

MKH 8070

Directional
studio microphone



Instruction manual

 **SENNHEISER**

Contents

Important safety information	2
The MKH 8070	3
Delivery includes	4
Product overview	5
Putting the MKH 8070 into operation	6
Connecting the microphone	6
Attaching the microphone	6
Using the windshield	7
Using optional modules	8
The MZF 8000 filter module	8
The MZD 8000 digital module	9
Transporting the microphone	10
Cleaning and maintaining the microphone	10
Specifications	11
Polar diagram	12
Frequency response curve	12
Manufacturer Declarations	13

Important safety information

- Please read this instruction manual carefully and completely before using the product.
- Make this instruction manual easily accessible to all users at all times. Always include this instruction manual when passing the product on to third parties.
- This instruction manual is also available on the Internet at www.sennheiser.com.

Before operation

- Never open the housing of the product. If products are opened by customers in breach of this instruction, the warranty becomes null and void.

During operation

- Keep all liquids away from the product. Liquids entering the product can short-circuit the electronics or damage the mechanics. Keep all liquids away from the product.
- Only use a soft, slightly damp cloth to clean the product. Solvents or cleansing agents can damage the surface of the product.
- Only use the product within the specified temperature range (see "Specifications" on page 11).

After operation

- Use the product with care and store it in a clean, dust-free environment.

Intended use

Intended use includes:

- having read this instruction manual, especially the chapter "Important safety information",
- using the product within the operating conditions and limitations described in this instruction manual.

"Improper use" means using the product other than as described in this instruction manual, or under operating conditions which differ from those described herein.

The MKH 8070

The MKH 8070 is a gun microphone from the modular MKH 8000 microphone series that convinces with its excellent directivity and especially natural sound. The microphone's special design ensures that off-axis sound is attenuated without colorations. The MKH 8070 is especially suitable for distance recording situations, e.g. in film and TV, both in the studio and outdoors.

The microphone operates on the RF principle that has been used by Sennheiser for more than 50 years, now brought to highest level of perfection. Among the many advantages of this principle are an extremely low inherent self-noise, the capability to handle high sound pressure levels without distortion and a high resistance to adverse climatic conditions.

- Lobar pick-up pattern
- Very natural sound
- Off-axis sound is attenuated without colorations while a uniform sound structure is maintained
- Exceptionally low inherent self-noise prevents masking of delicate sound structures
- Symmetrical transducer technology ensures extremely low distortion
- Transformerless and fully floating balanced output: no coupling of spurious signals, minimal distortion
- High output signal voltage ensures interference-free signal paths
- Rugged metal housing with non-reflective Nextel coating
- Extremely weather-proof due to high-frequency circuit
- Can be used as an analog or – with the digital module – digital microphone
- Versatile use due to the extensive range of accessories available for the MKH 8000 series, e.g.:
 - MZD 8000 digital module
 - MZF 8000 filter module
 - Windshield systems
 - Shock mounts



A list of accessories can be found on the MKH 8070 product page at www.sennheiser.com. For information on suppliers, contact your local Sennheiser partner: www.sennheiser.com > "Service & Support".

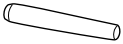
Delivery includes



Microphone, consisting of the MKH 8070 microphone head and the MZX 8000 XLR module



