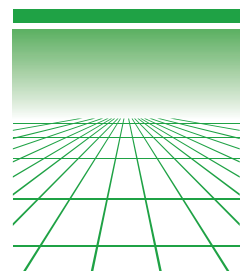


# Wireless TV listening systems



Enjoy the sound of your favourite TV show at your own individual volume without reducing quality and not disturbing others.

HUMANTECHNIK – Your partner for audiological products



# earis®



»earis«® opens up a completely new dimension for hearing impaired people to listen to and enjoy feature films, speech and music programmes on TV, Radio or from any other audio device. The integrated Dynamic Sound Hearing Support (**Dynamic sound HS**) offers five selectable basic tone profiles. These five basic tone profiles were derived from research on the needs of hearing-impaired people when listening to the types of programmes described above. This research was carried out by the Fraunhofer Institute for Digital Media Technology IDMT in Oldenburg, Germany.

Whilst listening with the selected (preferred) tone profile the listened to programme is then continuously and dynamically being altered, by implementing an algorithm developed by the Fraunhofer Institute. This for example keeps any loud sounds from reaching the users hearing. This „cushions“ the naturally changing levels for the respective listeners when advertisements are displayed or when switching to another TV channel. It acts like a continuously varying tone control on the listened to sound to match it to the users selected tone profile.

A large volume wheel is used for overall volume control up to 122 dB (A).

»earis«® sets are available with either an under-the-chin receiver or a pocket receiver. The latter allows the connection of different listening options. Both receivers have exchangeable rechargeable batteries.

The TV listening system can also be switched to a communication amplifier function. The receiver then picks up and transmits the words of the conversation partners in the room.



Headphones not included in the »earis« scope of delivery

# earis®



»earis«: Ready-to-connect TV-listening system with transmitter and according to the set with either ■ headset receiver ■ or pocket receiver and inductive neckloop ■ 1 rechargeable battery ■ 1 power supply unit with adapters for various countries ■ 1 pair silicone rubber earpads, small (only included with headset receiver) ■ 1 Toslink-cable ■ 1 audio-connection cable with 3,5 mm stereo jack plugs ■ 1 audio-adaptor RCA to 3,5 mm jack ■ 1 quick guide ■ 1 user manual ■ 1 warranty card



»earis« pocket receiver for connecting the included »earis« inductive neckloop or any standard headphones.

»earis« set with under-the-chin receiver



dynamic sound **HS**

## »earis« makes your TV sound clear

»earis« transmits the TV sound wirelessly via the 2.4 GHz digital frequency band and is available with a headset receiver or pocket receiver. The design of the LED status display represents a timeless modern appearance with an elegant high-tech accent. The system opens up a completely new and in this category unique feel-good hearing experience for its users.

## »Dynamic Sound HS«: hearing as you like it

Humantechnik has integrated the main feature that makes »earis« the top model in the premium class on the market under the name »dynamic sound HS«. This provides five tone profiles that represent different listening preferences. You can select your personal feel-good sound at the touch of a button.

A specially developed algorithm continuously adjusts the TV-sound so that it always retains the character you have chosen for yourself - even when advertisement blocks or switching to other channels play in completely different sound and volume characteristics. The greater the deviation from the individually selected tone profile, the faster the compensating adjustment takes place.

Thus »earis« fulfils a significant wish of all people who would like to enjoy a higher level of sound enjoyment when watching television or listening to other media: Simple and effective self-adjustment.

Users of »earis« confirm there is a significantly improved understanding of speech in TV dialogues, even if these are mixed with background noise. Users also report an enormous gain in perceived loudness - even when listening to music with great dynamic range or content.

