



H A Harman International Company

C 4000 B

Condenser Microphone

Description

The C 4000 B was engineered from the ground up to take advantage of developments in low noise surface mount circuitry and electret technology to produce a microphone with an astounding dynamic range of 137 dB. The microphone's noise floor is a low value of 8 dB-A, and it reaches a reference value of 0.5% THD at a level of 145 dB.

The capsule assembly has been internally shock mounted, and the grid/screen structure is 0.2 inch (3 mm) thick to reduce wind and breath "pops" with minimal effect on high frequency performance. The diaphragm assembly is the industry's first back plate electret dual 1 inch (25 mm) diameter design, and it reflects recent developments in electret technology that assure both long-term stability and very high equivalent dc voltage biasing.

The C 4000 B reflects AKG's customary attention to subtleties of frequency response: the transformerless output gives rock solid low frequency performance, and the 6 micron thick gold-sputtered diaphragms provide extended high frequency performance. Switchable 10-dB padding extends the operating range even more, and a 12-dB/octave low cut at 100 Hz removes rumble or excessive proximity effect.

While the C 4000 B is primarily intended for studio use, it will be equally at home in broadcast operations or on stage for vocal applications of the highest quality. Polar patterns are omnidirectional, cardioid, and hypercardioid.

Specifications

Transducer type:	Dual diaphragm, 1 in. (25 mm) diameter pressure gradient
Diaphragm material:	Gold-sputtered mylar foil
Frequency response:	20 Hz - 20 kHz
Polar patterns :	Omnidirectional, cardioid and hypercardioid
Impedance:	Less than 200 ohms
Recommended load impedance:	Greater than 1000 ohms
Output connector:	XLR (pin 2 positive, per IEC standard)
Sensitivity at 1 kHz:	25 mV/Pa; -32 dB (dB re 1 V/Pa)
Equivalent noise level (A-weighted):	8 dB (DIN 45412)
Sound pressure level for 0.5% THD (0/-10 dB):	145/155 dB SPL (350/1000 Pa)
Dynamic Range:	137 dB
S/N ratio re 1 Pa (A-weighted):	86 dB
Environment:	
Temperature:	14° F to 140° F (-10° C to +60° C)
Relative humidity:	90% (-20° C), 85% (+60° C)
Pre-attenuation switch:	-10 dB
Low frequency roll-off:	12 dB/octave below 100 Hz
Power requirement:	9 to 52 V phantom power
Current consumption:	less than 2 mA
Microphone size:	2.2 in. (58 mm dia), 7.2 in. long (183 mm)
Microphone net weight:	16 oz. (0.45 kg)
Standard accessories:	H 100 Elastic suspension W 4000 Foam windscreen



Features

- Noise floor of 8 dB(A) and maximum level capability of 145 dB
- Uses the first 1-inch dual diaphragm electret capsule in the industry
- Three selectable polar patterns (omni, cardioid and hypercardioid)
- Operates with phantom powering from 9-52 volts
- Integrated wind and pop screen, plus internal shock mounting, for lowest environmental noise performance

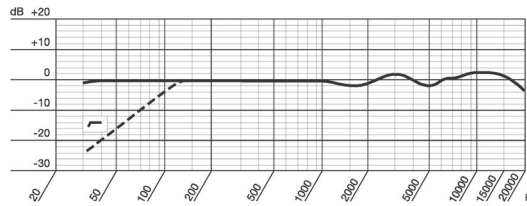
Architects and Engineers Specifications

The microphone shall be a condenser type with dual diaphragm construction and switchable omnidirectional, cardioid and hypercardioid polar patterns. The diaphragm material shall be gold-sputtered mylar foil, and the on-axis sensitivity shall be uniform for all patterns, and no less than 25 mV/Pa. The inherent noise floor of the microphone shall be no greater than 8 dB (A-weighted), and the operating sound field for 0.5% THD shall be

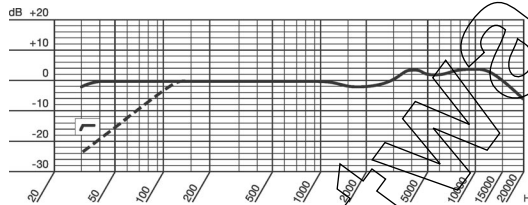
no less than 145 dB and the microphone size shall be no greater than 2.2 inches in diameter and 7.20 inches in length, and the microphone weight shall be no greater than 14.5 ounces. A spider suspension shock mount (H 100) shall be included as a standard accessory. The microphone shall operate over the entire range of phantom powering from 9 to 52 volts. The microphone shall be the AKG Acoustics Model C 4000 B.

Graphical Data

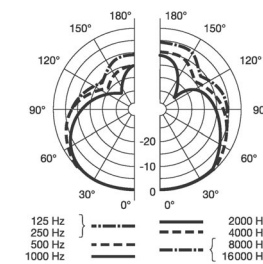
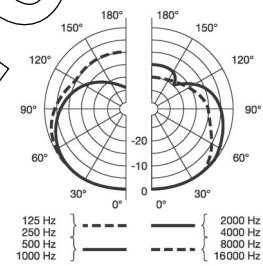
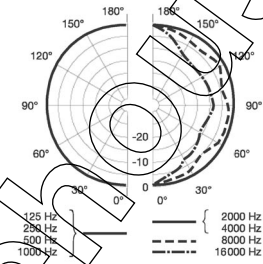
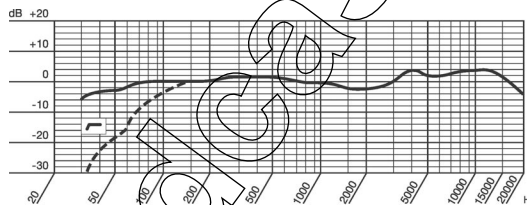
Omnidirectional



Cardioid



Hypercardioid



AKG is constantly improving and modifying its products, therefore, specifications are subject to change without notice.

Limited Warranty

Valid only in the United States. AKG Acoustics warrants AKG products against defects in material or workmanship for a period of three years from the date of original purchase for use, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. Important: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center. No responsibility is assumed for any

special, incidental or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law. Simply take or ship your AKG product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) Note: No other warranty, written or oral is authorized by AKG Acoustics, Inc. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above exclusions and limitation may not apply to you.

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DS-C 4000 B