SENNHEISER

HD 820

High-definition closed-back headphones

DE	Bedienungsanleitung
EN	Instruction manual
JA	取扱説明書
FR	Notice d’emploi
ES	Instrucciones de manejo
PT	Manual de instruções
NL	Gebruiksaanwijzing
IT	Istruzioni per l’uso
DA	Betjeningsvejledning
SV	Bruksanvisning
FI	Käyttöohje
EL	Οδηγίες λειτουργίας
PL	Instrukcja obsługi
TR	Kullanma kılavuzu
RU	Инструкция по эксплуатации
ZH	使用说明书
TW	使用說明書
KO	사용 안내서
ID	Buku petunjuk
EE	Kasutusjuhend
LV	Lietošanas instrukcija
LT	Naudojimo instrukcija
CS	Návod k obsluze
SK	Návod na obsluhu
HU	Használati útmutató
RO	Instruciuni de utilizare
BG	Ръководство за експлоатация
SL	Navodila za uporabo
HR	Upute za upotrebu

Sennheiser HD 820

The new benchmark among closed-back headphones

The Sennheiser HD 820 opens up new tonal horizons and takes you into a world full of musicality, passion and emotions – regardless of whether you enjoy your favorite music at home or on the go.

After extensive research and development work, our engineers have succeeded in bringing the best of both worlds together – the HD 820 combines, without compromise, the transparency and naturalness of the best open-back headphones with the sovereignty and serenity of closed-back systems.

The trend-setting design of the HD 820 not only effectively reduces ambient noise, but also ensures an ultra-low bass reproduction and a clear reproduction of mids. This is possible due the HD 820's patent-pending acoustic diffraction housing – recognizable by the two glass panes behind the transducers.

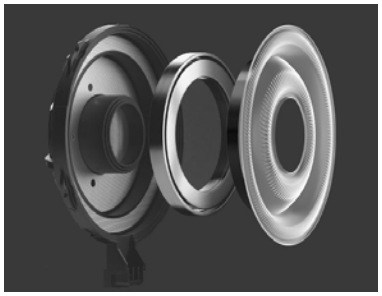
Extremely stiff, convex elements made of Gorilla glass and shaped using a specially developed process specifically direct the sound, which is emanated from the diaphragm towards the rear, into dampened chambers. Therefore, reflected sound waves have virtually no chance of disturbing the movement of the HD 820's advanced 56 mm transducers and of compromising the precision of the audio reproduction.

To ensure perfect sound quality and ultimate wearing comfort, our developers have carefully thought through every detail of the headphones. The crucial parts of the headphones are made from advanced materials – materials that are also used in the aerospace industry for their low weight and high stability.

Due to its double-shell construction, the housing of the Sennheiser HD 820 is extremely lightweight and stiff. The headphone yokes guarantee a lasting, comfortable fit and are the result of complex mechanical strength simulations and field tests. The supplied connection cables ensure perfect contact between the headphones and any source device, be it mobile or stationary.

The unique quality of these headphones is guaranteed and backed by our name. Each Sennheiser HD 820 is therefore delivered with a signed chart providing its individually measured frequency response curve and serial number.

Technology-wise, the HD 820 breaks fresh ground and, with its powerful, neutral and transparent sound, sets a new benchmark for closed-back headphones.



Unique: The state-of-the art 56 mm ring radiator transducers are the largest ever used in headphones.

Extraordinary: The Gorilla glass directs sound waves into dampened chambers and drastically reduces distortion.

Perfect: The consistently balanced connections ensure reliable signal transmission to the transducers.

