

Gebrauchsanleitung  
Instructions for use  
Notice d'emploi  
Istruzioni per l'uso  
Instrucciones para el uso  
Gebruiksaanwijzing

**HMD 280 PRO / HMD 280-13**  
**HMD 281 PRO / HMD 281-13**



## Thank you for choosing Sennheiser!

Over half a century of accumulated expertise in the design and manufacture of high-quality electro-acoustic equipment have made Sennheiser a world-leading company in this field. We have designed this product to give you reliable operation over many years.

Please take a few moments to read these instructions carefully, as we want you to enjoy your new Sennheiser product quickly and to the full.

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## Headset features

### HMD 280 PRO headset

- Accurate, linear sound reproduction for critical monitoring applications
- Low impedance headset (64  $\Omega$  impedance)
- Space-saving design features collapsible, rotating earcups
- Up to 32 dB of ambient noise attenuation
- Neodymium magnets for high maximum SPL (113 dB / 1 V<sub>rms</sub>)
- Very comfortable, even if used for long periods due to
  - very light weight
  - soft, circum-aural ear cushions
  - padded, adjustable headband
- Single-coiled cable
- Noise-cancelling, super-cardioid boom microphone, with excellent rejection of handling noise
- Very rugged with user-replaceable parts

### HMD 280-13 headset

As HMD 280 PRO, but high impedance variant (300  $\Omega$  impedance).

### HMD 281 PRO headset

As HMD 280 PRO, but single-sided variant.

### HMD 281-13 headset

As HMD 281 PRO, but high impedance variant (300  $\Omega$  impedance).

## Areas of application

The noise-cancelling microphone provides clear communications even in a noisy environment. The headphones not only effectively attenuate external noise but also minimise spillage from the headphones to the outside world.

The headsets are designed for applications in the professional audio field, such as broadcast, TV, film, theater and recording applications. The headsets can be used

- for live presentations
- for news reporting
- with talkback systems
- with intercom systems, etc.

The single-sided headset is mainly used to provide camera teams with programme signals.

## Delivery includes

- Headset
- Wind and pop screen
- Instructions for use

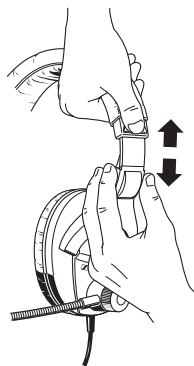
## Attention! High volume!

This is a professional headset. Commercial use is subject to the rules and regulations of the trade association responsible. Sennheiser, as the manufacturer, is therefore obliged to expressly point out possible health risks arising from use.

This system is capable of producing sound pressure exceeding 85 dB(A). 85 dB(A) is the sound pressure corresponding to the maximum permissible volume which is by law (in some countries) allowed to affect your hearing for the duration of a working day. It is used as a basis according to the specifications of industrial medicine. Higher volumes or longer durations can damage your hearing. At higher volumes, the duration must be shortened in order to prevent damage.

The following are sure signs that you have been subjected to excessive noise for too long a time:

- ⚠ **You can hear ringing or whistling noise in your ears!**
- ⚠ **You have the impression (even for a short time only) that you can no longer hear high frequencies!**



## Preparing the headset for use

### Adjusting the headband

For good transmission quality and best possible comfort, the headband has to be adjusted to properly fit your head. To do so, adjust the headband via its snap-in locking mechanism.

### Relocating the microphone boom

The microphone boom can be worn on either side of the mouth.

- ▶ Loosen the quick-fixing device.
- ▶ Turn the microphone boom towards the mouth.
- ▶ Tighten the quick-fixing device.

### Sliding over the wind screen

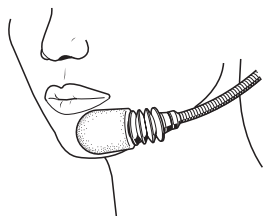
Before using the headset, slide the wind screen over the microphone. The wind screen must totally enclose the microphone.



Important:

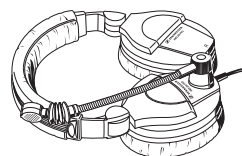
### Position the microphone towards the corner of the mouth

The headsets feature a flexible microphone boom. Bend the microphone boom so that the microphone is placed at the corner of the mouth. Maintain a distance of approx. 2 cm between microphone and mouth. In this position, the risk of pop noise is reduced to a minimum.



### Mounting a connector

To mate with any signal jack the headset's connecting cable can be fitted with a connector of your choice (➡ "Connection diagrams").



## Folding up the headset

For space-saving transportation, the headset can be folded up in two different ways:

1. To fold up the headset as compact as possible, tuck the earcup without microphone boom inside the headband. Then fold the earcup with the microphone boom against the headband.
2. To fold up the headset as flat as possible, the earcups can be rotated by 90°. Press the microphone with the flexible microphone boom as far as possible against the earcups.

## Cleaning the headset

To clean the headset, use a soft, damp cloth. If necessary, the headset can be cleaned with soapy water (use a mild cleanser such as washing-up liquid).

### Note:

Never use solvent-containing cleansers.

