

AKG ACOUSTICS



HSC 171
HSC 271



HSD 171
HSD 271
HSD 271 Single

Bedienungsanleitung S. 2

Bitte vor Inbetriebnahme des Gerätes lesen!

User Instructions p. 12

Please read the manual before using the equipment!

Mode d'emploi p. 22

Veuillez lire cette notice avant d'utiliser le système!

Istruzioni per l'uso p. 32

Prima di utilizzare l'apparecchio, leggere il manuale

Modo de empleo p. 42

¡Sirvase leer el manual antes de utilizar el equipo!

Instruções de uso p. 52

Por favor leia este manual antes de usar o equipamento!





1 Safety and Environment

1.1 Safety

- Please make sure that the piece of equipment your microphone will be connected to fulfills the safety regulations in force in your country and is fitted with a ground lead.

1.2 Environment



1. When scrapping the equipment, separate the case, circuit boards, and cables, and dispose of all components in accordance with local waste disposal rules.
2. The packaging of the equipment is recyclable. To dispose of the packaging, make sure to use a collection/recycling system provided for that purpose and observe local legislation relating to waste disposal and recycling.



2 Description

2.1 Introduction

Thank you for purchasing an AKG product. This Manual contains important instructions for setting up and operating your equipment. Please take a few minutes to **read the instructions below carefully before operating the equipment**. Please keep the Manual for future reference. Have fun and impress your audience!

2.2 Unpacking

HSC 171	HSC 271	HSD 171	HSD 271	HSD 271 Single
1 x HSC 171 headset	1 x HSC 271 headset	1 x HSD 171 headset	1 x HSD 271 headset	1 x HSD 271 Single headset
1 x connecting cable with HSC-PA phantom power adapter for microphone		1 x connecting cable		
1 x W 44 windscreen for microphone		1 x W HSD windscreen for microphone		
2 x velour ear pads for headphones				1 x velour ear pad for headphones

Table 1: Headsets and standard accessories.

Check that the packaging contains all of the items listed for your model. Should any item be missing, please contact your AKG dealer.

2.3 General Description

Each of the professional headsets HSC 171, HSC 271, HSD 171, HSD 271, and HSD 271 Single combines a pair of AKG Studio line headphones or a single earphone with a high quality dynamic or condenser microphone mounted on a flexible microphone arm. The frequency response of each microphone has been designed specifically for speech reproduction and ensures excellent audio quality. The microphones are shock mounted to minimize handling noise.

2 Description



The microphone arm features a microphone muting function and swivels through a 270-degree arc so you can wear the headset with the microphone on your left or right.

The 10-foot (3-m) connecting cable has a coiled section and interfaces with the headset through a 6-pin mini XLR connector. This connection allows you to replace the cable quickly and easily.

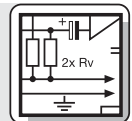
All models are suited for any radio or TV application requiring optimum speech reproduction.

	HSC 171	HSC 271	HSD 171	HSD 271, HSD 271 Single
Microphone	condenser	condenser	dynamic	dynamic
Headphones	supraaural	circumaural	supraaural	circumaural
Headphone ON/MUTE function	–	✓	–	✓

2.4 Differences between Models

Table 2: Distinguishing features of each model.

3 Setting Up



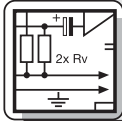
3.1 Plugging in the Connecting Cable

Fig. 1: Plugging the connecting cable into the headset.

Refer to fig. 1.

- Insert the 6-pin mini XLR connector (1) on the connecting cable into the matching socket (2) on the headset and push home to the point that the connector will lock with an audible click.





3 Setting Up

3.2 Connecting to Audio Equipment 3.2.1 HSC 171, HSC 271

6-pin mini XLR connector			1/4" jack plug	XLR connector on phantom power adapter	
1	Microphone	shield, ground, audio return, neg. supply voltage		1	shield, ground
5		audio inphase, pos. supply voltage		2	audio inphase, pos. phantom voltage
6		mute signal		3	audio return, neg. phantom voltage
2	Headphones	shield, ground	shaft		
3		audio left	ring		
4		audio right	tip		

Table 3: HSC 171 and HSC 271 connector pinouts.

