



User guide

TV-Streamer+



Table of Contents

Introduction	4
Symbols	5
Getting to know your device	7
How to install the TV-Streamer+	10
Using the TV-Streamer+ for the first time	12
Daily use of the TV-Streamer+	17
Warnings	19
Maintenance	21
Technical specifications	22
Regulatory information	23
Statement	24
Acknowledgements	27

Introduction



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

Intended purpose

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

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

Target group

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

Therapeutic indications

The accessory has no therapeutic indications in itself.
















Contra-indications

No known contra-indications.

Intended clinical benefits

The intended clinical benefit is improved audibility when watching television or listening to sound from other audio device.

Symbols

	WARNING: Points out a situation that could lead to serious injuries.		Legal manufacturer.
	CAUTION: Indicates a situation that could lead to minor and moderate injuries.		Date of manufacture.
	NOTE: Advice and tips.		Unique Device Identification.
	Follow instructions for use. (Logo in blue)		Regulatory compliance mark for Australia and New Zealand.
	Equipment includes an RF transmitter.		Regulatory compliance mark for Japan.
	Product is a Type B applied part.		Regulatory compliance mark for Malaysia.
	Regulatory compliance mark for Korea.		Regulatory compliance mark for Taiwan.
	Regulatory compliance mark for EU.		



Do not dispose of your devices and batteries with ordinary household waste. Your devices and batteries should be disposed of at sites intended for electronic waste or returned to your hearing care professional for safe disposal.

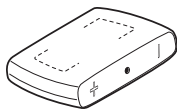
NOTE: Country-specific regulations may apply.

Getting to know your device

The TV-Streamer+ 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 TV-Streamer+. The connection guide will show you how to set up the physical connections. For how to pair the TV-Streamer+ with your hearing aids see - "Using the TV-Streamer+ for the first time".

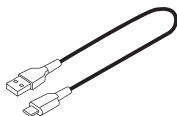
Unpacking — box contents



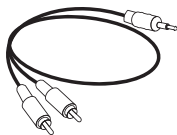
TV-Streamer+



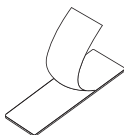
Digital (optical) audio cable
(remove cable plug covers
before use)



USB-A to USB-C cable
(used to supply power from
the TV to the TV-Streamer+)

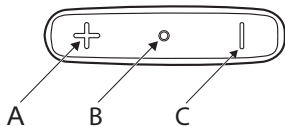


Analogue audio cable

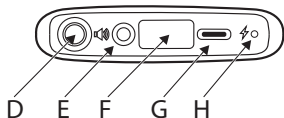


Hook and loop fastening
tape strip

Description of the TV-Streamer+











- A. Increase volume/delay adjustment
- B. LED indicator: audio streaming/pairing indicator
- C. Decrease volume/delay adjustment



- D. Pairing/delay mode button
- E. Audio input: analogue 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	Process	Description
	Streaming	Constant ON
	Stand-by	Constant OFF
	Pairing mode	Flashing
	Successful pairing	Constant ON for 3 seconds
	Firmware update	Fast flashing
	Adjustable delay mode	Long flashing
	Starting error	3 medium flashes repeating
	Firmware update completed	Constant ON for 3 seconds

How to install the TV-Streamer+

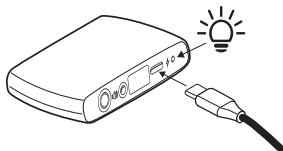
Follow the below instructions to install and set up the TV-Streamer+.

Connect the TV-Streamer+ 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 TV-Streamer+.

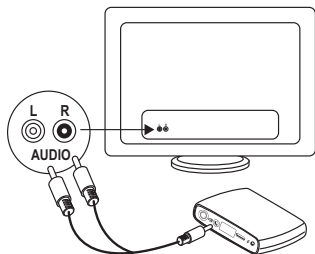
The LED light on the back of the TV-Streamer+ will show white to indicate activation after the power cable has been inserted to a power source.



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

Analogue cable connection

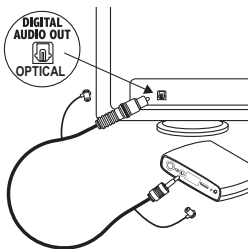
For TV with analogue audio: insert the 2-into-1 audio plugs into the L and R AUDIO sockets on your TV and the other end into the TV-Streamer+.



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 TV-Streamer+ for the first time

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



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

Pairing the TV-Streamer+ to your hearing aids

To transmit sound from the TV-Streamer+ to your hearing aids you need to pair the devices.

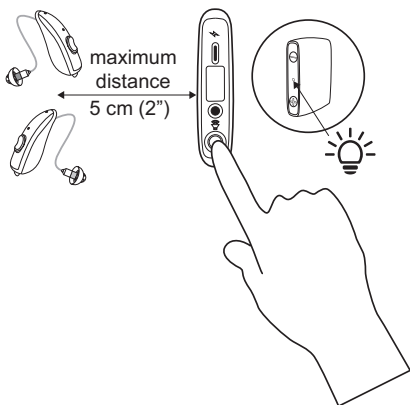


NOTE: To avoid accidental pairing, turn off all other nearby hearing aids. If it is not possible to turn off the hearing aids not to be paired, place them at least 1 metre (3 feet) from the TV-Streamer+.

To pair the devices:

1. The TV-Streamer+ and the hearing aids must be turned ON and be within 5 cm (2") of each other.
2. Pairing mode will be activated by pressing the pairing button on back of the TV-Streamer+. Press the button until the front LED starts flashing green in short intervals.

