



MODEL 086M92ES

ELECTRIC IMPACT HAMMER

- Rugged design for long-term performance
- Repeatable force input
- Reliable operation, impact after impact
- Interchangeable force sensor

TYPICAL APPLICATIONS

- Modal Analysis
- Automated impact testing
- Resonant Acoustic Testing
- Structural integrity
- FEA Model Verification

RUGGED, RELIABLE PERFORMANCE

The Electric Impact Hammer Model 086M92ES is an industrially packaged, heavy duty impactor ideal for applications that require repeatable force inputs. Originally designed for industrial applications, the 086M92ES is designed to withstand millions of impacts under high duty-cycle so it will last a lifetime.

The externally mounted force sensor provides an accurate measurement at the point of impact. The hammer includes a selection of impact tips (like those supplied with the PCB 086C03 General Purpose Impact Hammer) that allow the user to control the impact's shape and frequency content. The force sensor is interchangeable with other 208 Series PCB Force Sensors to cover a wide force range, or a PCB 288D01 Impedance Head can be mounted for measuring impact acceleration along with the force. System includes an industrial foot pedal switch to trigger impact, or contact closure triggers.

SPECIFICATIONS	
Performance	
Durability	> 1 000 000 cycles
Force Range	50 to 500 lbf (220 to 2200 N)
Force Sensor	PCB 208C04
Nominal Sensitivity	5 mV/lb (1.1 mV/N)
Sensor Resolution	0.01 lbf RMS (0.04 N)
Stroke Length	3/8 to 1 in (1 to 2.5 cm)
Repeatability	< 10%
Maximum Impact Rate	3 impacts per second
Force Adjustment	0.01 to 10.0
Hammer Power	24 V DC
Current Draw	1.5 peak / 0.4 average amps
External Trigger Input	Contact closure
External Sensor Power	ICP® (IEPE)
Polarity, Compression	Positive
Physical	
Overall Dimensions (L x W x H)	16 x 7 x 4.5 in (40.5 x 18 x 11.5 cm)
Weight	17 lb (7.7 kg)
Connectors	
Sensor Output	10-32 Jack
External Trigger	BNC Jack
Power	Conxall Jack
Impact Tip Mounting Thread	10-32 female
Impact Tips Included	
084B03	Hard Tip
084B04	Medium Tip
084B05	Soft Tip
084B11	Super Soft Tip
Temperature Range	32 °F to 122 °F (0 °C to 50 °C)
Supplied Accessories	
Foot Pedal Trigger with Integral 6 ft Cable	
Hammer AC/DC Power Supply (SDC003-PS24P)	
2 Sensor Cables 10 ft (003C10)	
User Manual	

MODAL TEST ACCESSORIES	
Model	Description
485B36	USB-Powered ICP™ Signal Conditioner: utilizes your PC's USB power to provide 2-channels of ICP signal conditioning with output to a sound card or other acquisition device.
2060	Modal Shaker: a lightweight electrodynamic modal exciter, is capable of providing up to 60 lbf (267 N) of peak force excitation in a small footprint weighing just 37 pounds (17 kg).
288D01	Impedance Head Driving Point Sensor: ICP® impedance head, force/accel: Force: 100 mV/lb, range ± 50 lb; Accel: 100 mV/g, ± 50 g range.
8032S	AirRide Isolators: provide isolation and support of heavy structures during modal testing.
2050A	Shaker Stand – lateral excitation stand provides a versatile means of adapting modal shakers for horizontal or skewed input.

THE MODAL SHOP

AN MTS COMPANY

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The Modal Shop, Inc. offers structural vibration and acoustic sensing systems and services for various applications in design and test laboratories as well as manufacturing plants. An extensive sound and vibration rental program, precision calibration systems, and both modal and vibration shakers are designed to simplify test phases. Non Destructive Testing Systems help manufacturers provide 100% quality inspection of metal components. The Modal Shop, Inc. is a subsidiary of PCB Piezotronics, Inc., and PCB® is a wholly owned subsidiary of MTS Systems Corporation.

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