



Field Instruments
Monitoring Devices

Solutions

SAVER™ 3L30 – affordable data acquisition instrument

When low cost, ease of operation, small size and accurate data are important issues the SAVER™ 3L30 is the instrument for you.

The SAVER™ 3L30 continuously monitors all shocks but only records those events that are significant. Each event is Date and Time stamped to help determine where the product was and who was handling it when the event occurred. The powerful analysis software will display waveforms for all stored events.



Analysis Software includes:

- Trip Information
- Trip View (Events vs. Total Record Time)
- Event Table (Spreadsheet of all Events)
- Event Viewer (Acceleration vs. Time waveforms)
- Acceleration vs. Velocity Change (Damage Boundary)
- Shock Response Spectrum (SRS)
- Event PSD
- Summary PSD

The informative status lights indicate operating mode and battery status, and the Alarm light flashes when a user set threshold has been exceeded. Without having to upload data or even press a button you can know on the receiving dock that there has been transportation abuse and note it on the receiver or inspect the shipment in front of the driver. No more putting damaged goods into inventory only to find the problem weeks later when they are needed.

With its small size and light weight the SAVER™ 3L30 will easily fit most shipping containers and the lithium rechargeable batteries will run the instrument for 30 days on a single charge.

Features:

- Small Size: Measures 3" x 2.9" x 1.6" and weighs only 1 pound, easily fitting into almost any shipping container.
- Power: Uses rechargeable batteries that run for 30 days on a single charge.
- Informative status indicators: Four status lights tell you when the unit is on, when an alarm condition has occurred, and low battery / charging conditions.
- Simple Operation: So easy to use you can set up the SAVER™ 3L30 and start recording data in less than one minute. A report writer produces a detailed report just seconds after retrieving data.
- Full Waveform Recorder: Display and analyze the largest 100 dynamic events. Software provides Time Domain, both Event and Summary Power Spectral Density (PSD) and Shock Response Spectrum (SRS).
- Sensing: Internal Tri-axial Accelerometer with a measurement range of 100 G's.
- Memory: Continuously measure all shock events and only stores the largest 100 events.
- Affordable: Reusable, rugged and low cost.



PHYSICAL	
Envelope Size	3 x 2.9 x 1.6 inches (76 x 74 x 41 mm)
Volume	Less than 14 cubic inches (231 cubic cm.)
Weight	Approximately 1 Pound (.45 kg)
Case Material	6061 – T6 Aluminum, Clear Alodine Finish
Indicators	Green “Monitor” LED to indicate SAVER™3L30 is Functioning; Red “Alarm” LED to indicate SAVER™3L30 Recorded a Threshold Exceeding Event; Yellow “Battery” LED to indicate Low Battery Voltage Condition; Green “Charge” LED to indicate SAVER™3L30’s Batteries are Charging
Switches	“On / Off” Push Button to Control Power
Connectors	2.5 mm Male / Female for RS-232 Communications
Batteries	Rechargeable Lithium Batteries that Run for 30 Days Between Charges
DATA HANDLING	
Resolution	0.1G
Number of Channels	3 Channels (Tri-axial Accelerometer)
Sampling Rate	10 x Low Pass Filter (100 s/s, 200 s/s, 500 s/s, 1,000 s/s and 2,000 s/s)
Clock (Real Time)	Programmable Date and Time
SENSING	
Acceleration Range	± 100 G’s
Low Pass Filters	3 Pole Butterworth with Software Selectable Cutoff Frequencies of 10 Hz, 20 Hz, 50 Hz, 100 Hz and 200 Hz
DATA LOGGING AND MEMORY	
Data Acquisition Modes	Threshold Triggered
Recording Modes	Maximum Overwrite
Communication Speed with PC	RS – 232 Serial Interface at 115.2K Baud
Memory	Stores Largest 100 Events
ANALYSIS SOFTWARE (GRAPHIC AND TABULAR)	
Trip History	Displays Recorded Events vs. Total Record Time
Trip Information	User Defined trip Information
Trip Table	Tabular Listing of up to 100 events with Date and Time. User can sort data based on Date / Time, Tri-axial Peak G, Peak G and Delta V
Event Viewer	Acceleration vs Time Waveform Displays 3 Channel Peak G, Duration and DeltaV
Acceleration vs Delta V	3 Channel Damage Boundary Scatter Plot
SRS	3 Channel Shock Response Spectrum
Event PSD	3 Channel Power Spectral Density based on Single Event
Summary PSD	3 Channel Power Spectral Density based on all Summary Events
Host Computer Requirements	Windows 95, 98, 2000, or NT, XP with RS-232 Port

