

PRECISION ACOUSTIC CALIBRATION WORKSTATION



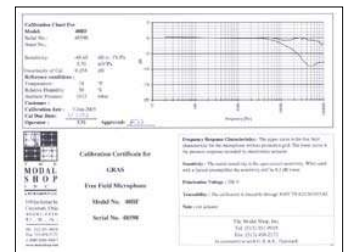
The Precision Acoustic Calibration Workstation Model 9350C is an automated, accurate, turnkey, PC-based system that features cost-effective calibration of 1/8", 1/4", 1/2" and 1" microphone cartridges (open-circuit sensitivity), microphone cartridges with preamplifiers (closed-circuit sensitivity), as well as microphone Frequency Response Function.

In addition, the system provides for conformance testing of microphone preamplifiers and acoustic calibrators: this includes pistonphones as well as speaker phone based calibrators.

Under complete software control, the 9350C operates in four modes:

- *Microphone Cartridge Calibration*
- *Microphone & Preamplifier Calibration*
- *Preamplifier Conformance Test*
- *Source Calibration*

A calibration certificate may be generated and results saved in the software database.



FEATURES:

- Complies with IEC 61094-6 and IEC 60942
- Streamlined, easy and intuitive operation throughout
- Comma Separated Variable (CSV) export of calibration data for integration into an existing database
- Easy and fast retrieval of calibration certificates from a model/serial or asset number filtered list
- Automatic free-field and random incidence correction curves applied for those types of microphones
- Sophisticated system verification procedures built-in
- Pass/fail classification of the Microphone Under Test is available by use of frequency dependent limit lines
- Automatic test parameter setup for PCB Piezotronics, Larson Davis, G.R.A.S. and most Brüel & Kjær microphones
- Prints customizable ISO compliant calibration certificates



MODEL 9350C

The Acoustic Calibration Workstation Model 9350C has been carefully designed with the aim of providing consistent and reliable calibrations and conformance tests with the highest possible accuracy. System verification procedures function to assure a stable, consistent operating environment and reduce systematic and random errors to a minimum. With easy, user-friendly operation and proven stepped sine excitation method, the 9350C provides fast, consistent, reliable calibrations and excels in efficient, high-volume transducer calibrations, just like the manufacturers do it. The system also allows for easy integration of user-defined logos for customized calibration certificates.

SYSTEM USES

Microphone types calibrated	1/8", 1/4", 1/2" and 1" externally polarized (120V and 200V) and pre-polarized condenser microphones
Microphone calibration	Open-circuit sensitivity, pressure response, 0° incidence free-field response, and random incidence response
Microphone calibration with preamplifier	Closed-circuit sensitivity, pressure response, 0° incidence free-field response, and random incidence response
Pistonphone calibration	Output sound pressure level, frequency and distortion
Preamplifier types calibrated	1/4" and 1/2" traditional (28V and 120V) and ICP®
Preamplifier conformance check	Frequency response and gain

GENERAL

Calibration Method	Single level / single frequency insert voltage technique and Electrostatic Actuator Response (Freq. Response)
Frequency Range	20 Hz to Upper Limiting frequency of Microphone under Test
System Accuracy (actuator response)	0.5 dB
Correction curves - supplied	PCB Piezotronics, Larson Davis Laboratories, G.R.A.S., and Brüel & Kjær microphones
Correction curves - other	Manual data entry capable into text file
Calibration data management	Yes
Automatic pass/fail classification	Yes

REFERENCE MICROPHONE

Model	G.R.A.S 40AG
Sensitivity	12.5 mV/Pa
Frequency range	3.15 - 20,000 Hz
Dynamic range	27 - 160 dB (re. 2 x 10 ⁻⁵ Pa)
Polarization voltage	200 Volts

PISTONPHONE

Model	G.R.A.S. 42AA
Sound Pressure Level	114 dB (re. 2 x 10 ⁻⁵ Pa)
Sound Pressure Level accuracy	+/- 0.08 dB (re. 2 x 10 ⁻⁵ Pa) - According to IEC 942 (1988) Class I
Frequency	250 Hz +/- 0.5%
Distortion	<1.5%

ENVIRONMENTAL

System warm-up time	30 minutes
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ELECTRICAL

Main Voltage Supply	115 Volts - optional 220 Volts
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