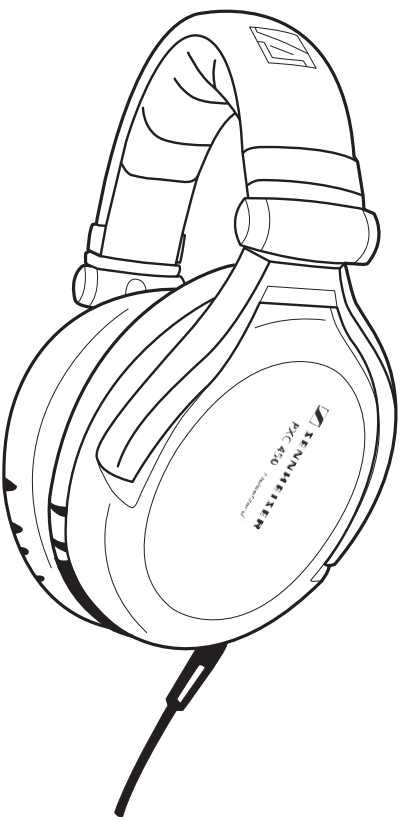
SENNHEISER

PXC 450

Bedienungsanleitung
Instruction Manual
Notice d'emploi
Istruzioni per l'uso
Instrucciones de uso
Gebruiksaanwijzing



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You have made a great choice!

This Sennheiser product will serve you many years with reliability and simple operation. Your guarantee is the good name of Sennheiser and the competence it has gained in over 60 years of manufacturing high-quality electroacoustic products. Please take a few minutes to read this manual. We wish to help you enjoy this technology quickly and easily.

Safety instructions

- Read these instructions carefully and completely before using this device.
- Save the instructions for further use, so they are accessible to the user at all times. Always include the operating instructions when giving this device to a third party.
- Do not use the headphones in environments requiring particular attention (e.g. on roads or while carrying out manual work).
- Always keep the headphones dry and do not expose them to either extreme high or low temperatures (ideal: 10 °C to 35 °C).
- Treat headphones with care and store them in a clean, dust-free location.
- Switch off the headphones when not in use to spare the batteries. Remove the batteries if the headphones will not be used for longer periods.
- Protect your hearing from loud volumes. Sennheiser headphones also sound very good at low volumes.

Appropriate use of the headphones

Appropriate use of the headphones includes:

- that you have read these instructions, especially the ''Safety instructions'' section,
- that you only use the headphones in operating conditions as described in the instructions.

Inappropriate use

Inappropriate use includes if you use the headphones differently than described in the instructions, or do not maintain operating conditions.

Safety instructions for battery and rechargeable battery use

Batteries/rechargeable batteries can leak with abuse or improper use. In extreme cases, there is the risk of explosion or fire. Sennheiser therefore assumes no liability in cases of abuse or improper use.

Do not store in reach of children.

Do not heat or throw into fire.

Do not short circuit.

Do not solder.

Do not disassemble or deform.

Do not mix batteries and rechargeable batteries without packaging.

Do not mix empty and fully charged batteries/ rechargeable batteries.

Do not charge disposable batteries.

Immediately remove empty batteries/rechargeable batteries from the device.

Observe polarity.

Switch off (rechargeable) battery operated devices after use.

Remove batteries/rechargeable batteries from the device if will not be used for an extended period.

Use only appropriate Sennheiser chargers for rechargeable batteries.

Recharge rechargeable batteries after longer periods of disuse before using.

Only charge rechargeable batteries at ambient temperatures between 10 °C and 40 °C.

Only dispose of used batteries/ rechargeable batteries at collection sites or return them to your dealer.

Included with delivery

The following are delivered with the PXC 450:

1 PXC 450 headphones

1 Soft case

1 Audio adapter (6.3-mm stereo plug)

1 Inflight adapter (2 x 3.5-mm mono plug)

2 Micro batteries (AAA)

1 Operating instructions

PXC 450 Headphones

The PXC 450 is a closed, dynamic, ear-enclosing stereo headset with newest-generation active noise compensation (NoiseGard 2.0) for use, for example, with inflight entertainment systems. Passive and active tone suppression together enable brilliant music enjoyment even in noisy environments.