Features of the HD 820

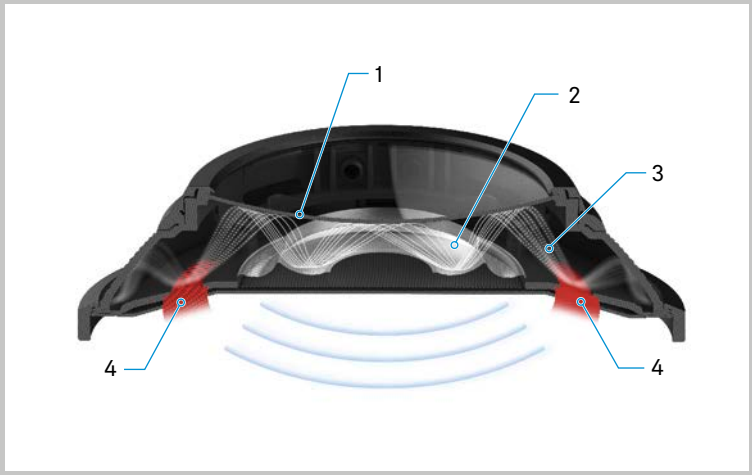
- Closed-back, dynamic reference headphones
- Circum-aural, wired
- Natural listening experience – realistic and natural sound field with minimal resonance
- 56 mm ring radiator transducers – unique, innovative dynamic transducer design
- Closed acoustic diffraction housings with convex glass panes for outstanding acoustics and a visible transducer architecture
- Absorber technology – unwanted rear sound is directed into dampened chambers and eliminated
- Specially tuned balanced, impedance matching cables with low capacitance
- Special high-precision ODU connectors
- Handcrafted ear pads, made of high-quality microfiber fabric
- Metal headband with inner damping element
- Engineered and handcrafted in Germany
- 2-year warranty

Comfortable: The sophisticated headband design guarantees ultimate wearing comfort for long hours of listening.

Advanced: Materials developed in the aerospace industry offer minimal weight and maximal stability.

Reliable: The high-precision ODU connectors and balanced connections ensure safe signal transmission.

The acoustic diffraction housing



Besides the advantage of isolating external noise and leakage from inside, closed-back headphones offer excellent reproduction of low tones and bass. Decisive for an as spatial and airy sound reproduction as possible, however, is an optimal damping behavior which ensures that, despite profound basses, the mid-range and high frequencies are not affected negatively.

The HD 820's patent-pending acoustic diffraction housing with its convex glass pane made of Gorilla glass (1) provides an optimal damping behavior. The sound waves (3) produced by the diaphragm (2) are reflected by the hard surfaces of the diffraction housing and directed in a controlled manner into the ring-shaped absorber elements (4) located around the transducers.

The pressure and speed of the sound waves are therefore always controllable and negative side effects are avoided. The result is a clear, interference-free and spatial sound reproduction over the entire frequency spectrum, from about 6 Hz to 48,000 Hz, which is unequaled in closed-back headphones.

Important safety information

- ▷ Read this instruction manual carefully and completely before using the product.
- ▷ Always include these safety instructions when passing the product on to third parties.
- ▷ Do not use an obviously defective product.

Preventing damage to health and accidents

- ▷ Protect your hearing from high volume levels.
  Permanent hearing damage may occur when headphones are used at high volume levels for long periods of time. Sennheiser headphones sound exceptionally good at low and medium volume levels.

- ▷ The product generates stronger permanent magnetic fields that could cause interference with cardiac pacemakers, implanted defibrillators (ICDs) and other implants. Always maintain a distance of at least 3.94”/10 cm between the product component containing the magnet and the cardiac pacemaker, implanted defibrillator, or other implant.
- ▷ Keep the product, accessories and packaging parts out of reach of children and pets to prevent accidents and choking hazards.
- ▷ Do not use the product in an environment that requires your special attention (e.g. in traffic or when performing skilled jobs).
- ▷ Do not drop the product to prevent the glass panes of the ear cups from shattering. Shattered glass can cause severe injuries.

Preventing damage to the product and malfunctions

- ▷ Always keep the product dry and do not expose it to extreme temperatures (hairdryer, heater, extended exposure to sunlight, etc.) to avoid corrosion or deformation.
- ▷ Do not place your headphones on a glass dummy head, chair armrest or similar objects for long periods as this can widen the headband and reduce the contact pressure of the headphones.
- ▷ Do not place the storage box on delicate surfaces; if necessary, use a non-slip pad under the storage box. Varnish or furniture polish may degrade the feet of the storage box, which could stain your furniture.
- ▷ Allow the product to stand for at least 2 hours before using it. Condensation can form on the glass panes of the ear cups if the headphones are moved from a cold environment to a warm environment.
- ▷ Use only attachments/accessories/spare parts supplied or recommended by Sennheiser.
- ▷ Clean the product only with a soft, dry cloth.
- ▷ Use the product with care and store it in a clean, dust-free environment.

Notes on the use and disposal of storage media

You can use the supplied USB flash drive for storing data, including personal data. If the flash drive is sold/passed on or disposed of, the data once stored on it and then deleted using a standard delete method can be recovered with special software and be misused.

We therefore recommend using special software for secure deletion of data to ensure that personal data is not misused. Please note that you yourself are responsible for the secure deletion of the data on your flash drive.

