

# PZM-185

The PZM®-185 is a Pressure Zone Microphone® for general-purpose use. Ideal for applications such as conferences, group discussions, interviews, broadcast, home video production, lectures, and recordings. The mic can be placed on a large surface such as a table, floor, wall, or lectern.

The PZM-185 is powered either by an internal AAA 1.5V battery or 12-48 volt phantom power. The boundary "paddle" can be detached so the mic will fit in your pocket. Attached to the mic is an 8-foot (2.438-m) cable leading to a tubular power module.

The microphone's low-profile design reduces "mic fright" and minimizes clutter. It is nearly invisible on camera. The PZM-185 minimizes pickup of vibration and handling noise.

Its electret condenser capsule provides a wide, smooth frequency response from 50 Hz to 16 kHz. The mic's hemispherical polar pattern allows clear pickup of everyone surrounding the microphone.

The PZM-185 is protected against static and RFI. The output is balanced, low impedance, which allows long cable runs without hum pickup or high-frequency loss.

Like other Pressure Zone Microphones, the PZM-185 uses a miniature mic capsule mounted very near a sound-reflecting plate or boundary in the Pressure Zone. In this zone, direct sound from the sound source combines in phase at all frequencies with reflected sound off the boundary. The benefits are many: 6 dB more sensitivity, 6 dB less noise, a wide smooth frequency response free of phase interference, excellent clarity and "reach," and consistent pickup anywhere around the microphone.

## Operating Instructions

You can power the PZM-185 either by 12-48 volt phantom power or battery power. To use phantom power, plug the mic connector into a phantom power supply or into a mic input that provides 12-48 volt phantom power.

To use battery power, open the cover (see Fig. 3) and insert a AAA 1.5V battery. Please note the correct orientation of the battery.

If you're using the microphone on a hard surface, such as a table top, the boundary "paddle" is not necessary. If you're using the mic on a carpet or other sound-absorbing surface, attach the boundary "paddle" for best results.

## PRESSURE ZONE MICROPHONE®



## Specifications

**Element:** Electret condenser.

**Frequency response (typical):** 50 Hz to 16 kHz (see Fig. 1).

**Polar pattern:** Hemispherical (half-omni) on a large surface.

**Impedance:** 150 ohms, balanced. Recommended load impedance 1000 ohms.

**Open circuit sensitivity (1.5V battery power):** 0.8mV/Pa (-62 dB re 1 volt/Pa\*).

**Power sensitivity (1.5V battery power):** -59.5 dBm. EIA sensitivity -154 dBm.

**Open-circuit sensitivity (phantom power):** 3.2 mV/Pa\* (-50 dB re 1V/Pa\*).

**Power sensitivity (phantom power):** -47.5 dBm. EIA sensitivity -142 dBm.

**Equivalent noise level (self-noise):** 21 dB SPL typical, A-weighted (0 dB = .0002 dyne/cm<sup>2</sup>).

**S/N ratio:** 73 dB at 94 dB SPL.

**Maximum SPL:** 120 dB SPL produces 3% distortion with phantom power.

**Polarity:** Positive pressure on the diaphragm produces positive voltage on pin 2 with respect to pin 3 of the output connector.

**Cable:** 8 foot (2.438m), 2-conductor shielded, permanently attached. No other cable supplied; use 2-conductor shielded mic cable.

**Output connector:** 3-pin XLR-type pro audio connector.

**Operating voltage:** One 1.5-volt size AAA alkaline battery (Duracell MN2400 or equivalent) or 12 to 48V phantom power (positive voltage on pins 2 and 3 with respect to pin 1).

**Battery life:** Approximately 45 days.

**Current drain:** 0.5 mA.

**Materials:** High-impact plastic housing and steel power module.

**Finish:** Satin black.

**Dimensions:** See Fig. 2.

**Weight:** 4 ounces (115 grams).

**Included accessories:** 1.5V AAA battery.

**Optional accessories:** Crown PH-4B phantom power supply (4 channels, AC powered). Crown PH-1A phantom power supply (1 channel, battery or AC powered).

\*1 pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL.

