



AKG.EMOTION

EMOTION
MICROPHONE
SERIES

C 900



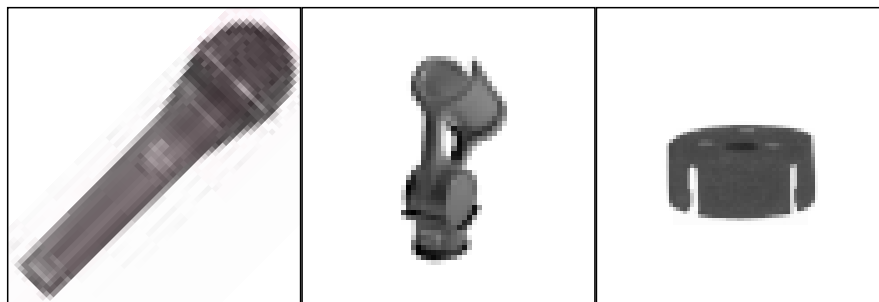
Bedienungshinweise	S. 2
Bitte vor Inbetriebnahme des Gerätes lesen!	
User Instructions	p. 12
Please read the manual before using the equipment!	
Mode d'emploi	p. 22
Veuillez lire cette notice avant d'utiliser le système!	
Istruzioni per l'uso	p. 32
Prima di utilizzare l'apparecchio, leggere il manuale!	
Modo de empleo	p. 42
Antes de utilizar el equipo, lea por favor el manual!	
Instruções de uso	p. 52
Por favor leia este manual antes de usar o equipamento!	



1 Precaution/Description

1.1 Precaution 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 Unpacking



1 C 900

1 SA 41/1

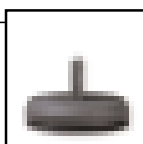
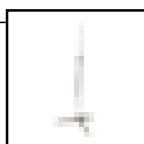
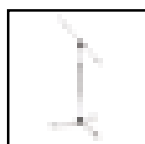
1 PB 1000

Check that the packaging contains all of the components listed above. Should anything be missing, please contact your AKG dealer.

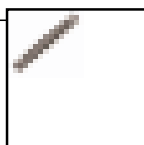
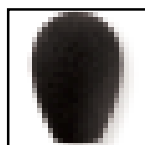
1.3 Optional Accessories



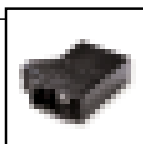
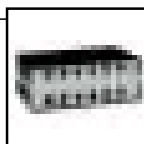
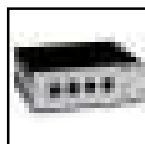
• **MK 9/10** microphone cable: 10-m (30-ft.) 2-conductor shielded cable with male and female XLR connectors



• **ST 102A, ST 200, ST 305** floor stands



• **W 880** windscreen
• **B 15** battery power supply



• **N 62 E, N 66 E, B 18 E** phantom power supplies

1.4 Features

- Rugged condenser microphone for vocal mixing on stage.
- Built-in windscreen/pop filter for effective suppression of pop and breath noise.
- Doubleflex™ transducer shock mount reduces handling and cable noise.

1 Description



- Frequency-independent cardioid polar response for high gain before feedback.
 - PB 1000 Presence Boost attachment for optimum intelligibility of speech.
-

The C 900 is a vocal microphone for professional use on stage.

A frequency response tailored to vocal reproduction and a cardioid polar pattern provide a smooth sound and high gain before feedback.

The strong die-cast housing and the wire-mesh outer grille protect the transducer from damage. The outer steel wire mesh grille and a layer of a special fabric form a very effective windscreen against pop and breath noise and sibilance.

The supplied PB 1000 Presence Boost attachment provides a boost of approx. 5 dB between 5 kHz and 9 kHz for optimum intelligibility of speech.

1.5 Brief Description



2 Interfacing

2.1 General The C 900 is a condenser microphone and therefore needs a power supply.

The microphone provides a balanced output on a 3-pin male XLR connector:

Pin 1: ground

Pin 2: hot

Pin 3: return

Refer to sections 2.2 and 2.3.

You can connect the microphone either to a balanced microphone input with or without phantom power or an unbalanced microphone input.

2.2 Input with Phantom Power

Refer to fig. 1.

1. Use an XLR cable (e.g., the optional MK 9/10 from AKG) to connect the microphone to a balanced XLR input with phantom power.
2. Switch the phantom power on. (Refer to the instruction manual of the unit to which you connected your C 430.)

