



SENNHEISER



Set 860

Digital wireless TV listening system

Model: Set 860, TR 860, RR 800

Instruction manual

Important safety instructions



- ▶ Read this instruction manual carefully and completely before using the product.
- ▶ Always include this instruction manual when passing the product on to third parties.
- ▶ Do not use an obviously defective product.
- ▶ Only use the product in environments where wireless 2.4 GHz transmission is permitted.

Preventing damage to health and accidents



- ▶ These headphones allow you to set higher volumes than conventional headphones. Protect your hearing from high volume levels.

Permanent hearing damage may occur when headphones are used at high volume levels for long periods of time. Headphones of the Sennheiser brand sound exceptionally good even at low and medium volume levels and provide excellent speech intelligibility.

- ▶ To prevent hearing damage, set the volume to a low level before passing the product on to third parties.
- ▶ Do not use the product in an environment that requires your special attention (e.g. when performing skilled jobs).
- ▶ The product (RR 800 stethoset receiver/MCA 800 charging adapter) generates stronger permanent magnetic fields that could cause interference with cardiac pacemakers, implanted defibrillators (ICDs) and other implants.



– Always maintain a distance of at least 3.94"/10 cm between the product component (RR 800 stethoset receiver) containing the magnet and the cardiac pacemaker, implanted defibrillator, or other implant.



– Do not use the MCA 800 charging adapter if you are wearing a cardiac pacemaker, implanted defibrillator, or other implant.

- ▶ Do not use the product near water. Do not expose the product to rain or moisture to reduce the risk of fire or electric shock.
- ▶ Keep the product, accessories and packaging parts out of reach of children and pets to prevent accidents. Swallowing and choking hazard.
- ▶ Only use the power supply units supplied by Sonova Consumer Hearing.

Preventing damage to the product and malfunctions

- ▶ Always keep the product dry and do not expose it to extreme temperatures to avoid corrosion or deformation. The normal operating temperature is from 5 °C to 40 °C/ 41 °F to 104 °F.

- ▶ Use the product with care and store it in a clean, dust-free environment.
- ▶ Switch off the product after use to conserve battery power.
- ▶ Unplug the power supply unit from the wall socket
 - to completely disconnect the product from the power source,
 - during lightning storms or
 - when not using the product for long periods of time.
- ▶ Always ensure that the power supply unit is
 - in a safe operating condition and easily accessible,
 - properly plugged into the wall socket,
 - only operated within the permissible temperature range,
 - not exposed to direct sunlight for longer periods of time in order to prevent heat accumulation.
- ▶ Varnish or furniture polish may degrade the feet of the transmitter, which could stain your furniture. You should therefore place the transmitter on a non-slip pad to avoid potential staining of furniture.
- ▶ Do not operate the product near heat sources.
- ▶ Clean the product only with a soft, dry cloth.
- ▶ Use only attachments/accessories/spare parts supplied or recommended by Sonova Consumer Hearing.

Safety instructions for Lithium-Polymer rechargeable batteries







WARNING

If abused or misused, rechargeable batteries may leak. In extreme cases, they may even present a risk of

- explosion
- heat and fire development
- smoke and/or gas development
- damage to health and/or the environment

	Only use rechargeable batteries and chargers recommended by Sonova Consumer Hearing.
	Do not leave the product / rechargeable batteries unattended while charging.
	Only charge the product / rechargeable batteries at ambient temperatures between 10 °C and 40 °C / 50 °F and 104 °F and do not charge them near easily flammable objects.
	Do not heat the product / rechargeable batteries above 70 °C/158 °F. Avoid exposure to sunlight and do not throw the product / rechargeable batteries into fire.

	Switch rechargeable battery-powered products off after use.
	When not using the product / rechargeable batteries for extended periods of time, charge them regularly (about every three months).
	Avoid prolonged skin contact with the product, rechargeable battery, charger or charging cable when connected to a power source. These components can heat up during charging and cause skin irritation.
	Dispose of defective products with built-in rechargeable batteries at special collection points or return them to your specialist dealer to facilitate recycling.

Intended use/Liability

This wireless TV listening system is suitable for use with TV sets, hi-fi systems, and home cinema systems and can be connected to analog and digital audio sources.

This product is intended for private domestic use only. It is not suitable for commercial use. This product is also not intended to be used with portable audio devices.

It is considered improper use when the product is used for any application not named in the corresponding product documentation.

Sonova Consumer Hearing GmbH does not accept liability for damage arising from misuse or improper use of this product and its attachments/accessories.

Before putting the product into operation, please observe the respective country-specific regulations.

Package contents



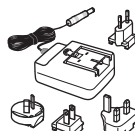
Stethoset receiver with built-in rechargeable battery

Model: RR 800



Transmitter with charging compartment

Model: TR 860



Power supply unit with multi-country adapters (EU, UK, US, AU)

Model: NT9-3AW



1 pair of silicone ear pads, large (pre-mounted upon delivery)



1 pair of silicone ear pads, small



1 pair of memory foam ear pads



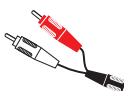
1 pair of open foam ear pads



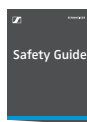
Optical digital cable, 1.5 m



Stereo audio cable with 3.5 mm jack plugs, 1.5 m



RCA adapter (3.5 mm jack socket to 2 RCA connectors)



Safety guide



Quick guide

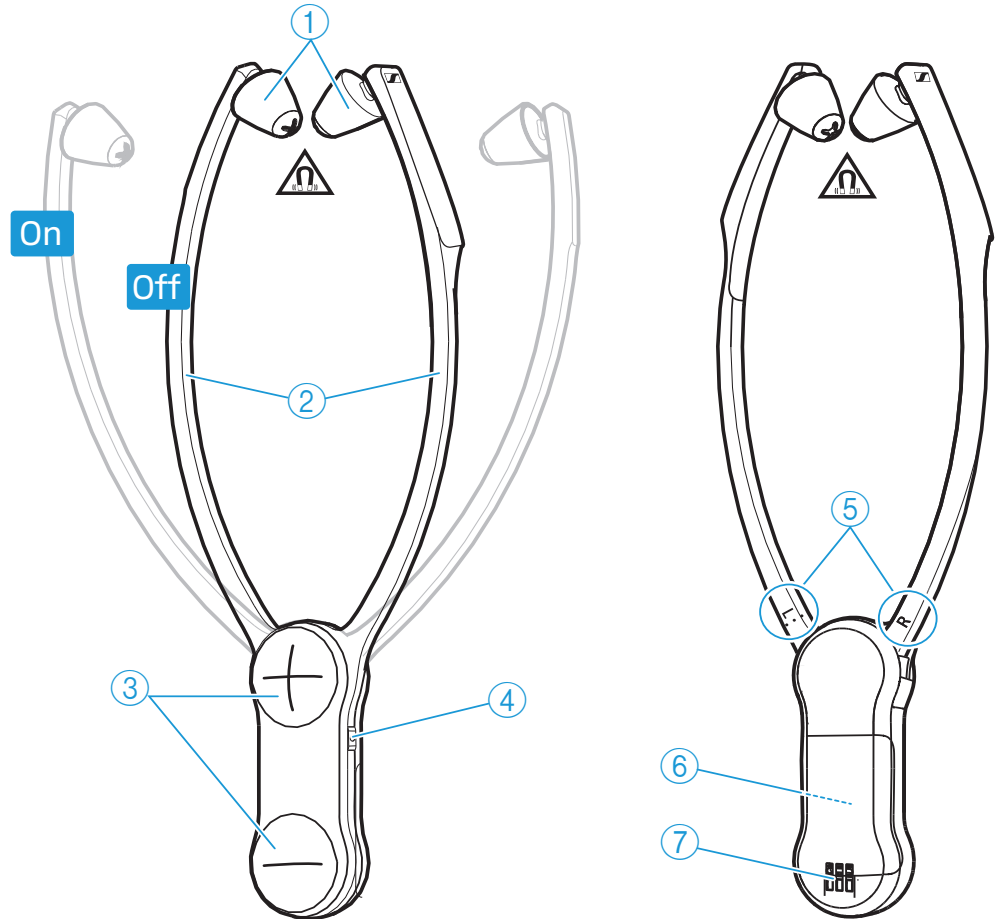
Online you can find:

- this detailed instruction manual and additional information (www.sennheiser-hearing.com/download).
- a list of accessories on the Set 860 product page at www.sennheiser-hearing.com (to purchase online or contact your local Sonova Consumer Hearing partner: www.sennheiser-hearing.com/service-support).

Product overview

Overview of the stethoset receiver

Model: RR 800

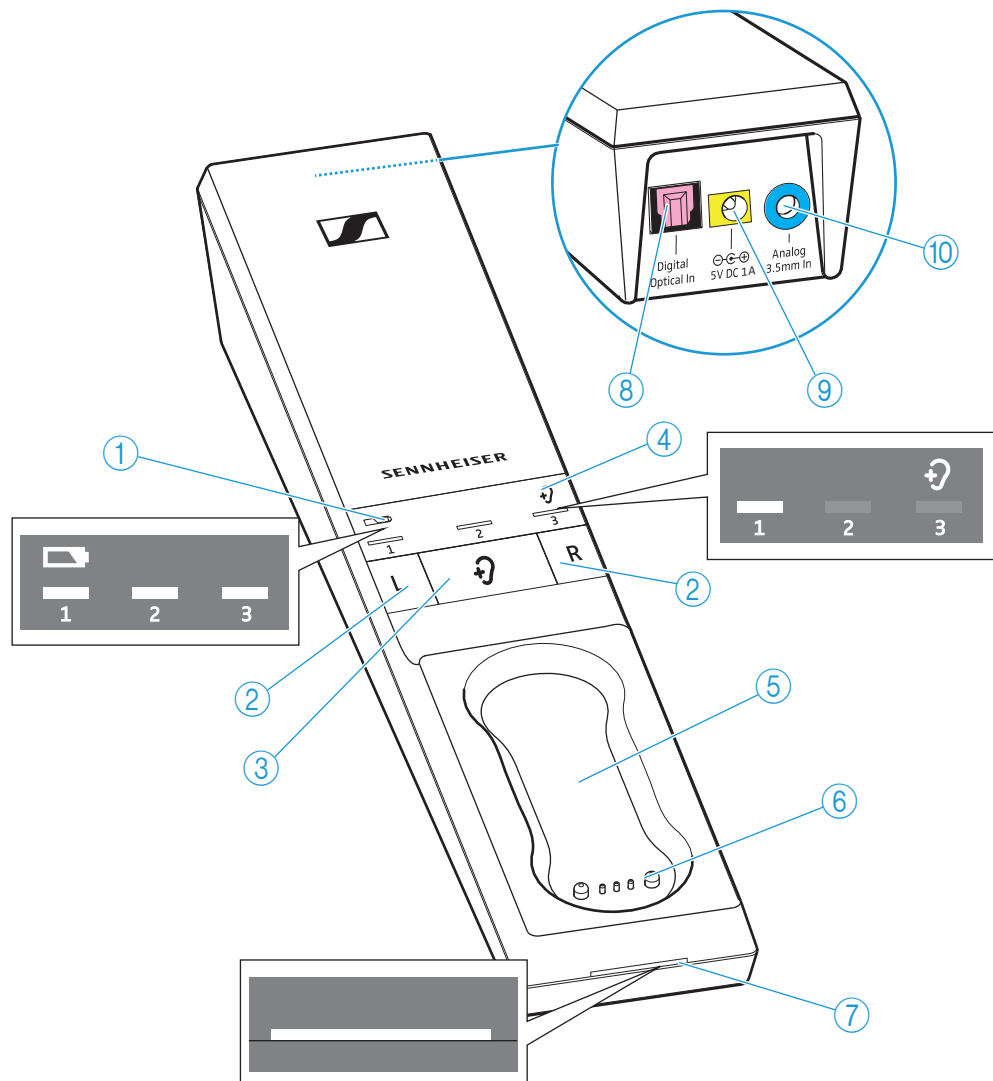





- ① Ear pads, replaceable
- ② Ear bows with on/off function
- ③ Volume buttons
+ and -
- ④ *Speech intelligibility* button

