C5
VOCAL

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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 5	**1 SA 45**	**1 PB 1000**	**1 micro-phone bag**

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

1.3 Optional Accessories

- For optional accessories, refer to the current AKG catalog or folder, or visit www.akg.com. Your dealer will be glad to help.

1.4 Features

- Rugged condenser microphone for vocal miking on stage.
- Extremely resilient, spring-steel wire-mesh cap for extra impact resistance.
- Built-in windscreen/pop filter for effective suppression of pop and breath noise.
- Transducer shock mount reduces handling and cable noise.
- Frequency-independent cardioid polar response for high gain before feedback.
- PB 1000 Presence Boost attachment for optimum intelligibility of speech.

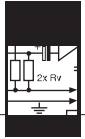
1.5 Brief Description

The AKG C 5 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.

A rugged front grill made of spring-steel wire mesh that is extremely resistant to deformation and a sturdy zinc alloy die-cast body effectively protect the microphone and transducer element from damage on stage and on the road.

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.



The C 5 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

1. Use an XLR cable to connect the microphone to a balanced XLR input with phantom power.
2. Switch the phantom power on. (Refer to the manual of the unit to which you connected your microphone.)

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

Refer to fig. 1.

Fig. 1: 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.

3.4 Feedback

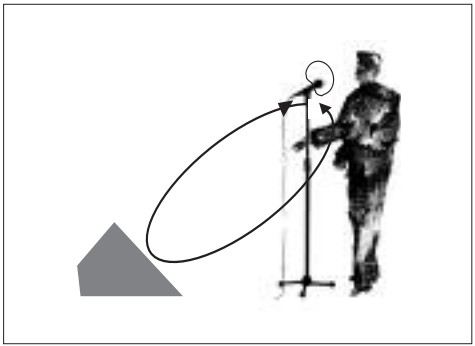


Fig. 2: Microphone placement for maximum gain before feedback.

The term “feedback” means that part of the sound projected by a speaker is picked up by a microphone, fed back to the amplifier, and projected again by the speaker. Above a specific volume or "system gain" setting the sound system will start howling and the sound engineer will 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. It 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 maximize 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 a monitor or FOH speaker. Refer to fig. 2.

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

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. 3: Two vocalists sharing a microphone.

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

3.6 Installing the PB 1000

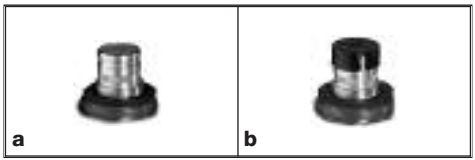


Fig. 4: Microphone capsule without (a) and with (b) PB 1000.

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.

Important!

- **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.**

4.1 Microphone Body

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

4.2 Internal Windscreen

1. Unscrew the front grill from the microphone CCW.
2. Remove the windscreen from the from 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.

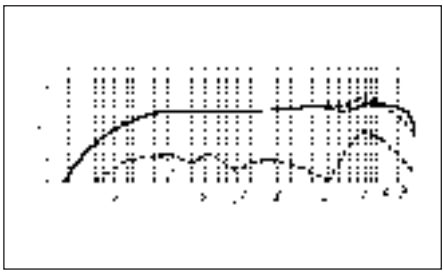
5 Troubleshooting

Problem	Possible Cause	Remedy
No sound.	1. Power to mixer and/or amplifier is off. 2. Channel or master fader on mixer, or volume control on amplifier is at zero. 3. Microphone is not connected to mixer or amplifier. 4. Cable connectors are seated loosely. 5. Cable is defective. 6. No supply voltage.	1. Switch power to mixer or amplifier on. 2. Set channel or master fader on mixer or volume control on amplifier to desired level. 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. Check cable and replace if necessary.
Distortion.	1. Gain control on mixer or transmitter module not set correctly. 2. Mixer input sensitivity too high.	1. Set gain control to stop distortion. 2. Insert 10 dB preattenuation pad between microphone cable and input.
Microphone sound becomes duller by and by.	• Internal or external windscreen attenuates high frequencies when soiled.	• Clean internal or external windscreen.

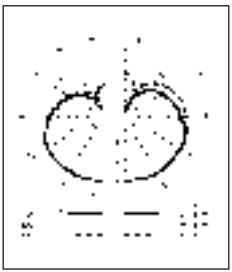
Polar pattern:	cardioid
Frequency range:	65 Hz to 20 kHz
Sensitivity:	4 mV/Pa (-48 dBV re 1 V/Pa)
Max. SPL for 1% / 3% THD:	140 / 145 dB SPL
Equivalent noise level:	25 dB(A) to DIN 45412
Impedance:	≤ 200 ohms
Re commended load impedance:	≥ 2000 ohms
Connector:	3-pin XLR
Finish:	matte gray-blue
Size:	length: 185.2 mm (7.3 in.); diameter: 51 mm (2 in.)
Net weight:	345 g (12.2 oz.)
Shipping weight:	660 g (1.5 lbs.)
Patents:	electrode backing for a condenser transducer (patents nos. AT 392.182, DE 4.021.661)

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.

Frequency Response



Polar Diagram



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