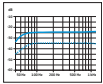
MZQ 8070 microphone clamp



MZW 8070 foam windshield



Instruction manual

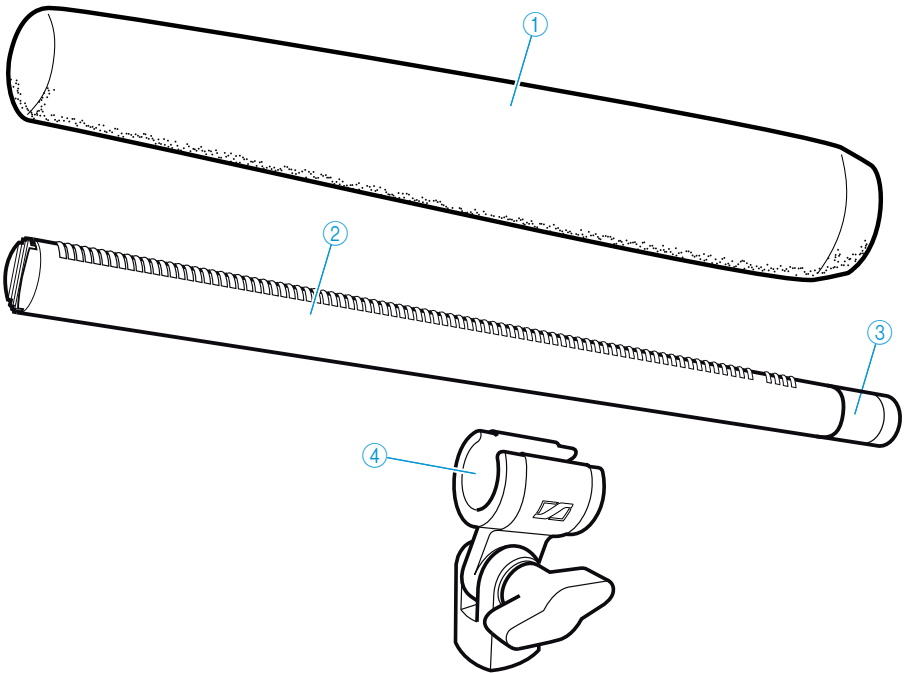


Frequency response sheet



Threaded transport tube

Product overview



- ① Foam windshield
- ② Microphone head
- ③ XLR module
- ④ Microphone clamp (thread adaptor included for 3/8" and 5/8" threads)

Putting the MKH 8070 into operation

Connecting the microphone

Connection data of the MKH 8070:

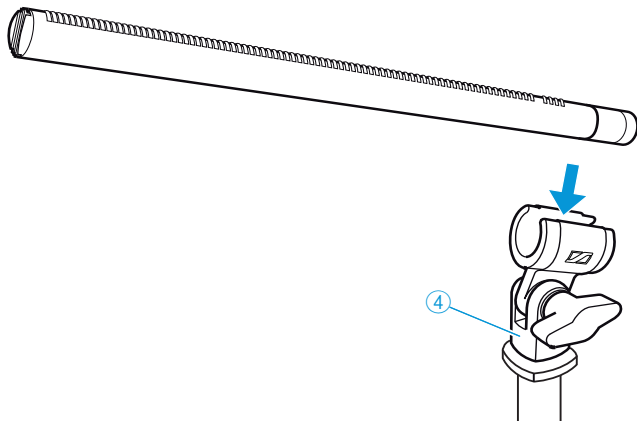
- 48 V \pm 4 V phantom powering (P48, as per IEC 61938)
- XLR-3 connector, balanced

To connect the MKH 8070 to a mixing console or recording device:

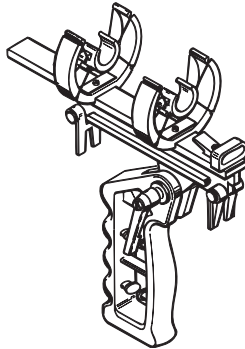
- ▶ Connect the socket of the microphone cable to the microphone.
- ▶ Connect the connector of the microphone cable to the mixing console or recording device.

Attaching the microphone

- ▶ Select the suitable mounting thread:
 - Without thread insert: 5/8" thread
 - Thread insert: 3/8" thread
- ▶ Screw the microphone clamp ④ to a stand.
- ▶ Place the microphone with its back end into the microphone clamp: Make sure that the lateral slots are **not** covered.
- ▶ Orient the microphone together with the microphone clamp and fix them by screwing the wing screw tight.



To suppress structure-borne noise, you can use the optional shock mount.

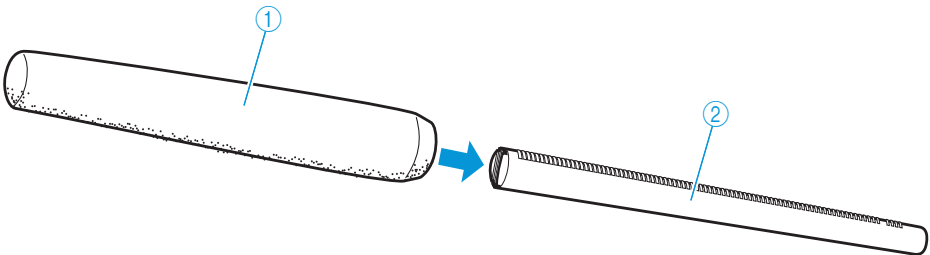


Sennheiser MZS 20-1

Using the windshield

The windshield changes the sound only slightly, but attenuates wind noise by approx. 25 dB.

- ▶ Place the MZW 8070 foam windshield ① over the microphone head ② so that all lateral slots are covered.