<b>earis® Set with headset receiver:</b>	<b>Item number: A-4100-0</b>
<b>earis® Set with pocket receiver:</b>	<b>Item number: A-4101-0</b>
Modulation method:	Pulse-code modulation PCM Analog-over-digital
Carrier frequency:	2.4 GHz~2.5 GHz
Signal-to-noise distance:	-87 dB
Transmission power:	10 dBm
Audio latency:	< 47 ms
Transmission range:	> 70 m
Temperature range:	0 °C to 45 °C
Power supply:	5 Volt DC / 1.5 A
Power adapter:	100-240 Volt 50-60 Hz 300mA
<b>earis® headset receiver</b>	
Harmonic distortion:	1kHz<1% at 500mVrms
Frequency range:	20-16 kHz
Sound pressure level:	122 dB SPL at Input=1kHz/500mVrms
Earpad material:	Silicone rubber
Power supply:	AP18A 3.7V 400mAh, Lithium-Polymer rechargeable battery
Running time per charge:	approx. 9 hours
Charging time:	approx. 2 hours
Weight (battery incl.):	61 g
Dimensions (mm):	244 x 112.5 x 24
Temperature range:	0 °C - 45 °C
<b>earis® pocket receiver</b>	
Connector:	3.5mm stereo jack socket, 16 Ohm minimum
Power supply:	AP18A 3.7V 400mAh Lithium-Polymer rechargeable battery
Running time per charge:	approx. 9 hours
Charging time:	approx. 2 hours
Weight (battery incl.):	41 g
Dimensions (mm):	∅: 63 x T: 24 mm
Temperature range:	0 °C - 45 °C

## Communication

When switching to the communication amplifier function, the inbuilt microphone in the »earis« receiver receives the words of those present in the room and amplifies them for the respective receiver.

»earis« stores the settings of the communication amplifier. This ensures that the user always returns to the last set volume when switching over.

## The »earis« transmitter

The »earis« transmitter also serves as a charging station for the respective receiver. It also features a charging slot in the side for an additional receiver battery.

## The »earis« headset receiver

The lightweight »earis« headset receiver with replaceable silicone rubber earpads guarantees maximum wearing comfort and exerts no pressure on the ears. The speaker arms also activate the on/off-switching mechanism.

## The »earis« pocket receiver

The »earis« pocket receiver allows for the connection of standard commercially available listening options - from the included »earis« neckloop, which is part of every delivery, to any regular headphones or earphones.

A clip on the reverse side is used to attach it to clothing. For using a carrying cord, an appropriate eyelet is also included.



»earis« gives me my personally preferred sound and thus real listening pleasure. I use the pocket receiver together with my familiar headphones.

Large volume control wheel



Reverse side of the pocket receiver with balance adjustment (featured on both receiver types), belt clip and eyelet for a carrying cord

# sonumaxx<sup>BT</sup>

»sonumaxx-BT« is the contemporary combination of TV-listening system, mobile phone headset and communication amplifier in a single system. Simply switch to the feature you require.

»sonumaxx-BT« brings the TV sound directly to your ear, clearly understandable as loud as you like and without disturbing anyone. The tone profile settings give you greater control to your listening.

Use »sonumaxx-BT« for phone calls or participate in conversations.

Thanks to Bluetooth technology, your »sonumaxx-BT« is always in touch with your mobile phone. As soon as you receive a call, your mobile phone automatically transmits the ringtone to your »sonumaxx-BT« receiver. By pressing the phone button, you take the call while the reception of the TV sound is muted.

**Switch to conversation:** If you want to take part in conversations in the room, simply press the amplifier button on your »sonumaxx-BT« and use it as a sound amplifier.

**Bluetooth transmission directly to your hearing aids:** If you wear hearing aids with a standard Bluetooth interface, you can purchase

the universal "sonumaxx-BT" transmitter separately and connect it to any audio device. This allows you to comfortably receive any media sound directly in your hearing aids.

## Essential features

- Three tone profiles to enhance your sound experience.
- Variable volume control
- Powerful sound up to 125 dB
- Receiver left/right Balance control
- Compatible with all TV-sets
- Long running time per battery charge
- Versatile: Transmitter and receiver of the »sonumaxx-BT« can also be used independently and paired with any other Bluetooth transmitter or receiver
- Separately available: Universal Bluetooth-transmitter for people, who already own standard Bluetooth-enabled equipment.



