



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 (Initial) (After 1 year)	114.0 dB \pm 0.1 dB re: 20 μ Pa \pm 0.2 dB 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)
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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)



A PCB PIEZOTRONICS DIV.

3425 Walden Avenue, Depew, NY 14043-2495 USA

Phone 716-926-8243

Toll-Free in USA 888-258-3222

Fax 716-926-8215 E-mail sales@larsondavis.com

Web Site www.larsondavis.com

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LD-CAL250-1016

Printed in U.S.A.

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