



## TV Clear Transmitter 2

Transmitter

Model: TVC2-TX



### Instruction manual

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Version: 01/ 23

# Important safety instructions



- ▷ Please read the following information before using your device.

## General warnings

- ▷ This device is not for children below 36 months. They contain small parts that can cause choking, if swallowed by children. Keep out of reach of children and mentally challenged people or pets. If the device or any part of it is accidentally swallowed, consult a physician or hospital immediately.
- ▷ Changes or modifications to the device that were not explicitly approved by Sonova Consumer Hearing GmbH are not permitted. Such changes may damage your ear or the device.
- ▷ Do not use this device in explosive areas (mines or industrial areas with danger of explosions, oxygen rich environments or areas where flammable anesthetics are handled) or where electronic equipment is prohibited.
- ▷ High-powered electronic equipment, larger electronic installations and metallic structures may impair and significantly reduce the operating range of the device.
- ▷ Do not use excessive force when connecting the cables.
- ▷ The USB ports of the device are to be used for the described purpose only.
- ▷ The device may generate magnetic fields. If any influence of the device on the implantable device (e.g. pacemakers, defibrillators, etc.) is experienced, stop using the transmitter and contact your doctor and/or the manufacturer of the implantable device for advice. 
- ▷ X-ray radiation, CT or MRI scans may destroy or adversely affect the correct functioning of the devices.
- ▷ If the device has been dropped or damaged, if it overheats, has a damaged cord or plug, or has been dropped into liquid, stop using the device and contact an authorized Sonova Consumer Hearing partner.
- ▷ Protect the device connectors, the plugs, and the power supply unit from dirt and debris.
- ▷ Protect the device from excessive moisture (bathing or swimming areas) and heat sources (radiator). Protect the device from excessive shock and vibration. Never immerse it in water.
- ▷ Clean the device using a damp cloth. Never use household cleaning products (washing powder, soap, etc.) or alcohol for cleaning. Never use a microwave or other heating devices to dry the device.
- ▷ Dispose of electrical components in accordance with your local regulations.

## Hazard warnings

- ▷ Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

## Important safety instructions

- ▷ The following is only applicable for persons with active implantable medical devices (i.e. pacemakers, defibrillators, etc.): Keep the device case at least 15 cm (6 inches) away from the active implant. If you experience any interference, switch off the transmitter and contact the manufacturer of the active implant. Please note that interference can also be caused by power lines, electrostatic discharge, airport metal detectors etc.
- ▷ Only authorized personnel are allowed to disassemble the device due to possible electrical hazard.
- ▷ External devices may only be connected if they have been tested in accordance with corresponding safety standards. Only use accessories approved by Sonova Consumer Hearing GmbH.
- ▷ For safety reasons, only use certified and stabilized USB chargers with a rating of 5 V  $\overline{=}$ , 0.5 A.
- ▷ Protect your eyes of the optical light from the optical TOSLINK cable when plugged into a TV/device.

### Product safety information

- ▷ Protect the device from heat. Never use a microwave or other heating devices to dry the device (due to risk of fire or explosion).
- ▷ Ensure to use the device within operating temperature range: 0 °C to +40 °C/+32 °F to +104 °F.
- ▷ Use of accessories and cables other than those specified or provided by the manufacturer of this device could result in increased electromagnetic emissions or decreased electromagnetic immunity of this device and result in improper operation.

## Intended use/Liability

The intended use of the “TV Clear Transmitter 2” is to establish a wireless connection between compatible earbuds (e.g. “TV Clear Earbuds 2”, “TVS 200 Earbuds”) and a TV (or any other audio source). It sends audio signals within a 15 meter (50 ft) radius wirelessly to the receivers.

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 improper use or misuse of the product and its attachments/accessories.

Sonova Consumer Hearing GmbH is not liable for damages to USB devices that are not consistent with the USB specifications.