»I listen to my TV as loud as I like. Nobody else is disturbed...

... and at the touch of a button I can receive telephone calls or join in conversations.«



## Specifications

Transmission method:	Digital Bluetooth (Stereo)
Carrier frequency:	2.4 Ghz
Audio frequency transmission range:	30 - 20000 Hz
Harmonic distortion:	< 2%
Signal-to-noise distance:	> 70 dB
Temperature range:	-20 °C - 40 °C
<b>Transmitter</b>	
Transmission frequency band:	2.4 GHz
Bluetooth version:	3.0
Transmission range:	approx. 10 metres
Audio input:	3.5 mm stereo jack, Toslink, S/PDIF
Power consumption:	2.5 mW
Power supply:	5 Volt DC / USB
Power adapter:	110-230 VAC
Weight:	107g
Dimensions, WxHxD:	109 x 40 x 108 mm
<b>Receiver</b>	
Bluetooth version:	4.1
Maximum volume / Sound pressure:	125 dB
Running time per charge:	7 hours
Battery-type:	3,7 V Lithium-Bat. / 380 mAh
Charging time:	< 3 hours
Weight:	65 g
Dimensions:	Casing Ø 67mm / D: 26 mm

## »sonumaxx-BT« Sets

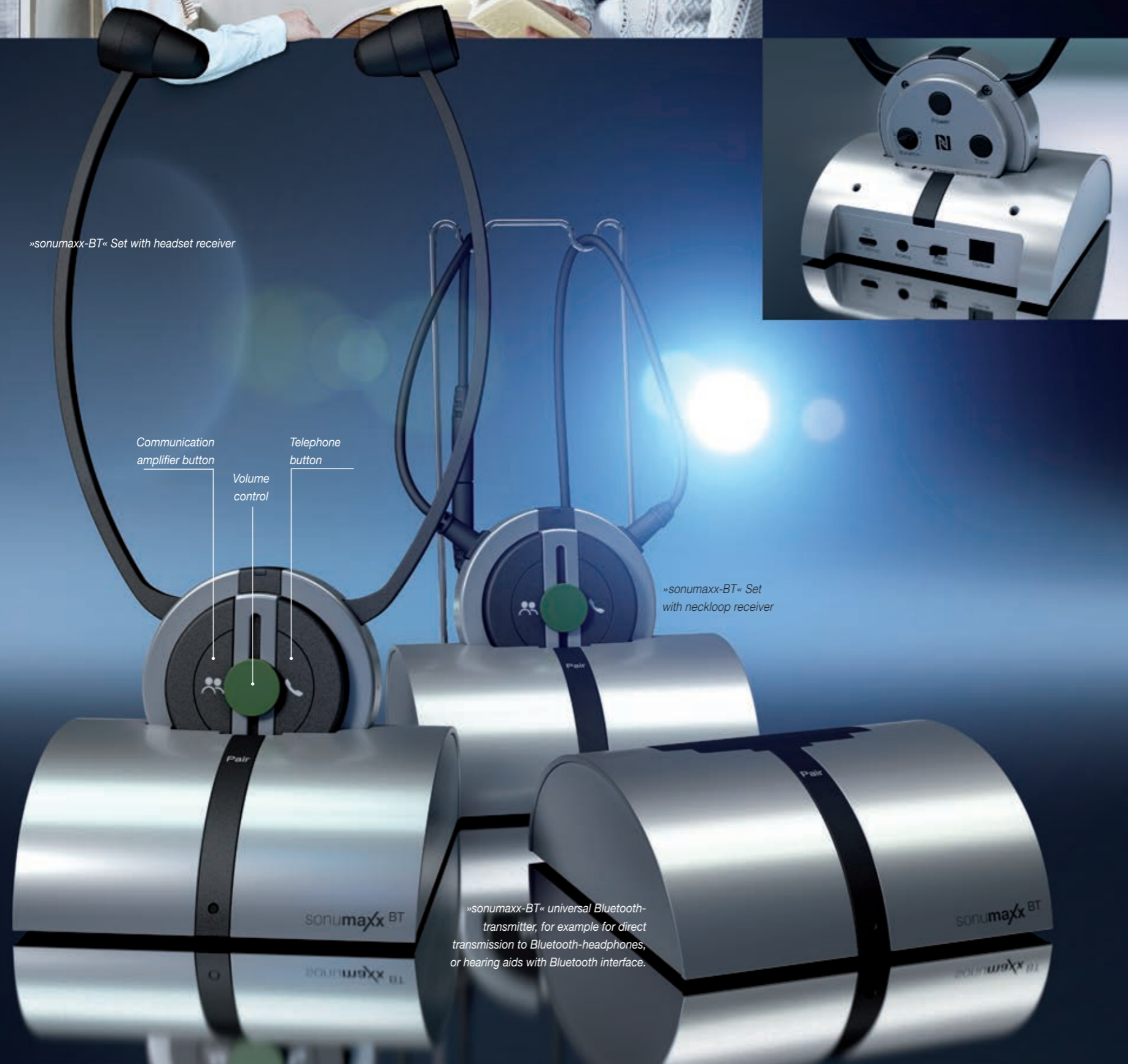
- »sonumaxx-BT« Set, transmitter with headset receiver  
Item number: **A-4107-0**
- »sonumaxx-BT LR« Set, transmitter with neckloop receiver  
Item number: **A-4137-0**

