

PERCEPTION 170

User Instructions p. 2

Please read the manual before using the equipment!

Mode d'emploi p. 14

Veuillez lire cette notice avant d'utiliser le système!





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1 Safety and Environment/ Unpacking

1.1 Safety and Environment

- 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.
- When scrapping the equipment, remove the batteries, separate the case, circuit boards, and cables, and dispose of all components in accordance with local waste disposal rules.
- 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.

1.2 Unpacking

Check that the packaging contains all of the items listed below:

- Microphone
- Stand adapter
- Mini poster

Should any item be missing, please contact your AKG dealer.



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** and keep the Manual for future reference. Have fun and impress your audience!

The PERCEPTION 170 is a heavy-duty, rugged true condenser microphone built to the same strict quality standards as all other AKG products.

Designed on the basis of AKG's decades of know-how and feedback from sound engineers around the world using AKG studio microphones every day, this general-purpose small-diaphragm microphone brings AKG studio quality to the worlds of recording, live sound, and broadcasting.



2.2 Features

- **Cardioid polar pattern:** The microphone is most sensitive to sounds arriving from in front of it while picking up much less of sounds arriving from the sides or rear (from monitor speakers or neighboring instruments). This makes the microphone equally suited for recording and onstage use.
- **Gold-sputtered diaphragm:** The diaphragm is made of a plastic foil that is gold-sputtered on one side only to prevent shorting to the back electrode even at extremely high sound pressure levels.
- **All-metal body:** The all-metal body adds to the rejection of RF interference so you can use the microphone near transmitter stations and along with wireless microphones or other communications equipment. The extremely rugged, heavy body and sturdy front grill protect the microphone from damage from tough handling on stage.

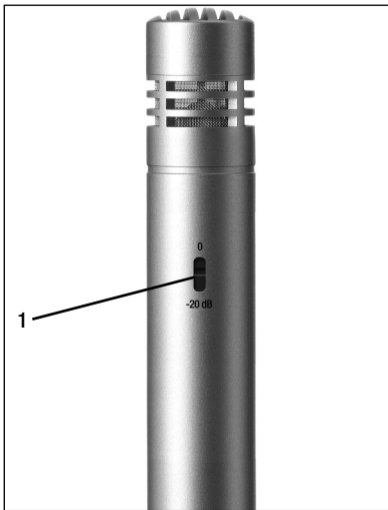


Fig. 1: Preattenuation switch (1) on microphone rear.

- **High headroom, minimum distortion:** Capable of handling sound pressure levels up to 155 dB without introducing perceptible distortion and built to resist high temperatures and humidity, the microphone will give excellent results in a wide range of applications.
- **Switchable preattenuation pad:** The preattenuation switch (1) on the microphone rear (refer to fig. 1) lets you increase the headroom by 20 dB for distortion-free close-in recording. The preattenuation pad prevents the microphone's output level, particularly at low frequencies, from overloading the miniature transformers used in many mixer input stages, etc.

2.3 Optional Accessories

- **PF 80** studio pop screen
- **ST 305** floor stand



3 Interfacing

3.1 General

The microphone uses a true condenser transducer designed for 48-volt phantom powering to IEC 61938. Neither the diaphragm nor the backplate are permanently polarized, so the microphone needs an external power supply.

3.2 Pinout

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

Pin 1: ground

Pin 2: hot

Pin 3: cold

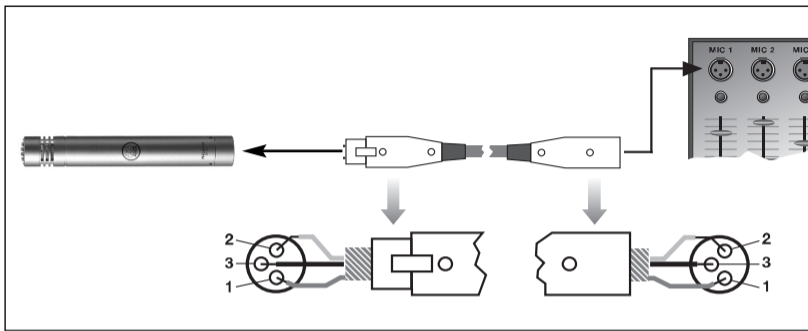


Fig. 2: Connecting to a balanced input with phantom power.

3.3 Connecting the Microphone

Refer to fig. 2 above.