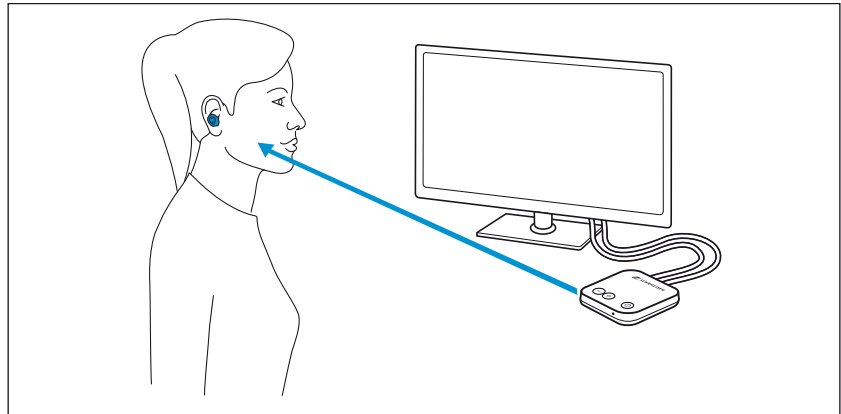
Sonova Consumer Hearing GmbH is not liable for damages resulting from the loss of connection due to exceeding the 2.4 GHz transmission range.

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

# The Sennheiser “TV Clear Transmitter 2”

## General use

The “TV Clear Transmitter 2” is a dedicated low-latency interface for wirelessly connecting compatible headphones to TVs, hi-fi systems, or other audio sources. The transmitter can be connected to an audio source via a digital optical connection or an analog audio output.



## Compatibility

The “TV Clear Transmitter 2” does not support standard Bluetooth headphones, but uses a proprietary low-latency radio signal optimized for use with TVs.

A current list of compatible products can be found at:  
[www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)

## Streaming stability

A direct line of sight between the earbuds and the connected device is not required.

The transmission range is normally up to 15 meters.

The range may be reduced if the signal is attenuated by obstacles such as walls or the human body.

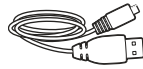
For best results, use the earbuds within line of sight of the connected device.

If audio transmission is interrupted, reduce the distance between the earbuds and the connected device and avoid any obstacles between them.

## Package contents



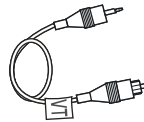
Transmitter  
(model: TVC2-TX)



USB cable with USB-C and USB-A connector



Analog audio cable with 3.5 mm jack plugs



Optical digital audio cable  
with TOSLINK connector and 3.5 mm mini plug



Quick guide

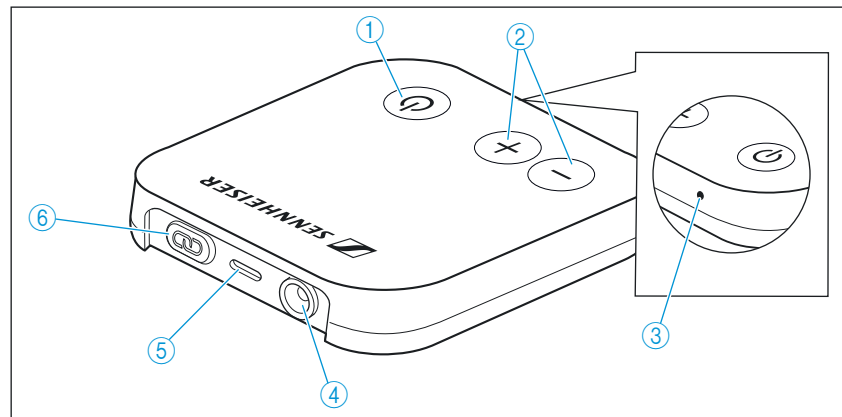


Safety guide

Online you can find:





- Frequently asked questions (FAQ):  
[www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)
- A list of accessories for the “TV Clear Transmitter 2”:  
[www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)

## Product overview



- ① Power touch panel
- ② Volume touch panels +/-
- ③ Light indicator
- ④ Audio connection for:  
optical audio cable (TOSLINK and 3.5 mm mini plug)  
analog audio cable with 3.5 mm jack plug
- ⑤ USB-C socket for power supply
- ⑥ Pairing button

