

CM-10/CM-10E Lavalier Mic

CM-10/CM-10E

The Crown® CM-10 is an omnidirectional electret condenser lavalier microphone of professional quality. It is appropriate for use in professional broadcasting and sound reinforcement applications. The CM-10 features a very smooth, wide-range frequency response for natural reproduction of the voice. The response rises at high frequencies to compensate for the mic being off-axis to the mouth, and rolls off below the voice range to reduce pickup of low-frequency noises. A rugged tie mount clips securely to the tie or shirt, and the capsule can be inserted for use on the left or right side. The cable exits from the side of the capsule and can be easily hidden.

The CM-10 mic is low impedance and is supplied with a tubular power module and requires phantom power. The CM-10E is medium impedance and is supplied without a connector so that it may be wired to the wireless transmitter of your choice. The unterminated cable is four feet long. Both models are black. The CM-10/10E is shown in Fig. 1 and the CM-10 electronics are shown in Fig. 2. The connector on the CM-10 is a standard male XLR with an eight foot cable.

To use the mic clip the it on a tie or clothing about eight inches (20 cm) below the chin. An optional dual clip is available from your dealer for redundant miking.

Operation

To use the CM-10 simply connect the mic to a 12 to 48 VDC phantom power supply.

To use the CM-10E with a wireless transmitter you must solder the mic cable to the connector that mates with your transmitter. The yellow lead goes to the transmitter high-Z audio-in. The black lead and shield go to transmitter ground. Install a 2.2 Kohm resistor between transmitter audio-in and B+. B+ should be 1.1 to 10 volts DC. For wiring information on specific transmitters you may request Technical Bulletin #3, Connections for Wireless Microphone Applications.

Warranty

Crown professional microphones are guaranteed unconditionally against malfunction from any cause for a period of three years from date of original purchase. If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor. If the unit fails to work, first check the mic cables and phantom

power supply. If the microphone seems to be defective, return the microphone in its original packaging to Crown's Service Department at 57620 CR 105, Elkhart, IN 46517. For further assistance or technical support call 800-342-6939. If just the mic capsule or its cable seem to be defective, you might want to order a replacement from Crown's Parts Department. Phone 800-342-6939 and ask for the Parts Department. Order a CM-10 capsule/cable assembly, part no. M46398-0.

Specifications

- Element:** Electret condenser.
- Frequency response (typical):** CM-10: 60 Hz to 15 kHz (see Fig. 3). CM-10E: 20 Hz to 15 kHz.
- Polar pattern:** Omnidirectional. (See Fig. 4.)
- Impedance (CM-10):** 200 ohms, balanced. Recommended minimum load impedance 1000 ohms.
- Impedance (CM-10/E):** 1.6 Kohms. Recommended minimum load impedance 10 Kohms.
- Open-circuit sensitivity (CM-10):** 2.6 mV/Pa* (-51.5 dB re 1 V/Pa*).
- Open-circuit sensitivity (CM-10/E):** 7 mV/Pa* (-43 dB re 1 V/Pa*).
- Power sensitivity:** -50.5 dB re 1 mW/Pa*.
- Equivalent noise level:** 32 dB SPL typical (0 dB = .0002 dyne/cm²), A-weighted.
- S/N ratio:** 58 dB minimum at 94 dB SPL.
- Maximum SPL at 3% THD:** 120 dB SPL.
- Operating voltage:** CM-10: 12 to 48 VDC phantom power with positive voltage on pins 2 and 3 with respect to pin 1 of output connector. CM-10E: 1.1 to 10 VDC on yellow lead with respect to black lead and shield.
- Current drain:** CM-10: 2mA. CM-10E: 400µa.
- Materials:** Rugged plastic microphone housing and steel grille; steel power module.
- Finish:** Black.
- Weight (minus power module):** 0.4 oz (11.3 g).
- Weight (with tubular power module):** 2.2 oz (62.3g).
- Cable:** CM-10: 8 feet long, 2-conductor shielded. No other cable supplied; use 2-conductor shielded mic cable. CM-10E: 4 feet long, 2-conductor shielded.
- Dimensions:** See Fig. 1. Tubular power module is 4.6" long by .750" diameter.
- Included accessories:** WS-11 foam windscreen, CM-10 lavalier clip.
- Replacement parts:** WS-10 foam windscreen, part no. D 8536-1. CM-10 tie clip, part no. D 8608-8. Dual clip D8607-0. CM-10 capsule/cable assembly, part no. M46398-0.
- *1 pascal = 10 microbars = 10 dynes/cm² = 94 dB SPL.

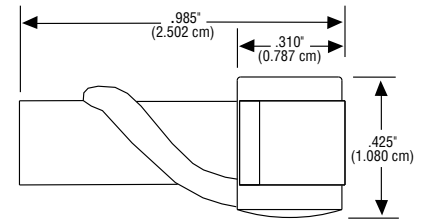


Fig. 1 CM-10/10E Capsule Lav View

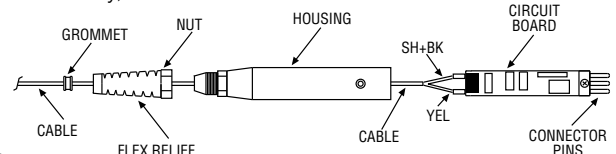


Fig. 2 CM-10 Electronics View

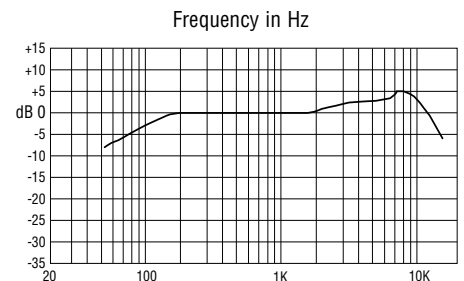


Fig. 3 Frequency Response

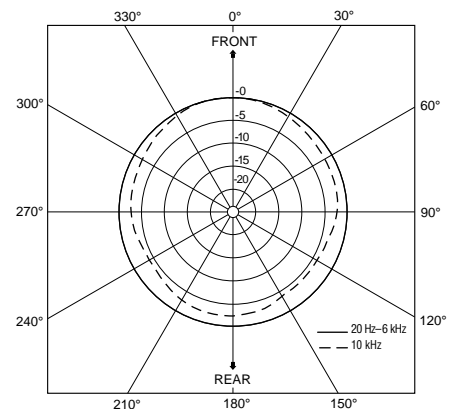


Fig. 4 Polar Response



Guaranteed Excellence

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