

Technical Support

Should you have any questions regarding your M23 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.



M23

User's Manual



HDM HIGH DEFINITION MICROPHONES™

Description

Earthworks M23 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 M23 requires a standard 48V phantom power supply. It features a linear free-field frequency response from 9Hz to 23kHz (please see the enclosed individual calibration chart), very low handling noise, uniform polar pattern, and very high SPL handling capabilities. Its unique circuitry excludes the transconductance of the input FET from the overall gain structure. This means the sensitivity remains very stable when the microphone is subjected to variations in ambient temperature. The M23 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 computer file containing the frequency response data for importing directly into measurement software is available from Earthworks, Inc. upon request at an extra cost. A mounting clip and a calibrator adapter are included with the microphone.

Applications

Earthworks M23 is ideally suited for acoustical measurements sound system setup and troubleshooting, room acoustics, or any application where an accurate free-field measurement microphone is required. The wide linear minimum-phase response and fast well-damped impulse response (Fig. 2) make the M23 an excellent microphone for room acoustics measurements,

especially for time domain measurements.

The M23 is simple to operate. Connect the microphone to a microphone preamplifier supplying 48V phantom power using a standard XLR microphone cable. Please allow up to one minute for the microphone to settle. Plugging in the microphone "hot" (phantom power already present at the input) will not damage the microphone, and is actually preferred for faster settling. For optimum results we recommend pointing the M23 toward the sound source.

This microphone has no removable parts.

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 23kHz +1/-3dB

Polar Pattern: Omnidirectional

Sensitivity: 30mV/Pa (Typical)

Power Requirements: 48V Phantom, 10mA

Peak Acoustic Input: 142dB SPL

Output: XLR-3 (Fig. 1)

Minimum Load: 600Ω btw. pins 2 & 3

Noise: 22dB, A equivalent

Dimensions L x D: 229 x 22 mm,
(9 x .860 in.)

Weight: 160g (.31lb)

 Compliant

Specifications are subject to change without notice.

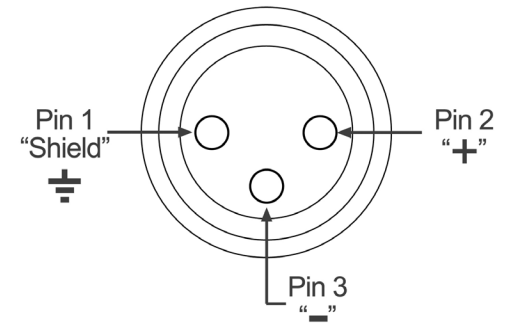


Fig 1. XLR Output Connector Assignment of M23

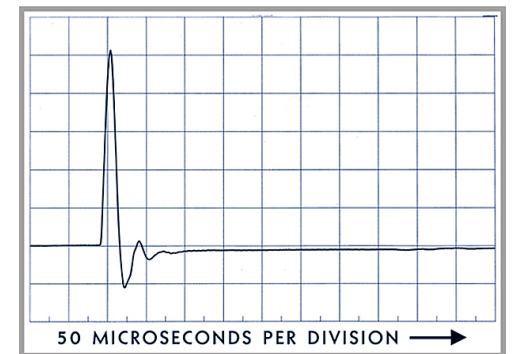


Fig2. Impulse Response (Typical) of M23

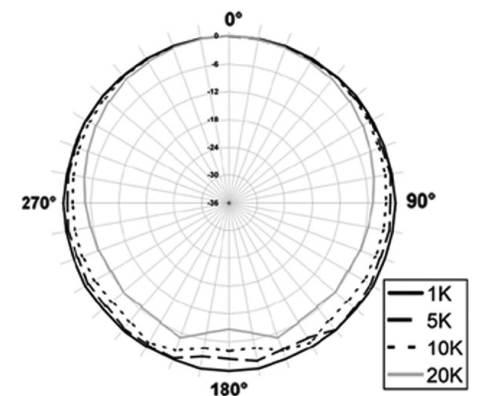


Fig 3. Polar Response (Typical) of M23