### Overview of the light indicator

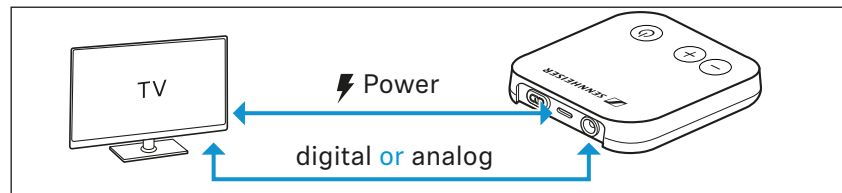
Light indicator		Transmitter
	lights up green	... is switched on and transmits sound
	lights up white	... is switched on and does not transmit sound (standby mode)
	flashes blue	... is in pairing mode
	flashes red	... wrong audio input format (e.g. DTS)
-	off	... is switched off

# Getting started

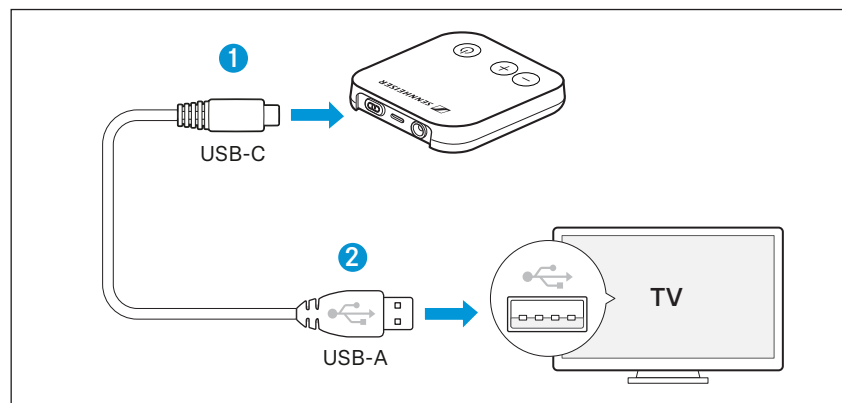
The following steps describe how to put the “TV Clear Transmitter 2” into operation for the first time in the best possible way.

## 1. Connecting the transmitter, e.g. to the TV

Connect the USB power cable and the audio cable (digital or analog) to your TV or audio source (> 8).



### Connecting the transmitter to a USB socket for power supply



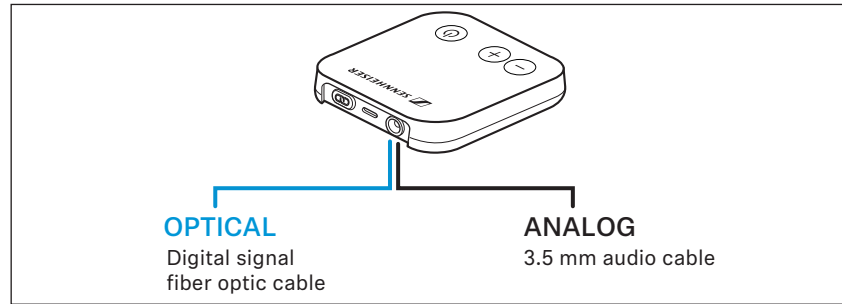
1. Connect the USB-C connector of the supplied USB power cable to the USB-C power socket of the transmitter.
2. Connect the USB-A connector of the cable to the USB-A socket of your TV. For older TVs without an integrated USB socket, connect the USB connector to an external USB power adapter and connect it to the power source (to be ordered separately, optional accessory).  
The transmitter switches to standby mode. The transmitter’s light indicator lights up white.

### Connecting the transmitter to an audio source

The transmitter can be connected to any audio source, such as a TV, PC or hi-fi system. It supports two different audio cables: optical (TOSLINK) or analog (3.5 mm jack plug). One of the two audio cables supplied must be connected to the audio connection on the transmitter.

