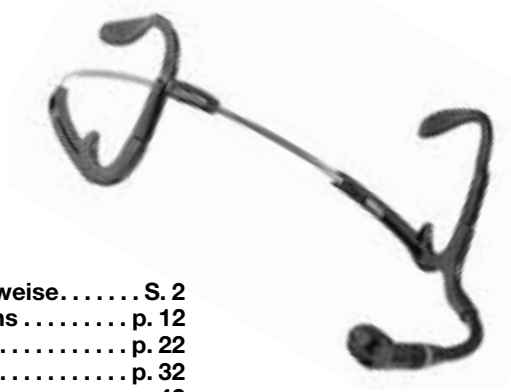
C 420



Bitte vor Inbetriebnahme des Gerätes lesen!
Please read the manual before using the equipment!
Veuillez lire cette notice avant d'utiliser le système!
Prima di utilizzare l'apparecchio, leggere il manuale!
Antes de utilizar el equipo, lea por favor el manual!
Por favor leia este manual antes de usar o equipamento!

1 Description

1.1 General The C 420 is a head-worn miniature condenser microphone with a convenient behind-the-neck headband. The microphone has a cardioid polar pattern and therefore “prefers” sounds arriving from in front of it (from the user’s mouth).
The microphone case containing the condenser transducer is shock mounted on the microphone arm in order to suppress cable and mechanical noise. The microphone arm will place the microphone in front of the corner of your mouth to minimize pop noise and protect the microphone from contamination. The supplied windscreen makes the microphone even less susceptible to wind and pop noise.

1.2 Versions The C 420 is available in three versions:

C 420: With 3-pin XLR connector with integrated adapter for 9 to 52 V universal phantom power.

C420 L: With locking mini XLR connector for use with the new version B 29 battery power supply, new version MPA II phantom power adapter, or AKG bodypack transmitters.

C 420/B-lock: With locking mini jack plug for use with the old version B 29 battery power supply or old version MPA II phantom power adapter.

1 Description

1.3 Standard Accessories

All C 420 versions are supplied with:

W 44 foam windscreen

1.4 Optional Accessories for C 420

B 18 battery supply
N 62 E, N 66 E AC power supplies

MK 9/10 10-m (33-ft.) connecting cable

1.5 Optional Accessories for C 420 L, C 420 B/lock

B 29 battery supply
MPA II phantom power adapter

2 Interfacing

The C 420 is a condenser microphone and therefore needs a power supply.

2.1 C 420

1. Connect the phantom power adapter on the microphone cable to a balanced XLR microphone input with phantom power.
2. Switch the phantom power on. (Refer to the instruction manual of the unit to which you connected your C 420.)
3. If your mixer provides no phantom power, connect an AKG phantom power supply (N 62 E, N 66 E, B 18) between the microphone and the mixer.
   You may connect AKG phantom power supplies to balanced or unbalanced inputs.

2 Interfacing

2.2 C 420 L

1. Plug the mini XLR connector on the microphone cable all the way into one of the two mini XLR sockets on the B 29, the mini XLR socket on the connecting cable of the MPA II, or the input socket on the bodypack transmitter.
   The connector will lock automatically.
2. Connect the B 29 or MPA II to the desired input.

2.3 C 420 B/lock

This version is identical to the C 420 L except that it uses a screw-in mini jack plug that you can connect directly to the old versions of the B 29, MPA II, or AKG bodypack transmitters. (Refer to the instruction manual of the unit you are using.)

2.4 B 29 Battery Supply

The optional B 29 battery supply allows you to connect two microphones to a common balanced or unbalanced input in order to save on mixer inputs.

2.5 MPA II Phantom Power Adapter

The optional MPA II phantom power adapter lets you connect the C 420 to any phantom power source or XLR input with 9 to 52 V phantom power.

2.6 External Phantom Power Supplies

For phantom powering the C 420 L and C 420 B/lock with MPA II we recommend the optional N 62 E or N 66 E AC power supply or the B 18 battery supply (also optional) from AKG.

Important!

Using any power supply other than those recommended by AKG may damage your microphone and will void the warranty.

2.7 Connecting Cables

To connect to a **balanced** (XLR) input, use a standard XLR cable.

To connect to an **unbalanced** input (mono jack), use a cable with a female XLR connector and TS jack plug (see fig. 1 below):

1. On the XLR connector, use a wire bridge to connect pin 1 to pin 3 and the cable shield.
2. Connect the inside wire of the cable to pin 2 on the XLR connector and the tip contact of the jack plug.

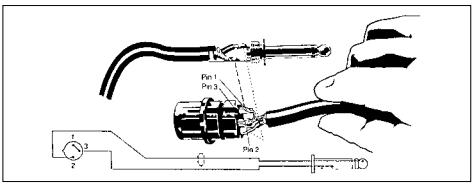


Fig. 1: Connecting cable for unbalanced microphone inputs.

3 Operating Notes

3.1 Putting the Microphone on

1. Adjust the temple pieces so that the behind-the-neck headband will rest securely against your head.

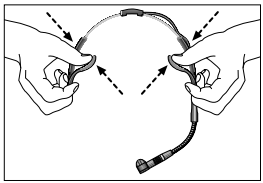


Fig. 2: Adjusting the temple pieces.