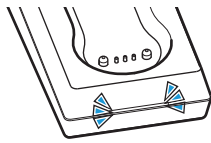
- ⑤ **R** marking for the right ear and **L** marking for the left ear
- ⑥ Built-in rechargeable battery
- ⑦ Charging contacts

Overview of the transmitter





Model: TR 860



- ① **Battery LED** , indicating the charging process/remaining operating time of the receiver (see page 15 and 17)
- ② Balance buttons for right ear **R** and left ear **L**
- ③ **Hearing profile button** , for selecting the hearing profiles (see page 24)
- ④ **Hearing profile LED** , indicating the activated hearing profile (see page 24)
- ⑤ Charging compartment for stetho-ear receiver
- ⑥ Charging contacts for stetho-ear receiver with holding magnets
- ⑦ **Transmitter status LED** (see page 8)
- ⑧ **Digital Optical In** audio input (marked pink) for connecting a digital audio source (optical)
- ⑨ **5V DC 1A** socket (marked yellow) for connecting the power supply unit
- ⑩ **Analog 3.5 mm In** audio input (marked blue) for connecting an analog audio source (3.5 mm jack socket)



Overview of the *Transmitter status* LED

<i>Transmitter status</i> LED	The transmitter...
—	... is in standby mode.
 ----- lights up white	... and the stethoset receiver are connected. The speech intelligibility function is deactivated (see page 27).
 ----- lights up blue	... and the stethoset receiver are connected. The speech intelligibility function is activated (see page 27).
  ----- flashes blue and white	... has detected an incompatible digital audio signal (see page 11).

i The LEDs on the transmitter indicate the current operating state. If you are not pressing any button on the stethoset receiver or the transmitter, the LEDs automatically dim after approx. 30 seconds to not disturb you.

Overview of the acoustic signals/beeps

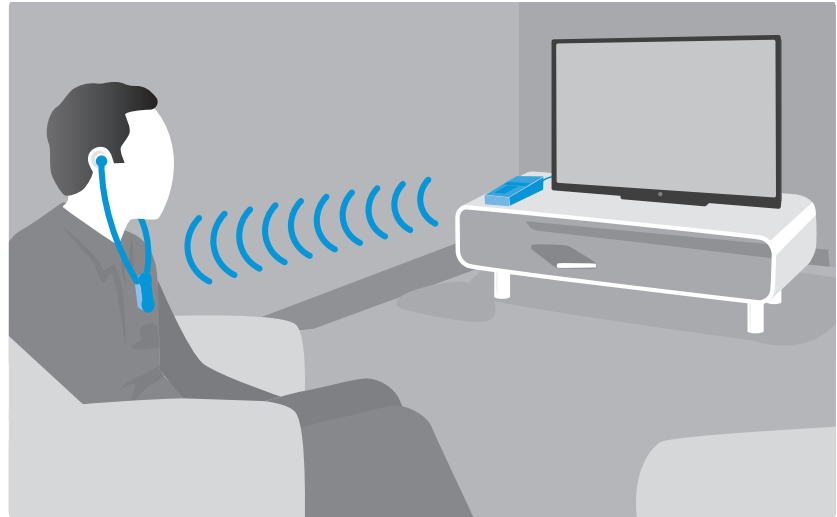


Beeps	Meaning
during operation, 2 beeps	The rechargeable battery is almost empty, recharge the rechargeable battery (see page 15).
during operation, no audio transmission, 5 beeps	The receiver is outside the transmission range (see page 44).
when changing the volume	The maximum or minimum volume is reached (see page 22).
when changing the balance setting	The maximum or minimum balance setting is reached (see page 23).

Putting the Set 860 into operation

Setting up the transmitter

- ▶ Place the transmitter near your audio source.
- ▶ Separate the transmitter from other wireless devices in the room by at least 50 cm/20" to avoid interference.
- ▶ Do not place the transmitter close to metal objects such as shelf bars, reinforced concrete walls, etc. as this can decrease the transmitter's range.



Connecting the transmitter to an audio source







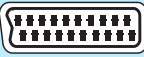

You can connect the transmitter either to a digital or an analog audio source (e.g. a TV and a stereo hi-fi system).

If you connect an audio source to **both** inputs (digital and analog), only the analog audio source will be reproduced.

i You can also refer to the beginner’s video guides on how to connect your digital wireless headphone system to a TV:

www.sennheiser-hearing.com/how-to-videos

- ▶ Switch your audio source off before connecting the transmitter.
- ▶ Check the connection possibilities of your audio source (audio output, usually marked “OUT”).
- ▶ Select the corresponding connection cable and, if necessary, a suitable adapter.
- ▶ To connect the transmitter to your audio source, refer to the connection diagram suitable for your audio source (see the following chapters). Follow the color codings on the transmitter and on the cables.

Connection possibilities of the audio source		Color coding on the transmitter	Connection cable	Page
A	Optical (digital) 		Optical digital cable	11
B	3.5 mm jack socket (analog) 		Stereo audio cable	12
C	RCA (analog) 		Stereo audio cable with RCA adapter (3.5 mm jack socket to 2 RCA connectors)	13
D	SCART (analog) 		Stereo audio cable with SCART adapter (3.5 mm jack socket to SCART connector; optional accessory)	13

i If you want to connect the transmitter to a TV that has only one HDMI output, you need an active HDMI audio adapter. Using this adapter, you can connect your TV to the transmitter.

An HDMI audio adapter and/or other accessories are available from your Sonova Consumer Hearing partner.

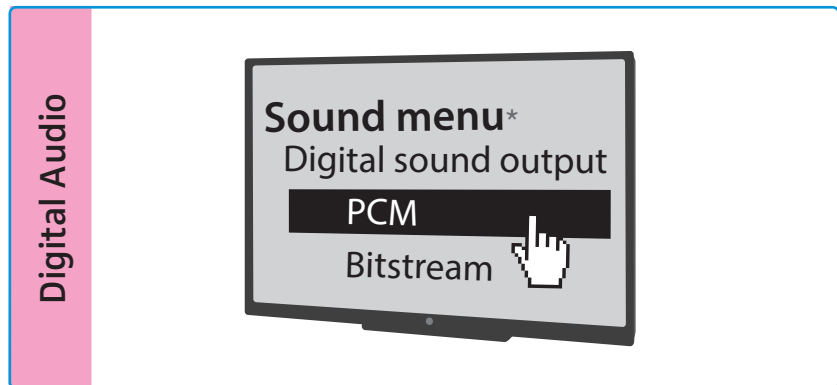
A

Connection possibility A: Optical (digital)

To achieve the best possible listening experience, connect the transmitter to your TV or hi-fi system using the supplied optical digital cable.

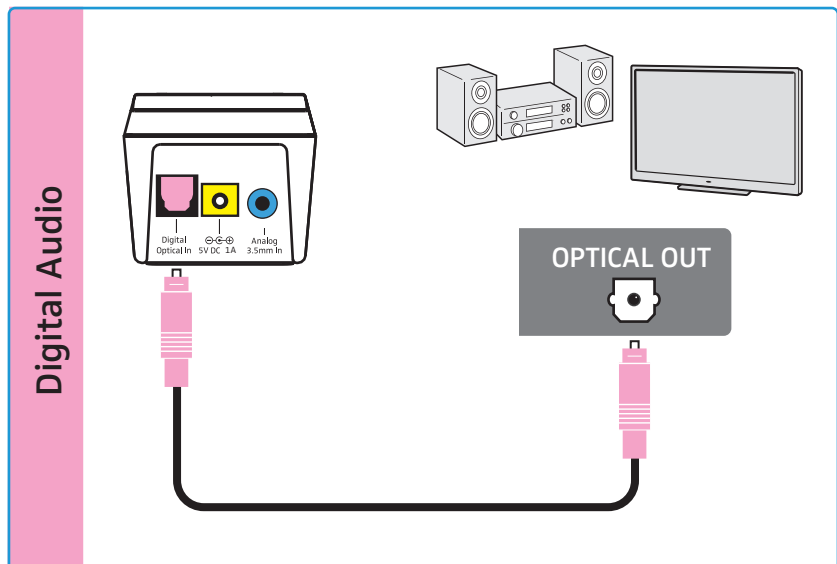
Note that your wireless headphone system only supports digital signals coded in the **PCM** format. Information on how to set the audio format of the connected audio source to PCM can be found in the Sound menu or in the instruction manual of your device.

If an incompatible digital audio signal is being received, the *Transmitter status* LED flashes white and blue. Audio playback is not possible.



* The appearance of the Sound menu can vary depending on the device you are using.

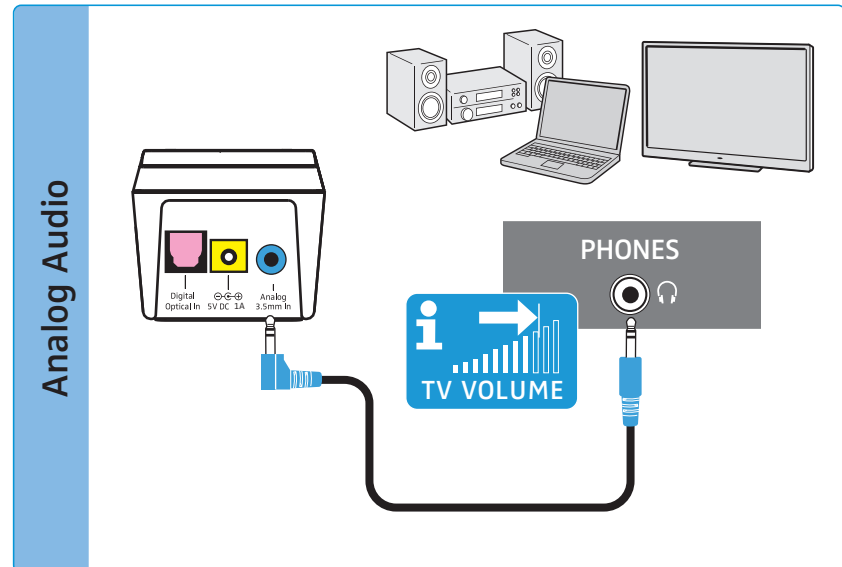
- ▶ Connect the optical digital cable to the pink **Digital Optical In** audio input of the transmitter and to the optical output of your audio source.



