

MODEL K9535C

PNEUSHOCK™ CALIBRATION WORKSTATION

- Provides calibration and linearity check from 20 g – 10 000 g
- Allows automated control and acquisition of test amplitudes up to 10 000 g
- Uses state-of-the-art pneumatically actuated exciter (requires 90 – 150 psi) providing controlled and consistent impacts
- Includes variety of impact anvils and projectiles to tailor the impulse shape for frequency content and shock level
- Compatible with standard back-to-back shock reference accelerometers
- Provides graphical indication of sensor amplitude linearity
- Electronic control unit provides user automated and manual control of projectile drive pressure
- Digital pressure indication aids in control and repeatability

AUTOMATED SHOCK CALIBRATION KIT

The Automated Shock Calibration Workstation Model K9535C allows the user to measure the sensor sensitivity at high acceleration levels up to 10 000 g in accordance with ISO 16063-22. This system is fully turnkey, includes a PC and data acquisition card, stores shock calibration results using Microsoft Access®, and has an easy-to-use software interface. PneuShock™, a state-of-the-art shock exciter, makes use of a pneumatically operated projectile to strike an anvil and excite the sensor. By controlling both the air pressure and the duration of which the pressure is applied, the user gains greater control and consistency of the impacts.

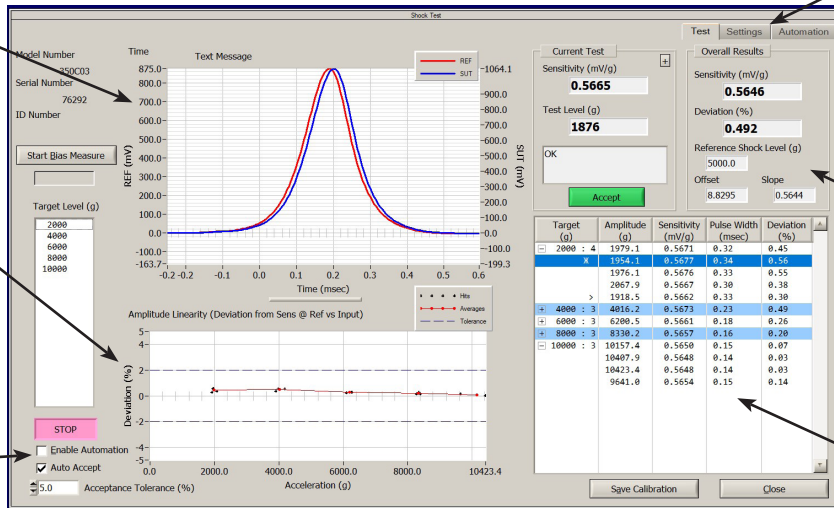
The PneuShock™ Calibration Workstation Model K9535C features an ICP® reference accelerometer, PCB Model 301A12, for calibrations according to ISO 16063-22. Printed certificates fulfill the requirements set forth by ISO 17025 for calibration certificates, and are fully customizable using the Microsoft Excel® environment. The system can easily be upgraded to a full Model 9155D Accelerometer Calibration Workstation, supporting vibration calibration sweeps according to ISO 16063-21.

The K9535C's automated solution provides calibration and linearity check up to 10 000 g by firing, recording data, and progressing to the next test point automatically – allowing more efficient verification of shock accelerometers. The PneuShock controller parameters are set via automated software control algorithm using the easy to navigate tabbed layout of the software.

Displayed time data allows technician to view waveform and check for anomalies in the shock pulse

Toggle between Deviation vs input or output vs input for real-time overview of test results

Easy process to toggle between manual and auto modes and arming to start measurement



Tabbed layout for easy access to settings and automation setup

Software automatically computes sensitivity, acceleration, deviation, and detects errors such as zero shift

Condensable results table provides data on each shock pulse and averaged results at a glance

SPECIFICATIONS		
Performance		
Acceleration Range	20 g – 10 000 g	196 – 98 000 m/s ²
Reference	PCB Model 301A12	
Type	ICP® Accelerometer	
Sensitivity	0.5 mV/g	
Pulse Width	0.1 - 3.0 ms	
DUT Mass	50 gram max.	
Uncertainty ^[1]	2.2%	
Automated Calibration	up to 10 000 g	
Sensor Mounting	¼ – 28 UNF Thread Size	
Air Supply Pressure	90 – 150 psi [6.2 – 10 bar]	
ISO 8573.1 Quality Class	4	
Air Filter Requirements		
Dirt (Particle Size)	15 micron	
Water Pressure Dewpoint (100 psi gauge) [128 ppm vol]	37 °F	3 °C
Oil (including vapor)	5 mg/m ³	

[1] Range 20 g to 10,000 g

Shock Calibration Configurations	
K9525C	Stand-alone, turnkey manual Shock Calibration System using PneuShock™ actuator. Measures from 20 g – 10 000 g.
9155D-525	Option for Accelerometer Calibration Workstation Model 9155D. PneuShock™ calibration option. Measures from 20 g – 10 000 g.
9155D-535	Option for Accelerometer Calibration Workstation Model 9155D. PneuShock™ calibration option. Measures from 20 g – 10 000 g. Automated control up to 10 000 g.
Other Calibration Systems	
9155D	Turnkey Accelerometer Calibration Workstation. Calibrates accelerometers per ISO 16063-21 from 0.1 Hz – 20 kHz.
K394B30	Calibration Exciter System, includes 15 kHz air-bearing shaker, ICP reference standard with signal conditioner and SmartAmp™ (AC amplifier, DC supply and air regulator). Requires 50 psi air supply. A2LA accredited laser primary cal data.
K394B31	Calibration Exciter System, includes 20 kHz air-bearing shaker, ICP reference standard with signal conditioner and SmartAmp™ (AC amplifier, DC supply and air regulator). Requires 50 psi air supply. A2LA accredited laser primary cal data.
9350C	Precision Acoustic Calibration Workstation, turnkey automated cal system, performs traceable calibrations on mics, preamps and sound sources from 20 – 100 000 Hz. Includes acoustic test chamber for convenient mounting and reduction of background noise.