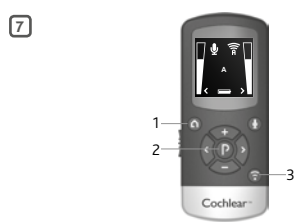


Cochlear Baha Remote Control\*



# Welcome

Congratulations on your purchase of a Cochlear™ Wireless TV Streamer\*\*.

## Key to device *See figure 1* 1

1. Micro-USB power socket
2. Pairing button
3. Mono/stereo switch
4. Analogue mini-jack audio input
5. Optical (Toslink) audio input
6. Coaxial audio input
7. Increase volume
8. Decrease volume
9. Power light (green)
10. Activity light (yellow)
11. Wall plug
12. Mini-USB plug

## Introduction

The Cochlear Wireless TV Streamer will provide you with high quality streamed audio from your TV, stereo, personal computer or similar device directly to your sound processors.

Please read this manual carefully to fully benefit from the Cochlear Wireless TV Streamer. Ask your hearing care professional if you have any questions. For further information you can also visit the [www.cochlear.com](http://www.cochlear.com) web site.

For your safety, carefully read the chapter "Important Information".

## Warranty

The warranty does not cover defects or damage arising from, associated with, or related to the use of this product with any non-Cochlear processing unit and/or any non-Cochlear implant. See "Cochlear Global Limited Warranty card" for more details.

## Key to symbols

The following symbols will be used throughout this document.

	"Consult instructions for use" or "Operating instructions"
	"Caution" or "Caution, consult accompanying documents"
	CE-mark
	Serial Number
	Refer to instructions/booklet
	ACMA (Australian Communications and Media Authority) compliant
	Please ask your hearing care professional concerning disposal of this device.
	Wireless enabled

## Getting Started

### Installing the TV Streamer

Depending on your TV, stereo, computer or other audio setup, the installation of the TV Streamer may be done in several ways, which are described in the following section. The following steps will guide you through the pairing and connecting process. Start by connecting cables between the TV Streamer and the audio source and finish by pairing the TV Streamer to your sound processors.

**Note:** The TV Streamer supports both analogue and digital audio input. Please read the following sections for information about supported audio formats and how to connect the TV Streamer to audio sources.

### Connecting the TV Streamer to an analogue audio source (e.g. TV or stereo):

*See figure 2* 2

1. Connect the power supply to the wall socket and insert the cable into the micro-USB socket on the TV Streamer.
2. Insert the male stereo mini-jack on the audio cable into the female stereo mini-jack input on the TV Streamer [no. 4 in figure 1].
3. Plug the other end audio cord into the "AUDIO OUT" terminals on the audio source. The "AUDIO OUT" is usually marked "L – R" for left and right, and can usually be found on the back of the audio source.

**Note:** With this installation, most audio sources will send sound to both sound processors and additional speakers connected to the audio source simultaneously. On some audio sources you can adjust the balance between the AUDIO OUT and the speakers. Consult your audio source manual for instructions.

### Alternative analogue audio cable installations:

If it is not possible to connect the TV Streamer to the AUDIO OUTPUT of the audio source using the red and white plugs, the following installation alternatives can be used:

#### Mini-jack adaptor:

*See figure 3* 3

1. Connect the power supply to the wall socket and insert the cable into the micro-USB socket on the TV Streamer.
2. Insert the male stereo mini-jack on the audio cable into the female stereo mini-jack input on the TV Streamer [no. 4 in figure 1].
3. Connect the stereo mini-jack adaptor to the red and white plugs at the other end of the audio cable.
4. Plug the stereo mini-jack adaptor into the audio source's "HEADPHONE" output terminal or alternatively into your computer's audio terminal.

**Note:** The HEADPHONE output socket is usually located on the side or front of the audio source. When using the HEADPHONE socket, usually only the person wearing the sound processors will hear the sound and audio source speakers are muted. If muted speakers are not desired, please refer to the first installation, or the one on the following page. Your audio source may support speakers and HEADPHONE being on simultaneously; check your audio source manual for instructions.