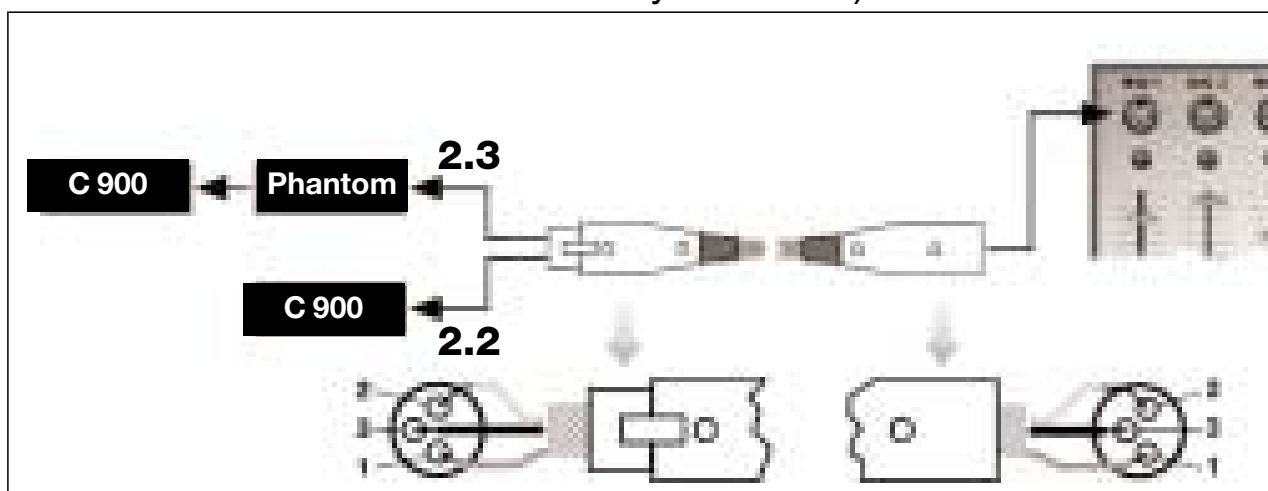


Fig. 1: Connecting to a balanced input.

2.3 Input with No Phantom Power

Refer to fig. 1.

1. If your mixer provides no phantom power, connect an optional AKG phantom power supply (N 62 E, N 66 E, B 18, B 15) between the microphone and the mixer.

Important!

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

2 Interfacing



You may connect AKG phantom power supplies to unbalanced inputs, too.

2.4 Unbalanced Input

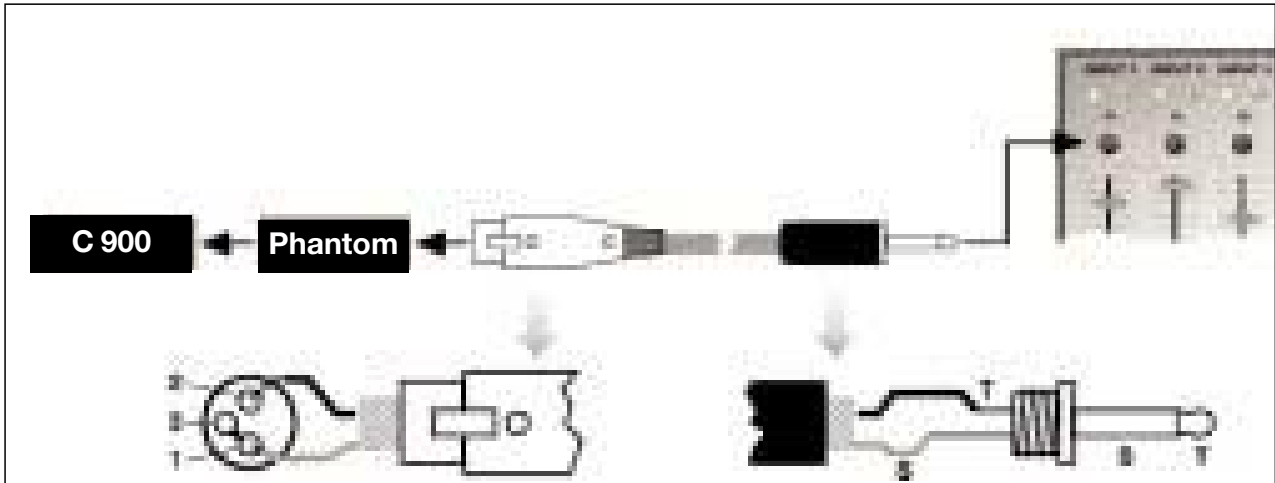


Fig. 2: Connecting to an unbalanced input.