TalkThrough

TalkThrough allows direct communication with your environment, even while wearing headphones. The NoiseGard 2.0 and peak level protection remain active, and your hearing remains protected.

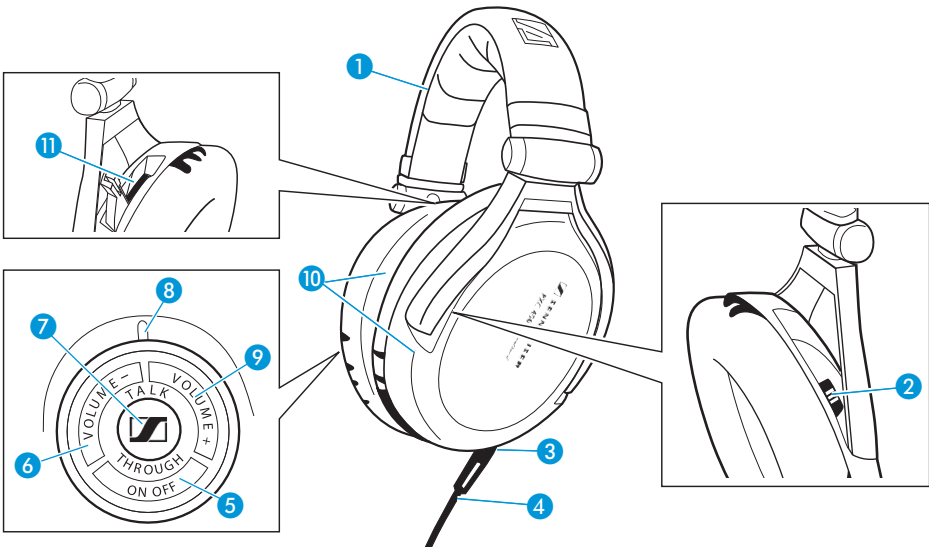
NoiseGard 2.0

The active noise compensation, NoiseGard 2.0, is based on the principle of deleting tones in the low frequency range (to 1 kHz) with inverse tones (phase-inverse tone). Tiny microphones record the ambient noise. NoiseGard 2.0 electronics creates a sound wave that is phase-inverted by 180° to the interfering tone - resulting in the two sound waves almost canceling each other out.

Additional features

- Excellent sound quality through patented adaptive baffle damping and duofol diaphragm system
- Ideal for traveling: comfortable, sturdy and folding design with one-sided cable connection
- Perfectly suited for use in inflight entertainment systems as well as mobile music sources
- Headphones can also be used without cable to dampen noise

Control elements



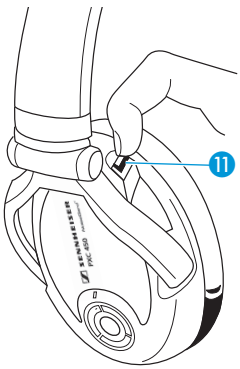
1. Headband
2. Normal/bypass sliding switch
3. Connection for audio cable
4. Audio cable
5. ON/OFF button
6. VOLUME – button
7. TalkThrough button
8. LED (red/green)
9. VOLUME + button
10. Ear cushions
11. Battery compartment

Signal from LED display 8:

LED	Meaning
red	NoiseGard 2.0 is switched on (see page 11)
green	TalkThrough is switch on (see page 12)
flashing	Batteries or rechargeable batteries almost empty (see page 7)

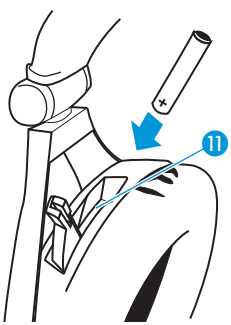
Commissioning

Inserting and replacing batteries



For active noise compensation (NoiseGard function) you need a battery or rechargeable battery (AAA).

- ▶ Open battery compartment 11 on the right ear cup.
- ▶ Remove the used battery.
- ▶ Insert the battery. Pay attention to the correct polarity while inserting (see left illustration).
- ▶ Close the battery compartment 11. The flap will audibly snap shut.