Alternative windshields are available as accessories and can be found on the MKH 8070 product page at www.sennheiser.com.

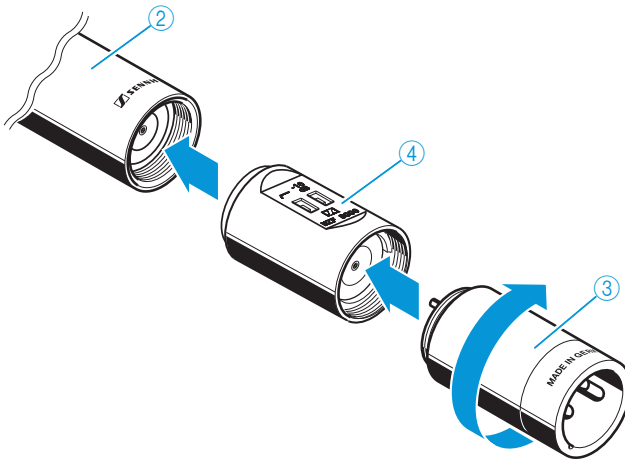
Using optional modules

You can retrofit and extend the microphones of the modular MKH 8000 microphone series by using optional modules.

The MZF 8000 filter module

The MZF 8000 filter module has been specially designed for broadcast and film applications. It effectively filters out interference caused by infrasound, such a low-frequency wind and handling noise.

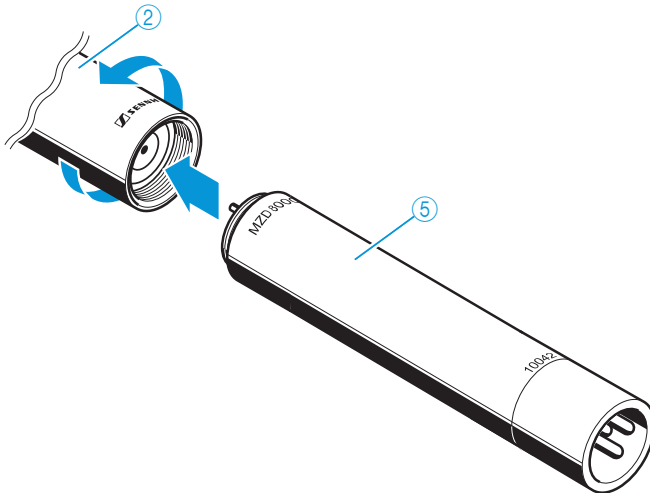
- ▶ If necessary, disconnect a connected XLR cable in order to not distort the cable and to avoid short-circuits.
- ▶ Unscrew the microphone head ② from the XLR module ③.
- ▶ Screw the MZF 8000 filter module ④ at a suitable place in the audio signal chain between microphone head and XLR module.



The MZD 8000 digital module

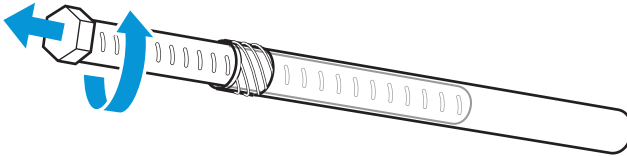
The MZD 8000 digital module is an A/D converter for all microphone heads of the MKH 8000 series. The sound of the MKH 8000 series is converted to digital directly at the microphone head, ensuring that the warm, natural, yet clear and powerful sound of the microphones is maintained in full quality along the entire signal chain. The MZD 8000 digital module eliminates cable losses and, most importantly, features a converter and surrounding circuitry that have been optimally matched to the microphone.

- ▶ If necessary, disconnect a connected XLR cable in order to not distort the cable and to avoid short-circuits.
- ▶ Unscrew the microphone head ② from the XLR module ③.
- ▶ Screw the MZD 8000 digital module ⑤ to the microphone head.



Transporting the microphone

- ▶ Let the microphone dry if you used it under extreme climatic conditions.
- ▶ If necessary, remove the windshield or take the microphone out of the basket windshield.
- ▶ Slide the microphone into the transport tube.



Cleaning and maintaining the microphone

CAUTION! Damage to the product due to liquids!