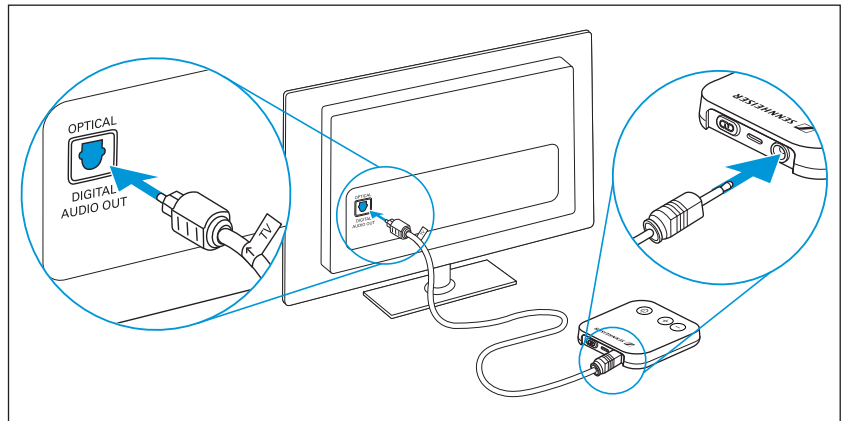
Select the audio cable that is compatible with your audio source. The best audio transmission is ensured when using the digital optical audio cable.





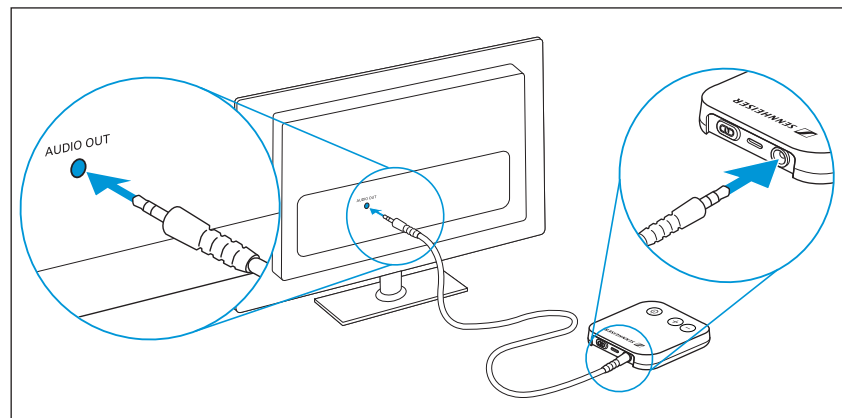
**i** Make sure that the selected audio cable is firmly connected to both the transmitter and the audio source.

### Connecting the transmitter using the optical cable



▷ Connect the narrow end (3.5mm TOSLINK mini plug) of the optical cable to the transmitter and the wider end of the optical cable to the OPTICAL DIGITAL AUDIO OUTPUT of your TV (or audio source).

### Connecting the transmitter using the analog cable



▷ Connect one end of the analog 3.5 mm audio cable to the transmitter and the other end to the AUDIO OUT connection of your TV (or audio source).

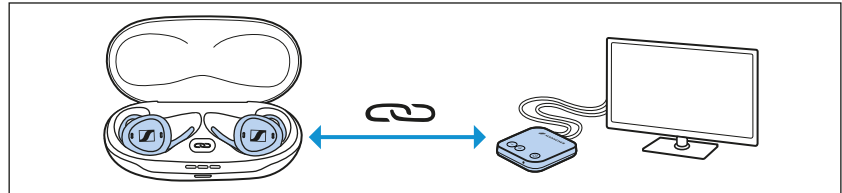
**i** If your TV's loudspeakers switch off when connected using the analog 3.5 mm audio cable, use the optical audio cable instead, or go to your TV's menu to switch the loudspeakers on again.

## 2. Pairing the earbuds with the “TV Clear Transmitter 2”

If you purchased the devices as a set, the earbuds and the transmitter are factory paired with each other.

