

# ~Calibration Certificate~

Model No.: 086C03 Customer: \_\_\_\_\_

Serial No.: LW32655- 31546 \_\_\_\_\_

Description: Impulse Force Hammer PO No.: \_\_\_\_\_

Manufacturer: PCB Calibration Method: Impulse (AT-303-1)

### Data

Output Bias: **10.0** Temperature: **73 °F** **23 °C** Relative Humidity: **52 %**

#### HAMMER SENSITIVITY:

Hammer Configuration	Tip	Plastic/Vinyl	Plastic/Vinyl	
	Extender	None	Steel	
Hammer Sensitivity	mV/lb	9.949	10.47	
	(mV/N)	<del>2.237</del> 2.361	<del>2.353</del> 2.493	


**Above data is valid for all supplied tips.**

#### Condition of Unit:

As Found N/A.  
As Left New unit in tolerance.

#### Notes:

1. Calibration is NIST Traceable thru Project 681/280472 and PTB Traceable thru Project 10065.
2. This certificate may not be reproduced, except in full, without written approval from PCB Piezotronics, Inc..
3. Calibration is performed in compliance with ISO 10012-1, ANSI/NCSL Z540-1-1994.
4. See Manufacturer's specification sheet for a detailed listing of performance specifications.
5. Measurement uncertainty (95% confidence level with a coverage factor of 2) is +/-3.8%.

Technician: Scott Skibniewski 

Date: 1/28/2013



CALIBRATION CERT # 1862.02



Headquarters: 3425 Walden Avenue, Depew, NY 14043  
Calibration Performed at: 10869 Highway 903, Halifax, NC 27839

TEL: 888-684-0013

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www.pcb.com

Calibration Station: 58

# ~ Calibration Certificate ~

Per ISO 16063-21

Model Number: 352A21

Serial Number: IW155398

Description: ICP® Accelerometer

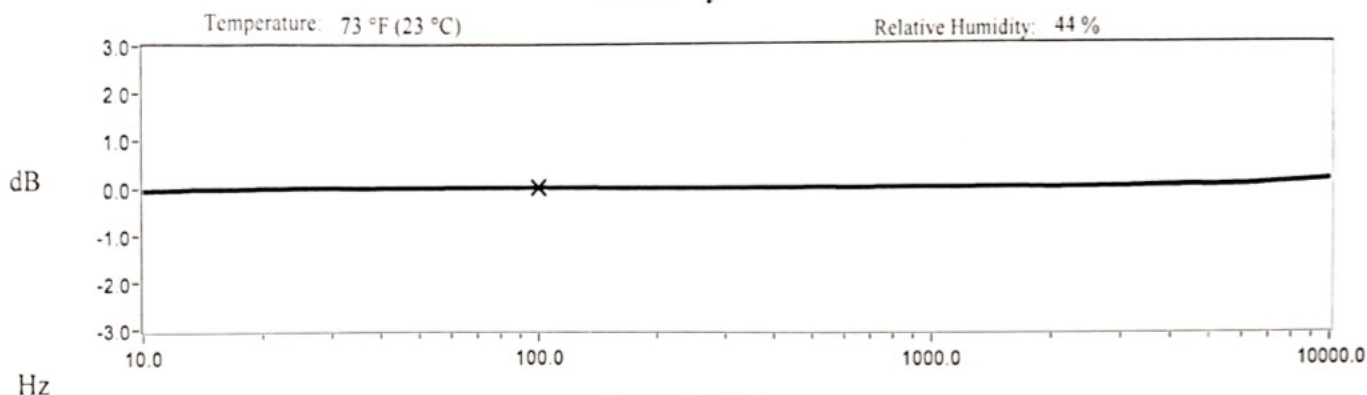
Manufacturer: PCB

Method: Back-to-Back Comparison AT-401-3

### Calibration Data

Sensitivity @ 100 Hz	10.35 mV/g (1.056 mV/m/s <sup>2</sup> )	Output Bias	9.5 VDC
		Transverse Sensitivity	1.3 %
Discharge Time Constant	2.2 seconds	Resonant Frequency	94.7 kHz

### Sensitivity Plot



### Data Points

Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)	Frequency (Hz)	Dev. (%)
10	-0.8	300	-0.2	7000	0.7
15	-0.4	500	-0.1	10000	1.7
30	-0.2	1000	-0.1		
50	-0.1	3000	0.0		
REF. FREQ.	0.0	5000	0.3		

Mounting Surface: Tungsten Adapter    Fastener: Adhesive  
 Acceleration Level (pk): 10.0 g (98.1 m/s<sup>2</sup>)

Fixture Orientation: Vertical

\*The acceleration level may be limited by shaker displacement at low frequencies. If the listed level cannot be obtained, the calibration system uses the following formula to set the vibration amplitude: Acceleration Level (g) = 0.008 x (freq)<sup>2</sup>.  
 †The gravitational constant used for calculations by the calibration system is: 1 g = 9.80665 m/s<sup>2</sup>.

### Condition of Unit

As Found: n/a  
 As Left: New Unit, In Tolerance

### Notes

1. Calibration is NIST Traceable thru Project 681/280472 and PTB Traceable thru Project 10065.
2. This certificate shall not be reproduced, except in full, without written approval from PCB Piezotronics, Inc.
3. Calibration is performed in compliance with ISO 9001, ISO 10012-1, ANSI Z540.3 and ISO 17025.
4. See Manufacturer's Specification Sheet for a detailed listing of performance specifications.
5. Measurement uncertainty (95% confidence level with coverage factor of 2) for frequency ranges tested during calibration are as follows: 5-9 Hz; +/- 2.0%, 10-99 Hz; +/- 1.5%, 100-1999 Hz; +/- 1.0%, 2-10 kHz; +/- 2.5%.

Technician: Joseph Rogerson      Date: 1/23/2013



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