

CM-700

CARDIOID CONDENSER MICROPHONE



The Crown® CM-700 is a cardioid condenser microphone for pro or semi-pro recording and high-quality sound reinforcement. Rugged enough for the road, the CM-700 is well suited for acoustic instruments, drum overheads and studio vocals. It works equally well for popular music (multi-miking) or classical music (stereo and spot miking). Small and inconspicuous, the CM-700 is also a good choice for miking a lectern. The microphone is also available in stereo matched pairs as the CM700MP.

The CM-700 has a very smooth, wide-range frequency response which gives it a natural sound. It preserves the delicate timbre of acoustic instruments, yet it can reproduce all the power of a pipe organ. The off-axis response is also smooth, so any leakage picked up has little coloration.

Because of its cardioid pickup pattern, the CM-700 reduces background noise, room reverb and feedback. The cardioid pattern is uniform with frequency.

Self-noise is very low, permitting clean, noise-free recordings. The mic can handle extremely loud sounds without distortion. It is protected against static and RFI. The output is balanced, low impedance, which allows long cable runs without hum pickup or high-frequency loss. Powering is by 12-48V phantom power.

Several audiophile touches enhance the mic's pristine sound quality: an ultralight diaphragm, humbucking transformer, polycarbonate capacitors and a gold-plated 3-pin connector.

The CM-700 has a bass-tilt switch with three positions: flat, low-cut and rolloff. An included 2-stage foam pop filter softens breath pops and a foam windscreen reduces wind noise outdoors.

Operating Instructions

Plug the CM-700 into a phantom power supply or into a mic input that provides phantom power.

The bass-tilt switch in the handle has three positions:

Specifications

- Type:** Cardioid condenser.
- Transducer:** Back electret condenser.
- Frequency response (typical):** 30 Hz to 20,000 Hz (see Fig. 1).
- Polar pattern:** Cardioid (see Fig. 2).
- Impedance:** 190 ohms, balanced. Recommended minimum load impedance 1000 ohms.
- Open-circuit sensitivity:** 2.5 mV/Pa* (-52 dB re 1 V/Pa*).
- Power sensitivity:** -52 dB re 1 mW/Pa*.
- Equivalent noise level (self-noise):** 21 dB SPL typical A-weighted (0 dB=.0002 dyne/cm²).
- S/N ratio:** 73 dB at 94 dB SPL.
- Maximum SPL for 3% THD:** 151 dB with 48V phantom, 142 dB with 12V phantom.
- Polarity:** Positive pressure on the diaphragm produces a positive voltage on pin 2 with respect to pin 3 of the output connector.
- Output connector:** 3-pin male XLR-type connector.
- Switch:** Flat, low-cut and bass rolloff.
- Operating voltage:** Phantom power, 12 to 48 volts DC, positive voltage on pins 2 and 3 with respect to pin 1 of output connector.
- Current drain:** 3.2 mA.
- Materials:** Rugged steel housing and steel mesh grille.
- Finish:** Satin black.
- Dimensions:** See Fig. 3.
- Weight:** 4 oz. (113 grams).
- Cable:** None supplied. Use 2-conductor shielded mic cable.
- Included accessories:** Carrying pouch, WS-12 foam pop filter, WS-11 foam windscreen, ASA-4 swivel mount.
- Optional accessories:** Crown PH-4B phantom power supply (4 channels, AC powered). Crown PH-1A phantom power supply (1 channel, battery or AC powered). CM-SM isolation shock mount, CM-SB stereo bar.

Fig. 1

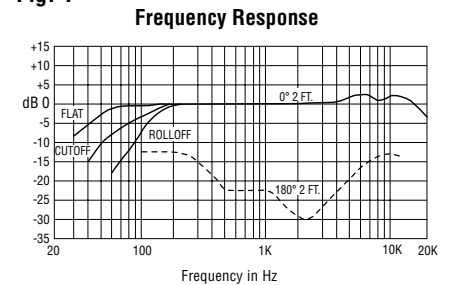
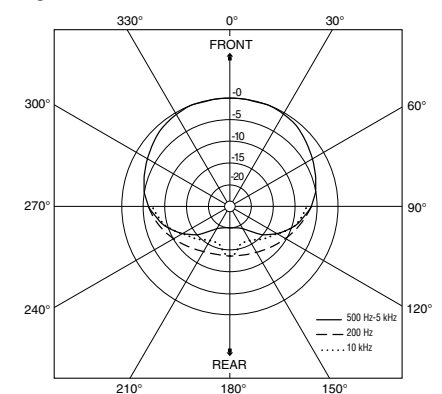


