

MODEL 9155D-961

IMPACT HAMMER CALIBRATION SYSTEM

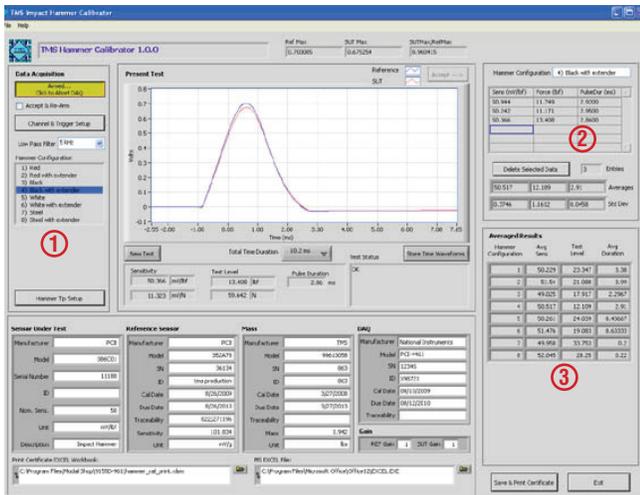
- Quickly and accurately determines the sensitivity of impact hammers with various tip configurations
- Conforms to industry-approved standards and handbooks
- Includes verification hammer for control and regular system validation
- Provides customizable, ISO 17025 compliant calibration certificates

VIA PENDULOUS MASS

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 certificate. Printed certificates fulfill the format requirements set forth by ISO 17025 for calibration certificates.

SPECIFICATIONS	
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)	TMS9962C
Material	Stainless Steel
Mass	1 and 2 lb (454 and 907 g)
Operating Temperature	60 to 90° F (16 to 32° C)
Fixture Size	16 x 9 x 20 in (406 x 229 x 508 cm)
Fixture Weight (excl.cal masses)	5.5 lb (2.5 kg)
Sensor Mounting	¼-28 UNF female

9155-961 Software



1. User-defined hammer configuration
2. Current test run data
3. Overview of results

Optional Accessories	
9155D-100	19" 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" 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-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-875	High Payload Calibration Shaker. Offers a useable frequency range of 5Hz to 10kHz for heavy payload transducers.
9155D-961	Hammer Calibration. Allows calibration of instrumented impact hammers, includes 9961C cal fixture.

- [1] Based on TMS A2LA Scope of Accreditation
- [2] 95% confidence level (k=2)
- [3] Included with 9155 Calibration System