

Music recordings
Houses of worship and conferencing
Theatre on stage recording
Broadcasting

- Hemispherical polar pattern
- Pressure Zone Microphone® design prevents coloration from surface sound reflections
- Switchable dual-frequency response offers a choice of flat response or rising high-frequency response
- PZM® -30D uses a rugged detachable cable.
- PZM® -6D is smaller, lighter, and has a permanently attached cable



PZM-6D

PZM-30D

The PZM®-30D and the PZM®-6D are Pressure Zone Microphones®. Both are designed for professional recording, sound reinforcement and broadcasting. They have many applications, from miking full orchestras or individual musical instruments to security or teleconferencing.

Each mic has a switchable dual frequency response: rising (R) or flat (F). The "rising" position adds brilliance. This makes it useful wherever a crisp attack is desired, such as on percussion, drums, or piano. The user can get a bright sound without boosting high frequencies on the recording console; the result is lower noise. The "flat" position provides a smooth, flat, high-frequency response for natural sound reproduction.

The PZM®-30D is sturdy and reliable because it can be used with a rugged detachable cable. The PZM®-6D has a smaller plate. Its low profile, unobtrusive appearance is appreciated in conference rooms, as well as on television, film and video productions. When suspended over an orchestra on a clear panel, the PZM®-6D practically disappears. Its miniature, permanently attached 4,6 m (15- ft.) cable also reduces visual clutter.

The output of either mic is a male 3-pin XLR-type, balanced and low impedance, which permits long cable runs without hum pickup or high-frequency loss.

Like other Pressure Zone Microphones, the PZM®-30D and PZM®-6D utilize the Pressure Recording Process in which a miniature condenser microphone capsule is positioned very close to a sound-reflecting plate or boundary. The capsule is mounted in the "Pressure Zone" just above the boundary, a region where sound coming directly from the sound source combines in phase with sound reflected off the boundary. The benefits are excellent clarity and "reach," a hemispherical polar pattern, uncolored off-axis response, and a wide smooth frequency response free of phase interference.



Operating Instructions

The PZM® -30D and PZM® -6D feature self-contained electronics which allows them to plug directly into a standard 12-48 VDC phantom power supply. Using a two-conductor shielded microphone cable, plug the microphone into a phantom power supply. Connect the power supply output to a mixer mic input, or if your mixer has phantom power built in, simply plug the PZM directly into a mixer mic input.

If your mixer or recorder requires an unbalanced phone plug connector, modify the cable leaving the power supply as follows: Solder the cable shield and the pin-3 lead to the phone-ground terminal. Solder the pin-2 lead to the phone plug "hot" or "tip" terminal.

Placement

PZMs® are designed to operate on any stiff non-absorbent boundary (or surface). Typical boundaries are a floor, wall, ceiling, or table. This type of mounting improves the low frequency response. The published response curve is measured on an "infinite" boundary such as a floor, ceiling or wall. The microphone's low-frequency response depends on the size of the boundary on which it is placed. Specifically, the response begins to shelve down at and below the frequency F , where $F = 750/D$ and $D =$ the boundary dimension in feet. At approximately $F = 188/D$, the output of the microphone is down 6 dB, becomes omnidirectional, and maintains a flat response down to approximately 30 Hz.

Architects' and Engineers' Specifications

PZM® -30D: The microphone shall be the PZM® -30D or equivalent.

The microphone shall have a hemispherical pattern (when used on an infinite boundary). The element shall be a subminiature electret type of rugged construction. A smooth frequency response from 20 Hz to 20 kHz shall be obtained. The response shall be switch-selectable between flat (F) or rising (R).

The microphone shall employ the patented PRP principle for maintaining phase coherency, thus eliminating comb filtering in the audible spectrum.

The PZM® -30D shall have a sensitivity of -43 dBV/Pa. The microphone shall accept 150 dB SPL input while contributing no greater than 3% THD (open circuit termination). Equivalent noise shall be typically 20 dBA re .0002 dyne/cm². The microphone color shall be black. The microphone connector shall be a male 3-pin XLR-type. The Crown PZM-30D is specified.

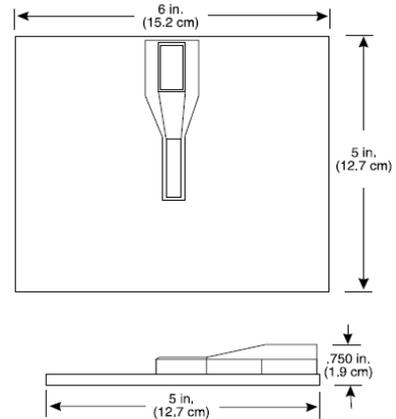
PZM® -6D: The microphone shall be the Crown PZM-6D or equivalent.

The microphone shall have a hemispherical pattern (when used on an infinite boundary). The element shall be a subminiature electret type of rugged construction. A smooth frequency response from 20 Hz to 20 kHz shall be obtained. The response shall be switch-selectable between flat (F) or rising (R).

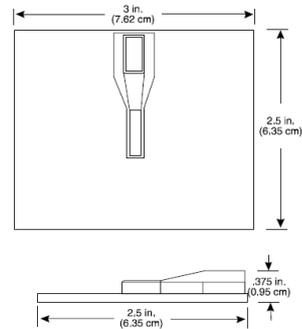
The microphone shall employ the patented PRP principle for maintaining phase coherency, thus eliminating comb filtering in the audible spectrum. Permanently attached to the microphone is a fifteen-foot black cable with an XLRM connector. The PZM® -6D shall have a sensitivity of -43 dBV/Pa. The microphone shall accept 150 dB SPL input while contributing no greater than 3% THD (open circuit termination). Equivalent noise shall be typically 20 dBA re .0002 dyne/cm². The microphone color shall be black. The microphone connector shall be a male 3-pin XLR-type.

The PZM® -6D is specified.

PZM-30D Dimensions



PZM-6D Dimensions

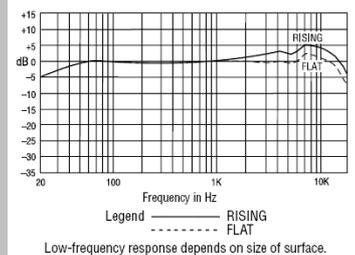


Specifications:

Polar pattern:	hemispherical	
Frequency response:	20 Hz to 20,000 Hz	
Impedance:	240 ohms	
Maximum SPL:	150 dB	
Finish:	black	
Cable:	PZM-30D: None supplied; use 2-conductor Shielded microphone cable. PZM-6D: Permanently attached 4.58-m (15-foot) black cable with XLRM connector. Model PZM-6D has a 1.83 m (6-foot) cable.	
Net weight:	184 grams (6.5 ounces)	

Item number:	PZM-6D	6000H50010
	PZM-30D	6000H50020

Fig. 1 Frequency Response



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