B

Connection possibility B: 3.5 mm jack socket (analog)

- ▶ Connect the stereo audio cable to the blue **Analog 3.5 mm In** audio input (3.5 mm jack socket) of the transmitter and to the 3.5 mm headphone socket of your audio source.



- i** Adjust the volume of the headphone socket on your TV/ audio source to **at least a medium level**. This improves the quality of wireless audio transmission. For detailed information, please refer to the instruction manual of your TV/audio source.

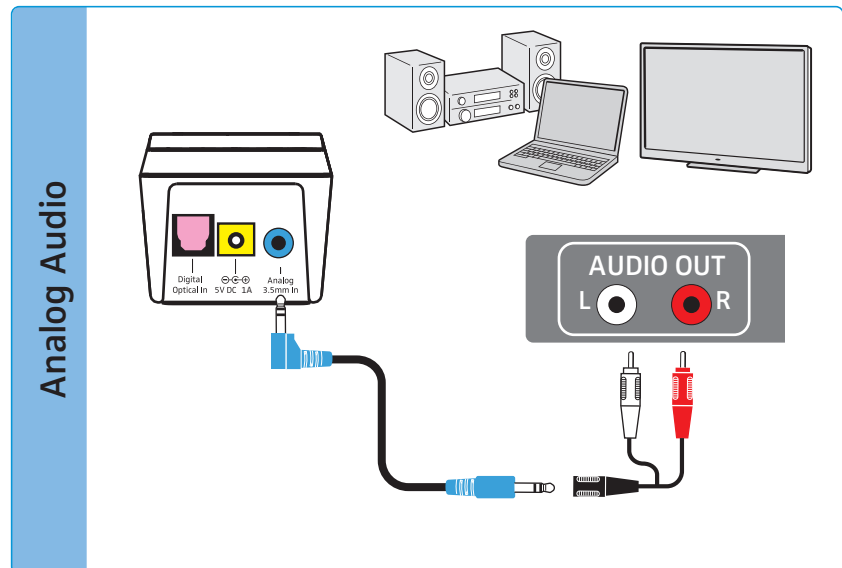
If the headphones socket on your audio source is a 6.3 mm/¼" jack socket, you require an adapter (3.5 mm jack plug to 6.3 mm/¼" jack plug, optional accessory) for the supplied 3.5 mm stereo audio cable.

- i** Some TV models mute the loudspeakers when you connect the transmitter to the 3.5 mm headphone socket. Other TV models have their own menu for adjusting the volume of the headphone socket. Check the menu of your TV for information on how to deactivate the muting function or adjust the volume. Alternatively, connect the TV and the transmitter using a different connection possibility (A, C or D).

C

Connection possibility C: RCA sockets (analog)

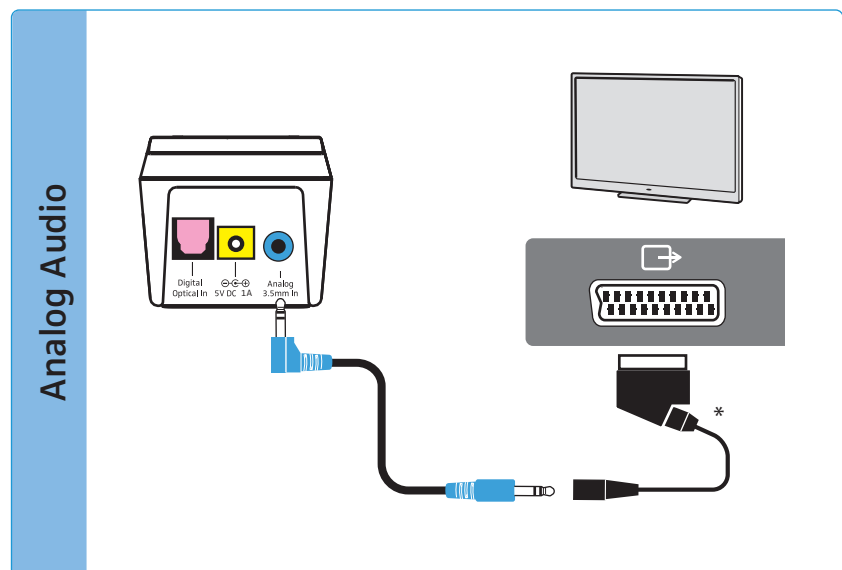
- ▶ Plug the RCA adapter onto the stereo audio cable.
- ▶ Connect the stereo audio cable to the blue 3.5 mm jack socket of the transmitter.
- ▶ Connect the RCA connectors to the RCA sockets (mostly labeled “AUDIO OUT” or $\ominus \rightarrow$) of your audio source. Connect the red connector to the red RCA socket and the white connector to the white or black RCA socket.



D

Connection possibility D: SCART socket (analog)

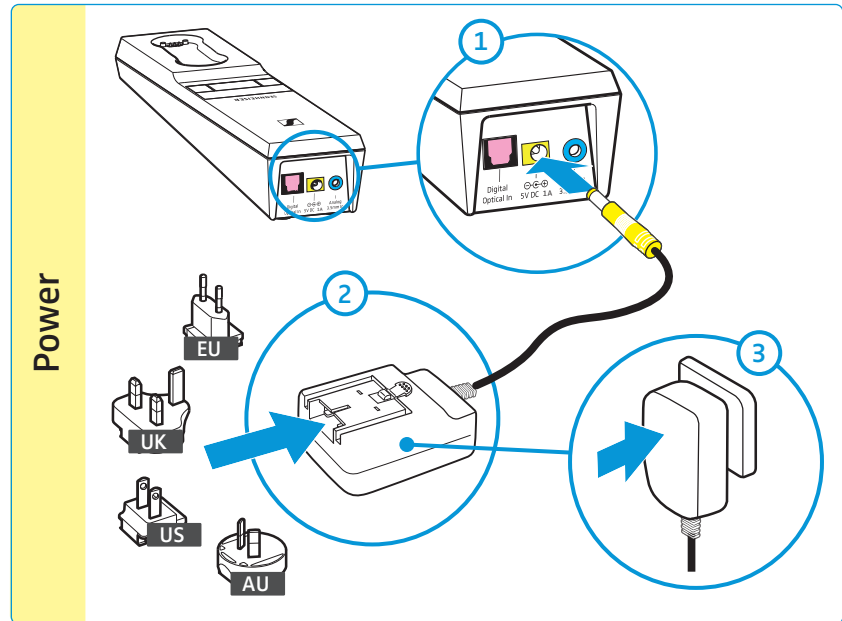
- ▶ Plug the SCART adapter* onto the stereo audio cable.
- ▶ Connect the stereo audio cable to the blue 3.5 mm jack socket of the transmitter.
- ▶ Connect the SCART connector to the SCART socket (mostly labeled \leftrightarrow or \rightarrow) of your audio source.



* optional accessory


Connecting the transmitter to the power supply system


- 1 Connect the connector of the power supply unit to the yellow socket of the transmitter.
 - 2 Select a suitable country adapter and slide it onto the power supply unit until it clicks audibly into place.
 - 3 Plug the power supply unit into the wall socket.
- All LEDs on the transmitter light up for 5 seconds. The transmitter is in standby mode.

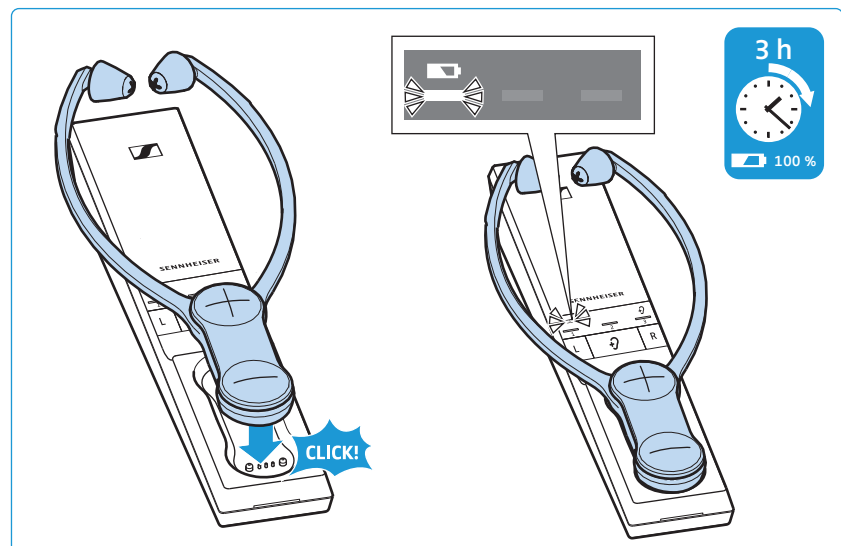









Charging the stethoset receiver's rechargeable battery



A complete charging cycle takes **about 3 hours**. Before using the receiver for the first time, charge its rechargeable battery for a complete charging cycle without interruption.

When the rechargeable battery is almost empty, you hear 2 beeps in the stethoset receiver. The *Battery LED*  on the transmitter lights up white. The stethoset receiver switches off after a few minutes.


- ▶ Place the stethoset receiver into the transmitter's charging compartment so that the volume buttons face upwards. The stethoset receiver is magnetically oriented to the correct position. The stethoset receiver automatically switches off and the *Battery LED*  on the transmitter lights up white. The LED segments display the charge status of the rechargeable battery. When the rechargeable battery is fully charged, all LED segments light up white.








Battery LED 	Meaning
 -	The transmitter is not charging.
 1 st LED segment flashes	The rechargeable battery is being charged. Less than 1/3 of the charge capacity is reached.
 1 st LED segment lit, 2 nd LED segment flashes	The rechargeable battery is being charged. Up to 1/3 of the charge capacity is reached.
 1 st + 2 nd LED segment lit, 3 rd LED segment flashes	The rechargeable battery is being charged. Up to 2/3 of the charge capacity is reached.
 All LED segments lit	The rechargeable battery is fully charged.
 <i>Battery LED</i> flashes rapidly	A charging error/battery error has occurred (see page 31).

-  Always store the stethoset receiver in the transmitter's charging compartment to ensure that it is fully charged when needed. The intelligent battery charging technology prevents overcharging.
-  The display during charging can be set so that it automatically switches off after 30 seconds (see page 36).


Displaying the remaining operating time of the rechargeable battery


When you switch the stethoset receiver on, the *Battery* LED  displays the remaining operating time/charge status.

<i>Battery</i> LED 		Meaning
	<i>Battery</i> LED flashes slowly	Rechargeable battery is empty; recharge the rechargeable battery
	1 st LED segment lit	approx. 6 hours of operating time
	1 st + 2 nd LED segment lit	approx. 12 hours of operating time
	All LED segments lit	approx. 18 hours of operating time

To indicate that the operating time is decreasing, each LED segment slowly dims before it goes off completely.


If the actual operating time differs widely from the specified values, the rechargeable battery is probably exhausted and should be replaced. Information on the rechargeable battery can be found on page 31.

 The display of the remaining operating time can be set so that it automatically switches off after 30 seconds (see page 36).


 If more than one stethoset receiver is connected to the transmitter, the remaining operating time/charge status cannot be displayed.