We recommend backing up the data saved on your flash drive regularly. Sennheiser does not accept liability for damage or loss of data.

Intended use/Liability

These closed-back, dynamic headphones have been designed for home use with high-quality audio systems.

It is considered improper use when the product is used for any application not named in the corresponding product documentation.

Sennheiser is not liable for damages to USB devices that are not consistent with the USB specifications.

Sennheiser does not accept liability for damage arising from abuse or misuse of this product and its attachments/accessories.

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

Package contents

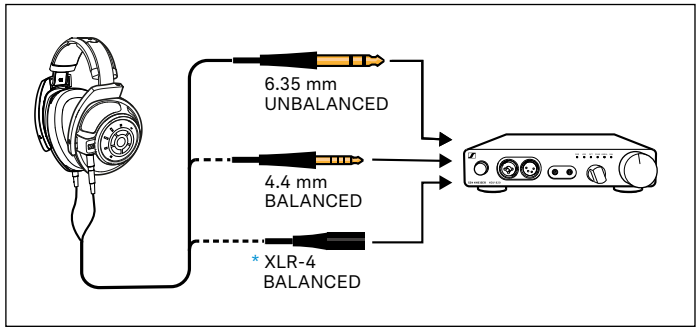
- HD 820 closed-back, dynamic headphones

Connection cable

- 1/4” (6.35 mm) stereo jack plug (connected ex works), unbalanced
- 4.4 mm stereo jack plug, balanced

- USB flash drive (SD-U16L version) with instruction manual (as PDF file) and individually measured diffuse-field frequency response curve
- Instruction manual
- Storage box
- Microfiber cloth

Your HD 820



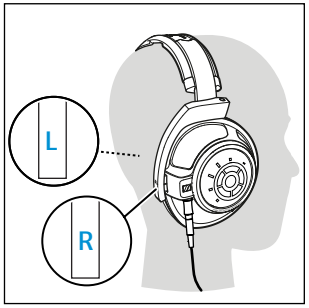
Connecting the headphones

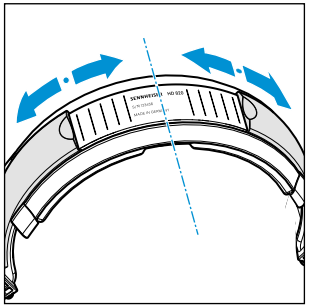
▷ Select the suitable connection cable for the audio source to which you want to connect the headphones and change the connection cable as described below:

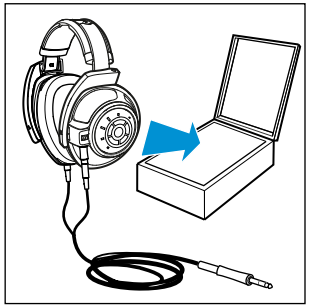
- 1/4" (6.35 mm) stereo jack plug, unbalanced (can also be connected to a 3.5 mm stereo jack socket by using a standard adapter)
- 4.4 mm stereo jack plug, balanced
- * XLR-4, balanced (Sennheiser CH 800 S, optional accessory)

▷ Connect the headphones to your audio source.

For optimum music enjoyment, we recommend using a headphone amplifier such as the Sennheiser HDV 820 and a balanced connection cable such as the one equipped with the 4.4 mm stereo jack plug.





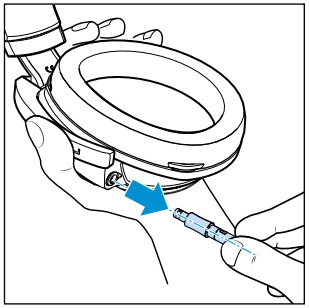


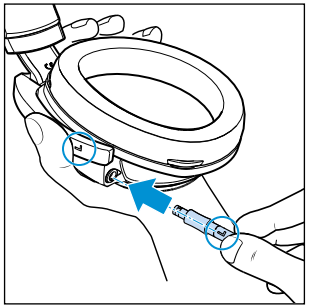
Putting on the headphones and using them

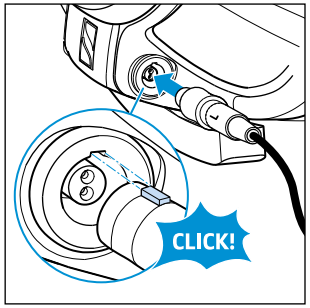
▷ Put on your headphones and then pull the ear cups down until they rest comfortably over the ears. Make sure you wear them the right way round by observing the “R” (right) and “L” (left) markings on the ear cup bands.