E6056

Cochlear™



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# Wireless TV Streamer User Manual



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## Scart adapter:

See *figure 4* **(4)**

- Connect the power supply to the wall socket and insert the cable into the micro-USB socket on the TV Streamer.
- Insert the male stereo mini-jack on the audio cable into the female stereo mini-jack input on the TV Streamer [no. 4 in figure 1].
- Connect the scart adapter to the red and white plugs at the other end of the audio cable.
- Plug the scart adapter into the audio source's scart terminal. **Note: The scart output terminal is usually located on the back or side of the audio source.**

Please consult your audio source's manual if additional scart output configuration is needed.

### Connecting the TV Streamer to a digital audio source (e.g. TV or stereo)

**Note:** The TV Streamer supports both analogue and digital audio input. When using digital audio input the following formats are supported:

Stereo PCM

- Sample rate: Up to 192 kHz

- Sample resolution: Up to 32 bit

Dolby Digital

Channels: Max 5.1

Bitrate: 32 kbs to 640 kbs

- Sample rate: 32, 44.1 and 48 kHz

**Note:** **Dolby Digital Plus (requiring an HDMI interface), Dolby True-HD, Dolby Pro Logic, Dolby Digital EX, Dolby Digital Surround EX, and AAC (Advanced Audio Codec) are not supported.**

### Using the optical (Toslink) audio input

See *figure 5* **(5)**

- Connect the power supply to the wall socket and insert the cable into the micro-USB socket on the TV Streamer.
- Insert one of the plugs on the optical audio cable into the optical audio input socket [no. 5 in figure 1] on the TV Streamer.

1. Note: Most optical cables are delivered with a small protective cap to protect the tip of the cable. Please remove this protective cap before inserting the cable.

2. Plug the other end of the optical audio cable into the "Digital Audio Out/Optical" on your audio source.

### Using the coaxial audio input

See *figure 6* **(6)**

- Connect the power supply to the wall socket and insert the cable into the micro-USB socket on the TV Streamer.
- Connect one of the plugs on the coaxial audio cable to the coaxial plug [no. 6 in figure 1] on the TV Streamer.
- Plug the other end of the coaxial audio cable into the "Digital Audio Out/Coaxial" on your audio source.

## Pairing with your sound processors

Up to three streaming devices, e.g. two TV Streamers and one Cochlear Wireless Mini Microphone™ (optional accessory) can be paired with a given pair of sound processors. Therefore channel 1, 2 or 3 must be selected when starting the pairing process.

### Pairing the TV Streamer in channel 1

1. Make sure that the TV Streamer power supply is plugged into a wall socket and that the green light indicator on the front of the TV Streamer [no. 9 in figure 1] is ON. Your sound processors must be OFF.

2. Press the pairing button on the TV Streamer [no. 2 in figure 1] once. The yellow indicator light on the front of the TV Streamer [no. 10 in figure 1] will now flash once every 2 seconds to indicate that the TV Streamer is ready to be paired in channel 1. Your TV Streamer will remain in pairing mode for 20 seconds.

3. While pairing mode is activated, close the battery doors of both sound processors and make sure they are ON. Successful pairing will be indicated by an audible melody being played in both sound processors. You are now ready to use the TV Streamer.

### Pairing the TV Streamer in channel 2

1. Press the pairing button twice. The yellow indicator light on the front of the TV Streamer will now flash twice every 2 seconds to indicate that it is ready to be paired in channel 2.

2. While in pairing mode close the battery doors on the sound processors.

### Pairing the TV Streamer in channel 3

1. Press the pairing button three times. The yellow indicator light on the front of the TV Streamer will now flash three times every 2 seconds to indicate that it is ready to be paired in channel 3.

2. While in pairing mode close the battery doors on the sound processors.

Pairing flashing pattern				
Pairing button pushes	LED blinking pattern			Channel
1	①	①	①	1
2	①②	①②	①②	2
3	①②③	①②③	①②③	3

## Start and stop streaming

Turn on the TV, stereo, computer or other audio device connected to the TV Streamer. Make sure your sound processors are turned on as well. Streaming may be started in one of two ways:

1. Press and hold the button on either sound processor for about three seconds. Once the TV Streamer has been connected, an audible melody will play in your sound processor and will be followed by the streamed sound.