Using the charging reminder function







When the stethoset receiver is switched off and the transmitter automatically switches off (standby mode), the *Battery* LED  will flash back and forth for 10 minutes to remind you to charge the stethoset receiver.

- ▶ Charge the stethoset receiver by placing it into the transmitter's charging compartment (see page 15). The LED stops flashing and the charging process starts.

 You can also switch off the charging reminder function (see page 36).

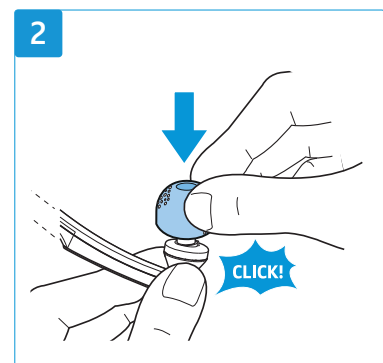
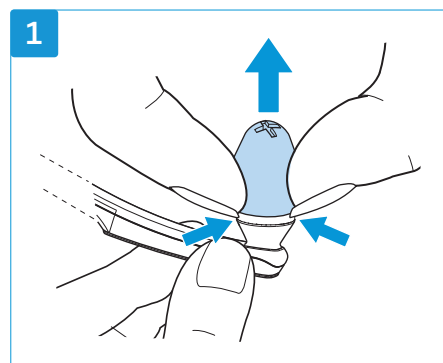
Selecting and replacing the ear pads


You can choose between:

- Ear pads made of **silicone, large** (pre-mounted upon delivery),
 - for easy use due to uncomplicated alignment in the ears.
 - Easy to clean and long lasting even with intensive use.
- Ear pads made of **silicone, small**,
 - smaller and flatter than the large silicone ear pads, for easy use and alignment in smaller ears.
 - Easy to clean and long lasting even with intensive use.
- Ear pads made of **memory foam**
 - for a comfortable, ambient noise-attenuating fit of the receiver in the ears.
 - With intensive use, the memory effect of the foam wears off after a few months, causing the pressure relief to deteriorate. In this case, replace the ear pads with new ones.
- Ear pads made of **open foam**
 - for pressure-sensitive ears and a light-weight wearing comfort, even over long periods of use.

To replace the ear pads:

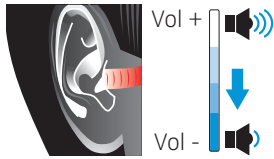
- 1 Reach behind the ear pads with your fingernails so that you can carefully detach the ear pads from the stethoset receiver.
- 2 Put the two other/new ear pads on the stethoset receiver. The rubber ring of the ear pads locks into place on the stethoset receiver.



 Spare ear pads in different materials and forms are available from your Sonova Consumer Hearing partner.

Using the Set 860

Switching the wireless headphone system on



WARNING

Danger due to high volume levels!

This receiver allows you to set higher volumes than conventional devices. Constant high-volume use can cause hearing damage.

- ▶ Before putting the stethoset receiver on, set the volume on the receiver to a low level.
- ▶ Do not expose yourself to high volume levels for extended periods of time.
- ▶ Use a hearing profile (see page 24) that improves especially speech intelligibility without the need for a high volume.



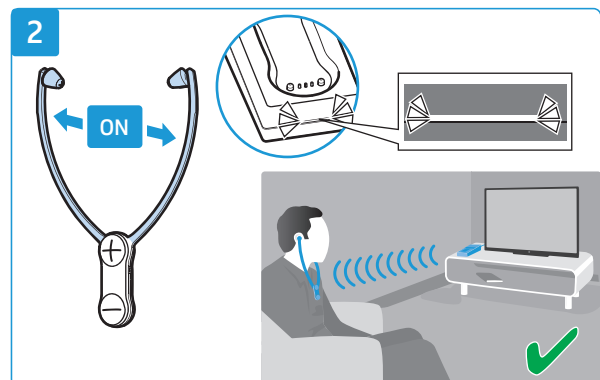
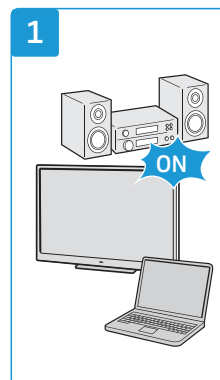
- 1 Switch your audio source on.

If the transmitter is connected to the headphone socket (see page 12) of your TV/audio source, adjust the volume of the headphone socket on your TV/audio source to at least a medium level.

- 2 Take the stethoset receiver out of the transmitter's charging compartment and pull the ear bows apart so that you can put the receiver on.

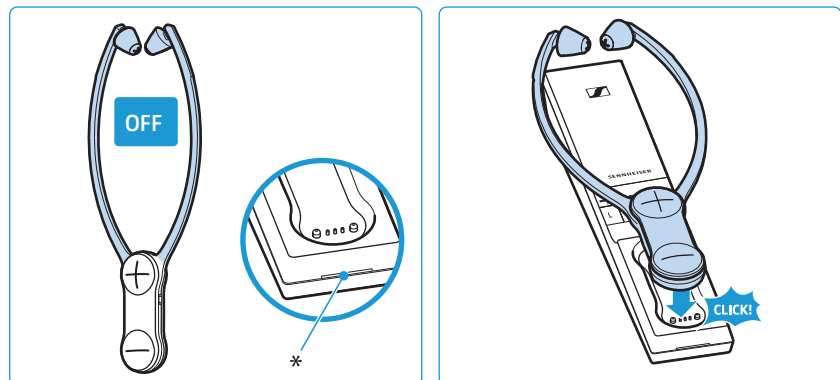
The stethoset receiver automatically switches on when you pull the ear bows apart. The transmitter automatically switches on and the *Transmitter status* LED lights up white or blue. The audio transmission starts.

The remaining operating time of the stethoset receiver is displayed on the transmitter (see page 17).



Switching the wireless headphone system off

- ▶ Take the stethoset receiver off so that the ear bows fold inwards.
The stethoset receiver automatically switches off after 20 seconds. The transmitter automatically switches off (standby) when there is no stethoset receiver connected. The *Transmitter status* LED goes off.
- ▶ Always store the stethoset receiver in the transmitter's charging compartment to ensure that it is fully charged when needed.
The charging process starts (see page 15).



* LED goes off

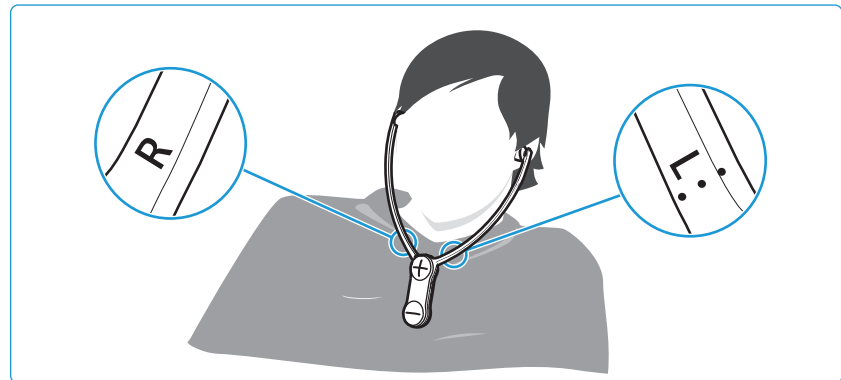
- i** If the stethoset receiver is outside the transmission range for more than 5 minutes or if the transmitter receives no audio signal for more than 30 minutes, the wireless headphone system switches off automatically (standby).

To disconnect the transmitter from the power supply system (e.g. when you are on holiday):

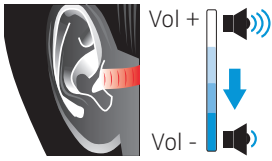
- ▶ Unplug the power supply unit from the wall socket.

Wearing the stethoset receiver

- ▶ Wear the stethoset receiver so that it hangs freely from your ears and rests lightly on your chest. When putting the stethoset receiver on, observe the **L** (left) and **R** (right) markings on the rear of the ear bows. The volume buttons face away from your body to facilitate ease of use.
- ▶ Wear the stethoset receiver so that
 - the ear pads are positioned just in front of your ear canals.
 - you feel a gentle pressure on your ears. The ear pads adapt to your ear form. Any feeling of pressure should disappear after a very short time.
 - If you find the ear pads uncomfortable, try other ear pads (see page 18).
 - the stethoset receiver hangs freely from your ears and rests lightly on your chest.



i If you use the memory foam ear pads, you can compress the ear pads a bit to adjust them to your ear shape.



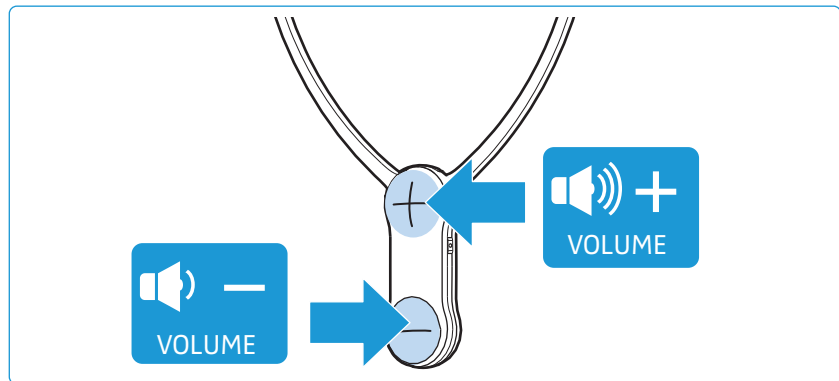
Adjusting the volume



WARNING

Danger due to high volume levels!

- ▶ Before putting the stethoset receiver on, set the volume on the receiver to a low level.
 - ▶ Do not expose yourself to high volume levels for extended periods of time.
-
- ▶ Press the volume button + or the volume button - until the volume is adjusted to a comfortable level. When the minimum or maximum volume is reached, you hear a beep in the stethoset receiver.



- i** If you have set a very high volume level and switch the TV headphone system off and on again, the volume is reset to a moderate level to protect your hearing.

Adjusting the balance

The balance buttons allow for left/right volume adjustment. Adjust the balance so that you hear equally well with both ears.

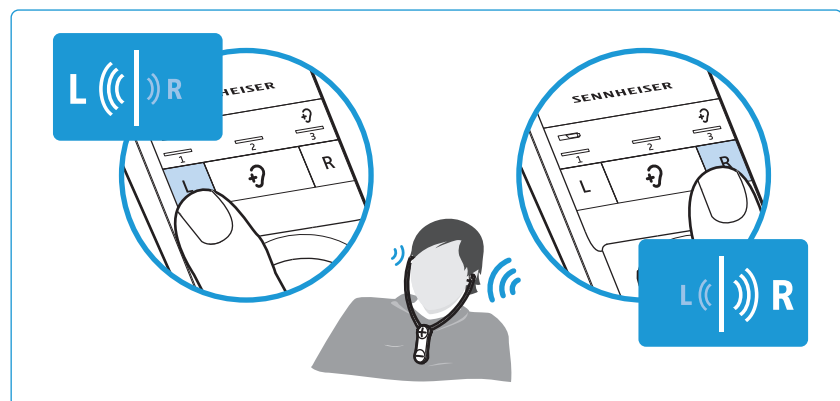
i The balance setting is stored on the stethoSet receiver. If you are using several receivers with a transmitter, the respective receivers are optimally adjusted to match the personal hearing preferences of the users (e.g. you and your partner).