2. Put the behind-the-neck headband on as shown in figs. 3 through 5.

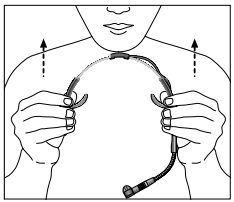


Fig. 3: Behind-the-neck headband.

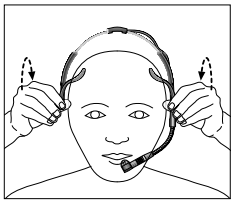


Fig. 4

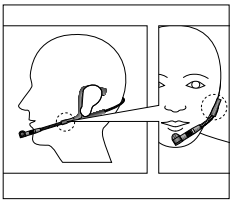


Fig. 5

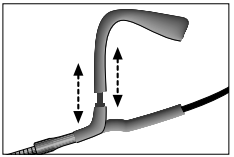


Fig. 6

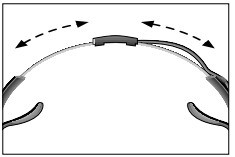


Fig. 7

Readjusting the Temple Pieces:

3. If the behind-the-neck headband does not fit snugly, readjust the temple pieces as shown in fig. 6. Slide the cable holder so as to slacken the cable a little (refer to fig. 7).

4. Should the microphone still fit loosely, bend the behind-the-neck headband slightly inward referring to fig. 8.

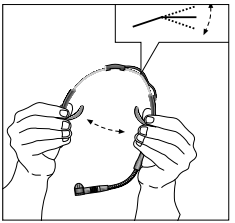


Fig. 8:

Aligning the Microphone:

5. Bend the gooseneck so that the microphone will sit to one side in front of the corner of your mouth.

Strain Relief:

6. Reeve the microphone cable through the three slots in the cable clip and clamp the cable clip on your shirt collar. This takes the pull of the cable off the microphone and the microphone will fit your head securely and lightly.

3 Operating Notes

3.2 Windscreen If (for instance, in outdoor use) excessive wind or pop noise becomes audible, attach the supplied windscreen to the microphone.

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

4 Specifications

4.1 Microphone

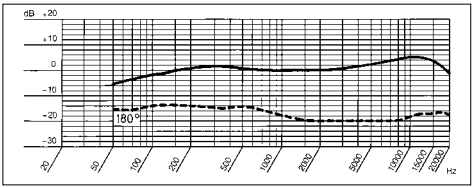
Type:	Pre-polarized condenser microphone
Polar pattern:	Cardioid
Frequency range:	20 Hz to 20,000 Hz
Sensitivity:	5 mV/Pa (-46 dBV re 1 V/Pa)
Electrical Impedance at 1000 Hz:	200 Ω
Recommended load impedance:	>2000 Ω
Max. SPL for 1% / 3% THD:	126 dB / 130 dB
Equivalent noise level:	33 dB (to DIN 45412)
Supply voltage: C 420: C 420 L: C 420 B/lock:	 9 to 52 V universal phantom power 9 V battery supply through B 29 or body-pack transmitter, or 9 to 52 V universal phantom power through MPA II adapter 9 V battery supply through B 29 or 9 to 52 V universal phantom power through MPA II adapter
Current consumption:	Approx. 2 mA
Connector:	3-pin male XLR
Finish:	Matte black
Size:	130 mm (5.2 in.) in dia.
Cable length:	3 m (10 ft.)
Net weight:	30 g (1.1 oz.) exc. of connector

4 Specifications

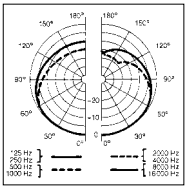
When connected to equipment with a CE sign, this product conforms to EN 50 082-1.

4.2 Declaration of Conformity

4.3 Frequency Response



4.4 Polar Diagram



5 Cleaning

Clean metal surfaces with (industrial grade) methylated spirits or alcohol.
Clean the foam windscreen in mild soap suds. You can use the windscreen again as soon as it has dried.

6 Troubleshooting

Problem	Possible Cause	Remedy
1. Microphone does not work:	No supply voltage.	**C 420:** Check phantom power source. **C 420 B/lock:** Check batteries in the B 29 or PT 300. **C 420 L:** Check batteries in the bodypack transmitter.
2. Headset does not fit securely; microphone arm wobbles:	Headband is not adjusted correctly.	Adjust headband exactly as described in section 3.1, referring particularly to fig. 9.
3. Loud pop, wind, and/or breath noise:	Microphone sits too close to mouth or nose.	Align microphone sound entry with corner of mouth and move microphone just far enough away from mouth and nose to stop breath noise.
4. Microphone sound becomes duller by and by:	Internal or W 44 external windscreen when soiled attenuates high frequencies.	1. Clean W 44 windscreen with soap suds. 2. Refer cleaning of internal windscreen to nearest AKG Service Center. **ATTENTION:** Do not open microphone case yourself. This would void the warranty.

Problem	Possible Cause	Remedy
5. Microphone sounds “thin”, feedback sets in at low levels:	Microphone sits too far away from mouth or nose.	Move microphone closer to corner of mouth.

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