

SPECIFICATIONS

Type:
Pressure Zone Microphone®.

Transducer:
Electret condenser.

Frequency Response:
20Hz-15kHz (see Fig. 1).
Frequency response measured with the microphone on an infinite boundary to allow useful comparison with other Crown PZM® measurements. As with other Crown Pressure Zone Microphones, the response will vary when the microphone is moved from the boundary, or mounted on a boundary with different characteristics.

Polar Pattern:
Hemispherical when used on a floor, wall or ceiling.

Sensitivity:
Open-circuit voltage -65dB re 1 volt/microbar (-65dBV output for 74dB SPL input). Power level -45dB re 1mw/10 dynes/cm².
EIA sensitivity -137dBm.

Impedance:
150 ohms rated (240 ohms actual), balanced. Recommended minimum load impedance 1000 ohms.

Self-Noise:
20dB equivalent sound pressure level, A-weighted.

Maximum Sound Pressure Level:
150dB SPL at the microphone produces 3% THD.

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

Current drain:
1.1 mA.

Color:
Black (30RB) or Gold (30RG).

Cable:
None supplied; use 2-conductor shielded microphone cable.

Dimensions:
6" x 5" x .75" (15.2cm x 12.7cm x 1.9cm). See Fig. 2.

Fig. 1

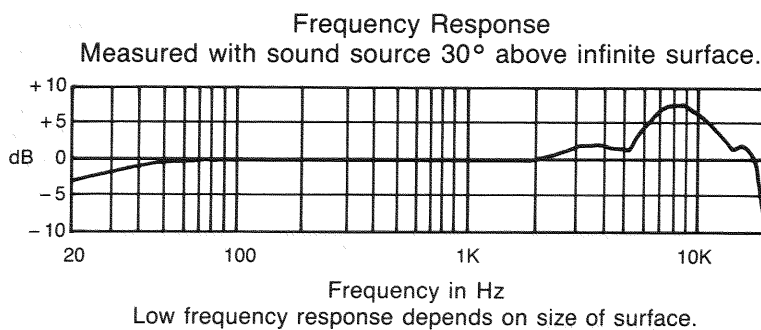
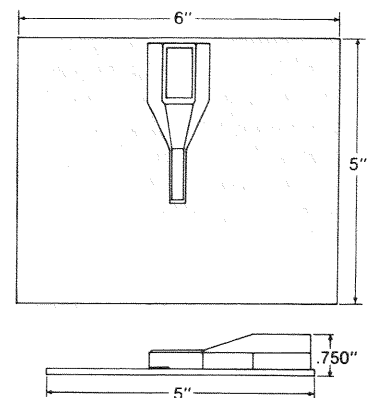


Fig. 2



DESCRIPTION & APPLICATIONS

The PZM®-30R is a Pressure Zone Microphone® designed for professional recording, sound reinforcement, and broadcasting. It has many applications from miking full orchestras to individual musical instruments.

Like its predecessor the 30GP, the 30R has a rising high-frequency response for 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.

This sturdy microphone is especially reliable because it can be used with a rugged detachable cable. The output is balanced, low impedance, which permits long cable runs without hum pickup or high-frequency loss.

Like other Pressure Zone Microphones, the 30R utilizes the Pressure Recording Process™ in which a miniature condenser microphone capsule is arranged very close to a sound-reflecting plate or boundary.

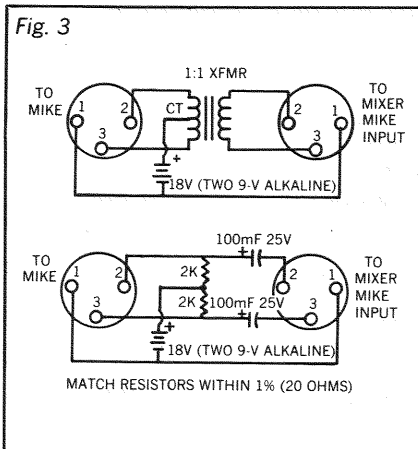
The capsule is mounted in the "Pressure Zone" just above the boundary, a region where sound source coming directly from the sound source combines in-phase with sound reflected off the boundary. The benefits are a wide, smooth frequency response free of phase interference; excellent clarity and "reach," a hemispherical polar pattern, and uncolored off-axis response.

OPERATING INSTRUCTIONS

Unlike previous PZMs, the 30R requires **no** interface between the

microphone and its power supply. Self-contained electronics in the microphone eliminate the need for an in-line interface. The 30R plugs directly into a phantom power supply providing 12 to 48 VDC.

Crown makes an AC-powered model PH-4 supply for powering up to four PZMs. Also available is a single-channel battery supply, Crown model PH-1. For special applications, you can make your own battery supply as suggested in Fig. 3.



Using 2-conductor shielded microphone cable, plug the microphone into a phantom power supply. Connect the power-supply output to a mixer mike input, or if your mixer has phantom power built in, simply plug the PZM directly into a mixer mike input.

If your mixer or recorder requires an unbalanced phone plug connector, solder the cable shield and the Pin-3 lead to the phone-plug ground terminal. Solder the Pin-2 lead to the phone-plug "hot" or "tip" terminal.

ACCESSORIES SUPPLIED

The 30R comes complete with:

- 1) PZM windscreen
- 2) Carrying pouch

PLACEMENT

The PZM-30R is 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 shelves down 6dB at and below the frequency F , where $F = 188/D$, and D = the boundary dimension in feet. Below F , the microphone is omnidirectional and maintains a flat response down to approximately 20Hz.

Several placement examples are described in the Crown microphone catalog which may be obtained from your dealer or by writing directly to Crown.

ARCHITECTS' & ENGINEERS' SPECIFICATIONS

The microphone shall be the Crown PZM-30R 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 20Hz to 20kHz shall be obtained, with a moderate rise at high frequencies for brilliance and articulation.

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

The microphone shall have a sensitivity of -65dBV/microbar. The microphone shall accept 150dB SPL input while contributing no greater than 3% THD (open circuit

termination). Equivalent noise shall be typically 20dBA re .0002 dyne/cm². The microphone shall be black or gold. The PZM-30R is specified.

WARRANTY

Crown professional microphones are warranted to meet or exceed all published specifications for three years from date of original purchase. If your microphone does not perform to specification within that time, Crown will repair or replace the unit at no cost to you. In addition, Crown will pay all U.S. round-trip shipping charges for the defective unit.

The warranty does not cover damage to other products resulting from Crown product failure and does not cover defects or damage caused by misuse, accident or the use of unauthorized modifications, parts, or service. Also excluded is the exterior finish.

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

Be sure to return the warranty registration yourself or through your dealer so your unit can be registered on our computer warranty file. Retain your copy of the bill of sale from your Crown dealer. This is your proof of purchase; it is also your proof of ownership should you need it for insurance or legal reasons.

SERVICE

If the microphone does not function properly, check that it is placed correctly and is connected as described in the Operating Instructions. If the microphone is defective, return the microphone in its original packaging to Crown's service department.

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