Please note that the personal hearing preferences can only be adjusted when only stethoSet receiver is connected to the transmitter.

i You can switch your headphone system from stereo to mono in order to be able to hear all details on either the right or left ear (see page 34).

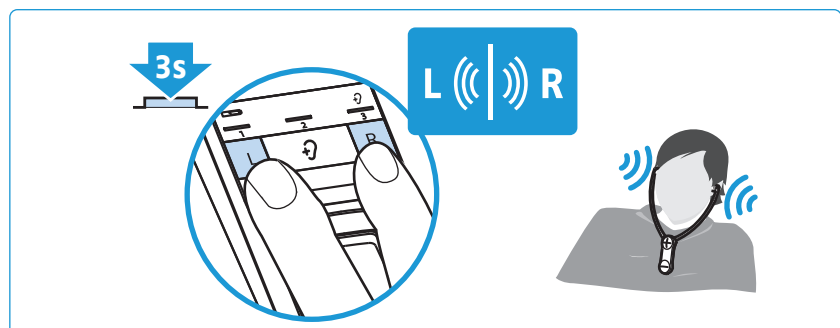
► Press the balance button **R** (right) or **L** (left) on the transmitter to gradually increase or reduce the volume for your right or left ear.

When the minimum or maximum balance setting is reached, you hear a beep via the receiver.



To reset the balance setting to the middle setting:

► Simultaneously press the balance buttons **R** (right) and **L** (left) on the transmitter for 3 seconds.



i To prevent accidental adjustment of the balance settings, you can activate the settings protection function (see page 37).

Selecting a hearing profile for sound enhancement

The hearing profiles allow you to alter the sound of the audio signal in order to improve the speech intelligibility and to adjust the sound to suit your preferences. The profiles are used to specifically change certain frequency ranges by e.g. boosting or attenuating low-frequency or high-frequency tones (see table).


All hearing profiles feature a compression function which compensates for volume differences by boosting the volume of quiet passages and reducing the volume of loud passages if necessary.

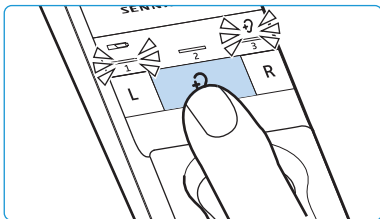
i The balance setting is saved on the stethoset receiver. If you are using several receivers with a transmitter, the respective receivers are optimally adjusted to match the personal hearing preferences of the users (e.g. you and your partner). Please note that the personal hearing preferences can only be adjusted when only stethoset receiver is connected to the transmitter.




Displaying the activated hearing profile




The activated hearing profile is not permanently displayed.


To check the activate hearing profile:

- ▶ Switch the stethoset receiver on by putting it on (see page 19).
- ▶ Briefly press the *Hearing profile* button  on the transmitter. The currently activated hearing profile is displayed for 10 seconds.



Activated hearing profile	Hearing profile LED 	Sound enhancement	Compression
–	 No LED segment lit	The sound from the connected audio source is reproduced unchanged.	no
Hearing profile 1	 1 st LED segment lit	Low-frequency tones are slightly boosted to provide a warm, full sound. High-frequency tones are reproduced less piercing and clanking.	yes

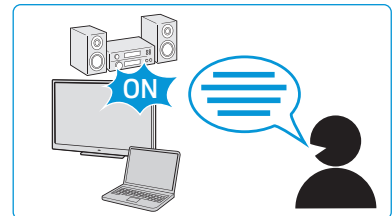
Activated hearing profile	Hearing profile LED 	Sound enhancement	Compression
Hearing profile 2	 2 nd LED segment lit	High-frequency tones are strongly boosted to provide a crystal-clear sound, especially for sibilants and high-frequency tones such as twittering of birds.	yes
Hearing profile 3	 3 rd LED segment lit	Low-frequency tones are attenuated so that they cannot mask high-frequency tones.	yes

 A graphic representation of the hearing profiles can be found on page 47.

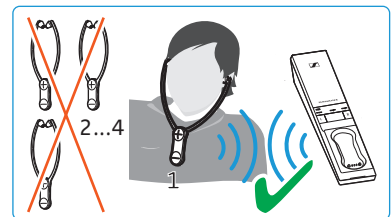
Selecting a hearing profile

To select the hearing profile that best suits you, proceed as follows:

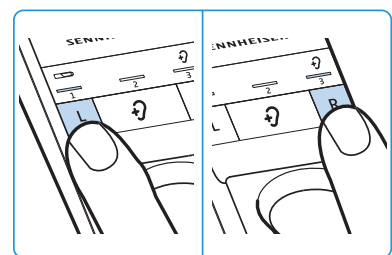
- 1 Switch your audio source on and select a program where speech is foregrounded.




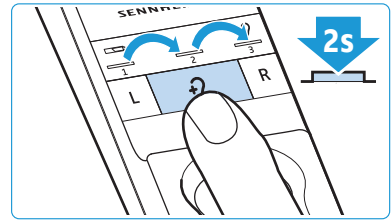
- 2 Put the stethoset receiver on and make sure that only this receiver is connected to the transmitter. Otherwise, a hearing profile cannot be adjusted.



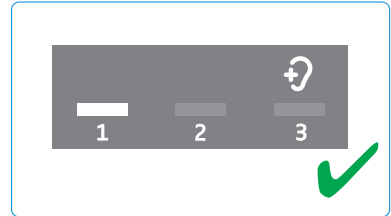
- 3 Use the **L** and **R** buttons on the transmitter to adjust the balance (see page 23). This ensures that each subsequently selected hearing profile is perfectly matched to your left/right balance setting.






- 4 Press the *Hearing profile* button  on the transmitter for 2 seconds to select the next hearing profile. Press the button again for 2 seconds to switch to the next hearing profile.



- 5 Test which of the hearing profiles (1, 2 or 3) gives you the best sound quality and helps you to hear best. Your individual hearing profile is adjusted and saved on the stethoset receiver.



-  Since your level of hearing impairment may change over time, we recommend that you repeat the selection of the hearing profile from time to time.
-  If you switch to the next hearing profile, the speech intelligibility function is automatically deactivated so that you can hear the hearing profile unchanged (see page 27).
-  To prevent accidental adjustment of the hearing profile settings, you can activate the settings protection function (see page 37).

Activating/deactivating the speech intelligibility function

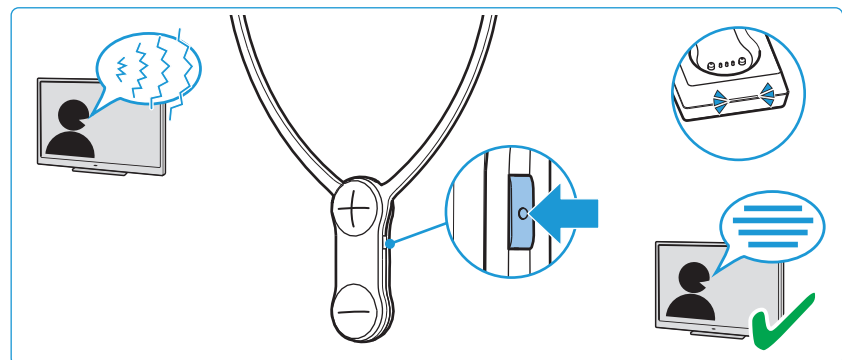
When speech is mixed with annoying background noise, speech may be difficult to understand.

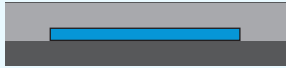

The speech intelligibility function automatically detects and reduces annoying background noise. The audio signal is permanently analyzed and adjusted accordingly so speech is foregrounded and easier to understand.

Application examples

Application	Speech intelligibility function	Advantage
TV motion pictures, TV series or audio books	activated	Dialogs muffled by background music and noise are easier to understand.
Sportscasts	activated	The presentation muffled by background noise in the stadium is easier to understand.
Music	deactivated	No speech, the speech intelligibility function is not needed.

- ▶ Press the *Speech intelligibility* button to activate or deactivate the function.



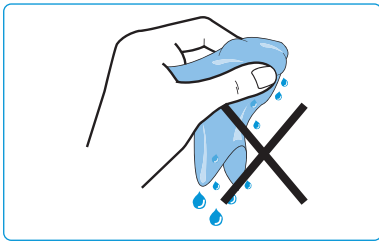
Transmitter status LED	Speech intelligibility function
 lights up blue	activated; Annoying background noise is effectively reduced, speech becomes clearer and easier to understand.
 lights up white	deactivated

- i** The speech intelligibility function can also be used in addition to one of the hearing profiles 1-3.



If you are using several receivers with a transmitter, the speech intelligibility function is activated or deactivated for all receivers.

Cleaning and maintaining the Set 860



CAUTION

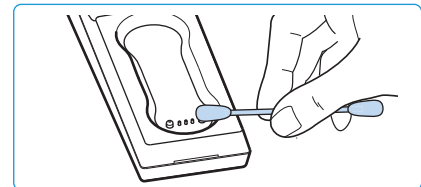
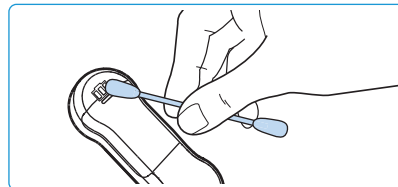
Liquids can damage the electronics of the product!

Liquids entering the housing of the product can cause a short-circuit and damage the electronics.

- ▶ Keep all liquids far away from the product.
- ▶ Do not use any solvents or cleansing agents.

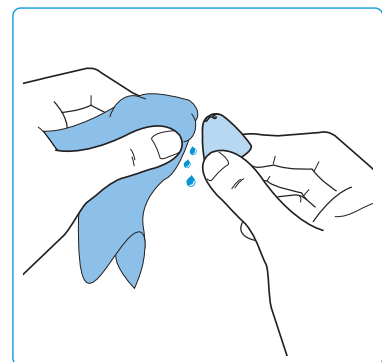
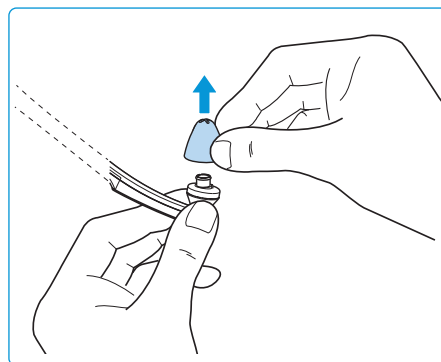
To clean the wireless headphone system:

- ▶ Switch your wireless headphone system off and disconnect the transmitter from the wall socket before cleaning.
- ▶ Clean the product only with a soft, dry cloth.
- ▶ Clean the charging contacts on the stethoset receiver and in the charging compartment from time to time using e.g. a cotton swab.