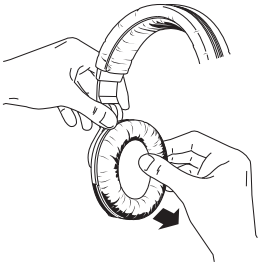
## Replacing spare parts

### Available accessories and spare parts

- Ear cushions
- Headband padding
- Wind screen for microphone
- Connecting cable

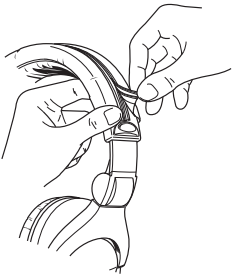
### Replacing the ear cushions

Grasp behind the ear cushions and pull them up and away from the earcups. Slide the new ear cushions onto the earcups.



### Replacing the headband padding

- ▶ Pull the Ziploc type fastening strips of the headband padding apart, as shown in the diagram on the left, and remove the worn headband padding.
- ▶ Put the new headband padding around the headband.
- ▶ Pull the two edges of the headband padding together so that the fastening strips slightly overlap.
- ▶ Join the fastening strips.



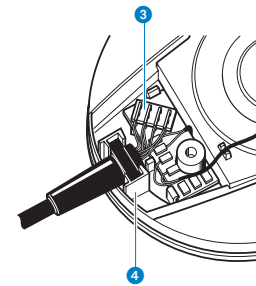
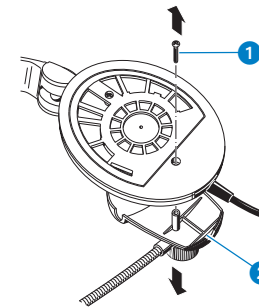
### Replacing the wind screen

If the wind screen for the microphone shows signs of wear such as tears or holes, replace the wind screen.

## Replacing the connecting cable

Replace the connecting cable if it is damaged. To do so, please proceed as follows:

- ▶ Remove the ear cushion. Grasp behind the ear cushion and pull it up and away from the earcup.
- ▶ Loosen the screw ① and remove it.
- ▶ Remove the cover with the microphone boom from the earcup ②.
- ▶ Pull the connector ③ out of the socket.
- ▶ Remove the antikink protection of the connecting cable from the holding device ④.
- ▶ Insert the antikink protection of the new connecting cable into the holding device.
- ▶ Plug the connector ③ of the new connecting cable into the socket as shown in the diagram on the left.
- ▶ Put the cover with the microphone boom back onto the earcup ②.
- ▶ Replace the screw ① and tighten it.
- ▶ Slide the ear cushion onto the earcup.



### Replacing the microphone

If the microphone of your headset should be defective, it must be replaced by your Sennheiser service partner.

## Specifications

### Headphones

Classification (as per IEC 268-7)	268-7-IEC-DCSC-64R0-2/-1		268-7-IEC-DCSC-03R2-2/-1
Transducer principle	dynamic		dynamic
Impedance	64 $\Omega$ (as per IEC 268-7)		300 $\Omega$ (as per IEC 268-7)
Long-term max. input power	0.5 W (as per IEC 268-7)		0.5 W (as per IEC 268-7)
Ear coupling	circum-aural		circum-aural
Frequency response (-10 dB referred to 1 kHz)	8 Hz–25 kHz		8 Hz–25 kHz
Sound pressure level	102 dB (as per IEC 268-7) 113 dB / 1 V <sub>rms</sub>		102 dB (as per IEC 268-7) 107 dB / 1 V <sub>rms</sub>
Ambient noise attenuation	max. 32 dB		max. 32 dB
THD	< 0.1 % (at 1 kHz, 100 dB SPL)		< 0.1 % (at 1 kHz, 100 dB SPL)
Weight	approx. 310 g / 245 g		approx. 310 g / 245 g
Contact pressure	approx. 4 N		approx. 4 N
Length of coiled cable	min. 1 m max. 3 m		min. 1 m max. 3 m

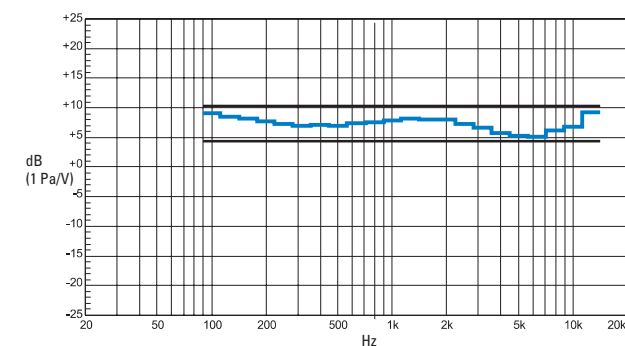
### Microphone

Transducer principle	dynamic		dynamic
Type of microphone	pressure-gradient		pressure-gradient
Pick-up pattern	super-cardioid (see polar diagram)		super-cardioid (see polar diagram)
Nominal impedance	200 $\Omega$		200 $\Omega$
Close-talking sensitivity	-63 dBV/Pa (at 1 kHz) 0.7 mV/Pa (at 1 kHz)		-63 dBV/Pa (at 1 kHz) 0.7 mV/Pa (at 1 kHz)
Near field frequency response	50–13,500 Hz		50–13,500 Hz