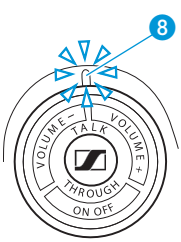


Note:

– Make sure that the normal/bypass 2 sliding switch is in the normal setting (see page 10).

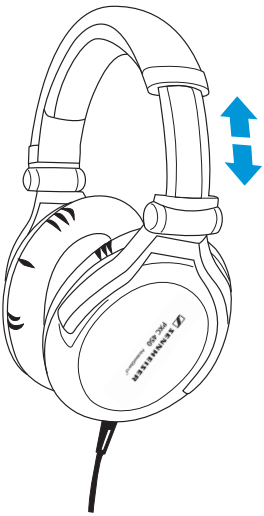
– You can also use the headphones without batteries. Switch the NoiseGard function off before removing the battery (see "Switching NoiseGard on and off" on page 11).

– Remove the battery from battery compartment 11, if you will not use the headphones for an extended period.



If the battery capacity is almost depleted, the LED 8 flashes. Replace the battery or rechargeable battery. If the battery is completely empty, the NoiseGard 2.0 function independently switches off.

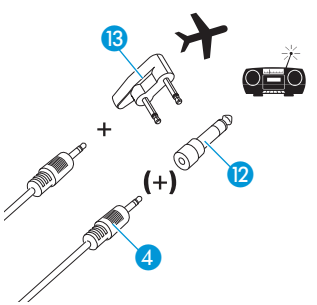
Adjusting headband



In order to achieve good sound transmission and noise damping, as well as the most comfort, adapt the headband to your head size. You can adjust the headband using the snap-in locking mechanism.

- Wear the headphones so that the headband ❶ runs across the middle of your head.
- Adjust the headphones so that
  - the ear cushion ❿ completely surrounds the ears,
  - you feel slight pressure around your ears,
  - the headband ❶ is flat on the head.
- Check in a loud environment whether the ear cushions are optimally placed to ensure maximum noise damping.

Connecting the headphones



- Connect the audio cable ❹ to the headphone bushing of your sound source.
  You will hear the sound from your sound source.

If the plug on the audio cable does not fit:

- Use the adapter for 6.3-mm plug bushing ⓬ (see illustration to the left).

If you wish to use the headphones for the inflight entertainment in an airplane:

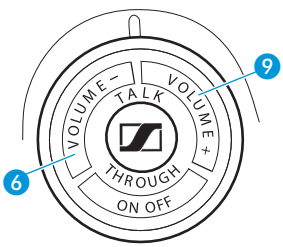
- Use the inflight adapter ⓭ (see illustration to the left).

Daily use

Adjusting the volume

CAUTION! **Listening loud? - No!**

People like to listen more loudly with headphones than with speakers. Loud volumes for extended periods of time can lead to permanent hearing loss. Protect your hearing! Sennheiser headphones also sound very good at low volumes.



▶ Use the VOLUME + button 9 or the VOLUME – button 6, to adjust the volume.

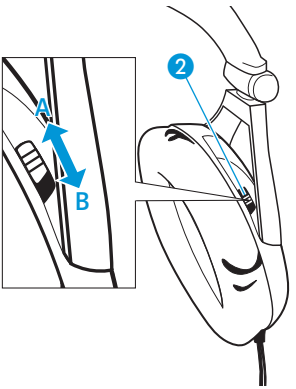
Note:

The volume of the TalkThrough signal does not change.

Operation without a battery

The PXC 450 can also be used like conventional headphones without batteries. This is appropriate if you do not have batteries, or if the battery is empty.

To listen without batteries:



- ▶ Fold the left headphone cup as inward as possible, as indicated.
  Sliding switch 2 is exposed.
- ▶ Push sliding switch 2 into the "bypass" setting B.

Note:

- – If the sliding switch 2 is in the B "bypass" mode, the TalkThrough and NoiseGard functions are deactivated.
- – To switch back to battery operation, return the switch to the "normal" setting A.

Switching NoiseGard on and off

The following prerequisites must be fulfilled for active noise compensation, NoiseGard 2.0:

- a battery or rechargeable battery is inserted and
- the normal/bypass 2 sliding switch is in the "normal" position (see page 10).

