



# Smart Transmitter 2,4

User Guide

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## Before you start

This device is intended as a wireless transmitter of sound from a TV or from other electronic devices to hearing instruments. It is intended to be used by children (> 36 months) and adults together with their hearing instruments.



### **CAUTION**

Read this user guide thoroughly and completely and follow the safety information in this document to avoid damage or injury.

### Compatible hearing instruments



Smart Transmitter 2,4 works with our specific wireless hearing instruments. Your Hearing Care Professional will advise you on the compatible models.

## Included in delivery

- 1 Smart Transmitter 2,4
- 2 USB power cable and power plug with country-specific adapter
- 3 TOSLINK cable
- 4 RCA (cinch) cable
- 5 SCART adapter
- 6 Mini jack adapter



## Components

- 1 TV indicator 
- 2 Power indicator 
- 3 Setup button
- 4 Power connection
- 5 RCA connections (left and right)
- 6 TOSLINK connections (in and out)
- 7 Mode button (no function)

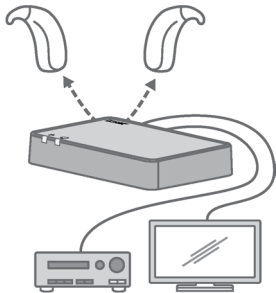




# Getting started

## Positioning

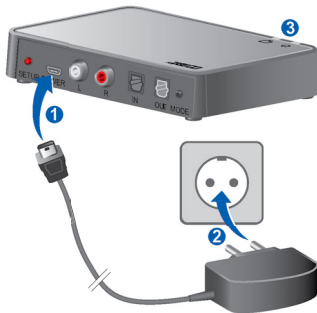
Position the transmitter close to your electronic device, so that they can be easily connected with cables. For best connection to your hearing instruments, position the transmitter horizontally and in direct line of sight with your hearing instruments.








## Connecting to power supply

Only use the USB power cable and power plug that came with the transmitter.

- ▶ Connect the micro USB side of the power cable to the power connection of the transmitter ①.
- ▶ Connect the power plug to the power supply ②.

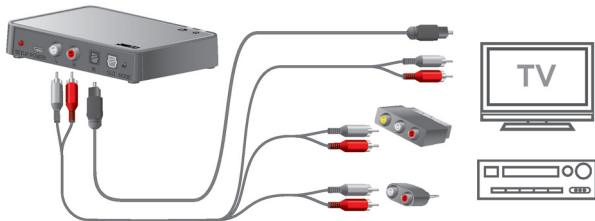


► Observe the indicators ③:

		Description
	-	The transmitter is starting up.
		If after a few seconds, both indicators flash blue, the transmitter is on but not paired to any hearing instrument. Refer to the section "Pairing hearing instruments".
other		Refer to the section "Power and TV indicator".

## Connecting to your electronic device

You can connect the transmitter to your electronic device with the TOSLINK cable or with the RCA cable. We recommend using the TOSLINK connection. Use the supplied cables and adapters.



We recommend to connect **either** the TOSLINK input **or** the RCA input of the transmitter.

If both inputs of the transmitter are used, the electronic device that is connected via TOSLINK cable has the higher priority and only the audio signal of this device will be streamed to your hearing instruments.

## TOSLINK connection



- ▶ Before connecting the cable, remove the protection caps from the TOSLINK cable plugs.
- ▶ Plug the cable into the TOSLINK **input** of your transmitter and into the TOSLINK (optical audio) **output** of your electronic device.

To prevent the TOSLINK cable from breaking, do not forcefully bend it.

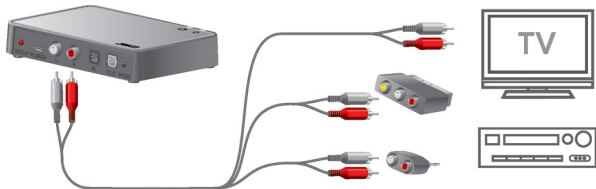
### Further information:

- Refer to the electronic device's manual: Set the output format of the electronic device to either PCM (pulse-code modulation) or Dolby® Digital\*.
- The TOSLINK **output** of your transmitter may be used to connect further TOSLINK devices such as external Dolby decoders or surround sound systems.

\* Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.



## RCA connection



- ▶ Plug the cable into the RCA connections of your transmitter.
- ▶ Plug the other side of the cable into the RCA output of the electronic device. Or via adapter into the SCART or mini jack output of the electronic device.

Further information:

- **Without adapter:** The RCA output of the electronic device is typically marked "L-R AUDIO OUT" and found on the back or control panel.
- **With SCART adapter:** The audio signal can depend on the source selected on the electronic device. For example some TVs will only make TV sound available on the SCART output, but not the sound from a connected DVD player.
- **With mini jack adapter:** The mini jack output on the electronic device is typically the headphone output. The speakers of the electronic device may be muted if the headphone output is used. So that sound is only heard through the hearing instruments.