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 user manual of the unit to which you connected your microphone.)



4 Using Your Microphone

The PERCEPTION 170 is a general-purpose cardioid microphone for recording, broadcast, and onstage use.

Every instrument radiates its sound in a specific way. Therefore, to get the best sound it is crucial to experiment with microphone placement.

- When recording wind instruments or vocals, make sure **not to blow or sing directly into the microphone**.
- To avoid unwanted wind and pop noise or moisture problems, place an optional **PF 80 pop screen** from AKG between the microphone and vocalist/instrument.
- **Keep the microphone dry.** Moisture from blowing or singing directly at the capsule from a short distance, or extremely high humidity

may cause the microphone to start crackling or go very quiet due to partial shorting of the polarization voltage.

- **High volume instruments:** You can use this microphone for close-in recording of very loud instruments (brass instruments, kick drum, etc.).
Use a pen or similar pointed object to set the preattenuation switch to the “-20 dB” position. This switches the preattenuation pad in, enabling the microphone to handle sound pressure levels up to 155 dB.
- **Low-frequency noise:** To suppress low-frequency noise such as air conditioning rumble, footfall noise, or traffic sounds, check whether your mixer provides highpass filters on the microphone channels. If it does, switch the appropriate highpass filter in.



5 Cleaning

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



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. 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"> 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.	<ol style="list-style-type: none"> 1. Channel gain control on mixer set too high. 2. Microphone too close to sound source. 3. Microphone sensitivity set too high. 	<ol style="list-style-type: none"> 1. Turn gain control down CCW. 2. Move microphone further away from sound source. 3. Switch preattenuation pad in.
Crackling noises or low output.	<ul style="list-style-type: none"> • Partial short-circuits due to excessive humidity. 	<ul style="list-style-type: none"> • Place microphone in warm, dry room and allow to dry.



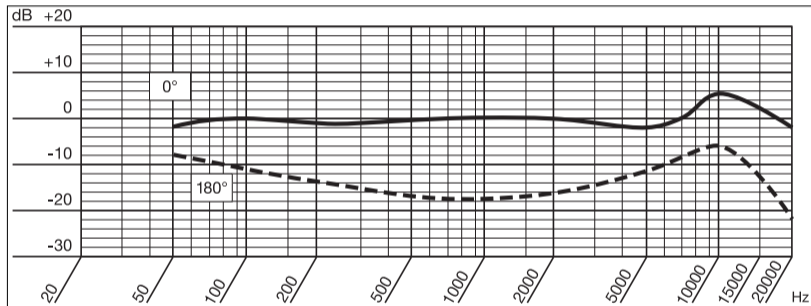


7 Specifications

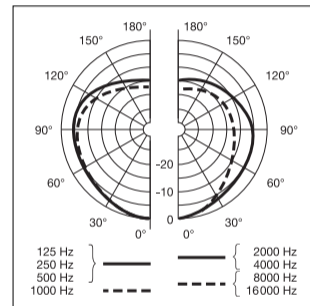
Type:	0.5-inch diaphragm, externally polarized condenser microphone
Polar pattern:	cardioid
Frequency range:	20 Hz to 20 kHz (see frequency response graph)
Sensitivity:	12 mV/Pa (-38.5 dBV \pm 3 dB)
Max. SPL for 0.5% THD:	135 / 155 dB SPL (0 / -20 dB)
Equivalent noise level to CCIR 468-2:	< 32 dB
Equivalent noise level to IEC 60268-4:	< 21 dB-A
Signal/noise ratio (A-weighted):	73 dB (re 1 Pa)
Preamplification pad:	-20 dB (switchable)
Impedance:	\leq 200 ohms
Recommended load impedance:	\geq 1000 ohms

Supply voltage:	48 V \pm 4 V phantom power to IEC 61938
Current consumption:	\leq 2 mA
Environment:	temperature: -14°F to 140°F humidity: 80% (@ 77°F)
Connector:	3-pin XLR (pin 2 hot)
Dimensions:	22 dia. x 160 mm high (0.9 x 6.3 in.)
Net weight:	130 g / 0.29 lbs.

Frequency Response



Polar Diagram





English

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

Deutsch

Dieses Produkt entspricht den in der Konformitätserklärung angegebenen Normen. Sie können die Konformitätserklärung auf <http://www.akg.com> oder per E-Mail an sales@akg.com anfordern.

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