▷ Take the headphones off and use the slide scale on the headband to ensure they sit symmetrically.

▷ After use, place the headphones into the storage box. Hang the cable up unwound for the first few days after use. After that, you can store the cable wound up loosely.







Changing the connection cable

To detach the connection cable:

▷ Hold the ear cup firmly and pull the connector straight out of the socket by overcoming a slight resistance.

To attach the connection cable:

▷ Make sure the “R” (right) and “L” (left) markings on the connectors match the markings on the ear cups.

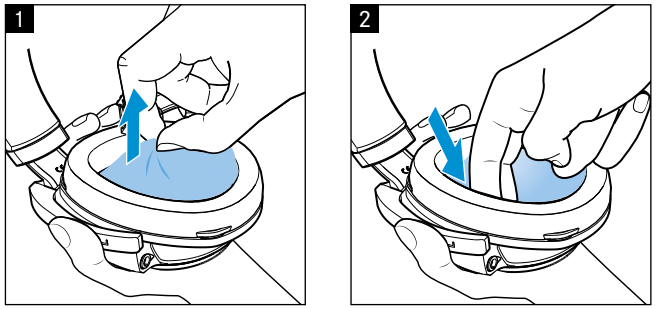
▷ Align the latch of the connector with the socket and insert the connector until it snaps into place with an audible click.

Care and maintenance

For reasons of hygiene, you should replace the ear pads, the inside dust covers and the headband from time to time. Spare parts are available from your Sennheiser partner. To find a Sennheiser partner in your country, search at www.sennheiser.com.

▷ Clean the product only with a dry and soft microfiber cloth (supplied).

▷ Store the product in a clean, dust-free place, e.g. in its storage box.

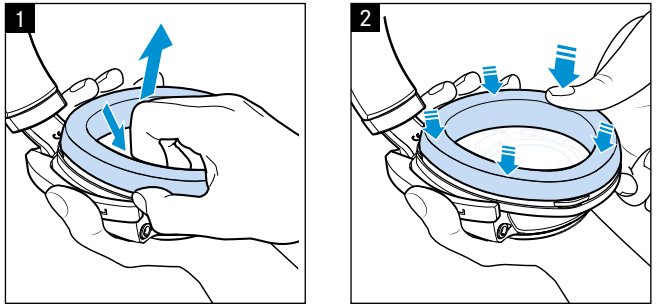


Cleaning and replacing the dust covers made from 3D Mesh

1. Pull the dust covers away from the ear cups without, if possible, touching the transducers underneath.

   Rinse the dust covers under running lukewarm water and let them air dry.

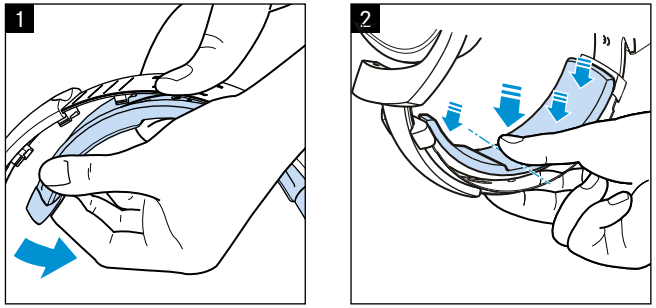
2. Put the dust covers back in place and carefully tuck the edges underneath the ear pads.



Replacing the ear pads

1. Grasp behind the ear pads and pull them up and away from the ear cups. Make sure not to damage the transducers on the inside of the ear cups.

2. Place the new ear pads onto the ear cups and attach the ear pads by pressing firmly around them.



Replacing the headband padding

1. Hold the headband firmly in the middle and detach the headband padding from one side to the other.

2. Place the new headband padding onto the headband and attach it to the headband's latches, starting from the middle and moving outwards.

