THE MODAL SHOP
AN AMPHENOL COMPANY

MODEL **9155D-510**

SHUNT CALIBRATION OPTION

- Perform bridge completion shunt calibration on your piezoresistive accelerometers

- Included precision resistor set eliminates searching

- Mounting fixture set facilitates sensor mounting

- Use with 9155D-442 option for seamless signal conditioning

- Integrated resistor switch box eliminates time-consuming resistor insertion

- Integrated database facilitates sensor impedance logging

- Commonly utilized in the automotive crash test industry for increased assurance of sensor health

CALIBRATION SYSTEM MODEL 9155

The Accelerometer Calibration Workstation with Model 9155D-510 Shunt Calibration option allows users to calibrate their piezoresistive sensors using a bridge completion shunt calibration technique. This option includes precision resistors as well as a convenient electrical control box, making it easy to switch between the various resistors. Shunt calibration is commonly utilized in the automotive crash test industry as a means to verify the health of the piezoresistive sensors being used. This option seamlessly integrates with the Model 9155 Accelerometer Calibration Workstation to quickly and easily perform shunt calibration and report the results on an easy-to-read calibration certificate.

The Accelerometer Calibration Workstation Model 9155 features back-to-back comparison calibration of ICP® (IEPE), and charge 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.

CE

SPECIFICATIONS

Bridge Resistor Values	24.9, 49.9 kW
Resistor Tolerance	0.01%
Calibration Type	Zero Output or Shunt Resistor
Accuracy (typical)	2%
Shunt Resistors	up to 5

Other System Options

9155D-100	**19 in Rack Integration.** Approx. 36.5 in H x 21.75 in W x 26 in D [93 cm x 55 cm x 66 cm]. Integrates components in 19 in rack.
9155D-120	**Shaker Mount.** Provides wood pedestal to support calibration shaker. Requires user to fill with sand (not included).
9155D-160	**Tool Kit.** Includes torque wrench, screwdrivers, crescent wrenches, toolbox, etc.
9155D-350	**Calibration Label Printing.** Provides automatic calibration label printing using a Zebra thermal transfer label printer.
9155D-400	**TEDS Sensor Support.** Provides for automatic update of TEDS sensors. Requires 9155D-443 option.
9155D-442	**Basic ICP Signal Conditioning.** Adds signal conditioner for ICP and charge mode sensors.
9155D-443	**Dual-mode Charge Amplifier.** Computer control and automated switching between ICP and charge mode sensors.
9155D-445	**Capacitive Sensor Signal Conditioning.** Adds signal conditioner for capacitive sensors.
9155D-478	**Piezoresistive Signal Conditioning.** Adds support for piezoresistive sensors. Includes PCB 478A30 signal conditioner.
9155D-501	**Linearity.** Provides for multipoint sensor linearity checks via sinusoidal vibration up to 40 g.
9155D-525	**Shock Calibration.** Provides for verification of shock accelerometers from 20 g to 10 000 g.
9155D-550	**Resonance Check.** Provides for resonance check of accelerometers up to 50 kHz.
9155D-575	**Laser Primary Calibration.** Adds primary calibration capability as specified in ISO 16063-11.
9155D-600	**Velocity Sensor Calibration.** Allows calibration of velocity sensors. Reports data in velocity units.
9155D-771	**Low Frequency (0.5 Hz – 500 Hz).** Long stroke shaker with SmartStroke™ technology and accelerometer reference sensor.
9155D-779	**Low Frequency (0.1 Hz – 500 Hz).** Long stroke shaker with SmartStroke™ technology, accelerometer and optical reference sensors.
9155D-830	**K394B30 Air-Bearing Shaker.** Adds precision air-bearing shaker 5 Hz – 15 kHz.
9155D-831	**K394B31 Air-Bearing Shaker.** Adds precision high-frequency air-bearing shaker 5 Hz – 20 kHz.
9155D-913	**Impulse Calibration.** Allows dynamic impulse calibration of pressure transducers from 200 to 20 000 psi.
9155D-961	**Hammer Calibration.** Allows calibration of instrumented impact hammers, includes 9961C cal fixture

SHUNT CALIBRATION OPTION

The Model 9155D-510 Shunt Calibration option allows users to calibrate piezoresistive sensors using a bridge completion shunt calibration technique. This option includes precision resistors as well as an electrical control box, making it easy to switch between various resistors

9155-510 Software
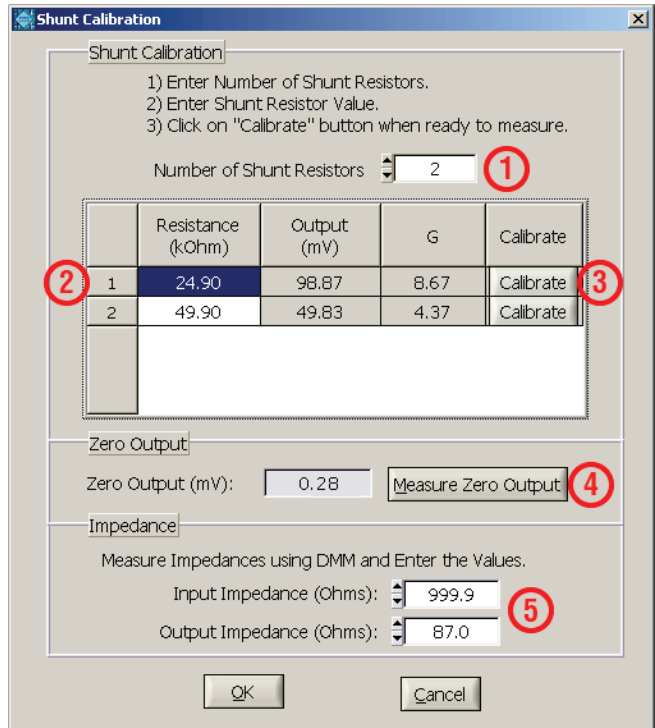
1. Up to 5 shunt resistors can be used

2. Resistance level of bridge resistors

3. Calibrate through shunt resistors

4. Calibrate sensor zero output

5. Software facilitates logging sensor impedance values into database