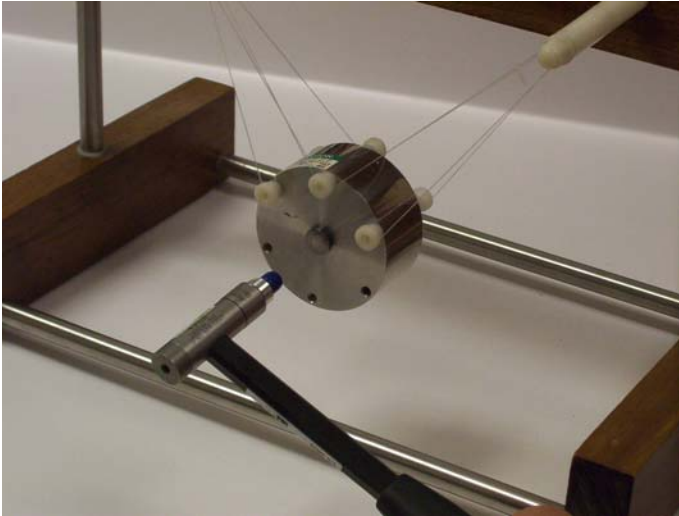


IMPACT HAMMER CALIBRATION SYSTEM



The Accelerometer Calibration Workstation with Model 9155D-961 Hammer Calibration option allows users to quickly and easily calibrate their instrumented impact hammers and account for tip inertia or extender mass. Hammer calibration is performed by impacting a pendulous mass instrumented with a calibration accelerometer. Using Newton's second law ($F = ma$), the measured acceleration is multiplied by the known mass to calculate the impact force. The software supports calibration of instrumented hammers with up to 8 different tips, both with and without

an extender mass. This economical option uses the existing high-quality data acquisition system in the base Model 9155 Accelerometer Calibration Workstation to quickly and easily perform hammer calibrations and report the results on an easy-to-read, Microsoft Excel based calibration certificates. Printed certificates fulfill the format requirements set forth by ISO 17025 for calibration certificates.

BENEFITS:

- Quickly and accurately determines the sensitivity of impact hammers with various tip configurations
- Conforms to industry-approved standards and handbooks
- Includes verification hammer for control and regular system validation
- Provides customizable, ISO 17025 compliant calibration certificates



Impact Range (maximum)	1000 lbf [4.45 kN]
Expected Overall Uncertainty	2.5 % ^{1,2}
Reference Accelerometer	
Manufacturer/Model	PCB Model 353B04 ³
Nominal Sensitivity (+/-5%)	10 mV/g [1.02 mV/ms ²]
Reference Mass	
Type (includes 2 masses)	TMS 9962C
Material	Stainless Steel
Mass	1 and 2 lbs [454 and 907 grams]
Operating Temperature	60-90° F [16-32° C]
Fixture Size	16" x 9" x 20" [406 x 229 x 508 mm]
Fixture Weight (excl. cal masses)	5.5 lbs [2.5 kg]
Sensor Mounting	1/4-28 UNF female

¹ Based on TMS A2LA Scope of Accreditation

² 95% confidence level (k=2)

³ Included with 9155 Calibration System

The screenshot displays the TMS Impact Hammer Calibrator software. It features a central graph showing a test run with a peak acceleration of approximately 0.8 g. To the left, there are controls for 'Edit Acceleration' and 'Hammer Configuration'. To the right, there are sections for 'Hammer Configuration' and 'Averaged Results'. The 'Averaged Results' table shows the following data:

Hammer Configuration	Avg. Sens.	Total Count	Avg. Duration
1	50.029	23,747	3.38
2	51.84	31,088	3.39
3	49.025	17,917	2.267
4	50.517	12,028	2.31
5	50.201	24,029	6.4567
6	51.476	19,822	6.4222
7	49.958	33,793	6.2
8	52.045	28,28	3.22

OTHER OPTIONS AVAILABLE:

9155D-100	19" Rack Integration. Approx. 36.5"H x 21.75"W x 26"D [93cm x 55cm x 66cm]. Integrates components in 19" 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 40g.
9155D-525	Shock Calibration. Provides for verification of shock accelerometers from 20g to 10,000g.
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 (0.5Hz-500Hz). Long stroke shaker with SmartStroke™ technology and accelerometer reference sensor.
9155D-779	Low Frequency (0.1Hz-500Hz). 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 15,000 psi.

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