

SOUND CALIBRATOR

CA111/CA114/115

CA111/CA114/115 is small sound source for calibrating measurement microphones, sound level meters, and other sound measurement equipments. The calibrator can be used on 1/2-inch and 1/4-inch microphones with adaptor.

CA111 conforms to IEC 60942:2003 Class 1, ANSI S1.40-1984 and GB/T 15173-1994.

CA114/115 conforms to IEC 60942:2003 Class 2 standards.



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/Class 2, ANSI S1.40-1984, and GB/T 15173-1994.
- 1 kHz calibration frequency for all weighting networks.
- CA111: Dual 94 & 114 dB sound pressure level outputs.
- CA114/115: 94/114 dB sound pressure level outputs.
- Calibration accuracy ± 0.3 dB.
- Designed with highly stable level and frequency.
- CA111 for two-keypad operation and CA114/115 for one-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.

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Sound Calibrator CA111/CA114/115 is 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.

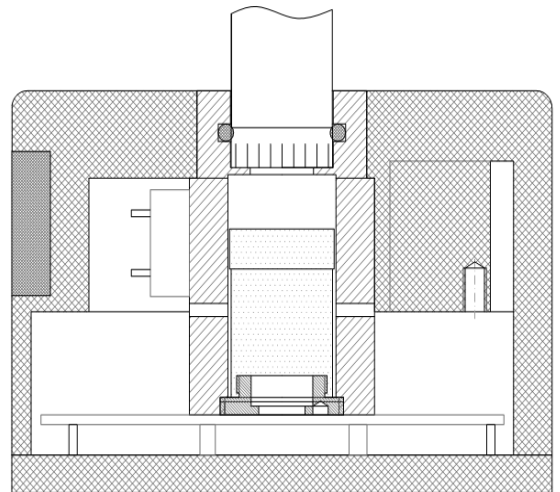
The calibration frequency is 1000Hz, which is the reference frequency for the standardized international weighting networks. This makes the calibrator to be used for calibrating sound equipment with A, B, C, D and linear weighting filters. The calibration pressure is 94 ± 0.3 dB (1Pa) & 114 ± 0.3 dB (10Pa) for CA111 and $94/114 \pm 0.3$ dB (10Pa) for CA114/115.

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The design of CA111/CA114/115 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

SOUND CALIBRATOR		
Models	CA111	CA114/115
Standard	IEC60942:2003 Class 1, ANSI S1.40-1984, GB/T 15173-1994	IEC60942:2003 Class 2, ANSI S1.40-1984, GB/T 15173-1994
Sound Pressure Level	94.0 dB \pm 0.3 dB and 114.0 dB \pm 0.3 dB re 20 μ Pa	94.0/114.0 dB \pm 0.3 dB re 20 μ Pa
Frequency	1000Hz \pm 0.5%	
Microphone Diameter	According to IEC61094-4: 1/2" & 1/4"	
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) \times 2 Lifetime: Typically 40 hours with alkaline batteries at 25°C (77°F)	
Dimension	48*70*70mm	
Weight	Weight: \approx 180g, including batteries	