

Earthworks Model M30BX

¼ inch Battery-Powered Microphone

- Portable Battery-Powered Microphone
- Rugged Stainless Steel Construction
- Internal Battery and Preamp With Gain
- Omnidirectional Polar Pattern
- Frequency Range: 9 Hz to 30 kHz
- High Sensitivity: 40 mV/Pa
- Maximum Acoustic Input: 140 dB-SPL

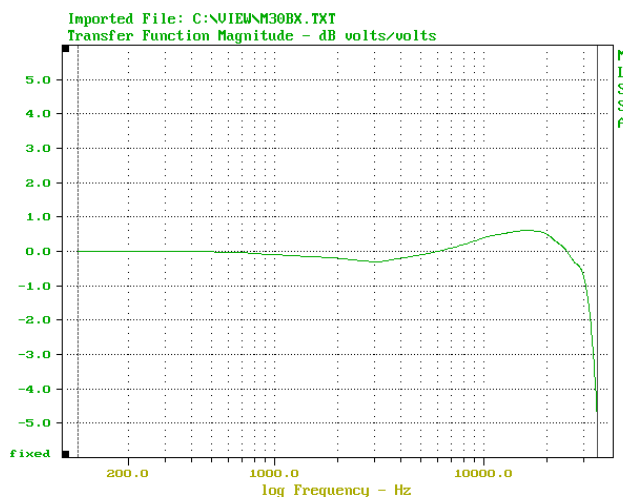


Portable Battery-Powered Microphone

The *Earthworks Model M30BX* is an instrument grade ¼ inch electret microphone powered by an internal battery. The *M30BX* also includes a built-in battery-powered preamplifier with +14 dB of gain. The *M30BX* connects directly to the *MLSSA* card input thus eliminating the need for an external mic preamp. The *M30BX* is able to drive long cables with minimal loss.

The *M30BX* is suitable for the vast majority of *MLSSA* measurements including loudspeaker frequency response, room acoustical parameters, STI/RASTI speech intelligibility and room response, including spatially averaged room response measurements using the *MLSSA RCAI*. The *M30BX* is not recommended for low-level acoustical room noise measurements due to its limited internal preamp gain.

Each *M30BX* is supplied with its own individually measured frequency response and sensitivity calibration data. The typical on-axis free-field frequency response is shown in the figure below.



Typical Free-field 0° Incidence Frequency Response

Easy Replacement of Internal Battery

Power is supplied by a standard 6-volt alkaline camera battery commonly available throughout the world. Unscrewing the body of the *M30BX* exposes the battery compartment for quick and easy battery replacement.

Battery life for continuous operation is typically 300 hours. Battery life can be extended considerably by powering down the microphone between measurement sessions. The *M30BX* automatically turns off internal battery power whenever the supplied XLR-to-RCA adaptor is unplugged from the microphone.

Specifications

The output impedance of the *M30BX* is 100 ohms. Maximum acoustic input is 140 dB-SPL or, 126 dB-SPL with the +14 dB gain switch enabled. Typical sensitivity is 8 mV/Pa or, 40 mV/Pa with the +14 dB gain switch enabled. Acoustical equivalent noise is 27 dBA typical.

Connection of the *M30BX* to *MLSSA* is via an XLR-to-RCA adaptor, which is included with each *M30BX*. A ½ inch calibrator adaptor is also included to permit interfacing the ¼ inch *M30BX* to standard ½ inch microphone calibrators.

The *M30BX*, mounting hardware, adaptors and 6-volt battery are supplied in a high impact carrying plastic case with internal foam for shock resistance.

Each *M30BX* microphone also includes its own factory-measured anechoic frequency response curve as well as its factory-measured sensitivity calibration values for both the 0 dB and +14 dB gain switch settings.

Ordering Information

DRA Laboratories sells the *M30BX* only in combination with the *MLSSA Acoustical Measurement System*. Other interested parties should contact Earthworks.