The hearing aids will be paired one at the time. 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.



The pairing LED sequence

- 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.



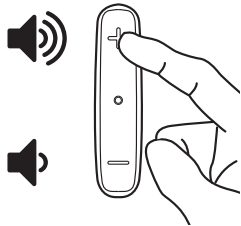
NOTE: The TV-Streamer+ pairing option is open for 3 minutes, but streaming can start before the pairing search has finished.

Adjusting the volume

The TV-Streamer+ 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 on the TV-Streamer+ at any time.

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

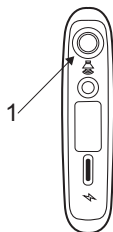
It is advised to set the volume before affixing the TV-Streamer+ to the TV.



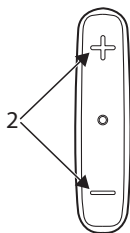
Delay mode

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.

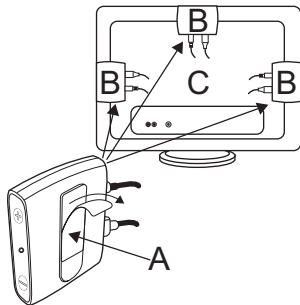


3. To leave Delay mode, press and hold the pairing/delay button for 3 seconds or reboot the TV-Streamer+ by removing and reinserting the power cable.

TV-Streamer+ placement

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 centre of the TV



Daily use of the TV-Streamer+



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

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.

Other audio sources

You can use the TV-Streamer+ with 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 TV-Streamer+ and hearing aid App

The TV-Streamer+ 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 stereo/mono, 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.

TV-Streamer+ and phone calls

When using the TV-Streamer+, 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 TV-Streamer+ 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 TV-Streamer+ audio signal after the phone call ends.

Range

The streaming range from TV-Streamer+ to hearing aids is about 7 metres (23 feet). You do not have to have the TV 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 TV-Streamer+ the audio transmission will stop. Once the hearing aids are back into the range of TV-Streamer+, 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.

Warnings

- Only connect the device to connections for which it is intended.
- External devices connected to the electrical input must be safe according to the requirements of IEC 60601-1, IEC 60065, EN/IEC 62368-1, or IEC 60950-1, as appropriate.
- No modification of this device is allowed.
- High-powered electronic equipment, large electronic installations, and metallic structures may significantly reduce the operating range.
- Keep the device and any cords and cables away from operating machinery.
- If the device overheats, if the device has been dropped or damaged, if the device has a damaged cord or plug, or if the device has been dropped in a liquid, discontinue use 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.
- If small parts are swallowed, seek immediate medical attention.
- Only use the cables supplied by the manufacturer.
- If the device has been dropped or damaged, do not use and consult with your hearing care professional.



Cyber security

- If your device plays the pairing sound at an unexpected time, this could indicate someone has gained access to your device.
- Always use the latest available software update for your device.
- When using wireless functions, your TV-Streamer+ uses 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 electronic device.

Maintenance

Cleaning

Clean the TV-Streamer+ using a damp cloth. Never use house-hold 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 the TV-Streamer+ to your hearing aids", page 13
- Test the connection of the TV-Streamer+ to the TV or audio device – See "How to install the TV-Streamer+", page 10
- 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+", page 10.



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 15.6 x 49.5mm (2.7 x 0.6 x 1.9")
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Operational conditions

Operating range	Up to 7 metres (23 feet)
Power supply	TV USB port
Bluetooth wireless transmission frequency	2.4 GHz
Operating temperature range	+5 °C – +40 °C (+41 °F – 104 °F)

Operational environmental conditions

Relative humidity range	15 % – 90 %, non-condensing, but not requiring a water vapour partial pressure greater than 50 hPa
Atmospheric pressure range	700 hPa – 1060 hPa

Storage temperatures

Temperature range	-25 °C – +70 °C (-13 °F – 158 °F)
The TV-Streamer+ shall remain operational after transport or storage in the following environmental range	-25 °C – +5 °C (-13 °F – 41 °F), and +5 °C – +35 °C (41 °F – 95 °F) at a relative humidity up to 90%, non-condensing. +35 °C – +70 °C (95 °F – 158 °F) at a water vapour pressure up to 50 hPa.

Regulatory information

Warranties and repairs

The TV-Streamer+ 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 labour 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 life time

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.

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.



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 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 product is in compliance with the following regulatory standards:

In 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

In US: FCC CFR 47 Part 15, subpart C.

Other identified applicable international regulatory requirements in countries outside EU and US. Please refer to local country requirements for these areas.

Model: SAS-4; FCC ID: X26SAS-4; IC: 6941C-SAS4.

During its normal use, the separation distance between the radiating structures of the device and nearby users must be greater than 20 cm [approximately 7.9"]. During pairing process a conservative RF exposure assessment distance of 0 cm [0.0"] (0.5 cm [approximately 0.2"] applied for the evaluation) and a maximum time of exposure of 50 seconds have been used for the assessment.

This Class B digital apparatus complies with Canadian ISSED rules.

Cet appareil numérique de la classe B est conforme à la norme ISSED du Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

In Japan: This device has been granted a designation number by Ministry of Internal Affairs and Communications under "Ordinance concerning Technical Regulations

Conformity Certification etc. of Specified Radio Equipment (特定無線設備の技術基準適合証明等に関する規則)” Article 2-1-19 “This device should not be modified (otherwise the granted designation number will be invalid)“.

Acknowledgements

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Manufacturer according to
EU Medical Device Regulation
2017/745:



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



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.