## »sonumaxx-BT« transmitter

- »sonumaxx-BT« universal Bluetooth transmitter:  
Item number: **A-4117-0**



»sonumaxx-BT« Set with headset receiver



Communication amplifier button

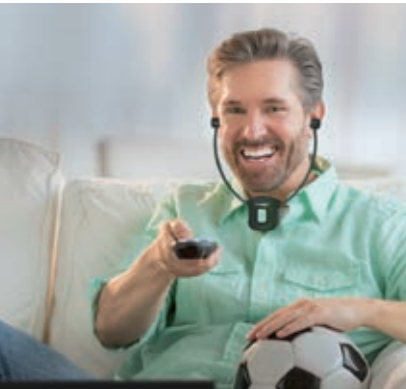
Volume control

Telephone button

»sonumaxx-BT« Set with neckloop receiver

»sonumaxx-BT« universal Bluetooth-transmitter, for example for direct transmission to Bluetooth-headphones, or hearing aids with Bluetooth interface.

# sonumaxx 2.4



»That's what I call a live experience. My »sonumaxx-2.4« takes me into the atmosphere of a football stadium...

... and in the halftime break, I can switch to the communication amplifier and talk to my wife.«

»sonumaxx-2.4« sets a new quality position in its class for TV-listening systems.

Audiological technology, ergonomically intelligent design and superior digital 2.4 GHz transmission technology make a significant contribution to ensuring that »sonumaxx-2.4« has an all-round convincing quality with powerful amplification, top stereo sound, comfortable operation and versatility.

#### Acoustic or inductive listening

»sonumaxx-2.4« is available with two different receiver types: a) with a headset receiver and b) with the compact pocket receiver. The latter, in particular, allows a clear increase in versatility in the choice of listening options - including inductive hearing for hearing aid wearers or CI systems.

With an adjustable volume of up to **120 dB** the »sonumaxx-2.4« also offers a balanced and pleasantly clear sound in the upper amplification range.

The transmission between transmitter and receiver via the 2.4 GHz frequency band proves to be resistant to interference and safe.

#### The »sonumaxx-2.4« transmitter

To connect the transmitter to a TV or other audio system the included connection set has all the common connection cables, including TOSLINK.

The transmitter serves as a storage and docking station for the receiver as well as the receiver battery charger. A fully charged battery allows an operating time of about 6 to 8 hours. Two receiver batteries are included in the set, one can be used in a receiver whilst the other is being charged in the side charging port.