To clean the ear pads:

- ▶ Reach behind the ear pads with your fingernails so that you can carefully detach the ear pads from the stethoset receiver.
- ▶ Clean the ear pads under lukewarm running water.
- ▶ Let the ear pads air dry at room temperature for at least 12 hours before using them again.
- ▶ Put the ear pads back on the stethoset receiver. The rubber ring of the ear pads locks into place on the stethoset receiver.





For reasons of hygiene, the ear pads should be replaced from time to time (especially the ear pads made of memory foam and open foam only have a durability of a few months due to their material properties). Spare ear pads in different materials and forms are available from your Sonova Consumer Hearing partner.

Replacing the stethoset receiver's rechargeable battery

The BAP 800 rechargeable battery of the stethoset receiver is compactly built into the receiver housing and does not have to be replaced or removed.

If the operating time of the stethoset receiver decreases drastically or if a charging error is displayed during charging (see page 15), the rechargeable battery may be exhausted or defective and has to be replaced.

CAUTION

Danger of damage to the product!

During the warranty period, the rechargeable batteries must only be replaced or removed by an authorized Sonova Consumer Hearing partner, otherwise the warranty will be null and void.

- ▶ Contact your Sonova Consumer Hearing partner if the rechargeable batteries need to be replaced or removed.

Outside the warranty period, the rechargeable batteries may be replaced or removed by any qualified service center in an appropriate manner. Instructions for qualified service centers on how to replace or remove the rechargeable batteries are available from your Sonova Consumer Hearing partner.

You need suitable tools for replacement. We therefore recommend to have the rechargeable battery replaced by your Sonova Consumer Hearing partner.

Do not return a product with a defective battery to your dealer or Sonova Consumer Hearing partner unless requested to do so. You can find your local Sonova Consumer Hearing partner at www.sennheiser-hearing.com/service-support.

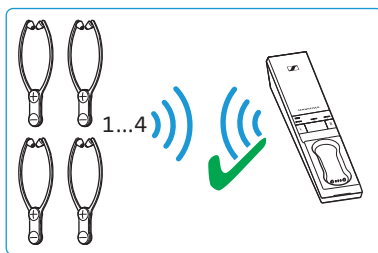
At the end of its operational lifetime, this product with its built-in rechargeable battery must be disposed of separately from normal household waste. You can find more information here: see page 48.

Using additional functions

The following additional functions are not required for normal use of the wireless headphone system. You can, however, extend the potential use of the system and adjust some of the functions to your individual needs.

Pairing one or several stethoset receivers with the transmitter

The stethoset receiver and the transmitter of your wireless headphone system are factory pre-paired. The following steps are only necessary if you want to pair additional stethoset receivers with the transmitter.

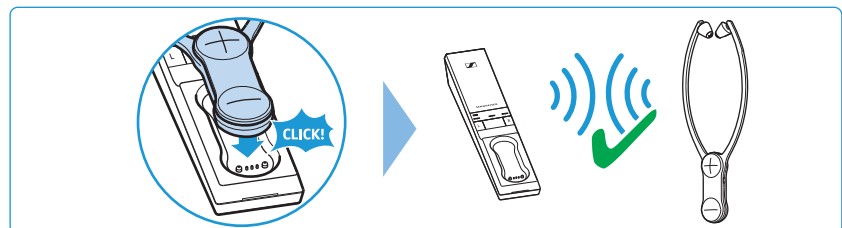


You can simultaneously use up to 4 paired stethoset receivers with your transmitter. All other paired and switched-on receivers cannot connect to the transmitter.

i If more than one stethoset receiver is connected to the transmitter, the remaining operating time/charge status and the hearing profile cannot be displayed. In addition, the balance and a hearing profile cannot be adjusted. These functions can only be used/adjusted when only one stethoset receiver is connected to the transmitter.

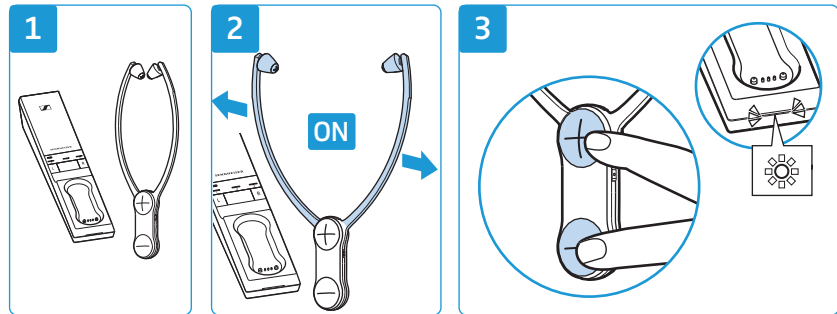
Option A (contact pairing)

- ▶ Place the stethoset receiver into the transmitter's charging compartment. The stethoset receiver is paired with the transmitter.



Option B (proximity pairing)

- 1 Place the stethoset receiver as close as possible to the transmitter.
- 2 Switch the stethoset receiver on by pulling the ear bows apart.
- 3 Simultaneously press and hold the volume buttons $+/-$. Once pairing is completed, the *Transmitter status* LED on the transmitter flashes white. Release the buttons.






Switching between stereo and mono operation

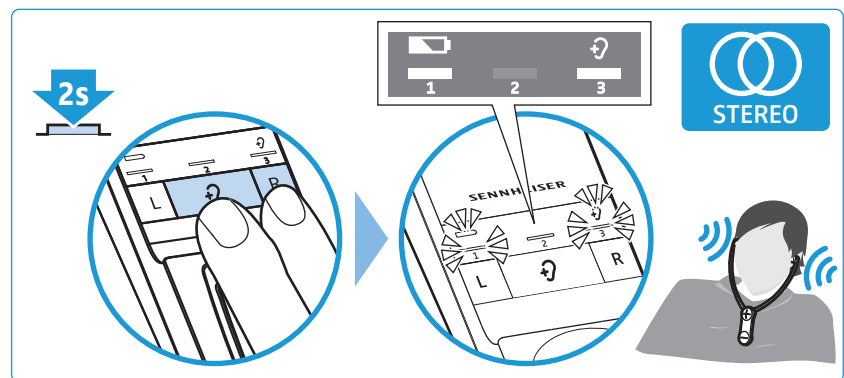
With certain sound recordings, voice or audio signals are recorded on one channel only (right or left stereo channel). This can result in a loss of individually recorded voices or instruments, especially when you have changed the balance setting.

In order to avoid this effect, you can switch between stereo and mono operation.


This setting is saved on the **transmitter**, independent of the stethoset receiver you are using.

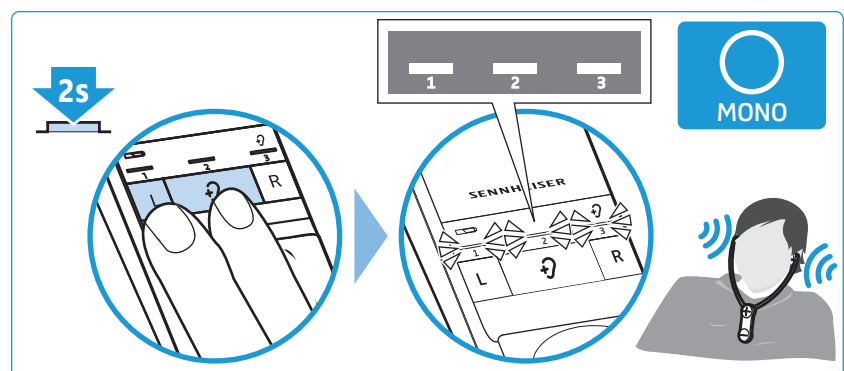
Activating stereo operation

- ▶ Simultaneously press the balance button **R** (right) and the *Hearing profile* button  on the transmitter for 2 seconds. The LED segment 1 and the *Battery* LED  as well as the LED segment 3 and the *Hearing profile* LED  light up for 10 seconds. Stereo operation is activated.



Activating mono operation

- ▶ Simultaneously press the balance button **L** (left) and the *Hearing profile* button  on the transmitter for 2 seconds. The LED segments 1, 2 and 3 light up for 10 seconds. Mono operation is activated.




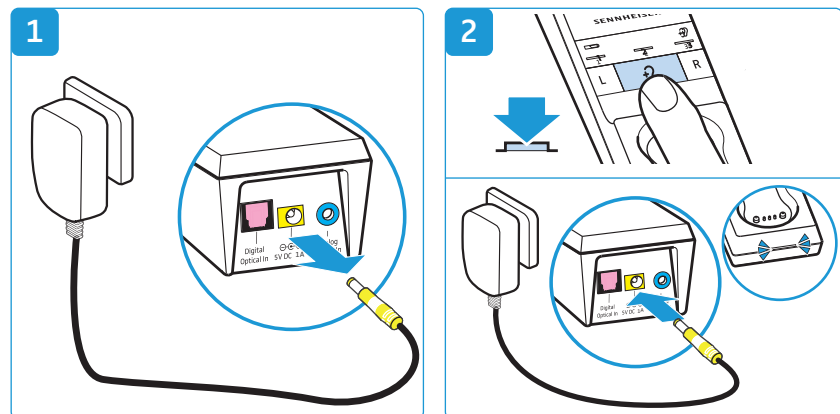
Advanced settings

The advanced settings allow you to adjust the wireless head-phone system to your individual needs and to protect the settings against accidental changes.

Activating the protected settings mode

You can change the advanced settings by activating the protected settings mode:

- 1 Disconnect the transmitter from the power supply system by unplugging the connector of the power supply unit.
- 2 Keep the *Hearing profile* button  pressed and connect the transmitter to the power supply system by connecting the connector of the power supply unit to the yellow socket of the transmitter.



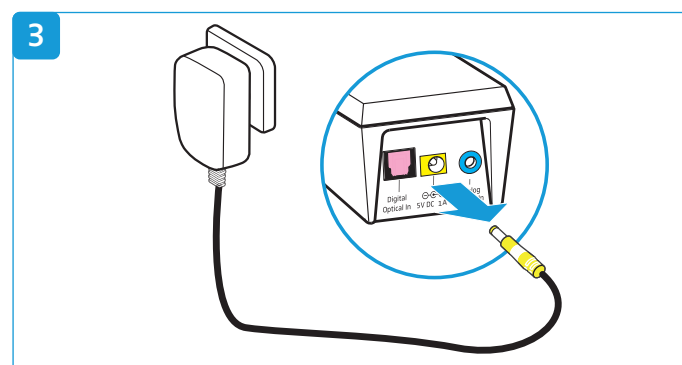
The protected settings mode is activated. The *Transmitter status* LED flashes blue. The LED segments indicate the current settings as specified in the following chapters:

- battery status display (see page 36)
- charging reminder function (see page 36)
- settings protection function (see page 37)

Deactivating the protected settings mode and saving the advanced settings

To save the advanced settings and to deactivate the protected settings mode:

- 3 Disconnect the transmitter from the power supply system by unplugging the connector of the power supply unit.

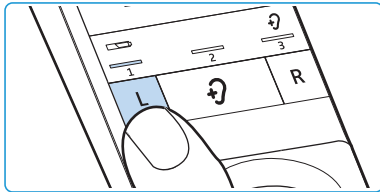



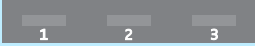
Battery status display

This setting is saved on the **transmitter**, independent of the stethoset receiver you are using.

