

## Technical Support

Should you have any questions regarding your TC20 microphone please contact us:

e-mail: [Support@earthworksaudio.com](mailto:Support@earthworksaudio.com)  
phone: (603) 654-2433, ext. 19  
(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](mailto:returns@earthworksaudio.com) or by telephone at (603) 654-6427, Ext. 19.



Earthworks, Inc.  
37 Wilton Rd.  
Milford, NH 03055 USA  
Phone: 1-603-654-6427  
Fax: 1-603-654-6107  
[earthworksaudio.com](http://earthworksaudio.com)



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# TC20

## User's Manual



**HDM** HIGH DEFINITION MICROPHONES™

## Description

Earthworks TC20 is an omnidirectional (pressure) pre-polarized condenser microphone directly coupled to a dedicated wideband, low output impedance pre-amplifier. The TC20 requires a standard 48V phantom power supply. It features a linear free-field frequency response from 10Hz to 20kHz (Fig. 2), fast impulse response (Fig. 3), very low handling noise, uniform polar pattern, and very high SPL handling capabilities. It exhibits no proximity effect.

## Applications

Earthworks TC20 is easy to operate. Connect the microphone to a microphone pre-amplifier 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. It is normal for any phantom powered mic to “pop” when plugged in or powered up. Make sure to mute the signal to speakers or headphones when phantom power is first applied.

The TC20 is our least expensive general-purpose omni. It is a good choice for close-miking louder sources such as instrument amps, drums, or close-miked brass. The TC20 under the strings of a stand-up bass or inside a kick drum will produce amazing sound. It is popular for drum overheads. A pair of TC20s connected to a stereo recorder will provide excellent results for recording rehearsals and performances. The TC20 is great for general studio use and is an exceptional value. It has no handling noise, no proximity effect, and is very for-

giving in terms of placement. A mounting clip is included with the microphone. This microphone has no removable parts.

## Care of Microphones

Earthworks TC20 microphone is a precision instrument designed and built to provide years of top performance. Following these simple rules will help to protect your investment in the TC20:

- Avoid touching the front protective screen.
- Never attempt to disassemble the microphone – it cannot be opened.
- Avoid extreme heat and condensing humidity. Allow the microphone to warm up in the case when bringing it in from the cold weather.
- Rough handling may damage the microphone even if no visible marks are left.
- When not in use keep the TC20 in its case.

## Specifications

Frequency response: 9Hz - 25kHz +1/-3dB  
Polar Pattern: Omnidirectional (Fig. 4)  
Sensitivity: 8mV/Pa (Typical)  
Power Requirements: 48V Phantom, 10mA  
Peak Acoustic Input: 145dB SPL  
Output: XLR-3 (Fig. 1)  
Output Impedance: 100Ω, balanced  
(50Ω ea. pin 2 & 3)  
Minimum Load: 600Ω btw. pins 2 & 3  
Noise: 27dBA equivalent  
Dimensions L x D: 6.5 x .860 in.  
(165 x 22 mm)  
Weight: .35lb (160g)

**CE** Compliant

**Specifications are subject to change without notice.**

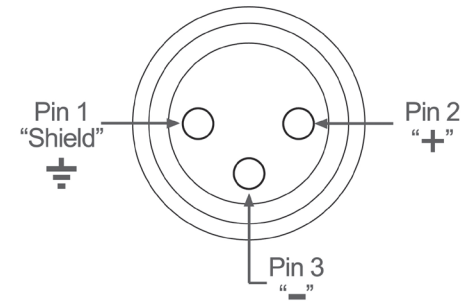


Fig 1. XLR Output Connector Assignment of TC20

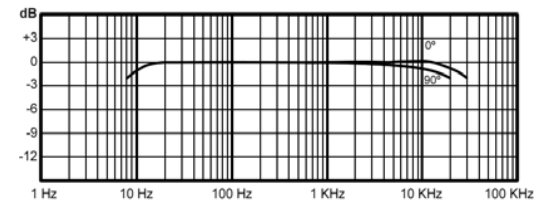


Fig 2. Frequency Response (Typical) of TC20

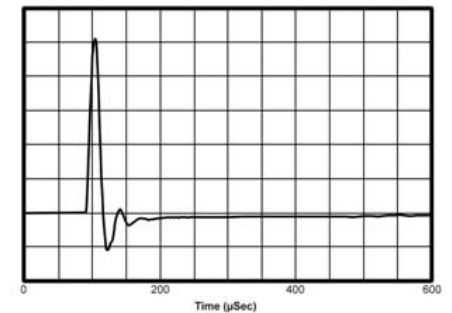


Fig 3. Impulse Response (Typical) of TC20

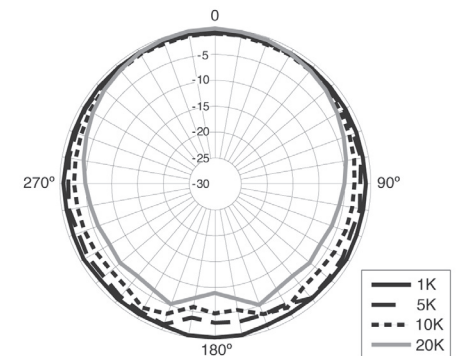


Fig 4. Polar Response (Typical) of TC20