



DESCRIPTION

The AKG D-510B is a high-quality wide-range speech microphone that exhibits natural, unchanging tonal balance at virtually all working angles and distances. It has been expressly designed for use in quiet working environments (i.e., those with low ambient noise and reverberation coupled with high isolation from loudspeaker sound fields or other potential sources of acoustic feedback). A compact and unobtrusive microphone mounted on a flexible gooseneck shaft, the D-510B is recommended for radio, TV, and dialog-recording/looping studios; acoustically treated control rooms and radio-communications centers; acoustically isolated paging, public-address, and interpreters' booths; or the like.

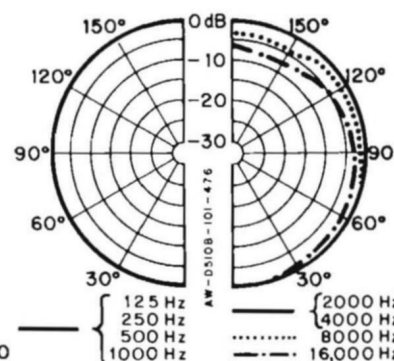
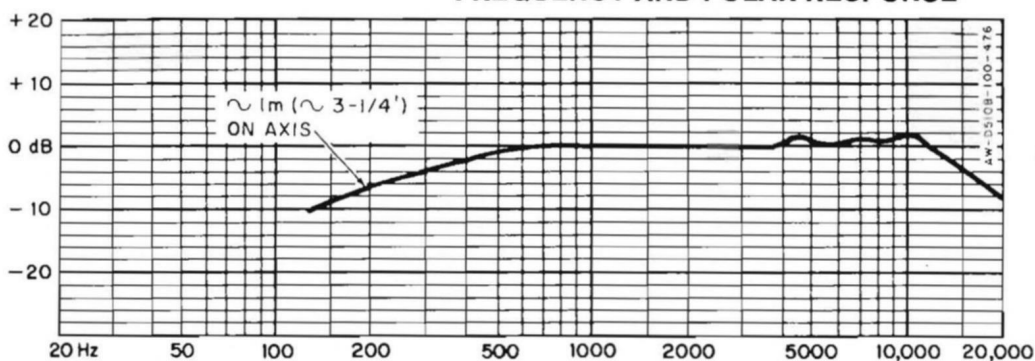
By combining linear speech-tailored frequency response with inherently low distortion (even at high sound-pressure levels), the D-510B offers "open," natural reproduction of the speaking voice — without harshness, popping, unnatural bass emphasis, or loss of desired sibilants. Moreover, the microphone's highly uniform omnidirectional pattern enables it to retain this natural quality regardless of the relative position, distance, or number of persons speaking into it.

The integral gooseneck shaft provides easily adjustable — and completely noise-free — means for positioning the microphone to suit both the personal convenience of the user and the acoustical requirements of the working environment. A rugged brass case and wire-mesh grille effectively encapsulate the microphone's transducer element against metal particles and dust. The D-510B operates satisfactorily over a wide range of temperatures and withstands moderately high humidity levels.



A low-impedance balanced-output unit, the D-510B is supplied complete with a 1.15 m ($\approx 3\text{--}3/4$ ft) non-detachable 2-conductor shielded cable having stripped and tinned leads at its free end. Also included is a kit of basic mounting hardware. As illustrated overleaf, this hardware may be used in various combinations to install the unit several ways — custom-mounted on virtually any flat surface (either flush with the surface or recessed), mounted on any microphone stand having a standard 5/8-in. -27 male thread, or used in conjunction with the optional AKG ST-series table stands. (Several other optional mounting accessories — listed in the Technical Data section — are available.) Depending on how the microphone is installed, the shielded cable may be routed either through the slot on the *side* of the shaft boss, or through the *bottom* of the boss and then through the hollow-center mounting bolt supplied.

FREQUENCY AND POLAR RESPONSE



TECHNICAL DATA

Transducer Type: Dynamic

Directional Characteristic: Omnidirectional

Frequency Range: 125-20,000 Hz

Nominal Impedance: 200 ohms

Recommended Load Impedance: ≥ 500 ohms

Sensitivity at 1 kHz:

Open circuit: 0.11 mV/ μ b; -79.2 dBV

Maximum power level: -58 dBm (re: 1 mW/10 dynes/cm²)

EIA G_m : -151 dBm

Tolerance: ± 1.5 dB

Sound Pressure Level for 1% THD:

40 Hz: 128 dB

1000 Hz: 128 dB

Hum Sensitivity: -132 dBm (1 mG field)

Temperature Range: -10°C ($\approx +14^\circ$ F) to +60°C ($\approx +140^\circ$ F)

Maximum Relative Humidity: 80%

Microphone-Case, Shaft-Boss Material: Nickel-plated brass

Flexible-Gooseneck Shaft Material: Nickel-plated steel

Dimensions: See Dimensions figure overleaf

Schematic: See Schematic figure overleaf

Net Weight: 325 g ($\approx 11\text{--}1/2$ oz) w/cable and mounting hardware

Included Accessories:

1.15 m ($\approx 3\text{--}3/4$ ft) non-detachable 2-cond shielded cable

Mounting hardware

Optional Accessories:

KM-221C flange adapter

KM-237 clamp adapter

KM-238 clamp adapter

ST-4A table stand

ST-41 table stand w/DPDT pushbutton and pilot lamp

ST-305 anti-shock table stand

W-20 foam windscreen

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a dynamic moving-coil type with a frequency range of 125-20,000 Hz. It shall have an effective omnidirectional pattern maintained over the entire frequency range.