2. If you have a Cochlear Baha Remote Control (optional), simply press the streaming button [no. 3 in figure 7] on this Remote Control. Once the sound processors connect to the TV Streamer, an audible melody will play in both ears

to confirm the presence of streamed audio and a streaming icon will appear in the display. The streamed sound can now be heard in your sound processor.

### Start streaming on a 2nd or 3rd TV Streamer unit

See *figure 7* **(7)**

If more than one TV Streamer device is available, you may press the streaming button [no. 3 in figure 7] on the Baha Remote Control a 2nd or 3rd time, depending on which TV Streamer device you want to listen to.

Up to 3 TV Streamer units are initially designated by the letters A, B or C and the streaming device in use is shown on the Baha Remote Control display. If you do not have a Baha Remote Control, press and hold the button on the sound processor for about 3 seconds a 2nd or 3rd time to access the 2nd or 3rd streaming unit.

## Stop streaming

Briefly press the button on either sound processor. This will cancel streaming on the side pressed and return to the most recently used program.

With the Baha Remote Control (optional), simply press the "P" button [no. 2 in figure 7], located in the centre of the keypad. This will return the sound processors to the most recently used program. You may also press the home button [no. 1 in figure 7] to return to your default settings. If you are using the telephone with the Cochlear Wireless Phone Clip™™ (optional), streaming from the TV Streamer will be temporarily interrupted. When you have ended your phone call, streaming will resume.

Note! Your TV Streamer's range is approximately 7 meters. If you move out of range and move back into range within 5 minutes, your sound processors will automatically reconnect and continue streaming.

## Controls

### Volume control

The TV Streamer is designed to provide a comfortable listening level from the moment it is activated. However, for some devices or listening environments, it may be desirable to adjust the listening volume and doing so can be accomplished in a variety of ways. Keep in mind that volume adjustments on the TV Streamer apply to the streamed signal only, not to the volume of normal environmental sounds. Use the "+" and "-" keys [no. 7 and 8 in figure 1] to adjust volume to a comfortable level. Make sure that your sound processors are comfortably adjusted before you change the settings with the volume control. In most cases this adjustment should only be made once since the TV Streamer will store the most recently set volume level. Use the Baha Remote Control 2 (optional) to adjust both the streaming volume level and the sound processor microphone volume level. Ask your hearing care professional for more information about this accessory. The volume can, in some cases, be further adjusted at the signal source, for example by turning the TV volume down. This will adjust the volume of the streamed sound transmitted wirelessly to the sound processors. Adjusting the TV volume will affect the listening volume in the room as well.

Adjusting sound processor and streaming volume is only possible with the Cochlear Baha Remote Control and Cochlear Baha Sound Processor.

### Mono/stereo control

The two-position switch [no. 3 in figure 1] may be used to set Stereo (two channels) or Mono (one channel) audio streaming. For binaural fittings, the switch should preferably be set to the Stereo position. For monaural fitting it should be set to the Mono position.

## Adjustable delay mode

In rare cases there may be a misalignment between the audio streamed to the sound processors and the sound coming from the TV speakers (echo) or even a misalignment between the streamed audio and the TV picture (lip-sync). This may be evident in more complex audio setups where the TV Streamer is not connected directly to the TV (e.g. through a set-top box or other auxiliary unit). To overcome such misalignments the streaming delay from the TV Streamer can be adjusted as follows:

- Make sure that the TV Streamer is turned on and that your sound processors are receiving the streamed audio.
- Press and hold the pairing button [no. 2 in figure 1] for 3 seconds. The TV Streamer will then enter the adjustable delay mode where the green indicator light on the front of the TV Streamer will flash once every 2 seconds. The yellow indicator light will be on whenever an audio signal is present.
- Use the "+" and "-" key [no. 7 and 8 in figure 1] on the top of the TV Streamer to increase or decrease the delay of the streamed signal in 10-ms steps. The streamed signal can be delayed in the range of 0-250 ms.
- When the optimal alignment between the audio streamed to the sound processors and the sound coming from the TV speakers or alignment between the streamed audio and the TV picture has been reached, press and hold the pairing button for 3 seconds. Now the TV Streamer will resume normal operation, indicated by the green indicator light being constantly on.