To change the battery status display:

- ▶ Make sure that the protected settings mode is activated (see page 35).
- ▶ Press the Balance button **L**.



Status and display of the <i>Battery</i> LED	Function/behavior
permanently activated (operation and charging)*  1 st LED segment lit	The current charge status is permanently displayed during charging. The remaining charge status is permanently displayed during operation.
activated for 30 seconds (operation and charging)  1 st LED segment off	The current charge status is displayed for 30 seconds during charging. Then all LEDs go off. The charging process is continued. The remaining charge status is displayed for 30 seconds during operation. The battery status display then goes off.

* factory default setting

- ▶ Save the setting by disconnecting the transmitter from the power supply system (see page 35).



Charging reminder function

This setting is saved on the **transmitter**, independent of the stethoset receiver you are using.

To activate or deactivate the function:

- ▶ Make sure that the protected settings mode is activated (see page 35).
- ▶ Press the Balance button **R**.



Status and display of the charging reminder function	Function/behavior
activated*  3 rd LED segment lit	When you switch the stethoset receiver off and the transmitter switches to standby mode, the battery status display will flash for 10 minutes to remind you to charge the stethoset receiver.
deactivated  3 rd LED segment off	After switching the wireless headphone system off, all LEDs remain off.

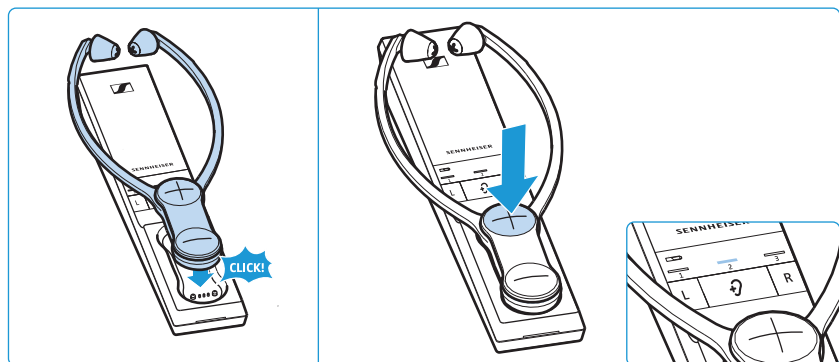
* factory default setting



- ▶ Save the setting by disconnecting the transmitter from the power supply system (see page 35).

Settings protection function

The settings protection function prevents accidental adjustment of the hearing profile and the balance setting (this protection function is saved on the **stethoset receiver**). Switching between stereo and mono operation on the transmitter is no longer possible (this protection function is saved on the **transmitter**).

- ▶ Make sure that your stethoset receiver's balance setting and hearing profile are correctly adjusted (see page 23 and 24) and that the transmitter is set to stereo or mono operation as desired (see page 34).
- ▶ Make sure that the protected settings mode is activated (see page 35).
- ▶ Place the stethoset receiver into the transmitter's charging compartment.
- ▶ Press the volume button **+** on the stethoset receiver to activate the settings protection function.



Status and display of the settings protection function	Function/behavior
activated  2 nd LED segment lit	The activated hearing profile and the balance setting for the stethoset receiver cannot be changed/deactivated. Switching between stereo and mono operation on the transmitter is not possible.
deactivated*  2 nd LED segment off	The hearing profiles can be changed at any time (see page 24), the balance setting can be changed (see page 23) and you can switch between stereo and mono operation (see page 34).

* factory default setting

- ▶ Save the setting by disconnecting the transmitter from the power supply system (see page 35).

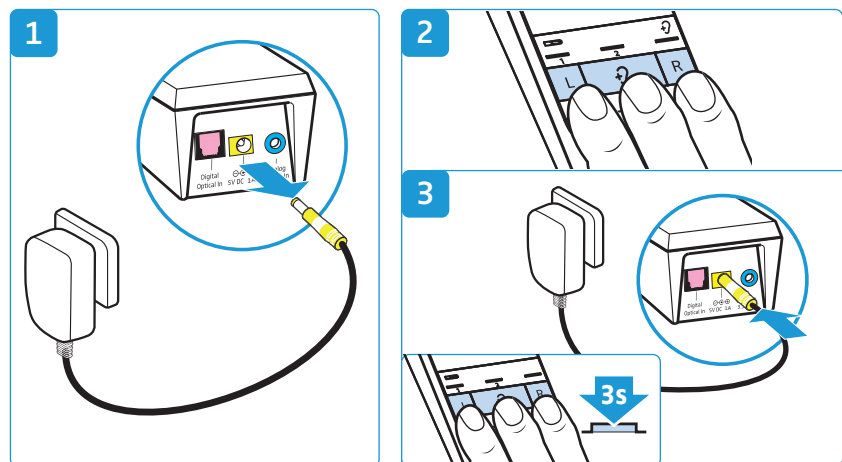


If you are using several stethoset receivers and want to protect the settings from accidental adjustment, you can place the stethoset receivers, one after the other, into the transmitter's charging compartment to activate the settings protection function (for the hearing profile, the balance setting and stereo/mono operation).

Restoring the factory default settings

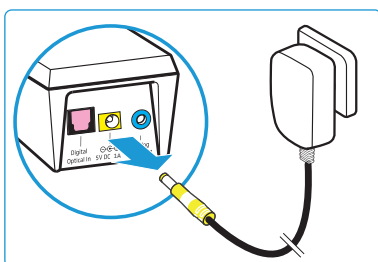
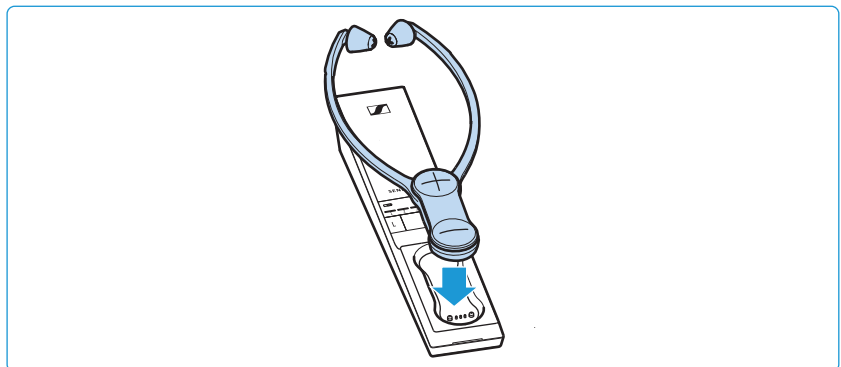
To restore the transmitter to the factory settings:

- 1 Disconnect the transmitter from the power supply system by unplugging the connector of the power supply unit.
 - 2 Simultaneously press and hold the buttons **L**, **↻** and **R**.
 - 3 Connect the transmitter to the power supply system by connecting the connector of the power supply unit to the yellow socket of the transmitter while keeping the 3 buttons pressed for at least 3 seconds.
- All LEDs on the transmitter flash. The transmitter settings are restored to the factory settings.



To restore a stethoset receiver to the factory settings:

- ▶ Place the stethoset receiver for 5 seconds into the transmitter's charging compartment. The settings of the stethoset receiver, including the pairing settings, are also restored to the factory settings.



- i** If you place the stethoset receiver into the transmitter's charging compartment at the very beginning of the restore procedure, the factory settings of the transmitter and the receiver are restored simultaneously.

- ▶ Disconnect the transmitter from the power supply system by unplugging the connector of the power supply unit. The factory settings are restored and you can use the wireless headphone system again.

Charging the rechargeable battery using the MCA 800 charging adapter

If you have purchased an additional stethoset receiver and/or an optional MCA 800 charging adapter, you can also charge the stethoset receiver using the charging adapter.



WARNING

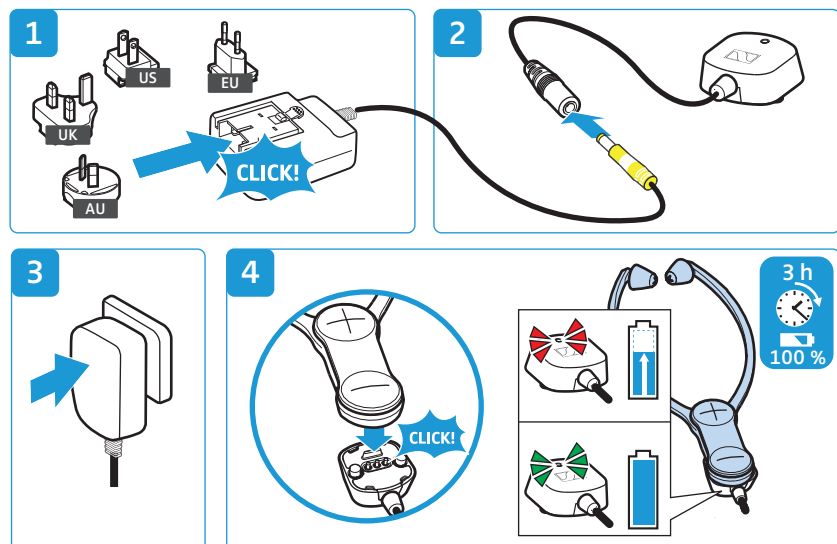
Interference due to magnetic fields!



The MCA 800 charging adapter generates stronger permanent magnetic fields that could cause interference with cardiac pacemakers, implanted defibrillators (ICDs) and other implants.

- ▶ Do not use the MCA 800 charging adapter if you are wearing a cardiac pacemaker, implanted defibrillator or other implant.

- 1 Select a suitable country adapter and slide it onto the power supply unit until it clicks audibly into place.
- 2 Connect the connector of the power supply unit to the connection socket of the MCA 800 charging adapter.
- 3 Plug the power supply unit into the wall socket.
- 4 Connect the charging adapter to the charging contacts on the stethoset receiver. The charging adapter is magnetically oriented to the correct position. The rechargeable battery is being charged. The LED on the charging adapter lights up red. When the rechargeable battery is fully charged, the LED lights up green.



- i** You can also use the stethoset receiver during charging. Note, however, that the receiver can get slightly warm during charging. The charge status of the rechargeable battery is displayed on the transmitter (see page 15).

If the LED on the charging adapter flashes red and green, a charging error/battery error has occurred. In this case, disconnect the charging adapter from the receiver. More information on the rechargeable battery can be found on page 31.

If a problem occurs ...