To switch on NoiseGard 2.0:

▶ Press the ON/OFF button 5 approx. 1 second. The LED 8 shines red.

To switch off NoiseGard 2.0:

▶ Press the ON/OFF button 5 approx. 1 second. The LED 8 goes out. If NoiseGard is switched off, you can use the PXC 450 like typical headphones to listen to music.

Note:

– Compared to the other buttons of the controller, the ON/OFF button 5 is set somewhat lower to avoid accidental switching off.

– If the batteries of the device are empty, the NoiseGard automatically switches off. However, the audio signal continues to be transmitted if you slide the normal/bypass sliding switch 2 into "bypass" position (see page 10).

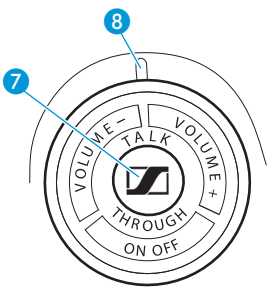
Switching TalkThrough function on and off

The PXC 450 provides excellent damping of ambient noises. However, to enable you to be able to communicate with your environment unhindered while wearing the headphones, the PXC 450 has a TalkThrough function.

The following prerequisites must be fulfilled for the TalkThrough function:

- a battery or rechargeable battery is inserted,
- NoiseGard is switched on and
- the normal/bypass 2 sliding switch is in the "normal" position (see page 10).

To switch the TalkThrough function on/off:

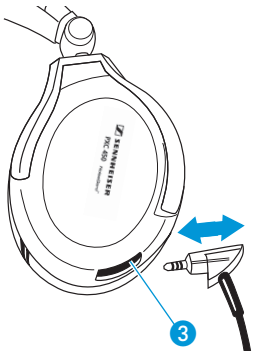


▶ Briefly press the TalkThrough button 7.
The LED display 8 lights green if the TalkThrough function is switched on.

Note:

You cannot adjust the volume of the TalkThrough signal.

Removing and connecting audio cable



To use the headphones strictly to dampen noise, you can remove the audio cable (see illustration).

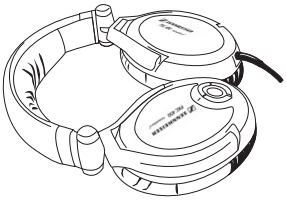
To remove the audio cable:

- Pull the plug of the audio cable (4) out of connection (3) in the direction of the arrow.

To reconnect the audio cable:

- Plug the plug of the audio cable (4) into the connection (3) in the direction of the arrow.

Transporting headphones



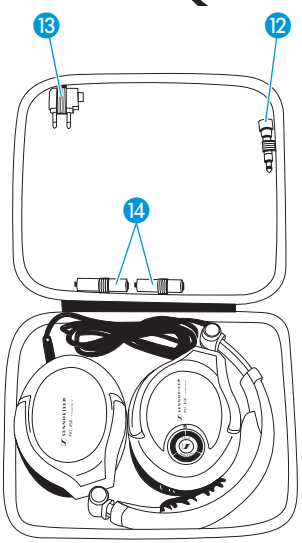
To transport the headphones with minimal space requirements, you can fold them in different ways:

To fold the headphones as flat as possible:

▶ Turn the ear cups 90°, as illustrated.

To transport the headphones as compactly as possible:

▶ Fold the ear cups inwards, as illustrated.



To transport the headphones with as much protection as possible:

▶ Turn the ear cups 90°.

▶ Pull out the right side of the headband, and then fold inwards.

▶ Place the headphones flat into the soft case, as illustrated.

The edge of the soft case has loops for storing up to two micro batteries (AAA) 14 .

You can transport the accessories in the lid of the bag:

– 12 Audio adapter (6.3-mm stereo plug)

– 13 Inflight adapter (2 x 3.5-mm mono plug)

Accessories and replacement parts

Parts no.	Accessories/replacement part
517680	1 pair ear cushions incl. cover
517681	Connector cable

Care and maintenance

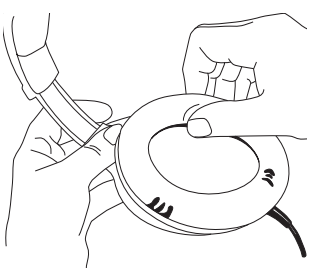
CAUTION! **Fluids can destroy the electronics of the device!**

Fluids can penetrate the housing of the device and cause a short-circuit of the electronics.