- ▷ If you purchased the devices separately, you have to manually start the pairing process once. To do so, press the pairing button of the transmitter and the pairing button of the earbuds for 2 seconds (> 11).

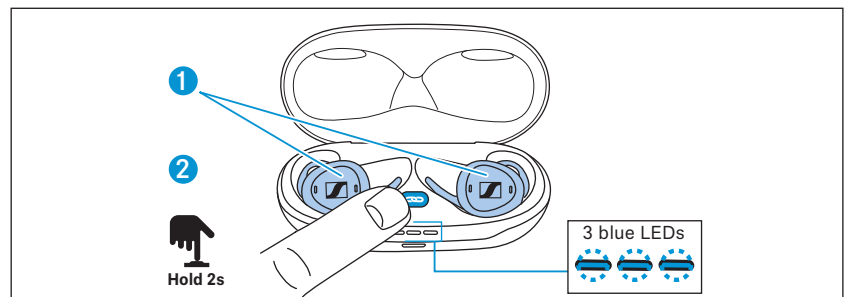
After the first manual pairing, the earbuds automatically connect to the transmitter when they are taken out of the charging case.



**i** A current list of compatible products can be found at: [www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)

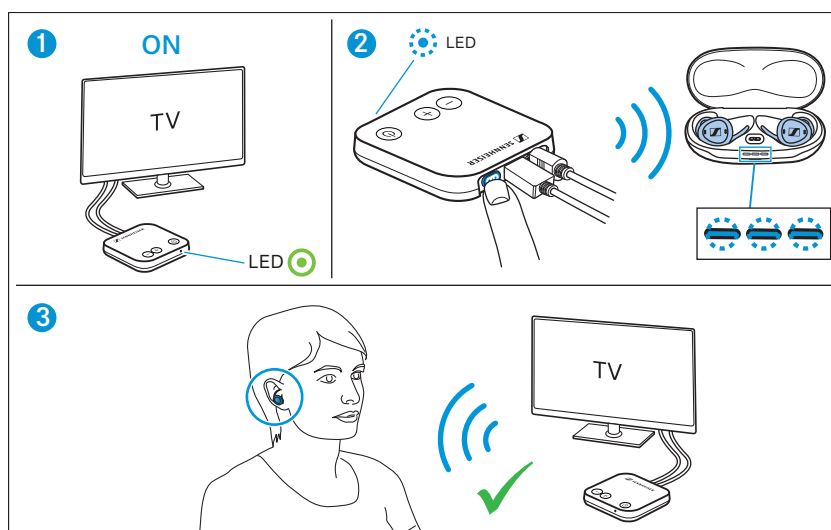
### Setting the earbuds to pairing mode

1. Make sure that both earbuds are properly inserted into the charging case.
2. Press the pairing button for 2 seconds until the light indicator starts flashing blue.



3. Wait until all 3 light indicators flash blue (this can take up to 10 seconds). Pairing mode ends after 8 minutes or when pairing was successful.
4. Leave the earbuds in the charging case and continue with “Setting the transmitter to pairing mode” (> 10).

## Setting the transmitter to pairing mode



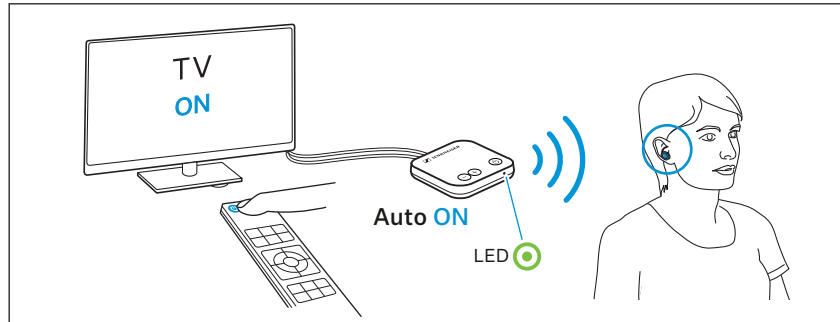
1. Make sure that the transmitter is properly connected to the TV or audio source (> 8) and switch it on (> 12).
  2. Press the pairing button on the rear of the transmitter while the earbuds are still in pairing mode (in pairing mode, the 3 light indicators of the charging case flash blue).  
The front LED of the transmitter flashes blue briefly.  
When the 3 blue light indicators of the charging case stop flashing, the pairing process is successfully completed (usually < 5 seconds).  
Your transmitter is now connected to the earbuds and the light indicators on the charging case stop flashing.
- i** If, after 5 seconds, the 3 blue light indicators of the charging case do not stop flashing, press the transmitter's pairing button again.
3. Insert the earbuds into your ears. The sound from your transmitter will be played through the earbuds when they are connected.