1. Switch power to the mixer OFF.
2. Plug the jack plug into the desired headphone output.
3. Plug the XLR connector into the desired microphone input.
4. Switch power to the mixer ON.
5. Switch phantom power ON.

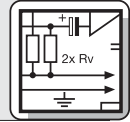
3.2.2 HSD 171, HSD 272, HSD 272 Single

6-pin mini XLR connector			1/4" jack plug	XLR connector on phantom power adapter	
1	Microphone	shield, ground		1	shield, ground
5		audio inphase		2	audio inphase
6		unused		3	shield, ground
2	Headphones	shield, ground	shaft		
3		audio left	ring		
4		audio right	tip		

Table 4: HSD 171, HSD 271, and HSD 271 Single connector pinouts.

1. Switch power to the mixer OFF.
2. Plug the jack plug into the desired headphone output.

3 Setting Up



3. Plug the XLR connector into the desired microphone input.
4. Switch power to the mixer ON.



3.2.3 Connecting Cable

Fig. 2: Separating microphone and headphone cables.

Refer to fig. 2.

The microphone cable is welded to the headphone cable. If the headphone output is too far away from the microphone input, you can simply pull the microphone cable away from the headphone cable. The sliding bush lets you bundle the separated cables together again.

3.3 Putting the Headset On



Fig. 3: Two ways of wearing the headset.

The microphone arm swivels through an arc of 270 degrees, allowing you to put the headset on with the microphone sitting in front of either the left or right corner of your mouth as required by the job at hand or dictated by available space.

Refer to fig. 3.

3.4 Switching the Microphone ON/OFF and Testing It

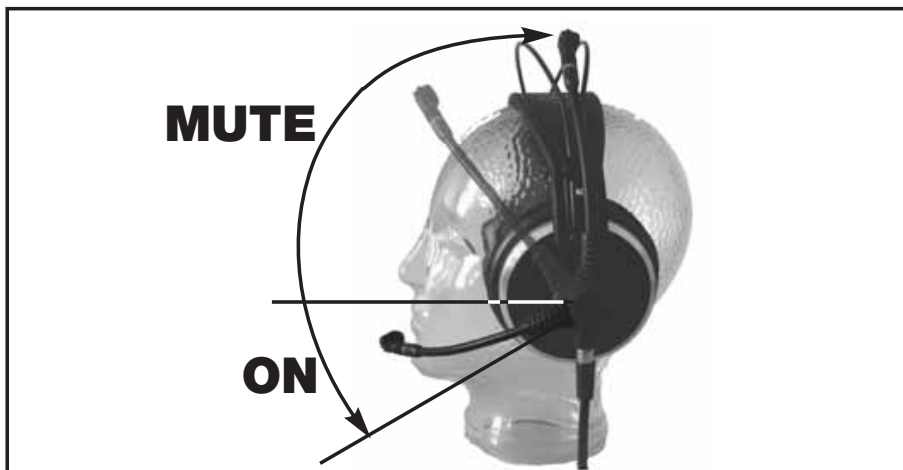
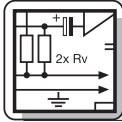


Fig. 4: The microphone arm of each model switches the microphone ON or MUTES it.

The microphone arm of each model features an automatic ON/MUTE switch.

Refer to fig. 4.

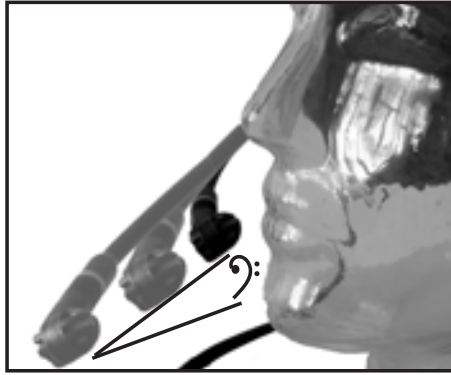




3 Setting Up

1. To switch the microphone ON, move the microphone arm down far enough to place the microphone in front of the corner of your mouth. The microphone will switch ON as soon as the microphone arm reaches a position lower than horizontal.
2. Talk into the microphone.