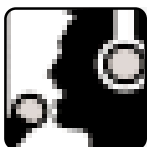
Use a cable with a female XLR connector and TS jack plug:

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.

Refer to fig. 2.

Unbalanced cables may pick up interference from stray magnetic fields near power or lighting cables, electric motors, etc. like an antenna. This may introduce hum or similar noise when you use a cable that is longer than 16 feet (5 m).

Note:



3 Using Your Microphone

3.1 Introduction A handheld vocal microphone provides many ways of shaping the sound of your voice as it is heard over the sound system. The following sections contain useful hints on how to use your microphone for best results.

3.2 Working Distance and Proximity Effect Basically, your voice will sound the bigger and mellower, the closer you hold the microphone to your lips. Moving away from the microphone will produce a more reverberant, more distant sound as the microphone will pick more of the room's reverberation.

You can use this effect to make your voice sound aggressive, neutral, insinuating, etc. simply by changing your working distance.

Proximity effect is a more or less dramatic boost of low frequencies that occurs when you sing into the microphone from less than 2 inches. It gives more "body" to your voice and an intimate, bass-heavy sound.

3.3 Angle of Incidence

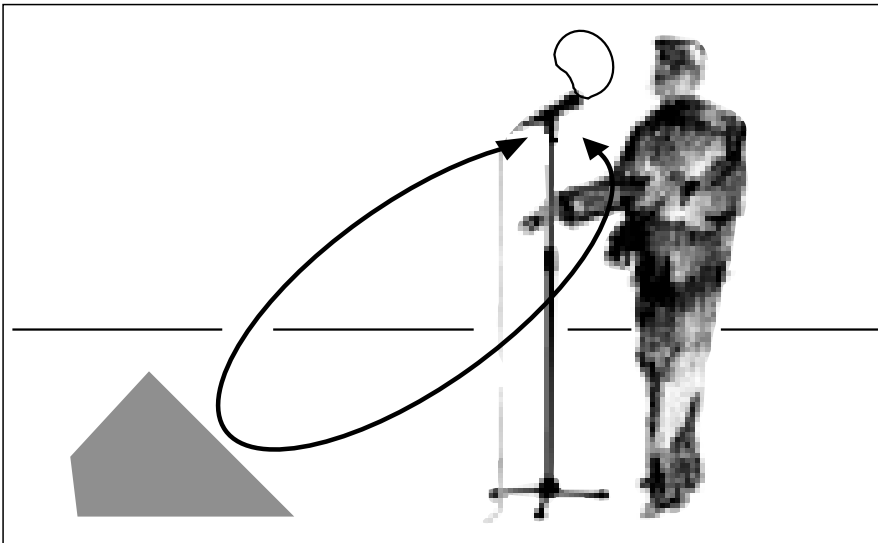
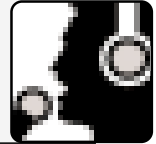
Fig. 3: Typical microphone position.



Sing to one side of the microphone or above and across the microphone's top. This provides a well-balanced, natural sound.

If you sing directly into the microphone, it will not only pick up excessive breath noise but also overemphasize "sss", "sh", "tch", "p", and "t" sounds.

3 Using Your Microphone



3.4 Feedback

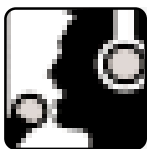
Fig. 4: Microphone placement for maximum gain before feedback.

Feedback is the result of part of the sound projected by a speaker being picked up by a microphone, fed to the amplifier, and projected again by the speaker. Above a specific volume or “system gain” setting called the feedback threshold, the signal starts being regenerated indefinitely, making the sound system howl and the sound engineer desperately dive for the master fader to reduce the volume and stop the howling.

To increase usable gain before feedback, the microphone has a cardioid polar pattern. This means that the microphone is most sensitive to sounds arriving from in front of it (your voice) while picking up much less of sounds arriving from the sides or rear (from monitor speakers for instance).

To get maximum gain before feedback, place the main (“FOH”) speakers in front of the microphones (along the front edge of the stage). If you use monitor speakers, be sure never to point any microphone directly at the monitors, or at the FOH speakers.