On the front of the »sonumaxx-2.4« transmitter buttons allow the user to select from three pre-programmed tone profiles for the one closest to their listening preference.

#### The »sonumaxx-2.4« receivers: listen to TV sound without disturbing anyone and switch to conversation amplifier if needed

The housings for the headset receiver and the pocket receiver as well as their controls are identical. A convenient feature of the »sonumaxx 2.4« receiver is the ability to switch from receiving TV sound to communication at the touch of a button. When activated, an integrat-

ed microphone picks up the sounds of the surroundings and »sonumaxx 2.4« amplifies them.

#### The headset receiver

The receiver of the »sonumaxx 2.4« with its stethoscope design is comfortable to wear without undue pressure on the ears. The replaceable earpads made of soft silicone enhance the comfort.

#### The pocket receiver

The pocket receiver offers more versatility and individuality. It allows the connection of all commercially available listening options, such as headphones, earphones or headsets.

The pocket receiver set includes a neckloop in addition to the standard accessories. For those who prefer inductive earhooks they can be obtained from the Humantechnik accessories range.

»sonumaxx-2.4« Sets	
»sonumaxx-2.4« set, transmitter with stethoscope receiver Item number:	<b>A-4108-0</b>
»sonumaxx-2.4« PR, set, transmitter with pocket receiver Item number:	<b>A-4118-0</b>

Specifications	
Transmission method:	digital radio (Stereo)
Carrier frequency:	2,4 GHz
Audio frequency transmission range:	30 - 20000 Hz
Harmonic distortion:	< 0,5 %
Signal-to-noise distance:	> 75 dB
Temperature range:	0° C - 55° C
<b>Transmitter:</b>	
Power supply:	5 Volt DC
Power adapter:	100-240 Volt 50-60 Hz
Weight:	approx. 43 g
Transmission range:	up to 25 m
<b>Receiver:</b>	
Running time per charge:	approx. 6 to 8 hours
Battery-type:	Li-Polymer 3,7V 350 mAh
Number of batteries:	2
Loading time:	approx. 5 h (2,5h at 90% load)
Max. volume:	approx. 120 dB (A)
Weight:	66 g



The pocket receiver has a clip so that it can be worn comfortably on your clothes

The »sonumaxx 2.4« system set includes a ready-to-connect TV hearing system with a transmitter and either a headset receiver or pocket receiver with clip, as well as

- 2 rechargeable batteries,
- 1 power supply,
- 2 pairs of earpads

#### Audio connector set:

- 1 Audio-connection cable with 3,5 mm stereo jack plugs,
- 1 Audio adapter 3,5 mm to 6,3 mm jack,
- 1 RCA-to-3,5 mm jack adapter,
- 1 Toslink-cable,
- 1 microphone with 1m cable is included where a direct audio connection is not available.