Fig. 5: The microphone sound depends on the microphone's distance from the mouth.



Refer to fig. 5:

The flexible microphone arm allows you to adjust the microphone sound by varying the working distance. As you move the microphone away from your mouth, the bass content (and overall level) of the audio signal will decrease.

3.5 Switching Headphones ON/OFF (HSC 271, HSD 271, HSD 271 Single)

3. To mute the microphone, move the microphone arm up into its detented center position. The microphone will be muted as the microphone arm reaches a position higher than horizontal.

The headphones on models HSC 271, HSD 271, and HSD 271 Single will switch ON automatically as you put the headset on. When you take the headset off, the headphones will switch OFF automatically. This prevents the headphone signal from leaking into the microphone on taking the headset off.

Note: The on/off switch is actuated by the headband. If you hang the headset up by the headband, the headphones may switch ON.

Note: The headphones on models HSC 171 and HSD 171 feature no automatic on/off switch.



4 Operating Notes

4.1 Windscreens W 44 (HSC 171/271), W HSD (HSD 171/271/271 Single)

If you use the headset in the open or need to place the microphone extremely close to your mouth, we recommend using the supplied foam windscreen.

1. Slide the windscreen onto the microphone capsule.
2. Pull the windscreen over the outer edge of the microphone capsule.

4 Operating Notes



Refer to fig. 6:

1. Pull the ear pad(s) off the ear-phone(s).
2. To attach the new ear pad(s), pull the elastic hem of each ear pad over the rim of the ear-phone base plate all around.

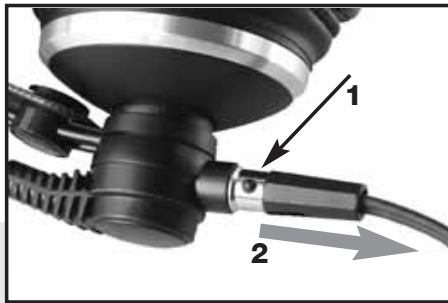


4.2 Replacing Ear Pads

Fig. 6: Replacing ear pads.

Refer to fig. 7:

1. Grasp the connector, depressing the locating button.
2. Pull the connecting cable off the headset.



4.3 Unplugging the Connecting Cable

Fig. 7: Unplugging the connecting cable.

Note: When you connect the cable again, the connector will lock automatically.

- To prevent the microphone from picking up unwanted signals or causing feedback (models HSC 171 and HSD 171 provide no headphone muting function), be sure to move the microphone arm into its vertical center position every time before taking the headset off. This keeps the microphone signal muted even if the microphone channel remains open.

4.4 Unwanted Noise, Feedback

The HSC-PA phantom power adapter features a bass cut filter to suppress low-frequency noise and reduce proximity effect. The headsets are delivered with the bass cut filter deactivated. To activate the bass cut filter:

4.5 Bass Cut Filter (HSC 171, HSC 271)

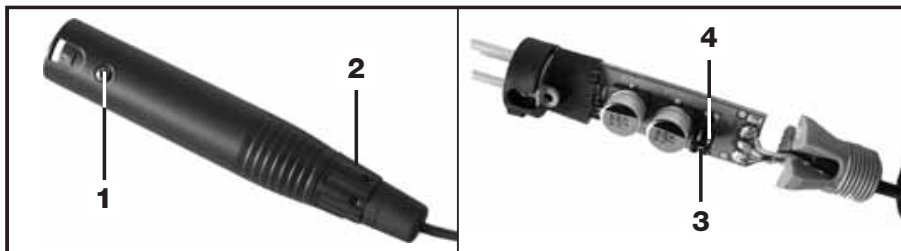


Fig. 8: Opening the phantom power adapter.

