



CAL150

Precision Acoustic Calibrator

IEC 60942 Class 2 Handheld Sound Level Calibrator for ½" microphones at 1000 Hz
Used for Sound Level Meters and Noise Dosimeters

Highlights

- Output level: 94 or 114 dB
- Output frequency: 1 kHz
- ½" microphone opening
- IEC 60942:2017 compliant
- Internal battery
- Output level independent of battery condition
- Adaptors: 1/4", 3/8" microphones

Applications

Field calibration or laboratory calibration of:

- Sound level meters
- Noise dosimeters
- Noise monitoring stations



CAL150 Portable Sound Calibrator

The Larson Davis CAL150 Sound Level Calibrator is a battery operated precision microphone calibrator used for the calibration of sound level meters and other sound measurement equipment. It can provide an output level of either 94.0 or 114.0 dB (switch-selectable) at a frequency of 1 kHz.

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

The Larson Davis CAL150 features a stable sound pressure independent of the battery condition. In addition, the Larson Davis CAL150 will turn off automatically to preserve battery and guarantee a stable output.



ADP031

ADP024

3/8" and 1/4" Microphone Adaptors

**CAL150 Acoustic Calibrator****Acoustic**

Calibration sound pressure level	114.0 dB and 94.0 dB $\pm$ 0.3 dB SPL re: 20 μ Pa (114.0 dB is the principal sound pressure level)
Equivalent free-field level	-0.12 dB for 1/2" microphones
Frequency	1 kHz $\pm$ 1%
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 < $\pm$ 0.4 dB
Temperature range	-10 °C to +50 °C	SPL variation < $\pm$ 0.6 dB Frequency variation < $\pm$ 7 Hz
Humidity range	10 % to 90 % RH non-condensing	SPL variation < $\pm$ 0.5 dB Frequency variation < $\pm$ 7 Hz
Storage temperature	-40 °C to +60 °C	
Storage humidity	0 % to 90 % RH (non-condensing)	

Physical

Effective volume of calibrator and microphone (WS2P)	4.15 cm ³ (0.253 in. ³)
Dimensions	Length 106.1 mm (4.18 in.) Width 63.4 mm (2.5 in.) Height 25.9 mm (1.02 in.)
Weight	156 g (5.5 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 2
- IEC 60942:2017, Class 2
- IEC 60942:2003, Class 2

Safety

- 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
 - 1/2" WS2P, WS2F and WS2D microphones; no adaptor required
 - 1/4" WS3P, WS3F, and WS3D microphones with ADP024 adaptor
- According to IEC 61094-1:2000
 - 1/2" LS2P
- Other microphones
 - 3/8" with ADP031 adaptor

For use with sound level meters and noise dosimeters:

- ANSI S1.4 Type 2
- ANSI S1.25
- IEC 61672 Class 2
- IEC 61252

Order Information

CAL150 Acoustic Calibrator (94 or 114dB at 1 kHz, 1/2" microphone opening)

Standard Accessories

- 9 V alkaline battery
- Adaptor ADP031 for 3/8" microphones
- Users Manual

Optional Accessories

- Adaptor ADP024 for 1/4" microphones

Related Products

- CAL250 Class 1 Precision Acoustic Calibrator (250 Hz)
- 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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