The microphone shall have a nominal impedance of 200 ohms. The output level shall be -58 dBm (re: 1 mW/10 dynes/cm²), and the microphone shall be capable of handling a maximum sound-pressure level of 500 μ bar (128 dB SPL) at 1000 Hz with distortion not exceeding 1%. The EIA sensitivity rating (G_m) shall be -151 dBm.

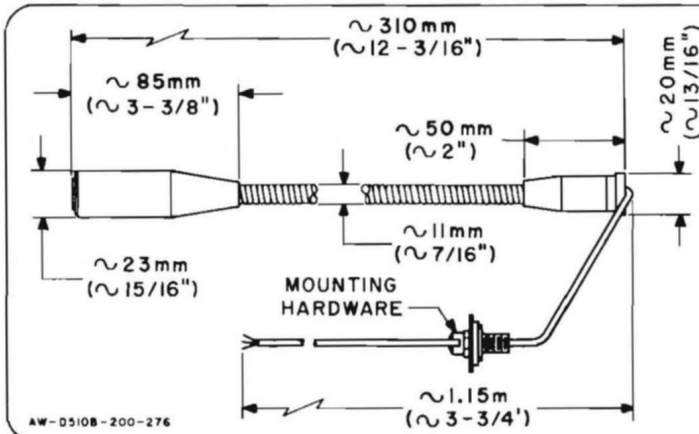
A wire-mesh screen, commensurate with the acoustical properties of the unit, shall protect the microphone system from metal particles and dust. The diaphragm material shall be nonmetallic MAKROFOL. The microphone shall be capable of operating over a temperature range of -10°C ($\approx$ +14°F) to +60°C ($\approx$ +140°F), and at a maximum relative humidity of 80%.

The microphone assembly shall incorporate a flexible-gooseneck shaft and a shaft boss having a standard 5/8-in. -27 inside thread. The

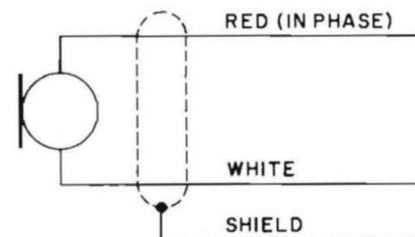
gooseneck shall not introduce electrical noise into the system during adjustment. A 1.15 m ($\approx$ 3-3/4 ft) non-detachable 2-conductor shielded cable, having stripped and tinned leads at its free end, shall be provided. Sufficient hardware and thread adapters shall also be provided for mounting the shaft boss on a flat surface (either flush with the surface or recessed), on any microphone stand having a standard 5/8-in. -27 male thread, or on a number of AKG accessory flange adapters, clamp adapters, and table stands. The finish of the microphone, gooseneck shaft, and shaft boss shall be matte nickel and shall not create specular light reflections.

The microphone assembly shall be 310 mm ($\approx$ 12-3/16 in.) long overall, including microphone housing, gooseneck shaft, and shaft boss. The microphone housing shall be 85 mm ($\approx$ 3-3/8 in.) long by 23 mm ($\approx$ 15/16 in.) in largest diameter. The gooseneck shaft shall be 11 mm ($\approx$ 7/16 in.) in diameter. The shaft boss shall be 50 mm ($\approx$ 2 in.) long by 20 mm ($\approx$ 13/16 in.) in largest diameter. The net weight shall not exceed 325 g ($\approx$ 11-1/2 oz) including cable and mounting hardware. The microphone herein specified shall be the AKG D-510B.

DIMENSIONS



SCHEMATIC



Positive pressure on diaphragm produces positive voltage on "in phase" lead.

SUGGESTED INSTALLATIONS

FLUSH-MOUNTED ON A FLAT SURFACE LOCKING DEVICE APPLY ADHESIVE IF DESIRED ~10 mm (~3/8") ~10 mm (~3/8") ~10 mm (~3/8") ROUTE CABLE THRU BOTTOM OF SHAFT BOSS & THRU HOLLOW-CENTER BOLT. AW-D510B, 558B, 590-201-476	RECESS-MOUNTED ON A FLAT SURFACE ~21 mm (~13/16") ~10 mm (~3/8") ~10 mm (~3/8") ROUTE CABLE THRU BOTTOM OF SHAFT BOSS & THRU HOLLOW-CENTER BOLT.	MOUNTED ON A MICROPHONE STAND ROUTE CABLE THRU SLOT ON SIDE OF SHAFT BOSS. REMOVE BRASS THRD ADAPTER INSIDE SHAFT BOSS. STANDARD 5/8"-27 THREAD	MTD. ON AKG ST-4A OR ST-41 TABLE STAND ROUTE CABLE THRU SLOT ON SIDE OF SHAFT BOSS IF USING SOLID BOLT, SUPPLIED WITH STAND. LOCKING DEVICE NOTE: TO ROUTE CABLE THRU BOTTOM OF SHAFT BOSS & OUT THRU REAR OF STAND, USE HOLLOW-CENTER BOLT SUPPLIED WITH MICROPHONE & BREAK OUT TAB(S) AT REAR OF STAND.
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