1. Disconnect the phantom power adapter from the mixer input.
2. Remove the fixing screw (1) from the phantom power adapter.
2. Unscrew the cable bushing (2).
4. Pull the pcb out of the shell WITH EXTRA CARE.
5. Remove the jumper (3) from the contact pins (4) to activate the bass cut filter.

In order not to lose the jumper (3), place it on any two contact pins (4) in a position at right angles to the ON position.

Refer to fig. 8.





4 Operating Notes

Refer to Table 5.

- To deactivate the bass cut filter, place the jumper (3) on any two contact pins (4) as per Table 5 below.

Table 5: Jumper positions for activating and deactivating the bass cut filter.

Bass cut filter ON			Bass cut filter OFF	

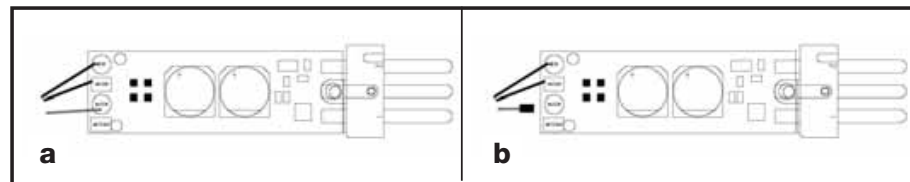
- Push the pcb into the shell, replace and tighten the fixing screw (1), and screw the cable bushing (2) onto the blue strain relief (5).

4.6 Deactivating the Microphone Muting Function

Refer to fig. 8.

- Disconnect the phantom power adapter from the mixer input.
- Remove the fixing screw (1) from the phantom power adapter.
- Unscrew the cable bushing (2).
- Pull the pcb out of the shell WITH EXTRA CARE.

Fig. 9: Microphone muting function ON (a) and OFF (b).



Refer to fig. 9.

Refer to fig. 8.

- Unsolder the green wire from the pcb and insulate the stripped end with insulating tape.
- Push the pcb into the shell, replace and tighten the fixing screw (1), and screw the cable bushing (2) onto the blue strain relief (5).



5 Cleaning

5.1 Headphones, Microphone, Connecting Cable

- Disconnect the headphone and microphone cables from the mixer.
- Use a cloth moistened (not wet!) with water to clean the surfaces of the equipment.

Important!

- Never use caustic or scouring cleaners or cleaning agents containing alcohol or solvents since these may damage the enamel or plastic parts.

5.2 W 44, W HSD Windscreens Important!

- Remove the windscreen from the microphone.
- To avoid damaging the windscreen fixed on the microphone, be extremely careful in removing the W HSD from the HSD 171/271/271 Single microphone!

5 Cleaning



2. Wash the windscreen in soap suds.
3. Allow the windscreen to dry overnight.
4. Slide the windscreen onto the microphone capsule.
5. Pull the windscreen over the outer edge of the microphone capsule.

6 Specifications



	HSC 171	HSC 271
Microphone		
Type:	prepolarized condenser microphone	prepolarized condenser microphone
Polar pattern:	cardioid	cardioid
Frequency range:	20 Hz to 20 kHz	20 Hz to 20 kHz
Sensitivity:	25 mV/Pa	25 mV/Pa
Max. SPL for 1% THD:	126 dB	126 dB
Equivalent noise level:	22 dB(A)	22 dB(A)
Signal/noise ratio (A-weighted):	72 dB	72 dB
Electrical impedance:	≤200 ohms	≤200 ohms
Recommended load impedance:	≥2000 ohms	≥2000 ohms
Power requirement:	9 to 52 V phantom power	9 to 52 V phantom power
Current consumption:	≤2 mA	≤2 mA
Headphones		
Type:	closed-back, supraaural dynamic headphones	closed-back, circumaural dynamic headphones
Sensitivity:	94 dB SPL/mW	94 dB SPL/mW
Frequency range:	18 Hz to 26 kHz	16 Hz to 28 kHz
Power rating:	200 mW	200 mW
Rated impedance:	55 ohms	55 ohms
THD:	<0.4%	<0.3%
System		
Connector:	6-pin mini XLR connector	6-pin mini XLR connector
Cable:	2 x 3-conductor; separable; 10 ft. (3 m) long; coiled section; with 6-pin female mini XLR connector, 1/4" TRS jack plug (headphones), and 3-pin XLR connector w/integrated HSC-PA phantom power adapter (microphone)	2 x 3-conductor; separable; 10 ft. (3 m) long; coiled section; with 6-pin female mini XLR connector, 1/4" TRS jack plug (headphones), and 3-pin XLR connector w/integrated HSC-PA phantom power adapter (microphone)
Finish:	matte black	matte black
Weight:	250 g (8.8 oz.)	300 g (10.6 oz.)