## Additional information on pairing

- The success of the pairing process is independent of whether or not there is an audio input.
- You can pair the transmitter with any number of compatible products. The transmitter streams the audio signal to all paired devices simultaneously.
- A device only needs to be paired with the transmitter once, unless the pairing is deleted on the side of the headphones.

## Daily use

### Switching on audio transmission



- ▷ Switch on your TV or audio source.
- ▷ Switch on the TV transmitter by briefly touching the power touch panel.  
The transmitter automatically transmits the audio signal to the paired earbuds.  
When a transmission via the transmitter is taking place, the transmitter's light indicator lights up green.  
When the transmitter is not receiving an audio signal, the light indicator lights up white.  
30 seconds after the start of the transmission, the transmitter sends a short beep sequence to the paired earbuds. This allows you to detect an active transmission even if the transmitter is not currently receiving an audio input signal.

### Switching off audio transmission

- ▷ To stop the transmitter from transmitting the audio signal, simply switch off the transmitter via the power touch panel.  
If you leave the transmitter switched on, the TV is switched off and the transmitter does not receive any audio signal for more than 3 minutes, the transmitter switches to standby mode. The transmitter's light indicator will then light up white.

### Adjusting the volume

We recommend using the volume control on your headphones for adjusting the volume on a daily basis.

During initial setup, you can use the volume controls on the transmitter to select a comfortable initial volume.

To reduce the volume:

- ▷ Press the volume touch panel -.

To increase the volume:

- ▷ Press the volume touch panel +.

## FAQ/If a problem occurs ...

If a problem has occurred, proceed in the following order until the problem is solved and you can use the transmitter again:

1. Check that the light indicator on the front of the transmitter lights up. If the light indicator does not light up, check the power cable and briefly tap the power touch surface.
2. Check that the light indicator on the front of the transmitter lights up green. If the light indicator does not light up green, check the audio input on the transmitter: The plug must be fully inserted. Use an audio output on the TV (usually marked OUT).
3. If there is still no sound on the earbud, repeat the pairing process.
4. If the problem cannot be solved with the mentioned methods, follow the instructions for troubleshooting (> 14).

### List of frequently asked questions (FAQ)

Visit the list of frequently asked questions (FAQ) and suggested solutions including how-to videos for the "TV Clear Transmitter 2" at:

[www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)

Instructions for troubleshooting for the “TV Clear Transmitter 2”

