

### **Technical Support**

Should you have any questions regarding your QTC50 microphone please contact us:

e-mail: [Support@EarthworksAudio.com](mailto:Support@EarthworksAudio.com)  
phone: 1-603-654-6427 (9a.m. – 5p.m. ET)

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



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## **QTC50 Omnidirectional Microphone Owner's Manual**



Made in U.S.A.

## Description

Earthworks QTC50 is an omnidirectional (pressure) prepolarized condenser microphone directly coupled to a dedicated wideband, low output impedance preamplifier. The QTC50 requires a standard 48V phantom power supply. It features an extended linear free-field frequency response from 3Hz to 50kHz (Fig. 2), extremely fast impulse response (Fig. 3), low self-noise, very low handling noise, uniform polar pattern, and high SPL handling capabilities. It exhibits no proximity effect.

Each microphone is delivered with its own calibration chart providing the individually measured frequency response curve. A mounting clip is included with the microphone.

## Applications

Earthworks QTC50 is easy 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. 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 QTC50 is a premium microphone designed for recording quieter sources such as vocals, strings, woodwinds, and distant-miked orchestras or choirs. For classical location recording a matched pair will provide spectacular results. It is ideal for quieter, more detailed sources and does not have most of the problems and limitations generally associated with competitive microphones. Its impulse

response and diaphragm settling time is extraordinary, resulting in the most pure and uncolored sound.

This microphone has no removable parts.

## Care of Microphones

Earthworks QTC50 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 QTC50:

- 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 QTC50 in its case

## Specifications

Frequency response:	3Hz to 50kHz +1/-3dB
Polar Pattern:	Omnidirectional (Fig. 4)
Sensitivity:	30mV/Pa (Typical)
Power Requirements:	48V Phantom, 10mA
Peak Acoustic Input:	142dB SPL
Output:	XLR (Fig. 1)
Output Impedance:	100Ω, balanced (50Ω ea. pin 2 & 3)
Minimum Load:	600Ω btw. pins 2 & 3
Noise:	22dBA equivalent
Dimensions L x D	229 x 22 mm (9 x .860 in.)
Weight:	225g (.5lb)

CE Compliant

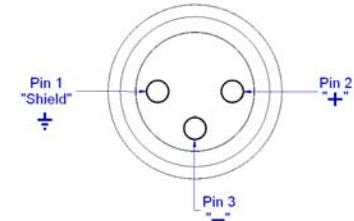


Fig. 1. XLR Output Connector Assignment of QTC50

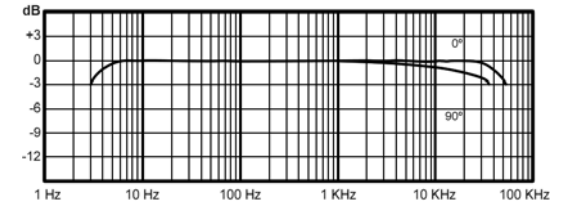


Fig. 2. Frequency Response (Typical) of QTC50

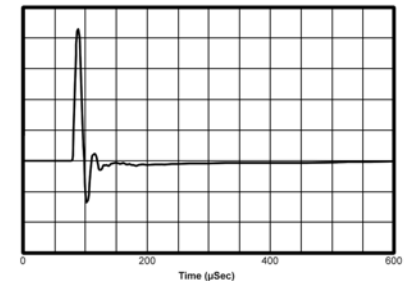


Fig. 3. Impulse Response (Typical) of QTC50

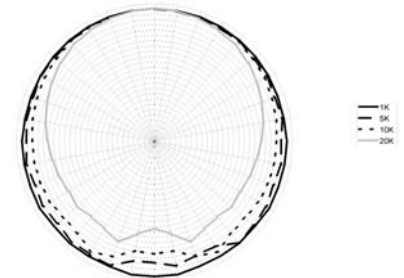


Fig. 4. Polar Response (Typical) of QTC50, 1dB/div.

Specifications are subject to change without notice.