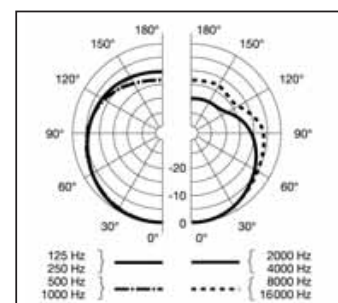
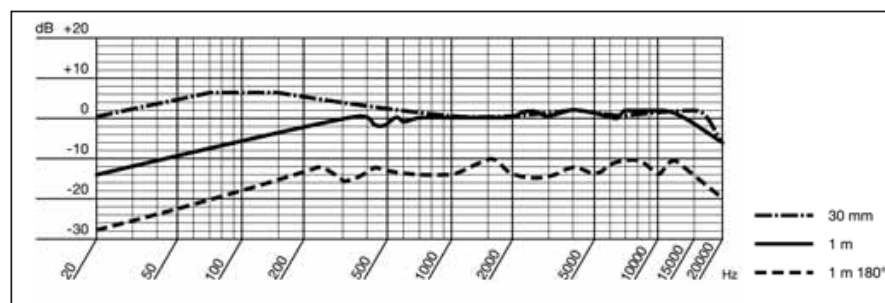




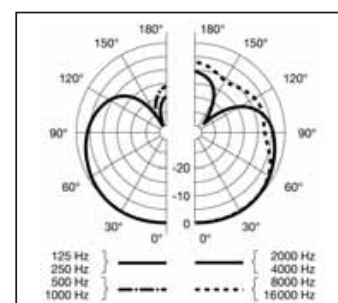
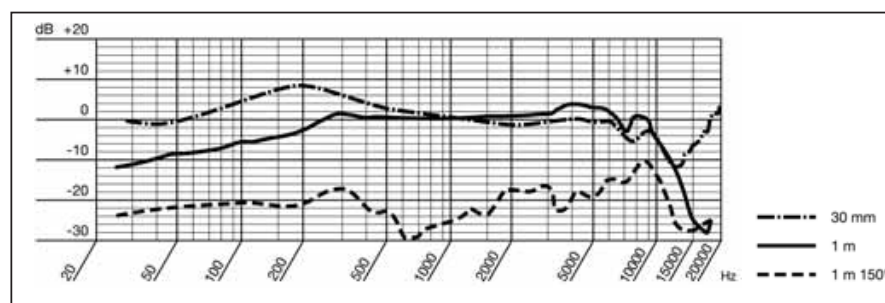
6 Specifications

	HSD 171	HSD 271, HSD 271 Single
Microphone		
Type:	dynamic	dynamic
Polar pattern:	hypercardioid	hypercardioid
Frequency range:	60 Hz to 17 kHz	60 Hz to 17 kHz
Sensitivity:	1 mV/Pa (-60 dBV)	1 mV/Pa (-60 dBV)
Max. SPL for 1%/3% THD:	124/128 dB	124/128 dB
Equivalent noise level:	15 dB(A)	15 dB(A)
Electrical impedance:	≤600 ohms	≤600 ohms
Recommended load impedance:	≥2000 ohms	≥2000 ohms
Headphones		
Type:	closed-back, supraaural dynamic headphones	closed-back, circumaural dynamic headphones
Sensitivity:	94 dB SPL/mW	94 dB SPL/mW
Frequency range:	18 Hz to 26 kHz	16 Hz to 28 kHz
Power rating:	200 mW	200 mW
Rated impedance:	55 ohms	55 ohms
THD:	<0.4%	<0.3%
System		
Connector:	6-pin mini XLR connector	6-pin mini XLR connector
Cable:	2 x 3-conductor; separable; 10 ft. (3 m) long; coiled section; with 6-pin female mini XLR connector, 1/4" TRS jack plug (headphones), and 3-pin XLR connector (microphone)	2 x 3-conductor; separable; 10 ft. (3 m) long; coiled section; with 6-pin female mini XLR connector, 1/4" TRS jack plug (headphones), and 3-pin XLR connector (microphone)
Finish:	matte black	matte black
Weight:	255 g (9 oz.)	HSD 271: 305 g (10.8 oz.) HSD 271 Single: 265 g (9.4 oz.)