Fig. 1 Frequency Response

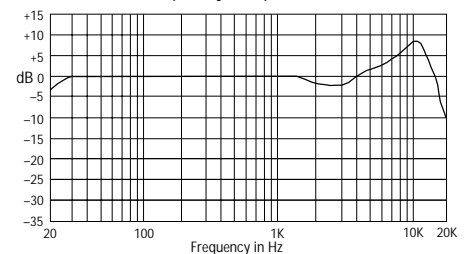
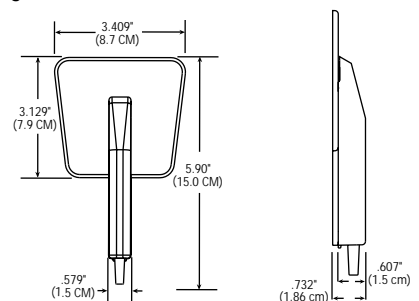
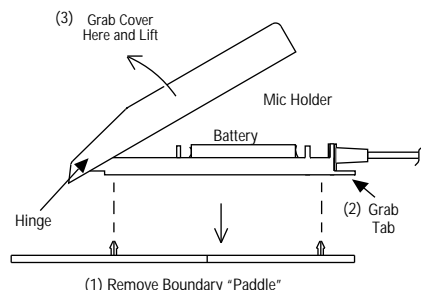


Fig. 2



# PZM-185

Fig. 3



## Suggestions for Use

Place the microphone near the sound source as described following:

**Conferences, group discussions, seated interviews**—Lay the microphone on the table. Use one microphone in the middle of every 4 to 6 people. Ideally, no person should be more than 3 feet (0.9144 m) from the nearest microphone. For maximum clarity, hold the conference in an acoustically "dead" room with carpeting, acoustic-tile ceiling, and drapes.

**Lectures**—Place the microphone on top of the lectern, near the edge of the lectern farthest from the person speaking.

**Video or movies**—Lay the microphone on a table or on the floor near the action.

**Music**—Place the microphone near the sound source, on the floor, on a wall, or on a large hard-surfaced panel. For grand piano, tape the microphone to the center of the underside of the raised lid.

For spaced-pair stereo recording, place two microphones three to ten feet (.914 to 3.05m) apart on a wall or on the floor about five to twenty feet (1.52 to 6.10m) from the musical ensemble. For near-coincident stereo recording, mount them on a microphone stand using a "stereo bar" or "stereo microphone adapter."

## Architects' and Engineers' Specifications

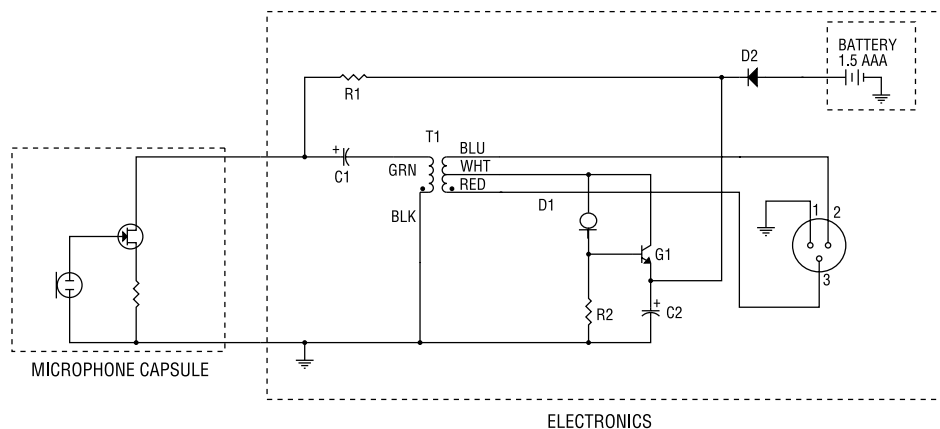
The microphone shall be a Crown PZM-185 or equivalent. It shall be a Pressure Zone Microphone powered by 12 to 48V phantom power or a AAA 1.5V battery. The microphone shall have a permanently attached cable leading to a power module with an XLR-type connector. An integral boundary paddle shall be removable. Frequency response shall be uniform from 50 Hz to 16,000 Hz. Open-circuit sensitivity shall be 3.2 mV/Pa with phantom power. Maximum SPL for 3% THD shall be 120 dB with 48V phantom power. Self-noise shall be 21 dB SPL A-weighted. Impedance shall be 150 ohms balanced. The Crown PZM-185 is specified.

## Warranty

Crown professional microphones are guaranteed unconditionally against malfunction from any cause 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 fails to work, replace or repair the mic cables, replace the battery or check the power supply. If service is required, return the microphone in its original packaging to: **Crown Factory Service, Plant 2 SW, 1718 West Mishawaka Road, Elkhart, IN 46517**. For further assistance or technical support call **800-342-6939**.



PZM-185 Schematic



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