HMD 280 PRO / HMD 281 PRO | HMD 280-13 / HMD 281-13

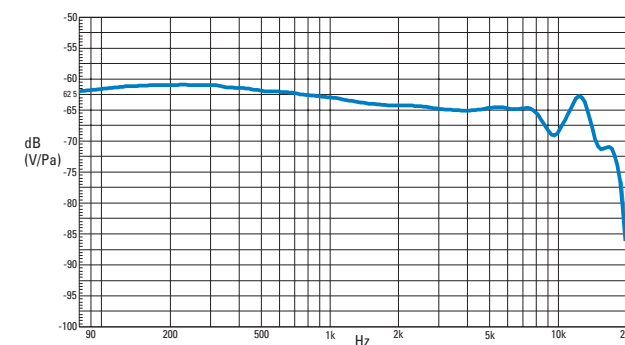
## Frequency response curves and polar diagram

### Diffuse field frequency response – Headphones

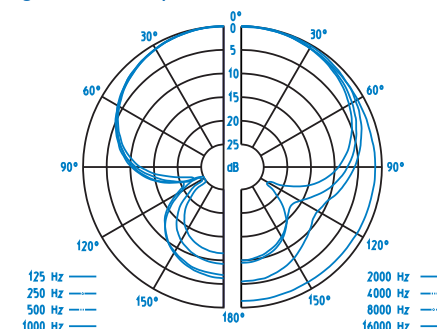


### Frequency response curve – Microphone

(measured in the near field with artificial mouth B&K 4219)

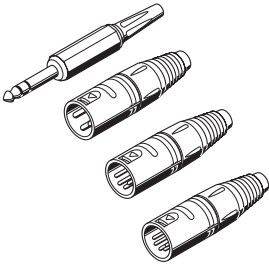


### Polar diagram – Microphone



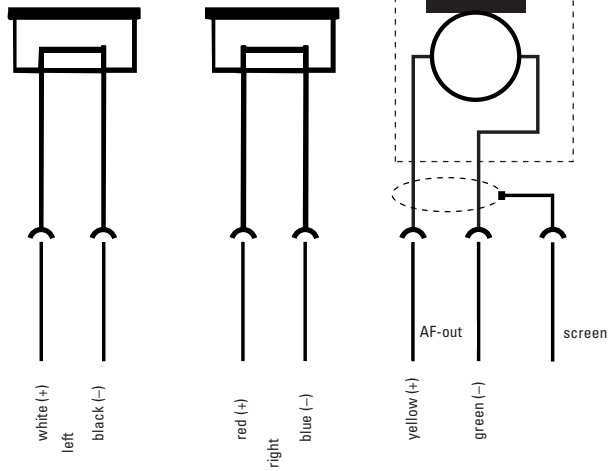
## Connection diagrams

The HMD 280 and HMD 281 headsets can be fitted with a connector of your choice. For correct pin assignment, please refer to the connection diagrams below.

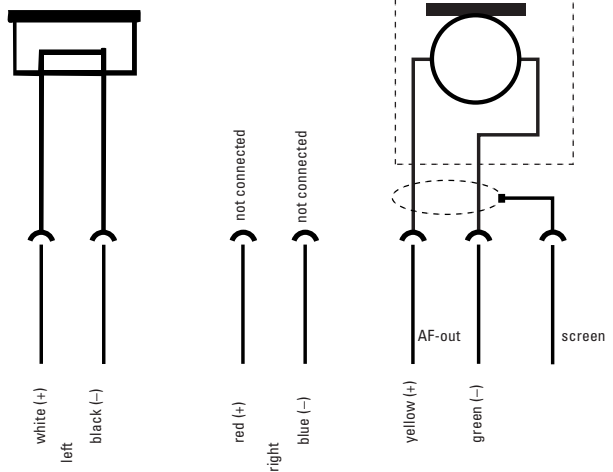


Connectors for HMD 280 and HMD 281

### Connection diagram HMD 280



### Connection diagram HMD 281



Aktuelle Informationen zu Sennheiser-Produkten erhalten  
Sie auch im Internet unter „<http://www.sennheiser.com>“.

For up-to-date information on Sennheiser products, you can also  
visit the Sennheiser Web site at “<http://www.sennheiser.com>”.

Vous trouverez également toutes les informations actuelles relatives aux  
produits Sennheiser sur Internet à l'adresse Web “<http://www.sennheiser.com>”.

Informazioni attuali sulla gamma di prodotti Sennheiser sono  
disponibili anche in Internet al sito “<http://www.sennheiser.com>”.

También en Internet, bajo “<http://www.sennheiser.com>” obtendrá Vd.  
informaciones actuales sobre los productos Sennheiser.

Actuele informatie met betrekking tot Sennheiser producten  
vindt u ook op Internet onder “<http://www.sennheiser.com>”.



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Printed in Germany  
Publ. 10/00 82747 / A01