



MONARCH INSTRUMENT

Innovation in Instrumentation

DataChart® Shock101

Tri-Axial G Force Shock Data Recorder

Features

- Self Contained 3 Axis Acceleration, Date, Time Recorder
- Measures & Records Peak Shock Level, Date & Time
- Stores up to 43,690 Readings per channel

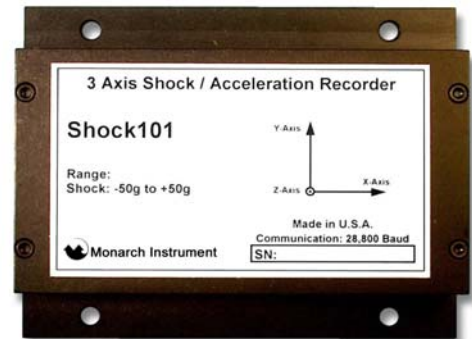
Applications

- Container Testing
- Aircraft Takeoff & Landing Recording
- Brake Testing
- Fragility Testing
- Laboratory Drop Testing – Package Testing
- Aircraft Turbulence Measurement
- Machinery Monitoring
- Railcar Coupling Impacts

Description

The Shock101 is a 3-axis, battery powered, stand-alone, programmable shock recorder. This low-cost recording device measures and records the peak acceleration levels to which it is exposed, along with their date and times of occurrence. The Shock101 utilizes a low power design, enabling operation a week at a time on a standard 9-volt battery. The Shock101 is designed for documenting dynamic environments such as moving vehicles, trains, containers, ships, etc. The device is also useful in characterizing environments such as production and assembly lines of delicate electronics, IC fabrication, communications and computer components.

During operation the Shock101 can measure and record 43,690 time-tagged peak acceleration levels per axis. The storage medium is non-volatile solid-state memory, providing maximum data security even if the battery becomes discharged. For setup and data recovery, the Shock101 is used in conjunction with a host PC running our user-friendly Windows based software. Once activated, the Shock101 senses and records the peak acceleration levels that occur within adjacent "time bin" periods. The bin period is selectable from 2 seconds to 12 hours. At the end of each bin period, the highest acceleration sensed within that period is stored.



Specifications

Acceleration Range: -50G to + 50G

Calibrate Acceleration Accuracy: $\pm 0.5G$

Acceleration Resolution: 0.1 G (12 bit)

Acceleration Calibration: Digital calibration is available through software.

Sampling Rate: 2 milli-second

Recording Interval: 30/minute to 2/day selectable through software.

Start Time: Start time and date are programmable through software.

Memory: 43,690 readings per axis.

User-Replaceable Battery: 9V battery, 1 week typical.

Time Accuracy: ± 1 minute per month at 20°C when RS232 not in use.

Data Format: Date and Time stamped, G (3 Axis)

Weight: 15 oz. (425)

Computer Interface: RS232 Serial Port

Software: Windows®95/98/NT/2000/XP based software for complete control and operation.

Operating Environment: -40°C to +80°C, 5% to 95% RH (non-condensing).

Dimensions: 3.5" x 4.4" x 1.0"

Material: Black Anodized Aluminum

Software Features

The software used to operate the Shock101 requires no programming skills, enables users to effortlessly select reading rate, user ID and initiate the start of data collection within moments after user connects hardware. After retrieving the data, it may be viewed instantly in graphical or tabular form.

Zoom In/Out: Use mouse to click and drag to select area for zooming in or out.

Statistics: min, max, mean, standard deviation

Cursor: Use mouse to click on graph to obtain specific reading information.

Programmable Start Time: Program start time and date through software.

Annotating Data: All data points may be easily annotated.

Printing: Automatic printing of data in graphical or tabular form

User ID: Programmable through software and stored within device.

AutoScale: Autoscale function may be enabled or disabled by user.

Calibration: Automatic calibration in software and calibration parameters stored within device

Exporting Data: All data can be directly exported to Microsoft Excel® or to text format.

Graph Grid Size: The grid size is user selectable.

ORDERING INFORMATION

<u>Item No.</u>	<u>Model</u>	<u>Description</u>
5399-0601	Shock101	Tri-Axial Shock Data Logger
5399-9901	IFC101	Interface Cable, Software, Manual
5399-9999	N.I.S.T. Cert.	N.I.S.T. Calibration Certificate

Ask About Our Other Data Loggers

Temperature	4.0 to 20.0 mA
Humidity	Pulse/Counter
Pressure	Submersible
pH	Level
Shock/Vibration	Multi-Parameter
Voltage	Intrinsically Safe
RF Transmitters	