- Refer to the electronic device's manual: Set the output format of the electronic device to analog audio or uncompressed audio.

## Pairing hearing instruments

Your hearing instruments need to be paired once with the transmitter. After that, the pairing is saved in the hearing instruments and remembered each time they are turned on.

- ▶ Ensure that the transmitter is connected to the power supply.
- ▶ Turn the hearing instruments off and on again:  
Open and close the battery compartments. If your hearing instruments do not have a battery compartment, turn them off and on as described in the hearing instruments' user guide.

- ▶ Place both hearing instruments close to, or on top of the transmitter. The pairing process starts automatically.



- ▶ Observe the indicators:



Description



If pairing is completed, both indicators are blue for about 30 seconds.

other

Refer to the section "Power and TV indicator".

## Multiple users:

- This transmitter can be paired to multiple hearing instruments. All users will be able to hear the same sound.
- To clear the pairings of **one** current user, first reset the transmitter to factory settings. This will clear the pairings of all users. After that, pair the hearing instruments of the other users again. Refer to the section "Resetting to factory settings".

# Daily use

## Using the transmitter

Function	Description
Start audio streaming	Switch your hearing instruments to the transmitter mode or change to the dedicated hearing program.
Stop audio streaming	Quit transmitter mode or switch to any other hearing program in your hearing instruments.
Adjust volume	Use the controls of your hearing instruments.



### Further information:








- Depending on your hearing instruments' type and configuration, you can change their mode or hearing program with the hearing instruments' controls (e. g. push button), or with a smartphone app, or with a dedicated remote control. Refer to the hearing instruments' user guide for details.
- Volume functions and hearing programs are optional hearing instrument features. They depend on the type of hearing instrument and can be programmed by your Hearing Care Professional.



- The volume of the streamed audio signal is normally not affected by volume adjustments from the TV remote control.
- Your Hearing Care Professional can adjust the mix of the audio streaming signal with surrounding sounds according to your preference.

## Power and TV indicator

Both power indicator  and TV indicator  show the current status of the transmitter.

		Description
	-	Power indicator is white: The transmitter is starting up.
		Both indicators flash blue: Power is on. The transmitter is not paired to any hearing instrument. Refer to the section "Pairing hearing instruments".
		Both indicators are blue for 30 seconds: Pairing is complete.



## Description



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Power indicator is red:  
Power is on. The transmitter is not receiving an audio signal. Refer to the section "Troubleshooting".

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Both indicators are green:  
The transmitter is receiving an audio signal via the RCA connection.

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Power indicator is green, TV indicator flashes green:  
The transmitter is **not** receiving an audio signal via the RCA connection or the volume is too low.

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## Description



Power indicator is green, TV indicator is blue:  
The transmitter has a valid TOSLINK connection to your electronic device regardless of whether an audio signal is played or not.

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Power indicator is green, TV indicator flashes red:  
The signal format is not supported. Refer to the section "Connecting to your electronic device".

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Both indicators flash red:  
Error. Contact your Hearing Care Professional.

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# Important safety information

## Personal safety



### **WARNING**

Choking hazard!

Your device contains small parts which can be swallowed.

- ▶ Keep hearing instruments, batteries and accessories out of reach of children and mentally disabled persons.
- ▶ If parts have been swallowed consult a physician or hospital immediately.



## **WARNING**

Risk of electrical shock!

- ▶ Do not use obviously damaged devices and return them to point of sale.



## **WARNING**

Note that any unauthorized changes to the product may cause damage to the product or cause injury.

- ▶ Use only approved parts and accessories. Ask your Hearing Care Professional for support.



## **WARNING**

Risk of electric shock!

- ▶ Connect audio input only to a device conforming to IEC 60065, the IEC-Norm for audio, video and other electronic devices.



## **WARNING**

This device may interfere with measuring and electronic equipment.

- ▶ Do not use your device on airplanes or areas where sensitive or life-supporting electronic equipment is used.



## **WARNING**

Risk of explosion!

- ▶ Do not use your device in explosive atmospheres (e. g. in mining areas).

## **Product safety**



### **NOTICE**

- ▶ Protect your devices from extreme heat. Do not expose them to direct sunlight.



### **NOTICE**

- ▶ Protect your devices from high humidity.





## **NOTICE**

- ▶ Do not dry your devices in the microwave oven.



## **NOTICE**

Different types of strong radiation, e. g. during X-ray or MRI head examinations, may damage devices.

- ▶ Do not use the devices during these or similar procedures.

Weaker radiation, e. g. from radio equipment or airport security, does not damage the devices.



In some countries restrictions for the usage of wireless equipment exist.

