

Technical Support

Should you have any questions regarding your M30BX microphone please contact us:

e-mail: Support@earthworksaudio.com
phone: (603) 654-2433, ext. 119
(9am – 5pm ET)

For warranty and product return/exchange information please refer to the back of the enclosed Calibration Chart.

FIFTEEN-YEAR WARRANTY

All Earthworks products (excluding accessories) carry a fifteen-year limited warranty (parts and labor). If you have any problems with your Earthworks products, please contact our warranty/repair department by email at: returns@earthworksaudio.com or by telephone at (603) 654-6427, Ext. 119.

Electronic Calibration Files

All Earthworks Measurement Microphones purchased after July 1, 2012 will have ECFs available at no charge. Simply register your new measurement microphone within 30 days of purchase on our website.

Once your Measurement microphone has been registered in our database, we will send you your ECF to the valid email address provided in your registration. If you have any questions you can email us at sales@earthworksaudio.com or reach us by phone at 603-654-6427 ext. 114.



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Made in U.S.A.
Printed in U.S.A.



M30BX

User's Manual

HDM HIGH DEFINITION MICROPHONES™

Description

Earthworks M30BX is an omnidirectional (pressure) microphone designed and calibrated for measurement purposes. It is a pre-polarized condenser microphone directly coupled to a wideband, low output impedance preamplifier. The M30BX requires a single type P28L (Lithium) or equivalent 6V battery as a power source. It features a linear free-field frequency response from 9 Hz to 30kHz (please see the enclosed individual calibration chart). It has very low handling noise, a uniform polar pattern. Its unique circuitry excludes the transconductance of the input FET from the overall gain structure. The sensitivity remains very stable when the microphone is subjected to variations in ambient temperature. The M30BX meets or exceeds ANSI Type 1 requirements.

Each microphone is delivered with its own calibration chart providing its individually measured open-circuit sensitivity, and the frequency response curve. A text file containing the frequency response data for importing directly into measurement software is available from Earthworks, Inc. upon request. A mounting clip, a calibrator adapter, an XLR to RCA adapter, and a battery are included with the microphone.

Applications

Earthworks M30BX is ideally suited for on-location acoustical measurements including loudspeaker design and quality control, sound system setup and troubleshooting, room acoustics, or any application where an accurate free-field measurement microphone is required and portability is important or a power source is not readily available. Many test systems manufacturers, such as DRA Labs (MLSSA™), Smaart™ and DEQX™, recommend M30BX microphones. The wide linear minimum-phase response and fast, well-damped impulse response (Fig. 2) make M30BX an excellent microphone for loudspeaker design, especially for time domain measurements.

The M30BX is simple to operate. Make sure the battery (included) is properly installed in

the microphone. To open the battery compartment hold the microphone by the upper body and unscrew the battery cover sleeve (this cover is not removable). The battery is only switched on when an XLR connector is plugged into the microphone. The M30BX will not operate from phantom power.

The M30BX will drive either balanced or unbalanced inputs. An XLR to RCA adapter is enclosed for driving unbalanced inputs of sound cards directly. Please note that the best S/N ratio is achieved using a balanced interface.

Calibration

The microphone is calibrated at the factory at 1 kHz (therefore independent of any frequency weighting). The sensitivity in mV/Pa is provided on the calibration chart. If on-site calibration is required, use the enclosed one half inch standard calibration adapter.

Specifications

Frequency response:	9Hz to 30kHz +1/-3dB
Polar Pattern:	Omnidirectional
Sensitivity:	30mV/Pa (Typical)
Power Requirements:	6V Battery Type P28 (2CR-1/N, 4LR44 or eq.)
Peak Acoustic Input:	130dB SPL
Output:	XLR (Fig. 1)
Minimum Load:	600Ω btw. pins 2 & 3
Noise:	22dB, A equivalent
Dimensions L x D:	220 x 23 mm (8.65 x .910 in.)
Weight:	180g (.4lb)

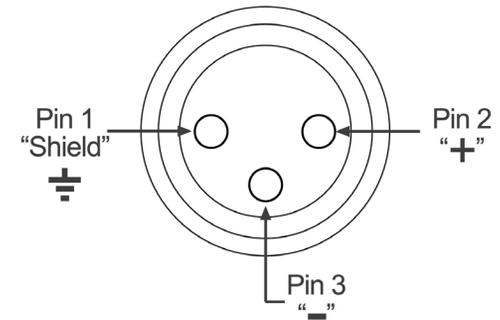


Fig 1. XLR Output Connector Assignment of M30BX

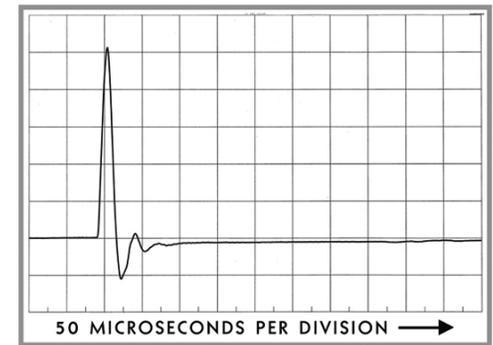


Fig 2. Impulse Response (Typical) of M30BX

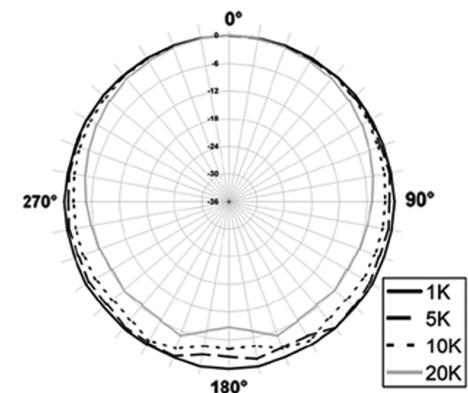


Fig 3. Polar Response (Typical) of M30BX

CE Compliant

Specifications are subject to change without notice.