

C-535EB PRE-POLARIZED CONDENSER CARDIOID MICROPHONE

The new AKG C-535EB is unique in the field: it combines AKG's excellence in sound quality with a new level of durability . . . in short, it has done for condenser microphones what the D-300's have done for dynamic microphones.

The sound of the C-535EB is crystal clear and open, with a slightly rising high-frequency response to bring out the character of voices and instruments. Its cardioid polar pattern is quite uniform at all frequencies to avoid feedback and coloration of off-axis sound.

The transducer system is a permanently-charged condenser and is field replaceable by competent maintenance technicians. The housing is exceedingly durable, made of die-cast zinc. The complete transducer is shock suspended and is enclosed in a black stainless-steel windscreen.

Perhaps the most unique feature of the AKG C-535EB is its *output level/bass rolloff* switch. Many condenser microphones (including the C-450 series, C-414EB, C-422, etc.) make use of attenuators placed between the transducer and the preamplifier input to reduce the electrical input to the preamplifier when very high sound pressure levels are being picked-up. This prevents distortion due to microphone preamplifier overload, and is very useful where extremely close mic'ing of instruments is a common practice. In the field, (where the C-535EB is primarily intended to be used) *mixer* input overload is a far more common problem, as many mixer input circuits and transformers are not capable of withstanding the high electrical output levels of condenser microphones. If the traditional microphone input attenuator is used to resolve this problem, (reducing the mic's output level) a price is paid in the microphone's signal-to-noise ratio: the attenuator reduces the acoustical signal, but not the self-noise of the microphone preamplifier which follows the attenuator.

The C-535, on the other hand, actually reduces the total output level of *both* the signal and the mic's self noise, maintaining the signal-to-noise ratio.

Further, a flat response and *two* bass-rolloff curves are provided, linked to the output level settings:

- in each output level: flat response



- in "full" output level: sharp cutoff.
- in "reduced" output level: gradual rolloff

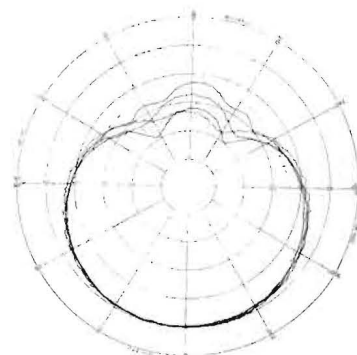
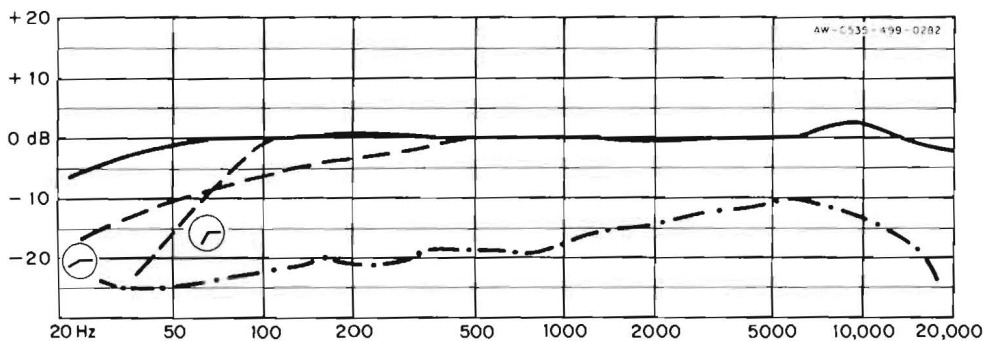
The logic behind these pairings is that the "reduced" output level will most likely be needed for instrument mic'ing. Therefore a "proximity-effect cancelling" gradual rolloff would be needed. The "full" output level will be used for vocals, where a sharp cutoff is necessary to reduce handling noise and popping while maintaining proximity effect for the desired "full bodied" sound.

The "full output" level of the C-535EB is -42 dBm, typical of studio condenser microphones; while the "reduced" output level is -56 dBm, typical of most handheld dynamic microphones.

Maximum sound pressure level capability of the C-535EB is as good as many expensive studio condenser microphones; 130 dB SPL in "full output" mode, and 144 dB SPL in "reduced output" mode.

The C-535EB requires phantom powering in the 9-52 volt range (from mixer, tape recorder, or any AKG accessory AC or battery power supply), eliminating the risk of damage from exhausted internal batteries and the effects of Murphy's Law (the batteries only die on Sunday night when every store is closed).

Applications for the C-535EB range from a "First Class" live-performance vocal and instrumental mic to studio applications, as an excellent announcer/DJ mic, as a podium mic or a choir pick-up.



TECHNICAL DATA

Transducer Type: Pre-polarized Condenser

Directional Characteristic: Cardioid

Frequency Range: 20-20,000 Hz

Nominal Impedance at 1 kHz: ≤ 200 ohms

Rated-Impedance Category: 200 ohms

Recommended Load Impedance: ≥ 500 ohms

Sensitivity at 1 kHz (zero attenuation):

Open circuit: 7 mV/Pa; -43.1 dBV*

Maximum power level: -42 dBm (re: 1mW/10 dynes/cm²)

EIA G_m: -135 dBm

Tolerance: ± 3 dB

Sound Pressure Level for 1% THD (1000 Hz):

Zero attenuation: 130 dB

-14 dB attenuation: 144 dB

Typical Self-Noise (zero attenuation):

CCITT-C wtd: 1.8 μ V

Equiv. SPL: 21 dB

Hum Sensitivity (1 mG field): -139 dBm

DC Phantom-Power Requirements: 9-52 v, ≈ 1 mA

Case Material: Satin black die-cast zinc alloy

Control Facilities: See text

Net Weight: 300 g (≈ 11 oz)

Included Accessories:

SA-31 flex. snap-in stand adapter with 5/8-in. -27 thread

Foam-lined vinyl case

Optional Accessories:

B-1E, N-62E/ET, N66-E power supplies

SA-26 clothespin stand adapter with 5/8-in. -27 thread

PF-10 foam pop filter (red, blue, yellow, off-white, gray)

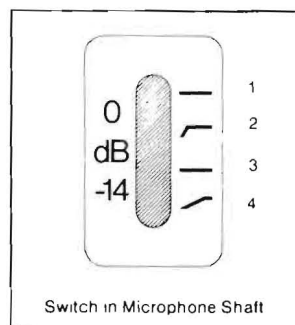
GN-7E, GN-20E modular flexible-gooseneck kits

KM-series floor and boom stands, stand accessories

ST-series table stands

MCH-series heavy-duty microphone cable assemblies

*1 Pa (Pascal) = 10 μ b = 10 dynes/cm² ≈ 94 dB SPL



- 1 Full sensitivity, full frequency response
- 2 Full sensitivity, 12 dB/octave cut-off below 100 Hz
- 3 -14 dB sensitivity, full frequency response
- 4 -14 dB sensitivity, 6 dB/octave roll-off with below 500 Hz



AKG ACOUSTICS, INC.

A NORTH AMERICAN PHILIPS COMPANY

77 Selleck Street, Stamford, CT 06902 • (203) 348-2121

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