▶ Refer to local authorities for further information.



## **NOTICE**

Your devices are designed to comply with international standards on electromagnetic compatibility but interference with nearby electronic devices could occur. In this case, move away from the source of interference.

# Important information

## Explanation of symbols

### Symbols used in this document



Points out a situation that could lead to serious, moderate, or minor injuries.

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Indicates possible property damage.

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Advice and tips on how to handle your device better.

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## Symbols on the device or packaging



CE compliance label, confirms compliance with certain European Directives, refer to section "Conformance information".

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EMC and radio communications compliance label Australia, refer to section "Conformance information".

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Indicates the legal manufacturer of the device.

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Do not dispose of the device with general domestic waste. Read more in section "Disposal information".

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## Symbols on the device or packaging



Read and follow the instructions in the user guide.



Manufactured under licence from  
Dolby Laboratories.

## Maintenance and care



### NOTICE

- ▶ Do not put your device in water!
- ▶ Do not clean your device with alcohol or benzine.



- ▶ Clean the device as necessary with a soft tissue.
- ▶ Avoid abrasive cleaning liquids with additives such as citric acids, ammonia, etc.

## Resetting to factory settings

To reset the transmitter to factory settings:

- ▶ Press and hold the setup button for more than 5 seconds.  
All pairings are deleted. Both indicators flash blue.

## Troubleshooting

If audio streaming is not working, check the following tables.

### TOSLINK cable is connected



#### Troubleshooting



The signal format is not supported. Refer to the section "Connecting to your electronic device".



No audio signal is available. For example, pause or mute is pressed on the electronic device.



Your hearing instruments are out of operating distance. Move closer to the transmitter.





## Troubleshooting



Your hearing instruments have not been paired with the transmitter, but other hearing instruments are paired. Pair your hearing instruments. Refer to the section "Pairing hearing instruments".

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-

No audio signal is available. For example, pause or mute is pressed on the electronic device.

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TOSLINK cable is defective. Check the cable for damages and replace it if necessary.

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## RCA cable is connected



### Troubleshooting



The output signal of the electronic device is not loud enough. Increase the volume on the electronic device.

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No audio signal is available. For example, pause or mute is pressed on the electronic device.

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Your hearing instruments are out of operating distance. Move closer to the transmitter.



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## Troubleshooting

-   Your hearing instruments have not been paired with the transmitter, but other hearing instruments are paired. Pair your hearing instruments. Refer to the section "Pairing hearing instruments".


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-   The signal format is not supported. Refer to the section "Connecting to your electronic device".

---

-  - The output signal of the electronic device is not loud enough. Increase the volume on the electronic device.

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-  - No audio signal is available. For example, pause or mute is pressed on the electronic device.

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Both TOSLINK and RCA cable are connected

- Unplug the cable that is currently not in use (either TOSLINK or RCA cable).

## Technical information

### Operating, transport, and storage conditions

#### Operating conditions

Temperature	5 to 40 °C
Relative humidity	15 to 93 %, non-condensing
Atmospheric pressure	700 to 1060 hPa

During extended periods of transport and storage, please observe the following conditions:

## Transport and Storage

Temperature	-25 to 70 °C
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Relative humidity	15 to 93 %, non-condensing
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For other parts, such as hearing instruments, other conditions may apply.

## Technical data of the power supply

Input voltage:	100-240 V AC
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Input current:	max. 0.2 A at 100 V AC
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Input frequency:	47-63 Hz
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Output voltage:	5 V DC
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Output current:	max. 1 A
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## Disposal information

Recycle devices, accessories and packaging according to local regulations.

## Conformance information

The CE mark indicates conformity with the following European directives:

- 93/42/EEC concerning medical devices
- 2014/53/EU RED concerning radio equipment
- 2011/65/EU RoHS concerning the restriction of hazardous substances

The full text of the declaration of conformity can be obtained from [www.sivantos.com/doc](http://www.sivantos.com/doc).

## Wireless functionality

This device contains a wireless transmitter using 2.4 GHz technology. The emission power from this device is max. 17.1 dBm EIRP. This device complies with international standards concerning electromagnetic compatibility and human exposure.

FCC and ISED compliance information can be found on the back of the device.

The ACMA compliance mark  indicates conformity with the electromagnetic interference standards set by the Australian Communications and Media Authority (ACMA).

Devices with the FCC marking comply with the standards of the FCC regarding electromagnetic interference.



This Class B digital apparatus complies with Canadian ICES-003.

This device complies with Part 15 of the FCC Rules and with ISSED's licence-exempt RSSs.

Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a

residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To comply with FCC RF exposure requirements, the device and the antenna for this device must be installed to ensure a minimum separation distance of 20 cm or more from a person's body. Other operating configurations should be avoided.



## **Legal Manufacturer**

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