, stop using it and contact your hearing care professional.
- Do not use in areas where there are explosive hazards or where there is a danger of ignition of flammable gasses.
- Avoid exposing your device to rain, moisture or other liquids to protect against damage to the device or injury to you.
- Keep your TV-Streamer+ away from pets, children and people with cognitive, intellectual or mental health challenges.
- Always use the latest available software update for your device.



CAUTION:

- High-powered electronic equipment, larger electronic installations, and metallic structures may significantly reduce the operating range.
- If the hearing aids do not respond to the device because of an unusual field disturbance, move away from the disturbing field.
- Use only GN Hearing A/S original accessories.
- Do not use this device in locations where it is forbidden to use electronic devices.
- Your hearing aids and this device were given a unique communication code during the fitting. This ensures that the device will not affect hearing aids worn by others.
- The TV Streamer+ may only be repaired by an authorized service center.
- Opening or modifying the TV Streamer+ might damage it. If problems occur which cannot be resolved by following the remedy guidelines in the troubleshooting section of this user guide, consult your hearing care professional.

Maintenance

Cleaning

Clean the device using a damp cloth. Never use household cleaning products (washing powder, soap, etc.) or alcohol to clean the device.

Servicing

This device cannot be serviced nor repaired in the home. Please contact your local hearing care professional for assistance if the device fails to function as expected.

Connections checklist

If you cannot hear the sound from the TV or audio source, check the following:

- Test the connection of the TV-Streamer+ to the hearing aids – See 'Pairing your device'.
- Test the connection of the TV-Streamer+ to the TV or audio device – See 'How to install the TV Streamer'.
- Ensure all cables are properly inserted in the TV-Streamer+ and TV or audio device
- Confirm that the TV-Streamer+ has power – look for indicator light on TV-Streamer+ – See 'How to install the TV Streamer'.

NOTE: If you hear humming in your hearing aids after connecting to the TV-Streamer+ via the audio cable, take the following steps to overcome the issue:

- connect the TV-Streamer+ to the TV via the digital (optical) cable
- use an external power source
- turn up the sound on the TV and down in your hearing aids.

Technical specifications

Dimensions	
Length x width x height	70.6 x 15.7 x 49.5mm (2.7 x 0.6 x 1.9")

Operational Conditions	
Operating range	Up to 7 meters (23 feet)
Power supply	USB compliant supply 5V DC
Wireless	2.4 GHz
Nominal RF output power transmitted	maximum 12.0 dBm
Operating temperature range	5°C to 40°C (41°F to 104°F)

Temperature conditions	
Storage temperature range	Minus 25°C to 70°C (minus 13°F to 158°F)
Temperature testing	The device is subject to various tests in temperature and damp heating cycling between minus 25°C and 70°C according to internal and industry standards.

Regulatory information

Warranties and repairs

The SAS-4 is covered by a limited warranty issued by the manufacturer for a period of 12 months from the day of the original purchase. Please notice that extended warranties may apply in your country. Please contact your local hearing care professional for more information.

What is covered by this warranty

Any electrical component, that because of workmanship, manufacturing or design defects fails to function properly under normal use during life of this warranty will be replaced or repaired at no charge for parts or labor when returned to the point of purchase.

If it is determined that repair is not feasible, the entire unit may be replaced with an equivalent unit upon mutual agreement of the hearing care professional and the customer.

What is not covered by this warranty

Problems arising from improper handling or care, excessive use, accidents, repairs made by an unauthorized party, exposure to corrosive conditions or damage due to foreign objects entering the device are NOT covered by the limited warranty and may void it. The above warranty does not affect any legal rights that you might have under applicable national legislation governing sale of consumer products. Your hearing care professional may have issued a warranty that goes beyond the clauses of this limited warranty. Please consult your hearing care professional for further information.

Expected service lifetime

The expected service life time for the device is a minimum of 5 years.

Statement

This device complies with Part 15 of the FCC Rules.

Its 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.

This Class B digital apparatus complies with Canadian ICES-003.

Note. 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.

Changes or modifications can void the user's authority to operate the equipment.

This device is in compliance with the following regulatory requirements

- In the EU: The device conforms to the General Safety and Performance Requirements according to Annex I of the EU Medical Device Regulation 2017/745 (MDR).
- Hereby GN Hearing A/S declares that the radio equipment type SAS-4 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:
www.declarations.resound.com/en/
- In US: FCC CFR 47 Part 15, subpart C.

Model: SAS-4; FCC ID: X26SAS-4; IC: 6941C-SAS-4.

For other identified applicable international regulatory requirements in countries outside the EU and USA, please refer to local country requirements for those areas.

Acknowledgements

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Manufacturer according to EU
Medical Device Regulation
2017/745 and Health Canada:



GN Hearing A/S
Lautrupbjerg 7
DK-2750 Ballerup
Denmark

Manufacturer according to FDA:

GN Hearing
8001 E Bloomington Freeway
Bloomington, MN 55420
USA



Any serious incident that has occurred in relation to the device should be reported to the legal manufacturer GN Hearing A/S and the competent authority of the EU Member State in which the user and/or patient is established.