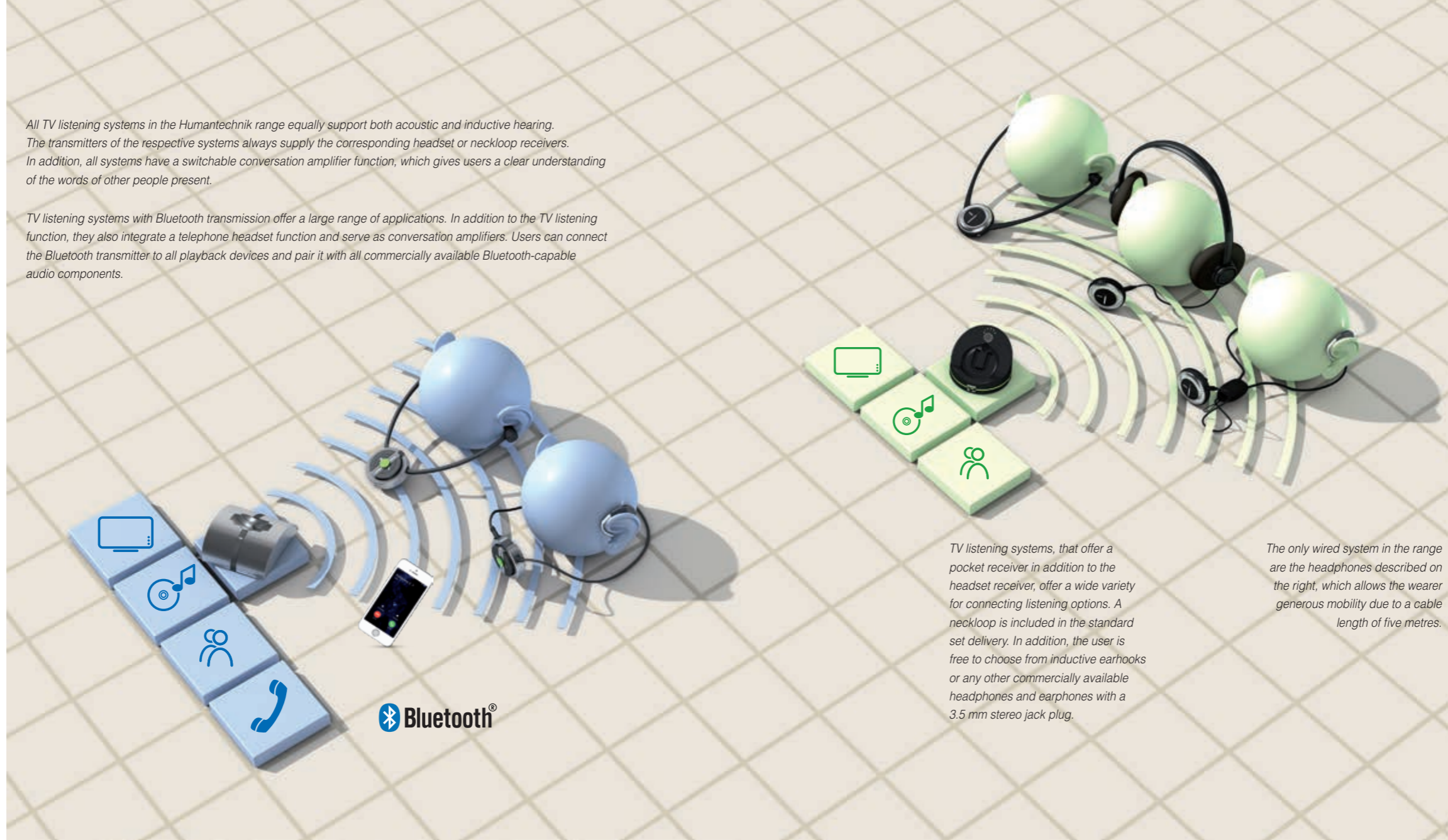
The pocket receiver set includes a neckloop.



»I am happy to recommend Humantechnik's TV listening systems to others because the range offers many possibilities so that there is something for every need. And the quality is always right.«

All TV listening systems in the Humantechnik range equally support both acoustic and inductive hearing. The transmitters of the respective systems always supply the corresponding headset or neckloop receivers. In addition, all systems have a switchable conversation amplifier function, which gives users a clear understanding of the words of other people present.

TV listening systems with Bluetooth transmission offer a large range of applications. In addition to the TV listening function, they also integrate a telephone headset function and serve as conversation amplifiers. Users can connect the Bluetooth transmitter to all playback devices and pair it with all commercially available Bluetooth-capable audio components.



TV listening systems, that offer a pocket receiver in addition to the headset receiver, offer a wide variety for connecting listening options. A neckloop is included in the standard set delivery. In addition, the user is free to choose from inductive earhooks or any other commercially available headphones and earphones with a 3.5 mm stereo jack plug.

The only wired system in the range are the headphones described on the right, which allows the wearer generous mobility due to a cable length of five metres.



