



MODEL 9155D-525

## SHOCK ACCELEROMETER CALIBRATION

- Provides calibration and linearity check from 20 g to 10 000 g
- Uses state-of-the-art pneumatically actuated exciter (requires 80 to 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 control of projectile drive pressure and pulse width
- Digital pressure indication aids in control and repeatability

## CONTROLLED & CONSISTENT IMPACT

The Accelerometer Calibration Workstation with Model 9155D-525 Shock Calibration option 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 seamlessly integrates with the Model 9155 Accelerometer Calibration Workstation, making the shock test quick and easy. The 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 9155 Accelerometer Calibration Workstation features back-to-back comparison calibration of piezoelectric (PE), capacitive (VC), and piezoresistive (PR/MEMS) mode accelerometers for both sensitivity and phase according to ISO 16063-21. Printed certificates fulfill the requirements set forth by ISO 17025 for calibration certificates.

## SPECIFICATIONS

Acceleration Range	20 g – 10 000 g	196 – 98 000 m/s <sup>2</sup>
Reference	PCB Model 301A12	
Type	ICP® Piezoelectric	
Sensitivity	0.5 mV/g	
Uncertainty	2.2% typical	
Sensor Mounting	1/4-28 UNF Thread Size	
Air Supply Pressure	80 psi [5.5 bar]	
ISO 8573.1 Quality Class	4	
Air Filter Requirements		
Dirt (Particle Size)	15 microns	
Water Pressure Dewpoint (100 psi gauge) 128 ppm vol.	37 °F	3 °C
Oil (Including Vapor)	5 mg/m <sup>3</sup>	

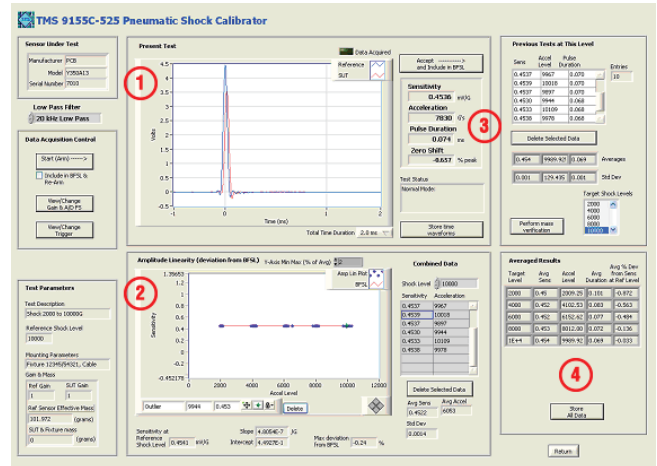
## Other System Options

9155D-100	<b>19" Rack Integration.</b> Approx. 36.5"H x 21.75"W x 26"D [93 cm x 55 cm x 66 cm]. Integrates components in 19" rack.
9155D-120	<b>Shaker Mount.</b> Provides wood pedestal to support calibration shaker. Requires user to fill with sand (not included).
9155D-160	<b>Tool Kit.</b> Includes torque wrench, screwdrivers, crescent wrenches, toolbox, etc.
9155D-350	<b>Calibration Label Printing.</b> Provides automatic calibration label printing using a Zebra thermal transfer label printer.
9155D-400	<b>TEDS Sensor Support.</b> Provides for automatic update of TEDS sensors. Requires 9155D-443 option.
9155D-442	<b>Basic ICP Signal Conditioning.</b> Adds signal conditioner for ICP and charge mode sensors.
9155D-443	<b>Dual-mode Charge Amplifier.</b> Computer control and automated switching between ICP and charge mode sensors.
9155D-445	<b>Capacitive Sensor Signal Conditioning.</b> Adds signal conditioner for capacitive sensors.
9155D-478	<b>Piezoresistive Signal Conditioning.</b> Adds support for piezoresistive sensors. Includes PCB 478A30 signal conditioner.
9155D-501	<b>Linearity.</b> Provides for multipoint sensor linearity checks via sinusoidal vibration up to 40 g.
9155D-550	<b>Resonance Check.</b> Provides for resonance check of accelerometers up to 50 kHz.
9155D-575	<b>Laser Primary Calibration.</b> Adds primary calibration capability as specified in ISO 16063-11.
9155D-600	<b>Velocity Sensor Calibration.</b> Allows calibration of velocity sensors. Reports data in velocity units.
9155D-771	<b>Low Frequency (0.5 Hz–500 Hz).</b> Long stroke shaker with SmartStroke™ technology and accelerometer reference sensor.
9155D-779	<b>Low Frequency (0.1 Hz–500 Hz).</b> Long stroke shaker with SmartStroke™ technology, accelerometer and optical reference sensors.

## Other System Options (Continued)

9155D-830	<b>K394B30 Air Bearing Shaker.</b> Adds precision air-bearing shaker 5 Hz – 15 kHz.
9155D-831	<b>K394B31 Air Bearing Shaker.</b> Adds precision high-frequency air-bearing shaker 5 Hz – 20 kHz.
9155D-913	<b>Impulse Calibration.</b> Allows dynamic impulse calibration of pressure transducers from 200 to 15 000 psi
9155D-961	<b>Hammer Calibration.</b> Allows calibration of instrumented impact hammers, includes 9961C cal fixture.

## 9155-525 Software



1. Displayed time data allows technician to view waveform and check for anomalies in the shock pulse
2. Linearity plot provides a good overview of results during the test
3. Software automatically computes values such as sensitivity, acceleration, pulse duration, and zero shift
4. Results table provides a quick look at the average results for all test levels