Problem	Cause	Possible solution
No sound is being heard from the audio source.	The audio source is switched off.	Switch the audio source on.
	The cables are not properly connected to the “TV Clear Transmitter 2” and/or the audio source.	Make sure that all cables are in the right place and connected firmly (> 8).
	The audio cable is connected to the AUDIO IN input of the audio source.	Make sure that the audio cable is connected to the AUDIO OUT output of the audio source.
	The transmitter receives an incompatible input signal via an optical audio cable.	Adjust the audio settings of your audio source to a compatible audio format (PCM, stereo, Dolby 5.1). If this is not possible, use the analog audio cable with 3.5 mm jack plug (> 9) instead.
	The transmitter is not connected to the earbuds.	Connect your earbuds to the transmitter (> 11).
	The audio source is muted.	Unmute the audio source or increase the volume.
After connecting the transmitter, no sound is coming from the TV’s loudspeakers.	The headphone connection of the TV is selected.	Check the TV’s audio settings so that the loudspeakers and the headphone connection can be used at the same time. Alternatively, you can use the optical (TOSLINK) cable instead of the analog 3.5mm audio cable to connect the transmitter to the audio source (> 9).
The sound from the loudspeakers of the audio source is delayed compared to the streamed sound in the earbuds.	The delay setting of the loudspeakers of the audio source is too high.	Adjust the audio delay time in the audio settings menu of your audio source (reduce the delay).
The light indicator does not light up.	The transmitter is switched off.	Press the power touch panel to switch the transmitter on.
	The power supply cable is not connected.	Connect the transmitter to a power source using the USB-C cable.
	The power supply cable is connected to an unsuitable socket.	Make sure that the transmitter is connected to a certified USB socket with 5 V $\overline{=}$ , 0.5 A.
The light indicator flashes red.	An incompatible audio input format is selected.	Adjust the audio settings of your audio source to a compatible audio format (PCM, stereo, Dolby 5.1). If this is not possible, use the analog audio cable with 3.5 mm jack plug (> 9) instead.

Problem	Cause	Possible solution
The light indicator never lights up white, the transmitter does not switch to standby mode.	Excessive noise in the analog audio cable.	Make sure that the analog audio cable is fully connected.
	If there is a red glow on the optical audio connector even though the TV is off, the transmitter cannot go into standby mode (The SPDIF clock is not disabled/use of an active optical splitter).	Press the power touch panel to manually switch off the transmitter.

# Specifications

## Model: TVC2-TX

Compatibility	Connect multiple Sennheiser TV Clear 2 devices or other Phonak/Unitron wireless products. up to 15 meters transmission range
Streaming technology	proprietary technology
Audio quality	stereo, 120 Hz to 14.7 kHz
Transmission frequency	2,400 – 2,483.5 MHz, ISM band
RF output power	50 mW (max)
Range	up to 15 m
Max. number of paired devices	unlimited
Connections	digital input: optical 3.5 mm mini TOSLINK connector supported data streams: PCM, stereo, Dolby 5.1 (no Dolby 7.1 and no DTS)  analog input: 3.5 mm stereo jack socket
Power supply	via USB-C socket (use a certified USB power supply): 5 V ---, min. 0.5 A
Dimensions	63 x 63 x 12 mm
Weight	approx. 34 g
Temperature range	<i>operation:</i> 0 to +40°C <i>storage:</i> -20 to +60 °C
Relative air humidity, non-condensing	<i>operation:</i> < 90 % <i>storage:</i> < 90 %

The “TV Clear Transmitter 2” uses a proprietary transmission technology optimized for low latency and low current consumption. This is why the transmitter is not compatible with standard Bluetooth headphones.

A current list of compatible products can be found at:  
[www.sennheiser-hearing.com/tvcleartransmitter2](http://www.sennheiser-hearing.com/tvcleartransmitter2)



# Manufacturer declarations

For more information on regulatory compliance markings, refer to the supplied supplement sheet.

## Warranty

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

For the current warranty conditions, please visit our website ([www.sennheiser-hearing.com/warranty](http://www.sennheiser-hearing.com/warranty)) or contact your Sonova Consumer Hearing partner.

## In compliance with the following requirements

### EU declaration of conformity



- RoHS Directive (2011/65/EU)

Hereby, Sonova Consumer Hearing GmbH declares that the radio equipment type TVC2-TX is in compliance with the directive 2014/53/EU.

The full text of the EU declaration of conformity is available in English language at the following Internet address:  
[www.sennheiser-hearing.com/download](http://www.sennheiser-hearing.com/download)

### UK declaration of conformity



- RoHS Regulations (2012)
- Radio Equipment Regulations (2017)

### Notes on disposal



- EU: WEEE Directive (2012/19/EU)
- 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 packaging 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.

## Manufacturer declarations

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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