Problem	Possible cause	Possible solution	Page
The transmitter does not switch on	No connection to the power supply system.	Check the connections of the power supply unit.	14
The headphones cannot be switched on	The rechargeable battery is empty.	Recharge the rechargeable battery.	15
	The rechargeable battery is deep discharged.	Recharge the rechargeable battery for several hours. If the rechargeable battery is deep discharged, the charging process might take a while to start (up to 1 hour).	
No sound	No connection to the power supply system.	Check the connections of the power supply unit.	14
	The audio plug is not properly connected.	Check the audio plug connection.	10
	The audio source is switched off.	Switch the audio source on.	–
	The volume of the analog audio source is either set to the minimum or is on mute.	Increase the volume on the audio source to at least a medium level/deactivate the muting function on the audio source.	–
	The audio cable is defective.	Replace the audio cable.	–
	The stethoset receiver is not correctly paired with the transmitter (e.g. additional stethoset receiver/receiver).	Pair the stethoset receiver with the transmitter again.	32
No audio signal when a digital audio source is connected	Cables are connected to both the digital and the analog audio input.	Remove the cable from the analog audio input.	10
	The connected digital audio source uses an incompatible audio format. The <i>Transmitter status</i> LED flashes white and blue.	Set the audio format of your audio source to “PCM”, with a sampling rate of max. 96 kHz (see the instruction manual of the audio source).	–
Occasional sound drop-outs, it might be that you hear 5 beeps via the receiver	The stethoset receiver is out of the transmitter’s range.	Reduce the distance between the stethoset receiver and the transmitter.	–
	The signal is shielded.	Remove obstacles between the transmitter and the stethoset receiver.	–
	There are interfering devices (e.g. WiFi router, Bluetooth devices or microwaves) in the vicinity.	Change the position of the transmitter or of the receiver. Separate the transmitter from other wireless devices by at least 50 cm/20".	9

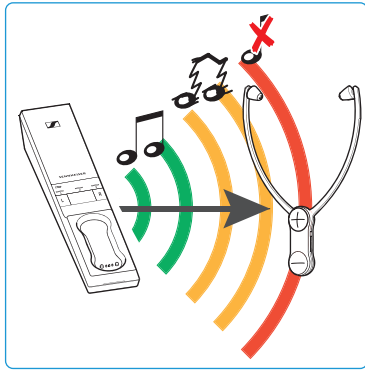
Problem	Possible cause	Possible solution	Page
Sound too low	The volume on the stethoset receiver is adjusted too low.	Increase the volume on the stethoset receiver.	22
	The volume of the analog audio source is adjusted too low.	Increase the volume of the analog audio source to at least a medium level (approx. 1 V _{rms}).	–
Sound only on one ear	The balance is misadjusted.	Adjust the balance.	23
	The audio cable is not properly connected.	Check the audio plug connection.	10
	The TV has only a mono headphone socket.	Use an adapter (mono to stereo jack socket) to connect the transmitter to the TV.	–
Sound is less spatial	Mono operation is activated.	Activate stereo operation.	34
Sound is distorted	The audio cable is defective.	Replace the audio cable.	–
	The signal of the audio source is distorted.	Reduce the volume of the audio source.	–
	The volume on the stethoset receiver is adjusted too high	Reduce the volume on the stethoset receiver.	22
You hear echoes when using the stethoset receiver with a TV	Some TVs can adjust a delay or latency of the audio signal for the digital audio output.	Check the audio output settings of your TV and set the latency to “0”.	–
	Open foam ear pads are in use.	Reduce the volume of the TV speaker or use closed ear pads (memory foam or silicone).	18
Charge status and battery status displays go off	The battery status display is set so that it goes off after 30 seconds.	Set the battery status display so that it is permanently displayed.	36
	More than one stethoset receiver is currently connected to the transmitter.	This function is only possible when only one stethoset receiver/receiver is connected to the transmitter.	–
2 beeps during operation	The rechargeable battery is almost empty.	Recharge the rechargeable battery.	15
The operating time decreases	The rechargeable battery is exhausted.	Have the rechargeable battery replaced by an authorized Sonova Consumer Hearing partner.	31
A hearing profile, the balance or stereo/mono operation cannot be activated or changed	The settings protection function is activated.	Deactivate the settings protection function (for the hearing profile, the balance and stereo/mono operation).	37
	More than one stethoset receiver/receiver is currently connected to the transmitter.	This function is only possible when only one stethoset receiver/receiver is connected to the transmitter.	–

Problem	Possible cause	Possible solution	Page
The stethoset receiver does not connect to the transmitter	The stethoset receiver is not paired with the transmitter.	Pair the stethoset receiver with the transmitter.	32
	The distance to the transmitter is too large.	Reduce the distance between the stethoset receiver and the transmitter.	–
	4 stethoset receivers are currently connected to the transmitter.	Up to 4 stethoset receivers can be simultaneously used with the transmitter.	–

If a problem occurs that is not listed in the above table or if the problem cannot be solved with the proposed solutions, visit the Set 860 product page at www.sennheiser-hearing.com. There you will find a current list of frequently asked questions (FAQ).

You can also contact your Sonova Consumer Hearing partner for assistance. You can find your local Sonova Consumer Hearing partner at www.sennheiser-hearing.com/service-support.

If a problem occurs ...



Leaving the range of the transmitter

The range of the transmitter largely depends on environmental conditions such as wall thickness, wall composition etc. If you, and therefore the stethoset receiver, leave the range of the transmitter, the audio drops out occasionally at first before the connection breaks down completely. You hear alerts in the stethoset receiver.

If you re-enter the transmission range within 5 minutes, the connection is automatically re-established.

If you spend more than 5 minutes outside the transmission range, the stethoset receiver switches off automatically.

Specifications

System, model: Set 860

Transmission frequency	2.4 à 2.4835 GHz
Modulation	8-FSK Digital
Signal-to-noise ratio	analog input: typ. 83 dBA at 1 V _{rms} digital input: > 90 dBA
RF output power	max. 10 dBm
Audio latency	< 65 ms
Range	up to 70 m (line of sight)
Stethoset receivers that can be simultaneously connected to the transmitter	4
Temperature range	operation: +5 °C to +40 °C storage: -25 °C to +70 °C
Relative air humidity (non-condensing)	operation: 10 to 80 % storage: 10 to 90 %

Stethoset receiver, model: RR 800

Type	intra-aural, closed
Transducer system	dynamic, neodymium magnets
Ear pad material	silicone: silicone elastomer memory foam: PUR open foam: PUR
Frequency response	15 Hz to 16 kHz
Sound pressure level	125 dB at 1 kHz, 3 % THD
THD	< 0.5 % at 1 kHz, 100 dB SPL
Operating time	up to 18 hours
Charging time of rechargeable battery	up to 3 hours
Power supply	built-in BAP 800 lithium polymer rechargeable battery, 3.7 V, 350 mAh
Weight (incl. rechargeable battery)	approx. 61 g
Dimensions (switched off, W x H x D)	approx. 102 x 265 x 23 mm
Maximum value of the static magnetic field at the surface	1.15 mT

Transmitter, model: TR 860

	digital input: optical supported data streams: PCM, 32 - 96 kHz/16 - 24 bit
Connections	analog input: 3.5 mm jack socket input voltage range: 0.15 to 4.0 V _{pk}
Power supply	5 V --- , 1 A
Power consumption	operation: typ. 1 W standby: \leq 0.5 W (without charging)
Dimensions (W x H x D)	approx. 50 x 42 x 270 mm

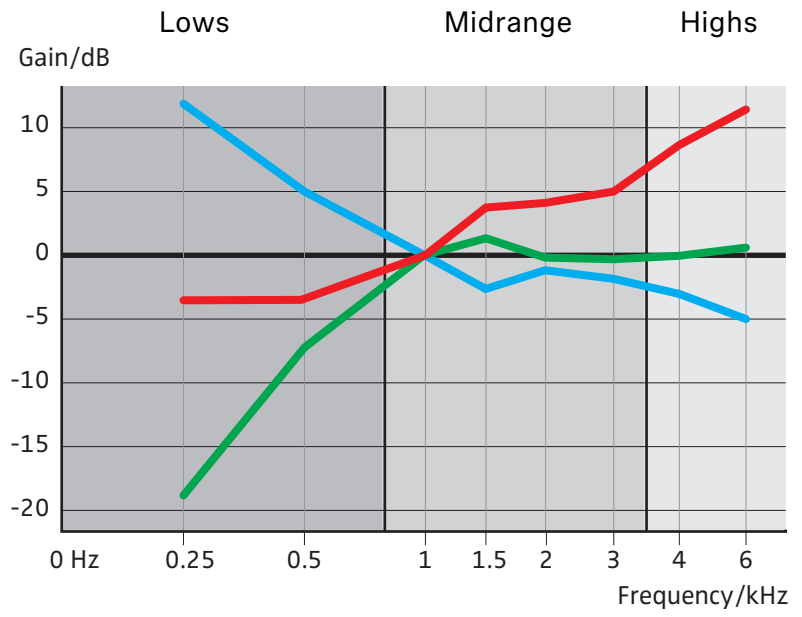
Power supply unit, model: NT 5-10AW

Nominal input voltage/current	100 – 240 V \sim /300 mA
Power frequency	50 – 60 Hz
Nominal output voltage	5 V ---
Nominal output current	1 A
Maximum value of the static magnetic field at the surface	22 mT
Temperature range	operation: 0 °C to +40 °C storage: -25 °C to +70 °C
Relative air humidity (non-condensing)	operation: 10 to 80 % storage: 10 to 90 %

Charging adapter, model: MCA 800

Maximum value of the static magnetic field at the surface	22 mT
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Hearing profiles 1-3



- Profile 1
- Profile 2
- Profile 3

Manufacturer Declarations

Warranty

Sonova Consumer Hearing GmbH gives a warranty of 24 months on this product.

For the current warranty conditions, please visit our website at www.sennheiser-hearing.com/warranty or contact your Sonova Consumer Hearing partner.

In compliance with the following requirements

EU declaration of conformity



- ErP Directive (2009/125/EC)
- RoHS Directive (2011/65/EU)

Hereby, Sonova Consumer Hearing GmbH declares that the radio equipment type TR 860, RR 800 is in compliance with the Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address:

www.sennheiser-hearing.com/download.

UK declaration of conformity



- The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations (2019)
- RoHS Regulations (2012)
- Radio Equipment Regulations (2017)

Notes on disposal



- EU: Battery Directive (2006/66/EC & 2013/56/EU)
- EU: WEEE Directive (2012/19/EU)
- UK: Battery Regulations (2015)
- UK: WEEE Regulations (2013)

The symbol of the crossed-out wheeled bin on the product, the battery/rechargeable battery (if applicable) and/or the packaging indicates that these products must not be disposed of with normal household waste, but must be disposed of separately at the end of their operational lifetime. For packaging disposal, observe the legal regulations on waste segregation applicable in your country. Improper disposal of packaging materials can harm your health and the environment.

The separate collection of waste electrical and electronic equipment, batteries/rechargeable batteries (if applicable) and packagings is used to promote the reuse and recycling and to prevent negative effects on your health and the environment, e.g. caused by potentially hazardous substances contained in these products. Recycle electrical and electronic equipment and batteries/rechargeable batteries at the end of their operational lifetime in order to make contained recyclable materials usable and to avoid littering the environment.

If batteries/rechargeable batteries can be removed without damaging them, you are obliged to dispose of them separately (for the safe removal of batteries/rechargeable batteries, see the instruction manual of the product). Handle lithium-containing batteries/rechargeable batteries with special care, as they pose particular risks, such as the risk of fire and/or the risk of ingestion in the case of coin batteries. Reduce the generation of battery waste as much as possible by using longer-life batteries or rechargeable batteries.

Further information on the recycling of these products can be obtained from your municipal administration, from the municipal collection points, or from your Sonova Consumer Hearing partner. You can also return electrical or electronic equipment to distributors who have a take-back obligation. Herewith you make an important contribution to the protection of the environment and public health.

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