



## MODEL CAL200

# PRECISION ACOUSTIC CALIBRATOR

- Output level: 94 or 114 dB
- Output frequency: 1 kHz
- ½" microphone opening
- IEC 60942-1:2003 compliant
- Internal battery
- Output level independent of battery condition
- Adaptors: ⅛", ¼", ⅜" microphones

## TYPICAL APPLICATIONS

Field or laboratory calibration of:

- Sound level meters
- Noise dosimeters
- Noise monitoring stations

## IEC 60942 CLASS 1 CALIBRATOR

The Larson Davis CAL200 Sound Level Calibrator is a battery operated precision microphone calibrator used for the calibration of sound level meters and other sound measurement equipment with ½" microphones. It can provide an output level of either 94.0 or 114.0 dB (switch-selectable) at a frequency of 1 kHz. Adaptors for ⅛", ¼", and ⅜" microphones are available as optional accessories.

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 CAL200 features a stable sound pressure independent of the battery condition. In addition, the Larson Davis CAL200 will turn off automatically to preserve battery and guarantee a stable output.

In addition to precision acoustic calibrators, factory calibration services for Larson Davis products are available through the CAL+ program. CAL+ service is provided with all Larson Davis calibrations and includes a complete multi-point factory test, free firmware upgrade to the latest version where applicable, labor warranty extended for one year<sup>(1)</sup>, worn consumables replaced at no charge<sup>(2)</sup>, and more. Contact us for details.

## CAL200 PRECISION ACOUSTIC CALIBRATOR

Acoustic	
Calibration Sound Pressure Level	114.0 dB and 94.0 dB ± 0.2 dB SPL re: 20µPa (114.0 dB is the principal sound pressure level)
Equivalent Free-field Level	-0.12 dB for 1/2" microphones
Frequency	1 kHz ± 1%
Harmonic Distortion	< 2 %
Stability After Pressing On	± 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 < ± 0.3 dB
Temperature Range	-10 °C to +50 °C	SPL variation < ± 0.4 dB Frequency variation < ± 7 Hz
Humidity Range	10 % to 90 % RH non-condensing	SPL variation < ± 0.3 dB Frequency variation < ± 7 Hz
Storage Temperature	-40 °C to +60 °C	
Storage Humidity	0 % to 90 % RH (non-condensing)	

Physical	
Effective Volume of Calibrator and Microphone	> 6.1 in <sup>3</sup> (100 cm <sup>3</sup> )
Dimensions (L x W x H)	4.18 x 2.5 x 1.02 in (106.1 x 63.4 x 25.9 mm)
Weight	5.5 oz (156 g)

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)

Supplied Accessories	
9 V Alkaline Battery	
Users Manual	

Optional Accessories	
ADP024	Adaptor for 1/4" microphones
ADP031	Adaptor for 3/8" microphones
ADP075	Adaptor for 1/2" microphones

Related Products	
CAL250	Class 1 Precision Acoustic Calibrator (250 Hz)
CAL150	Class 2 Precision Acoustic Calibrator (1000 Hz)



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## COMPLIANCE

Acoustic	
ANSI S1.40-2006, Class 1	
IEC 60942-2003, Class 1	
IEC 60942:2017, Class 1	
IEC 60942:2018, Class 1	
Safety	
IEC 61010-1:2001	
EMC	
EU directive 2004/108/EC	
IEC 61326-1:2005	
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 1	
ANSI S1.25	
IEC 61672 Class 1	
IEC 61252	

[1] Requires regular annual factory calibration. Limited to seven (7) years.  
[2] Windscreen, O-rings, desiccants, fuses, for example.



ADP024  
for 1/4" Microphones



ADP031  
for 3/8" Microphones



ADP075  
for 1/2" Microphones

## Microphone Adaptors

Larson Davis offers a full line of noise and vibration measurement instrumentation such as Class 1 and 2 sound level meters, outdoor noise monitoring systems, personal noise dosimeters, human vibration meters, audiometric calibration systems, microphones and preamplifiers, and data analysis software. Instrumentation is used in community and environmental noise monitoring, measurement of building acoustics, managing worker exposure to noise and vibration, and various automotive, aerospace, and industrial applications. Larson Davis is a division of PCB Piezotronics, Inc., a wholly owned subsidiary of MTS Systems Corporation.



MTS Sensors, a division of MTS Systems Corporation (NASDAQ: MTSC), vastly expanded its range of products and solutions after MTS acquired PCB Piezotronics, Inc. in July, 2016. PCB Piezotronics, Inc. is a wholly owned subsidiary of MTS Systems Corp.; IMI Sensors and Larson Davis are divisions of PCB Piezotronics, Inc.; Accumetrics, Inc. and The Modal Shop, Inc. are subsidiaries of PCB Piezotronics, Inc.