Specifications

Frequency response	12 – 43,800 Hz (–3 dB) 6 – 48,000 Hz (–10 dB)
Transducer principle	dynamic, closed-back
Ear coupling	circum-aural
Frequency characteristic	diffuse-field equalized
Nominal impedance	300 Ω
Sound pressure level at 1 kHz	103 dB (1 V_{rms})
Long-term input power	max. 500 mW as per EN 60-268-7
THD	≤ 0.02% (1 kHz, 100 dB SPL)
Contact pressure	approx. 3,8 N ± 0.3 N
Weight	approx. 360 g (without connection cable)
Maximum value of the static magnetic field at the surface	10,5 mT
Attenuation	up to 25 dB
Connector (depending on connection cable, see pin assignment on inside cover page), gold-plated	XLR-4, balanced, 4-pin Stereo jack plug: 1/4" (6.35 mm), unbalanced, 3-pin 4.4 mm, balanced, 5-pin
Connection cables	silver-plated, oxygen-free copper cable (OFC), balanced, shielded, para-aramid reinforced, 3 m
Temperature range	operation: –10°C to +55°C storage: –20 to 70°C
Relative air humidity (non-condensing)	operation: 10 to 80%, storage : 10 to 90%

Reference diffuse-field frequency response curve

The individually measured diffuse-field frequency response curve for your HD 820 headphones can be found on the supplied USB flash drive. The reference diffuse-field frequency response curve can be found on the inside cover page.

What is the diffuse-field frequency response curve? In an anechoic chamber, 8 highly linear loudspeakers emit noise signals independently of each other. In the central area of the chamber, the various sound data meet and are superimposed on each other to form a diffuse field, in which it is no longer possible to determine from which direction the sound is coming. This noise is then varied in distances of a third and reproduced alternately over the speakers and the headphones to be measured. A large number of test persons then evaluate the difference in volume between the room noise and the noise in the headphones.

The ideal state is when the volume impression between the diffuse field and the headphones is the same. Diffuse-field equalized headphones provide a clearly more spatial impression and make it easier to determine whether sounds are coming from the front or rear. Put simply, the sound events take place outside the head and are not confined to the space between the ears.

Manufacturer declarations

Warranty

Sennheiser electronic GmbH & Co. KG gives a warranty of 24 months on this product.

For the current warranty conditions, please visit our website at www.sennheiser.com or contact your Sennheiser partner.

FOR AUSTRALIA ONLY

Sennheiser goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. This warranty is in addition to other rights or remedies under law. Nothing in this warranty excludes, limits, or modifies any liability of Sennheiser which is imposed by law, or limits or modifies any remedy available to the consumer which is granted by law.

To make a claim under this warranty, contact: Sennheiser Technical Services and Spare Parts Sales, c/o Linfox, Gate 3, 1 Fox Lane, Erskine Park, 2759, NSW Australia, phone: +61 2 9910 6700
email: au-service@sennheiser.com

All expenses of claiming the warranty will be borne by the person making the claim.

The Sennheiser International Warranty is provided by Sennheiser Australia Pty Ltd (ABN 68 165 388 312), The Zenith, Tower A, L14, 821 Pacific Highway Chatswood NSW 2067, Australia.

In compliance with the following requirements

EU declaration of conformity

- RoHS Directive (2011/65/EU)
- EMC Directive (2014/30/EU)

The declaration is available at www.sennheiser.com/download.

Notes on disposal

- WEEE Directive (2012/19/EU)

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, please observe the legal regulations on waste segregation applicable in your country.

Further information on the recycling of theses products can be obtained from your municipal administration, from the municipal collection points, or from your Sennheiser partner.

The separate collection of waste electrical and electronic equipment, batteries/rechargeable batteries (if applicable) and packagings is used to promote the reuse and recycling and to prevent negative effects caused by e.g. potentially hazardous substances contained in these products. Herewith you make an important contribution to the protection of the environment and public health.

Trademarks

Sennheiser is a registered trade mark of Sennheiser electronic GmbH & Co. KG.

Other product and company names mentioned in the user documentation may be the trademarks or registered trademarks of their respective holders.

Statements regarding FCC and Industry Canada

FCC Declaration of Conformity (DoC)

SENNHEISER
Model No: SD-U16L

We, Sennheiser Electronic Corporation
One Enterprise Drive • Old Lyme •
CT 06371 • USA
Tel: +1 (860) 434 9190
Fax: +1 (860) 434 1759

declare the above device comply with the requirements of Federal Communications Commission.

This device complies with Part 15 of the FCC rules. Operation is subjected to the following two conditions:

1) This device may not cause harmful interference, and
2) This device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: Michael Lieske

This device complies with Part 15 of the FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This class B digital equipment complies with the Canadian ICES-003.

Changes or modifications made to this equipment not expressly approved by Sennheiser electronic Corp. may void the FCC authorization to operate this equipment.

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