

SHOCK300

TRI-AXIAL SHOCK DATA LOGGER



Features

- Compact size
- 3-axis shock
- Fully configurable measurements
- Long life rechargeable battery
- Large capacity event memory
- Programmable start time
- Real-time operation
- CE compliant
- Separate low-g and high-g accelerometers

Applications

- Complete environmental shipment monitoring
- Shipping live cargo
- Aircraft turbulence measurement
- Endurance testing
- Assembly line monitoring
- Brake testing
- Laboratory drop testing
- Machinery monitoring
- Railcar coupling impacts

The Shock300 is a battery powered, stand alone 3-axis shock data logger. The Shock300 is specifically designed for documenting dynamic environments such as moving vehicles, trucks, containers, ships, etc. The device is also valuable in characterizing environments such as production and assembly lines of delicate electronics, IC fabrication, communications and computer components. This compact, portable, easy to use device will measure and record up to 4,192,254 measurements. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. The device can be started and stopped directly from your computer and its small size allows it to fit almost anywhere. The Shock300 makes data retrieval quick and easy. Simply plug it into an empty USB port and our user-friendly software does the rest.



The Shock300 provides simple ordering as one model which provides three acceleration ranges. The ranges are implemented on separate low-g and high-g accelerometers for excellent resolution and accuracy.

MADGETECH DATA LOGGER SOFTWARE

Key

- A** Graph View
- B** Tabular Data View
- C** Statistics
- D** Digital Calibration
- E** Copy to Excel®

The screenshot displays the Madgetech software interface. The main window shows a graph view (A) with three data series plotted against time. A data table (B) is visible in the bottom left corner, showing columns for Date, Time, Time Zone, and Delta. A statistics window (C) is open in the bottom right, displaying various metrics. A digital calibration dialog (D) is also visible, allowing for adjustments to the X, Y, and Z axes. A 'Report Properties' dialog (E) is shown in the top right, with options for 'Report Properties' and 'Export To Excel'.

Software Features:

- Multiple graph overlay
- Statistics
- Digital calibration
- Zoom in/ zoom out
- Lethality equations (F0, PU)
- Mean Kinetic Temperature
- Full time zone support
- Data annotation
- Min./Max./Average lines
- Data table view
- Automatic report generation
- Summary view
- Multilingual

SHOCK300 SPECIFICATIONS*

*Specifications are subject to change without notice. Specific warranty remedy limitations apply. Call (603) 456-2011 or go to madgetech.com for details.

SHOCK

Accelerometer Type:	MEMS Semiconductor		
Acceleration Range (g):	±15 g	±100 g	±300 g
Acceleration Resolution (g):	0.02 g	0.05 g	0.2 g
Calibrated Accuracy (g):	±0.3 g	±2.0 g	±6.0 g
Sampling Rate:	1000 Hz		
Accelerometer Freq. Resp.:	>1000 Hz (15 g) >500 Hz (100 g, 300 g)		
Reading Rate:	1024 Hz to 5 minutes for shock, selectable in software.		

BATTERY WARNING: FIRE, EXPLOSION AND SEVERE BURN HAZARD. DO NOT SHORT CIRCUIT, CRUSH, PENETRATE, INCINERATE OR DISASSEMBLE. AVOID TEMPERATURES ABOVE THE MAXIMUM OPERATING TEMPERATURE OF THE PRODUCT. DISPOSE OF PROPERLY. CHARGE ONLY WITH THE PROVIDED MADGETECH CHARGER, OR FROM OTHER USB POWER SOURCE VIA THE MADGETECH PROVIDED CABLE.

Memory:	4,192,254 readings (1,397,418 per channel, all channels in use)
Start Modes:	Software programmable immediate start or delay start, up to 6 months in advance
Real Time Recording:	May be used with PC to monitor and record instantaneous measurements in real time
Password Protection:	An optional password may be programmed into the device to restrict access to configuration options. Data may be read out with the password.
Calibration:	Digital calibration through software
Calibration Date:	Automatically recorded within device
Battery Type:	Internal Lithium Ion pack, charger included
Battery Life:	90 days typical at 64Hz rate
Data Format:	Date and time stamped gravities (g and mg)
IP Rating:	IP64
Time Accuracy:	10 seconds/month (at 0 °C to 50 °C)
Computer Interface:	USB (type C cable required); 1Mbaud
Software:	Windows XP SP3 or later
Software Compatibility:	Standard Software version 4.2.16.0 or later Secure Software version 4.2.17.0 or later
Operating Environment:	-20 °C to +60 °C, 0 %RH to 95 %RH non-condensing
Dimensions:	3.4 in x 1.7 in x 1.3 in (86 mm x 43 mm x 33 mm)
Weight:	8 oz (227 g)
Enclosure:	Anodized aluminum
Approvals:	CE compliant EMC Directive 2014/30/EU RoHS Directive 2011/65/EU

ORDERING INFORMATION

MODEL	PART NUMBER	DESCRIPTION
SHOCK300	902167-00	±15 g / ±100 g / ±300 g Tri-Axial Shock Data Logger, Battery Charger and USB Type C Interface Cable

**ASK ABOUT
OUR OTHER
DATA
LOGGERS**

- Temperature
- Humidity
- Pressure
- pH Level
- Shock
- LCD Display
- Pulse/Event/State
- Current
- Voltage
- Wireless
- Intrinsically Safe
- Spectral Vibration
- Motion



www.systemtech.se
+46 (0)13 35 70 30 • sales@systemtech.se
Linnégatan 14 • 582 25 LINKÖPING

For Quantity Discounts call (603) 456-2011 or email sales@madgetech.com



6 Warner Road · Warner, NH 03278
Phone: (603) 456-2011 · Fax: (603) 456-2012

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