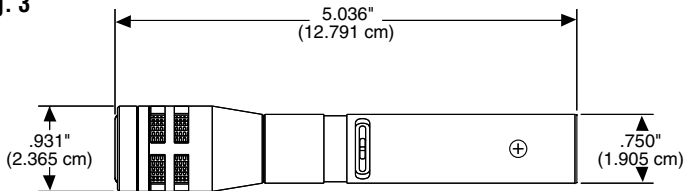
Fig. 2



*1 pascal = 10 microbars = 10 dynes/cm² = 94 dB SPL.

CM-700

Fig. 3



FLAT (—): For recording instruments with deep bass — pipe organ, bass drum, acoustic bass, orchestra.

LOW-CUT (—): For removing rumble from air conditioning and trucks and to reduce breath pops in vocal recordings.

ROLLOFF (—): For lectern use or close miking.

To use the CM-700 at a lectern, set the bass-tilt switch to ROLLOFF (—). Put on the 2-stage pop filter and mount the mic on a boom about 8 in. (20.32 cm) from the talker. Place the mic below the chin aiming toward the mouth.

Placement suggestions are in the Crown Microphone Application Guide, available free from Crown or your Crown dealer.

Architects' and Engineers' Specifications

The microphone shall be the Crown CM-700 or equivalent. It shall be a cardioid back electret condenser type powered by 12 to 48V phantom power. Frequency response shall be uniform from 30 Hz to 20,000 Hz. Open-circuit sensitivity shall be 2.5 mV/Pa. Maximum SPL for 3% THD shall be 151 dB with 48V phantom power. Self noise shall be 21 dB SPL A-weighted. Impedance shall be 190 ohms balanced. The microphone shall include a three-position bass-tilt switch: flat, low cut, or low-frequency rolloff. The Crown CM-700 is specified.

Warranty

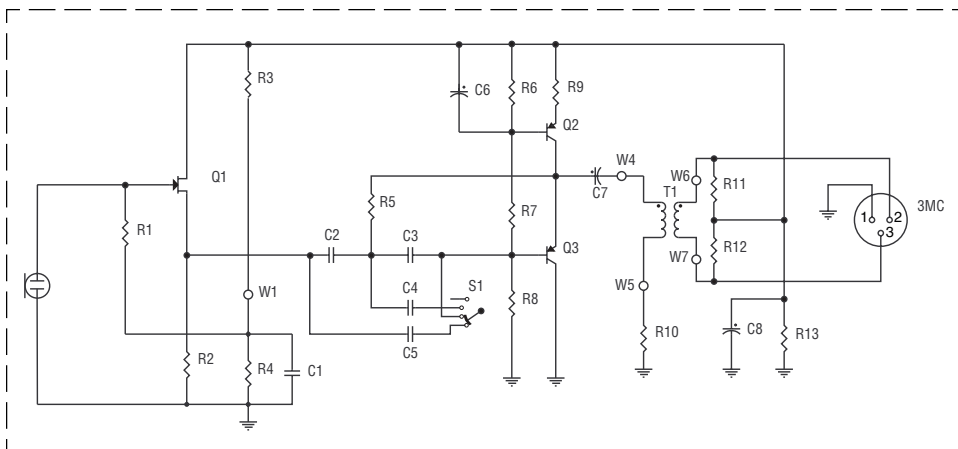
Crown professional microphones are guaranteed against malfunction for a period of three years from date of original purchase.

Please refer to the enclosed full warranty statement for more detail.

Service

If the microphone does not function properly, replace or repair mic cables, replace the battery or check the power supply.

If you determine the microphone product(s) is defective, return the complete product in its original packaging to: **Crown Service Department, Plant 2SW, 1718 W. Mishawaka Road, Elkhart, IN 46517.** For further assistance or technical support call **(800) 342-6939.**



CM-700 Schematic



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