HSC 171, HSC 271 Frequency Response and Polar Diagram



HSD 171, HSD 271, HSD 271 Single Frequency Response and Polar Diagram



6 Specifications



This product conforms to the standards listed in the Declaration of Conformity. To order a free copy of the Declaration of Conformity, visit <http://www.akg.com> or contact sales@akg.com.

6.1 Standards

Spare parts are available from AKG Acoustics GmbH, Serviceabteilung, Lemböckgasse 21-25, A-1230 Wien, Austria. When ordering, be sure to state the appropriate item number for each item.

6.2 Spare Parts List

Item	Description	Item number
ECV 171	171 velour ear pad	2955Z2501
ECV 271	271 velour ear pad	2955Z2601
ECL 171	171 smooth ear pad	2908Z1301
ECL 271	271 smooth ear pad	2058Z1001
W HSD	Windscreen for HSD 171/271/Single	2955Z2401
W 44	Windscreen for HSC 171/271	2344Z0101
MK HSC	Replacement cable with phantom power adapter for HSC 171/271	2397Z0015
MK HSD	Replacement cable with 3- pin XLR connector for HSD 171/271/Single	2542K0001



Mikrofone · Kopfhörer · Drahtlosmikrofone · Drahtloskopfhörer · Kopfsprechgarnituren · Akustische Komponenten
 Microphones · Headphones · Wireless Microphones · Wireless Headphones · Headsets · Electroacoustical Components
 Microphones · Casques HiFi · Microphones sans fil · Casques sans fil · Micros-casques · Composants acoustiques
 Microfoni · Cuffie HiFi · Microfoni senza filo · Cuffie senza filo · Cuffie-microfono · Componenti acustici
 Micrófonos · Auriculares · Micrófonos inalámbricos · Auriculares inalámbricos · Auriculares con micrófono · Componentes acústicos
 Microfones · Fones de ouvido · Microfones s/fios · Fones de ouvido s/fios · Microfones de cabeça · Componentes acústicos



Technische Änderungen vorbehalten. Specifications subject to change without notice. Ces caractéristiques sont susceptibles de modifications.

Ci riserviamo il diritto di effettuare modifiche tecniche. Nos reservamos el derecho de introducir modificaciones técnicas. Especificações sujeitas à mudanças sem aviso prévio.



AKG Acoustics GmbH

Lemböckgasse 21–25, P.O.B. 158, A-1230 Vienna/AUSTRIA, Tel: (+43 1) 86 654-0*, Fax: (+43 1) 86 654-7516, www.akg.com, e-mail: sales@akg.com, Hotline: (+43 676) 83200 888, hotline@akg.com

H A Harman International Company

AKG Acoustics GmbH

Bodenseestraße 228, D-81243 München/GERMANY, Tel: (+49 89) 87 16-0, Fax: (+49 89) 87 16-200, www.akg.com/de, e-mail: infode@akg.com, Hotline: (+49 89) 87 16-22 50, hotlinede@akg.com

AKG ACOUSTICS, U.S.

914 Airpark Center Drive, Nashville, TN 37217, U.S.A., Tel: (+1 615) 620-3800, Fax: (+1 615) 620-3875, www.akgusa.com, e-mail: akgusa@harman.com

For other products and distributors worldwide see our website: www.akg.com