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C-500 SYSTEM
MODULAR ELECTRET-CONDENSER
MICROPHONES

GENERAL DESCRIPTION

The AKG C-500 electret-condenser microphone system is a modular group of matched components that combines highquality performance and long-term reliability with flexibility and ease of expansion. These features make the system especially suitable for the small studio or production facility, and for the semiprofessional recordist. The system consists of five interchangeable CE-series capsules and a common, mating SE-5E powering module. To cover a wide range of applications, the capsules offer a choice of five different directional patterns and operational features - cardioid, omnidirectional, shock-mounted cardioid with integral windscreen, short-shotgun hypercardioid, and lavalier. For further versatility, the powering module may be operated either of two ways - self powered by its own battery or phantom powered by suitably equipped mixers or tape machines. All components in the system are available individually, while those most frequently requested are also packaged as part of three complete microphone combinations.

CE-SERIES CAPSULES

All five capsules in the series have several advanced features in common. The electret-condenser transducer element in each employs a specially embossed Teflon* diaphragm with a vacuum-deposited gold film. This process protects the element's elasticity and dimensional stability against the deteriorating effects of aging, excessive temperature and/or humidity, and other environmental conditions. Each capsule also incorporates a low-noise FET preamplifier. In all but one capsule, the FET is a discrete device; the exception — the CE-10 — uses an integrated-circuit FET instead. The sensitivity, frequency-response, and polar-response characteristics of all production capsules are scrupulously controlled and checked to ensure a high degree of capsule-to-capsule uniformity. This is especially important for accurate and predictable results in stereo recording setups employing only two microphones.

CE-1: Cardioid electret-condenser capsule. For all general-purpose applications where a directional wide-range microphone is required. Screws directly onto SE-5E powering module.

CE-2: Omnidirectional electret-condenser capsule. For all general-purpose applications where a non-directional wide-range microphone with extremely flat and extended low-frequency response is required. Screws onto SE-5E powering module.

CE-5: Cardioid electret-condenser capsule with integral shock mount and windscreen. Ideal as a hand-held vocalist's microphone for contemporary-music recording sessions and concerts. Features an internally suspended transducer for relative insensitivity to handling noise, mechanical shocks, and spurious vibrations. A wire-mesh windscreen with polyurethane-foam lining minimizes the effects of breath "pop" and wind noise. Frequency response is tailored to compensate for proximity effect. Screws directly onto SE-5E powering module.

CE-8: Short-shotgun hypercardioid electret-condenser capsule. Especially useful for minimizing the effects of ambient noise or room reverberation when recording in-the-field interviews or motion-picture and videotape dialog tracks. Combines both pressure-gradient and interference-tube principles for greater



directionality and working distance than conventional cardioid types. Screws directly onto SE-5E powering module.

CE-10: Lavalier electret-condenser capsule. For all on-camera applications where an inconspicuous microphone is a must. Transducer element internally suspended to minimize handling, cable, and clothing noise. Design offers natural, extended low-frequency response, and smooth high-frequency response free of annoying sibilance peaks. Complete with adjustable tie clip, and 7 m ($\approx\!23$ ft) non-detachable shielded cable terminating in an adapter that screws onto SE-5E powering module.

SE-5E POWERING MODULE

This unit mates with any one of the CE-series capsules to constitute a complete microphone. It contains a compartment and on-off switch for a PX-23 5.6-volt mercury photographic battery, a DC regulating and filtering network, an audio output transformer, and a 3-pin XLR-type male connector. When battery powered, the unit can operate about 550 hours continuously or 1000 hours intermittently. When phantom powered from a 9- to 52-volt DC source (see bulletin on phantom powering), the module's on-off switch is bypassed, while its regulating-filtering network protects the microphone from reverse-voltage damage.

COMPLETE MICROPHONE COMBINATIONS

C-501E: Cardioid microphone. Consists of one each CE-1 cardioid capsule, SE-5E powering module, W-20 windscreen, SA-11/1 stand adapter, and 4.6 m (\approx 15 ft) cable. Packaged in a foam-lined vinyl case.

C-505E: Cardioid microphone with integral shock mount and windscreen. Consists of a CE-5 cardioid capsule, an SE-5E powering module, an SA-11/1 stand adapter, and a 4.6 m (\approx 15 ft) cable. Packaged in a foam-lined vinyl case.

C-510E: Lavalier microphone. Consists of a CE-10 lavalier capsule with non-detachable cable and adapter, and an SE-5E powering module. Packaged in a foam-lined vinyl case.