- Only clean the device with a slightly damp cloth. Do not ever use solvent or cleanser.

- Clean the headphones occasionally using a soft, slightly damp cloth.

Replacing the ear cushions



You can replace the ear cushions. You can obtain replacement ear cushions as accessories.

- Hold behind the ear cushions ⑩ and pull these off from the ear cups.
- Press the new ear cushions ⑩ onto the ear cups until they audible lock into place.

Technical data

Converter principle	dynamic, closed
Coupling to the ear	circumaural
Transmission range	8 – 28,000 Hz
Rated impedance active/ passive	750/150 Ohm
Sound pressure levels at 1 kHz and 1 volt	108 dB SPL
Harmonic distortion at 1 kHz	0,1 %
Cable plug	3.5-mm stereo plug
Inflight adapter	2 x 3.5-mm mono plug
Audio adapter	6.3-mm stereo plug
Cable length	1.4 m
Weight without cable and battery	275 g
Voltage battery/ rechargeable battery (Micro/AAA)	1.2 – 1.5 V
Passive sound insulation	≤ 32 dB
Sound compensation by NoiseGard	≤ 23 dB

Manufacturer declaration

Warrantee

We provide a warrantee for the original Sennheiser product you purchased for 24 months. The warrantee begins on the date of purchase of the factory-new, unused products by the first end customer. Please retain receipt as proof of purchase. Without this proof, which the Sennheiser service partner will check, you will generally need to pay for repairs performed. The sales receipt must include the date of purchase and the description of the product.

The guaranteed services consist of either free correction of material or manufacturing faults by repair, exchange of parts or exchange of the entire device, our choice. The parts removed within the scope of a warrantee claim return to ownership of Sennheiser electronic GmbH & Co. KG or their service partners.

Exceptions to the warrantee:

- Minor faults or deviations in the condition of the product that are inconsequential to the value or appropriate use
- Accessories sent with the product
- Rechargeable batteries and batteries (these products have a shorter life due to their condition, which concretely depends on the intensity of use on a case-by-case basis)
- Defects due to improper use (e.g. operating error, mechanical damage, incorrect operating voltage)
  Proper use is the use of the product that is described in the operating instructions.
- Defects from wear
- Modifications made by you or third parties to Sennheiser products, if no prior written agreement was present from Sennheiser regarding the type and scope of modification
- Defects from acts of God
- Defects known to you at the time of purchase

The warrantee claim is void if unauthorized persons or repair centers open the product.

The warrantee can be taken advantage of world-wide in all countries where the national law doesn't counter our warrantee determinations. Other claims or those more extensive than listed here cannot be validated from the warrantee.

However, as the end customer you may have additional legal claims in your country that are not limited by these warrantee conditions; the warrantee is based on the laws of the country in which you

purchased the Sennheiser product as the end customer. The regulations of the UN purchasing law have no relevance.

In cases of warrantee, send the device, including accessories and sales receipt to the service partner responsible for you.

A current overview of all world-wide service partners for Sennheiser electronic GmbH & Co. is listed on the Internet at www.sennheiser.com .

The customer is responsible for the safe transport of the device. To avoid transportation damages, the original packaging should be used if possible.

EU Declaration of Conformity

This device complies with the basic requirements and additional specifications of the 2004/108/EU guidelines. This declaration is available on the Internet at www.sennheiser.com.

The following country-specific regulations must be noted before use!

WEEE Statement

Your Sennheiser product was designed and manufactured using high-quality materials and components, which may be recycled and re-used. This symbol indicates that electric and electronic devices at the end of their service life must be disposed of separately from household waste.

Please dispose of this device at your local community collection point or at a recycling center. Please help to preserve our environment.

Rechargeable batteries and batteries

The rechargeable batteries and batteries can be recycled. Please dispose of the rechargeable batteries or batteries at a battery recycling container or the dealer. Only dispose of empty rechargeable batteries or batteries to protect the environment.

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