**LH-056TV: Headphones with high sound quality**

Of all audiovisual media, television is the most popular. This applies equally to people with or without a hearing loss – no one has to miss out on relaxed, easy listening.

**Hearing aids, CI systems and audiological TV listening systems: a good team for comfortable television listening**

Many hearing-impaired people who opt for assistive technology for television wear hearing aids or CI systems.

Many hearing aids have the advantage of an interface for external audio systems: the so-called telecoil, which receives audio signals inductively.

**Listening to TV inductively**

The telecoil offers additional listening benefits beyond understanding television - for example, when listening in public facilities equipped with loop systems - such as theatres, churches or town halls.

Inductive listening - switch or program »T« (telecoil) on the hearing aid - will receive the inductive

signal, for example the signal from the neckloop receiver of a TV listening system. Background noise is only an issue if the hearing aids have open earmolds or are set to the "MT" or mixed program, which allows both microphone and neckloop to be heard simultaneously.

For this reason, all TV listening systems from Humantechnik are equipped with a receiver model with a permanently attached or connectable neckloop.

**Pocket receiver: More versatility for use with preferred listening options**

Some TV hearing systems offer wireless audio reception via pocket receivers. These allow the connection of a wide variety of listening options - for example, the included neckloop - but also monaural or binaural cables, inductive earhooks or any commercially available headphones or earphones with a 3.5 mm stereo jack plug.

Very small hearing aids often do not allow for the installation of a telecoil and audio input due to restricted space within the device. Contact your hearing care professional for detailed advice on which hearing aid is best for you, also in regards to television listening.

**Systems with headset receivers**

Many people do not wear hearing aids when watching television. However, they want to hear their TV sound loud and clear without disturbing others in the same room.

The headset receivers of Humantechnik TV listening systems, lightweight and easy to use, provide powerful TV sound amplification only for the user without disturbing others.

The stereo headphone system with integrated volume control allows separate settings for the left and right sides. Five metres of cable for connection to the audio source (e.g. TV) provide for a generous range of movement. Please note that these headphones do not feature independent amplification.

Specifications: LH-056TV (A-4881)	
Transmission method:	via connection cable 3.5 / 6.3 mm stereo jack plug
Frequency range:	20-20000 Hz
Harmonic distortion:	0,5 %
Max. volume:	approx. 115 dB (A)
Weight:	90 g
Range:	5 m cable length
Impedance:	32 Ω



**Because not all ears  
are the same size:  
Different earpads for all  
TV hearing systems as  
original accessories**

Humantechnik's TV listening systems also allow for expansion, for example the operation of several receivers with a single transmitter.

The systems also offer extended versatility of use: if you intend to use them in media rooms of cultural or social institutions or if you want to operate several TV hearing systems in adjacent rooms, we recommend that you consult your specialist dealer, who will be happy to show you the possibilities.



**S/PDIF Audio converter,  
item no.: A-4963-0**

*The S/PDIF converter converts digital signals from corresponding audio sources into analogue audio signals and makes them available for use by systems with analogue audio inputs. Power is supplied via a power supply unit which is included in the set.*



**Silicone rubber earpads for headset receiver »earis«** **Item number**

<b>1</b>	Standard earpads (2 pairs)	A-4890-0
<b>2</b>	Tapered shape (2 pairs)	A-4891-0

**Silicone rubber earpads for headset receiver »sonumaxx-2.4«  
and headset receiver »sonumaxx-BT«** **Item number**

<b>3</b>	Standard earpads (2 pairs)	A-4997-0
<b>3</b>	Tapered shape, maxi pack (24 pairs)	A-4998-0

**4 Replacement batteries** **Item number**

	Rechargeable battery for »earis«	A-4980-0
	Rechargeable battery for »sonumaxx-2.4«	A-4968-0

**»earis« neckloop** **Item number**

<b>5</b>	»earis« neckloop	A-4892-0
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**Replacement connection cables** **Item number**

	Cable set Toslink, includes optical lead	A-4961-0
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Your specialist dealer will give you comprehensive and competent advice