Feedback may also be triggered by resonances depending on the acoustics of the room or hall.



3 Using Your Microphone

With resonances at low frequencies, proximity effect may cause feedback. In this case, it is often enough to move away from the microphone a little to stop the feedback.

3.5 Backing Vocals

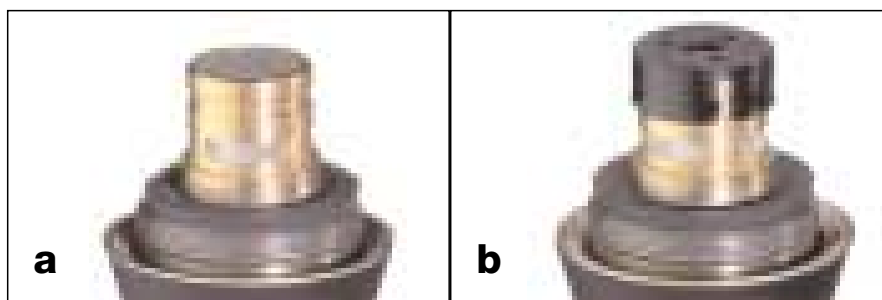
Fig. 5: Two vocalists sharing a microphone.



1. Never let more than two persons share a microphone.
2. Ask your backing vocalists never to sing more than 35 degrees off the microphone axis.
The microphone is very insensitive to off-axis sounds. If the two vocalists were to sing into the microphone from a wider angle than 35 degrees, you may end up bringing up the fader of the microphone channel far enough to create a feedback problem.

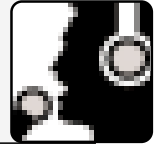
3.6 Installing the PB 1000

Fig. 6: Capsule without (a) and with (b) PB 1000.



1. Unscrew and remove the wire mesh cap.
2. Slip the PB 1000 on the microphone capsule to the stop, slightly turning the attachment as you push it home.

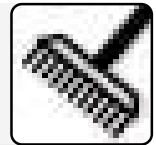
3 Using Your Microphone



When installing or removing the PB 1000, make sure to grip the capsule and shock mount firmly with your thumb and forefinger in order to prevent the capsule being severed from the shock mount.

Important!

4 Cleaning



To clean the surface of the microphone body, use a soft cloth moistened with water.

4.1 Microphone Body

1. Unscrew the front grill from the microphone CCW.
2. Remove the windscreen from the front grill and wash the windscreen in soap suds.
3. Allow the windscreen to dry overnight.
4. Replace the windscreen in the front grill and screw the front grill on the microphone CW.

4.2 Internal Windscreen

5 Troubleshooting



Problem	Possible Cause	Remedy
No sound:	<ol style="list-style-type: none">1. Power to mixer and/or amplifier is off.2. Channel or master fader on mixer, or volume control on amplifier is at zero.	<ol style="list-style-type: none">1. Switch power to mixer or amplifier on.2. Set channel or master fader on mixer or volume control on amplifier to desired level.



5 Troubleshooting

Problem	Possible Cause	Remedy
	<ol style="list-style-type: none">3. Microphone is not connected to mixer or amplifier.4. Cable connectors are seated loosely.5. Cable is defective.6. No supply voltage.	<ol style="list-style-type: none">3. Connect microphone to mixer or amplifier.4. Check cable connectors for secure seat.5. Check cable and replace if damaged.6. Switch phantom power on. Phantom power supply: connect to power outlet or insert battery (batteries). Check cable and replace if necessary.
Distortion:	<ol style="list-style-type: none">1. Gain control on the mixer set too high.2. Mixer input sensitivity too high.	<ol style="list-style-type: none">1. Turn gain control down CCW.2. Connect a 10-dB preattenuation pad between microphone cable and input.
Microphone sound becomes duller by and by:	Internal or W 880 external windscreen attenuates high frequencies when soiled.	Clean internal or external windscreen.

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The Moffatts



B*Witched



D 660 S



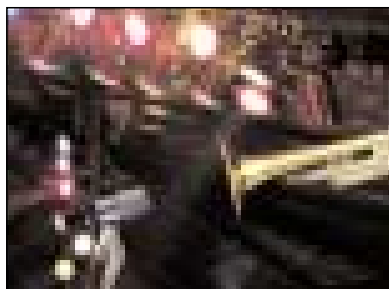
D 880



D 880 S



C 900



D 440



D 550



D 770

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