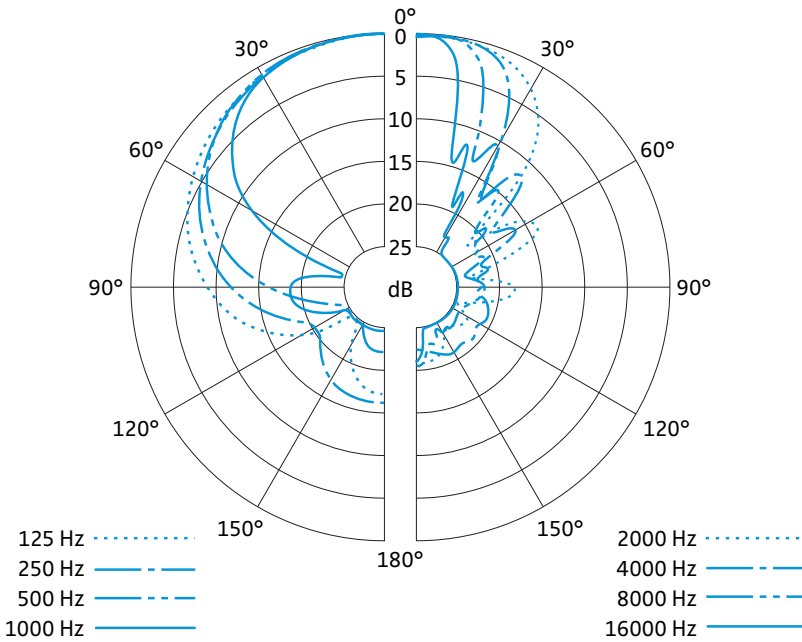
Liquids entering the product can short-circuit the electronics or damage the mechanics. Solvents or cleansing agents can damage the surface of the product.

- ▶ Keep all liquids away from the product.
-
- ▶ Only use a soft, slightly damp cloth to clean the product.

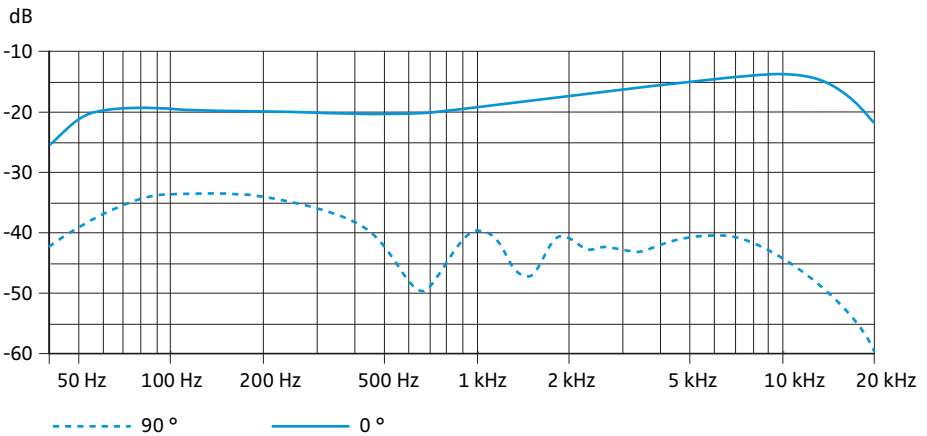
Specifications

Pick-up pattern	lobar
Frequency response	45 Hz to 20 kHz
Sensitivity	-19 dBV/Pa (112 mV/Pa)
Max. sound pressure level	124 dB SPL
Equivalent noise level	8 dB(A) (DIN-IEC 651) 21 dB (CCIR 268-3)
Nominal impedance	25 Ω
Min. terminating impedance	2 k Ω
Phantom powering	48 V \pm 4 V (P48, IEC 61938)
Current consumption	3.3 mA
Diameter	19 mm
Length	432 mm 465 mm with MZX 8000 XLR module
Weight	300 g 332 g with MZX 8000 XLR module
Operating temperature	-10°C to +60°C

Polar diagram



Frequency response curve



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.

In compliance with the following requirements

- RoHS Directive (2002/95/EC)
- WEEE Directive (2002/96/EC)






Please dispose of this product by taking it to your local collection point or recycling center for such equipment.

CE Declaration of Conformity

- EMC Directive (2004/108/EC)

The declaration is available at www.sennheiser.com.

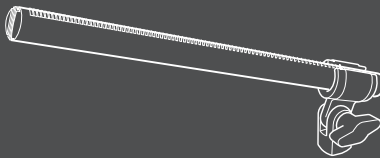
In compliance with:

Europe	 EMC EN 55103-1/-2
USA	FCC 47 CFR 15 subpart B
Canada	Industry Canada ICES_003
China	
Australia/ New Zealand	 N340

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 apparatus 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.



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