



CAL250 Precision Acoustic Calibrator

IEC 60942 Class 1 Handheld Sound Level Calibrator for 1" microphones at 251.2 Hz
Used for Sound Level Meters and Other Sound Measuring Equipment

Highlights

- Output level: 114 dB
- Output frequency: 251.2 Hz
- Standard: 1" microphone
- IEC 60942-1:2003 compliant
- Internal battery
- Output level independent of battery condition
- Adaptors: 1/2", 1/4", 3/8", 1/8" microphones
- Array adaptor for 8 microphones simultaneously

Applications

Field calibration or laboratory calibration of:

- Sound level meters
- Noise dosimeters
- Noise monitoring stations
- Microphone arrays



CAL250 Portable Sound Calibrator

The Larson Davis Model CAL250 is a battery operated precision microphone calibrator used for the calibration of sound level meters and other sound measurement equipment. The CAL250 delivers a full 114.0 dB level output signal @ 251.2 Hz.

It has been designed for field or laboratory use and its accuracy has been calibrated to a reference traceable to the National Institute of Standards and Technology (NIST).

The Larson Davis CAL250 features a stable sound pressure independent of the battery condition. In addition, the CAL250 will turn off automatically to preserve battery and guarantee a stable output.



**CAL250 Precision Acoustic Calibrator**

Acoustic		
Calibration sound pressure level	114.0 dB \pm 0.1 dB SPL re: 20 μ Pa	
Equivalent free-field level	0.0 dB for 1/2" microphones	
Frequency	251.2 Hz \pm 2 Hz	
Harmonic distortion	< 2 %	
Stability after pressing On	\pm 0.1 dB after 2 seconds	
Minimum stabilizing time	10 seconds after coupling microphone and calibrator	
Reference conditions	101.3 kPa, 23 °C and 50 % RH.	
Environmental		
Static pressure range	65 kPa to 108 kPa	SPL variation < \pm 0.3 dB
Temperature range	-10 °C to +50 °C	SPL variation < \pm 0.4 dB Frequency variation < \pm 2 Hz
Humidity range	10 % to 90 % RH non-condensing	SPL variation < \pm 0.4 dB Frequency variation < \pm 2 Hz
Storage temperature	-40 °C to +60 °C	
Storage humidity	0 % to 90 % RH (non-condensing)	
Physical		
Effective volume of calibrator and microphone	> 100 cm ³ (6.1 in. ³)	
Dimensions	Length 124 mm (4.9 in.) Diameter 44.5 mm (1.75 in.)	
Weight	249 g (8.8 oz.)	
Power Supply		
Battery	9 V NEDA 1604A or IEC 6LR61	
Battery Voltage Operating Range	6.7 V to 10 V	
Traceability		
Traceability	Traceable to National Institute of Standards and Technology (NIST)	

Compliance**Acoustic**

- ANSI S1.40-2006, Class 1

Safety

- IEC 60942-2003, Class 1
- IEC 61010-1:2001

EMC, CE

- EU directive 2004/108/EC
- IEC 61326-1:2005

For use with microphones of type:

- IEC 61094-4:1995
 - 1" WS1P, WS1F and WS1D
 - 1/2" WS2P, WS2F and WS2D microphones with ADP019 adaptor
 - 1/4" WS3P, WS3F and WS3D microphones with ADP021 adaptor
- According to IEC 61094-1:2000
 - 1" LS1SP without adaptor
 - 1/2" LS2P with ADP019 adaptor
- Other microphones
 - 3/8" with ADP020 adaptor
 - 1/8" with ADP023 adaptor

For use with sound level meters and noise dosimeters:

- ANSI S1.4 Type 1
- ANSI S1.25
- IEC 61672 Class 1
- IEC 61252

Order Information

CAL250 Class 1 Microphone Calibrator

Standard Accessories

- ADP019: Adapter for 1/2" microphone
- CCS003: Storage case
- 9 V alkaline battery
- Users Manual

Optional Accessories

- ADP020: 3/8" microphone adaptor
- ADP021: 1/4" microphone adaptor
- ADP023: 1/8" microphone adaptor
- 079A31 : 8 1/4" microphone coupler

Related product

- CAL200 Class 1 Precision Acoustic Calibrator (1000 Hz)



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For environmental noise monitoring and building acoustics, **Larson Davis** offers a full line of instruments, accessories and software. For personal noise and vibration exposure monitoring, Larson Davis complements this with sound level meters, personal noise dosimeters, human vibration meters, audiometric calibration systems and hearing conservation programs.

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