SOUND CALIBRATOR

CA111

CA111 is a small sound source for calibrating measurement microphones, sound level meters and other sound measurement equipment. The calibrator can be used on 1/2-inch and 1/4-inch microphones with adapter. It conforms to IEC 60942:2003 Class 1, ANSI S1.40-1984 and GB/T 15173-1994.

APPLICATIONS

- Calibration of measurement microphones, sound level meters and other sound measurement equipments.
- Checking the linearity of equipments.

FEATURES

- Conforms to IEC60942:2003 Class 1, ANSI S1.40-1984 and GB/T 15173-1994.
- 1 kHz calibration frequency for all weighting networks.
- Dual 94 & 114 dB sound pressure level outputs.
- Calibration accuracy ± 0.3 dB.
- Designed with highly stable level and frequency.
- Only two keypad operation.
- Fits 1/2” microphones and 1/4” microphones with adaptor.
- Powered by 2×AAA battery and automatic power off to conserve battery life.

Sound Calibrator CA111 is a battery-operated sound source for quick and direct calibration of sound level meters and other sound measurement systems. It fits 1/2” microphones and 1/4” microphones with adaptors.

The calibration frequency is 1000Hz, which is the reference frequency for the standardized international weighting networks. This makes the calibrator to be used for calibrating sound equipment with A, B, C, D and linear weighting filters. The calibration pressure is 94 ±0.3 dB (1Pa) and 114 ±0.3 dB (10Pa).

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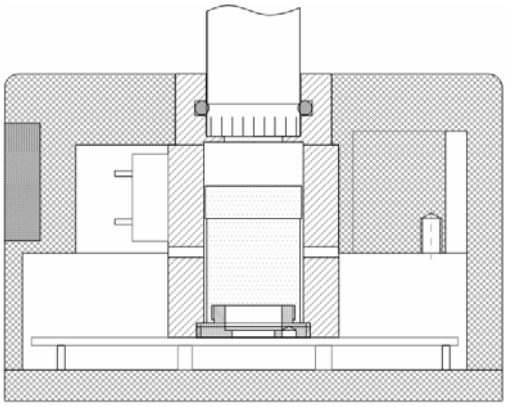
The design of CA111 works at feed-back arrangement to ensure a highly stable sound pressure level. The feed-back loop contains a reference microphone, a sound source and control circuit. The reference microphone has passed a very long-term aging test and is therefore extremely stable. The feed-back controlling circuit can adjust to changes in load volume, temperature, humidity and atmospheric pressure.

The calibrator gives a continuous sound pressure level when fitted on a microphone. It can detect it when the microphone is removed from the cavity and automatically switch off, thus extending the battery life. When the ON/OFF light on the calibrator flashes, it means the battery voltage is low. If it stops working continuously, the battery must be replaced.



SPECIFICATIONS

STANDARDS IEC60942:2003 Class 1, ANSI S1.40-1984, GB/T 15173-1994 **SOUND PRESSURE LEVELS** 94.0 dB ±0.3 dB and 114.0 dB ±0.3 dB re 20 μPa **FREQUENCY** 1000Hz ±0.5% **MICROPHONE SIZE** According to IEC61094-4: –1/2” without adaptor –1/4” with adaptor (optional) **HARMONIC DISTORTION** <2% Stabilization Time: <10 s **EQUIVALENT FREE-FIELD LEVEL** -0.2 dB for 1/2” Microphones. **EQUIVALENT RANDOM INCIDENCE LEVEL** +0.0 dB for 1/2”, 1/4”	**REFERENCE CONDITIONS** Ambient Temperature: 25°C (77°F) Ambient Pressure: 101.3 kPa Humidity: 55% RH Effective Load Volume: 250 mm^3 **ENVIRONMENTAL CONDITIONS** Temperature: -10°C-50°C (14°F -122°F) Pressure: 65 kPa to 108 kPa Humidity: 10 to 90%RH (non-condensing) **POWER SUPPLY** Batteries: 1.5 V LR6 (AA battery) × 2 Lifetime: Typically 40 hours with alkaline batteries at 25°C (77°F) Low Battery: Replace the battery when CA111 stops working continuously or flash the ON/OFF light. **DIMENSIONS AND WEIGHT** Height: 46mm Width: 74mm Depth: 72mm Weight: 230 g, including batteries