



QC-10 Sound Calibrator

The Quest Technologies model QC-10 provides quick, precise field calibration. The calibrator generates a stable acoustic signal at a controlled frequency and amplitude to verify the accuracy of your meter in the field.

The model QC-10 is a general purpose calibrator that generates a constant sound pressure level of 114 dB at a fixed frequency of 1,000 Hz.

This model has a standard one-inch coupler opening that may be reduced by inserting available snap-in adapters. The calibrator also provides a precise 1-volt RMS output signal via a 1/8 inch phone jack to check devices such as the Quest VI-90 Vibration Integrator.

Technical Specifications:

Standards:

- ANSI S1.40-1984 and IEC 942:1988 Class 1

Output Frequency:

- QC-10: 1000 Hz

Output Amplitude:

- QC-10: 114 dB

Output Accuracy:

- +/- 0.3dB @ 20°C 760 mmHg.

Distortion:

- Less than 1% within temperature and humidity operating ranges.

Electrical Output:

- 1 volt RMS sine wave, +/-5% (0.4dB).

Output impedance:

- 1000 ohms.

Phone jack:

- (1/8") compatible with Switchcraft 780 plug or equivalent.

Temperature:

- Operating range -10 to + 50°C. 1KHz: within +/-0.3dB from +5 to 50°C.
- Below +5°C coefficient of SPL is 0.0 to +0.01dB/°C ref. 20°C
- 250Hz: within +/- 0.3dB from +5 to 40°C.
- Below +5°C coefficient of SPL is 0 to 0.02dB/°C max ref. 20°C
- Storage temperature -40 to +65°C with battery removed.

Coupler Volume Coefficient:

- A 1cc increase in coupler volume will result in a typical decrease in output of .27dB @ 1kHz and .67dB @ 250 Hz.

Humidity:

- Relative humidity 5 to 95% with less than 0.1dB change in output.

Effects due to external fields:

- 60 Hz: No measurable effect up to 5 Oersted (1 Oe = 80A/m)
- 400 Hz: No measurable effect up to 2 Oersted
- (Stated field strengths are magnetic test chamber limits)
- Tested for RF susceptibility with no effect at field strengths to 65 V/m over the frequency range of 10MHz to 500MHz.

Power:

- Battery operated, 9-volt transistor battery, NEDA 1604 type. Projected battery life greater than 25 operating hours with intermittent use. Battery life is affected by temperature. Consult battery manufacturer's data for specific battery life at a current draw of 10mA.

Size and Weight:

- 4.1" (10.4 cm) long, 2.4" (6 cm) dia., 12 oz (0.35 kg).