The offset set in adjustable delay mode will be stored in the TV Streamer. If you do not exit the adjustable delay mode by pressing and holding the pairing button for 3 seconds, the TV Streamer will automatically resume normal operation after 30 minutes. To reset the delay to 0 ms (factory setting), press and hold the pairing button while simultaneously powering on the TV Streamer.

## Important Information

### Maintenance and Care

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

• When the TV Streamer is not being used for extended periods, unplug the power supply from the wall socket.

### General warnings

• Keep this device out of reach of children.

• The Cochlear TV Streamer uses low-powered digitally coded transmissions in order to communicate with other wireless devices. Although unlikely, nearby electronic devices may be affected. In such cases, move the Cochlear TV Streamer away from the affected electronic device.

• When using the Cochlear TV Streamer and it is affected by electromagnetic interference, move away from the source of the interference.

## Charger warning

• Use the TV Streamer only with the power supply unit that was supplied with the product.

• The use of other chargers may damage or destroy the product and could be dangerous. Use of other chargers may invalidate any approval or void the warranty.

• When you disconnect the power cord or any accessory, grasp and pull the plug, not the cord.

• Never use a charger that is damaged.

• Do not attempt to disassemble the charger because it may expose you to a dangerous electric shock.

• Do not use the charger outdoors or in damp areas.

### General precautions

• Your sound processors and this device were given unique communication codes during fitting. This ensures that the device will not affect sound processors worn by others.

• High-powered electronic equipment, larger electronic installations and metallic structures may impair and significantly reduce the operating range.

• Use only original Cochlear accessories.

• Do not alter or modify this device.

• Opening the Cochlear TV Streamer might damage it. If problems occur that cannot be resolved, consult your hearing care professional.

• The Cochlear TV Streamer may only be repaired by an authorized service centre.

• Do not use the Cochlear TV Streamer in areas where RF transmission is prohibited, e.g., in planes, etc.

• Only connect the Cochlear TV Streamer to connections for which it is explicitly intended.

## Technical specifications

### Temperature test, transport and storage information

Operating range	Up to 7 meters
Power supply	External wall socket
Wireless	2,4 GHz
Operating temperature	0 to 55 °C
Storage temperature	-20 to 60 °C

The product is subject to various tests in temperature and damp heating cycling between -25 °C and +70 °C according to internal and industry standards.

## Wireless Accessory type designations for models included in this User Manual are:

FCC ID QZ3SAS-3, IC 8039C-SAS3, IC model: SAS-3

### 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 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.

### List of countries:

The products are in compliance with the following regulatory requirements:

• In EU: the device conforms to the Essential Requirements according to Annex I of Council Directive 93/42/EEC for medical devices (MDD) and essential requirements and other relevant provisions of Directive 1999/5/EC (R&TTE). The declaration of conformity may be consulted at www.cochlear.com.

• Products with wireless functionality are intended for sale in countries within the European Economic Area as well as Switzerland. Specification of restrictions: You are not allowed to operate the equipment within 20 km of the centre of Ny Ålesund, Norway.

• In US: FCC CFR 47 Part 15, subpart C, section 15.249.

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

• Products are in compliance with EN 300 328.

• In Canada the TV Streamer is certified under the following certification number: IC:8039C-SAS3.

• This device complies with Industry Canada license exempt RSS standard(s)

• This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 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.

• Equipment includes RF transmitter.



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\* Cochlear™ Baha® Remote Control

\*\* Cochlear™ Wireless TV Streamer

\*\*\* Cochlear™ Wireless Mini Microphone

\*\*\*\* Cochlear™ Wireless Phone Clip