IMPACT RECORDER OVERVIEW



Understanding SpotSee

SpotSee's impact and environmental recorders continually monitor and record the shock, vibration and environmental conditions experienced by structures, facilities and equipment during transit, storage and operation. These products record the direction, amplitude, and duration of impacts and internal temperature. Optional sensors record temperature, humidity, atmospheric pressure, tilt and roll. A GPS/ GPRS tracking module is available to pinpoint the location of mishandling or exposure to unfavorable conditions. SpotSee recorders help deter, monitor and minimize damage.



Benefits

- Helps identify optimal modes of transportation, routes, packaging, storage options, and operational conditions through full-journey profiling
- · Deters improper handling and operation
- Alerts recipients and operators to inspect goods and equipment for potential damage
- Isolates when and where unacceptable conditions occur and aids in the identification of accountable parties
- Allows for corrective action in cases of potential impact, vibration, tilt, roll, humidity, temperature, and pressure extremes
- Pinpoints potential areas for improvement in operational or logistics processes
- Confirms acceptable conditions during equipment operation, shipping and handling, and storage

Industries Served

- Aerospace
- Arts and Media
- Chemicals
- Defense
- Electronics
- Energy and Utilities
- Engineering
- Food and Beverage
- · Furniture and Fixtures
- Healthcare
- Logistics and Transport
- Order Fulfilment
- · Pharmaceutical
- Retail
- Scientific Research and Instruments

SpotSee Impact Recorders

All units have a self-contained design, free of exposed cables and wires that may obstruct or cause accidents. In addition, alarm levels and specifications are programmable and user-definable. This versatility then is further enhanced by prominent LED lights for visual notification.















SpotBot™ Cellular

Delivers tri-axial impact and temperature condition monitoring through cellular connectivity. Unacceptable impact events and temperature conditions are visualized through the SpotSee Cloud.

ShockLog® Cellular

Combines the power of the ShockLog® 298 Impact Recorder with cellular communication to deliver impact recording, real-time reporting and asset location. Impact, location and summary data can be accessed in the SpotSee Cloud.

ShockLog® Satellite

ShockLog[©] Satellite, formerly ShockTrak, combines flagship ShockLog[®] 298 Impact Recorder with satellite communication and GPS location to deliver outstanding impact recording, real-time reporting and asset location. Impacts, location and summary information can be viewed in the SpotSee Cloud.

ShockLog® 298

Records the complete shock curve of up to 870 impact events. Reports peak values (x, y, z), internal temperature and summary data. Options to report external temperature, humidity, tilt, roll, pressure, and GPS coordinates. Software tools provide post-journey data analysis.

ShockLog® 248

Records the complete shock curve of the first and 14th most significant impacts. Reports peak values (x, y, z), internal temperature and summary data. Options to report external temperature and humidity. Software tools provide post-journey data analysis.

SpotBot™ BLE

A low-cost data recorder for monitoring impact, tilt, temperature and humidity. Data connection via Bluetooth to a free mobile application.

ShockWatch® g-View

A low-cost option ideal for monitoring impact excursions (x, y, z) and internal temperature.



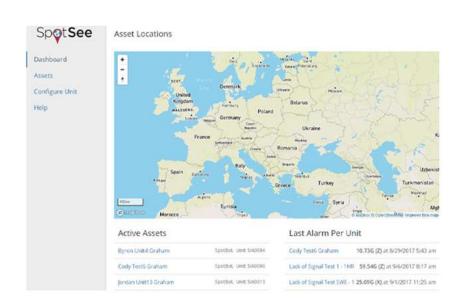
Valuing Relationships, Protecting Goods Address: 26 Tuas South Street 3, S(638026) Website: www.streampeak.com.sg

SpotSee Cloud

The SpotSee Cloud is where trip data is aggregated in real-time. The Cloud features visualizations for multiple units. The graphs are easy to read and include data such as specifics of impact with locations, impacts over time, histogram, and temperature.

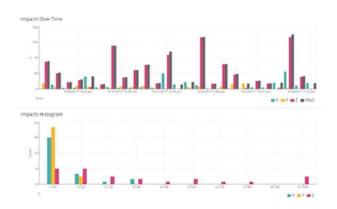
SpotSee Cloud Features

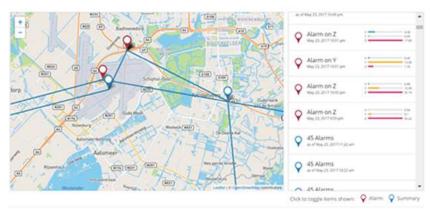
- Access to data from wherever you are with a secure web portal
- · Impact Alarms with q-level and direction
- · Real-time reporting and tracking of incidents
- Easy to read graphs
- Temperature Alarming for two temperature thresholds with the location of excursion
- · Impacts-over-time visualization of each asset
- Histogram the asset's impacts
- · Time-temperature graph



Real-time Reporting

The SpotSee Cloud tracks location and impacts in real-time. Summary information is sent to the cloud at predetermined intervals so you always know the status of your asset.





Detailed Impact Alarm Data

See all your asset alarms including location, time, impact g-level, and direction of impact. The data visualizes impacts over time so you can easily spot the higher outliers. The histogram is a quick view of the units impacts grouped by g-level so you can find out damage prone timings and locations.



Valuing Relationships, Protecting Goods Address: 26 Tuas South Street 3, S(638026) Website: www.streampeak.com.sg

Selection Guide

	SpotBot* Cellular	ShockLog® Satellite/ShockLog® Cellular	ShockLog* 298
Selection Criteria	Threshold monitor with cellular communication and location	Complete journey profiling with location and real-time communication	Complete journey profiling, expandability for future requirements, vibration (gRMS) monitoring
Recorder Type	Threshold	Complete event & max peak	Complete event & time slot (max peak)
Standard Measurements	Triaxial over threshold and internal temperature	Triaxial acceleration, max peak, internal temperature	Triaxial acceleration, gRMS vibration, max peal and internal temperature
Number of Events	Unlimited in cloud; top 10 in PDF; top 50 in CSV	Unlimited in cloud; up to 870 on device	Up to 870
Amplitude Scale	65G max	User programmable: 1G, 3G, 10G, 30G, 100G, or 200G	User programmable: 1G, 3G, 10G, 30G, 100G, c 200G
Frequency Filter	N/A	User programmable: 10Hz, 40Hz, 50Hz, 90Hz, 120Hz or 250Hz	User programmable: 10Hz, 40Hz, 50Hz, 90Hz 120Hz or 250Hz
Battery Life	Up to 75 days (reportedly 1x per hour)	Up to 1 year (Satellite) Up to 75 days (1x hour) (Cellular)	Up to 18 months (Two AA sized 3.6V lithium batteries recommended)
Expandability	N/A	Tilt & roll (Satellite) Temperature, humidity, pressure, tilt and roll (cellular)	Temperature, humidity, pressure, tilt and roll GPS Coordinates
Alert	LED; notification via SpotSee Cloud	LED; notification and SpotSee Cloud	LED - running, warning and alarm
Data Transfer/Communication	USB, Cellular	USB, Satellite/Cellular	USB & i-Button interface Optional RF interface
Ingress Protection	IP67	NEMA 1, 3, 4x, 6P, 12 (Satellite) IP67 (Cellular)	IP67

	ShockLog® 248	SpotBot™ BLE	ShockWatch® g-View
Selection Criteria	Full-journey profiling impact recorder at low price point	Low-cost threshold monitor with BLE phone app	Low-cost threshold monitor, simple software with export to excel
Recorder Type	Event & time slot (max peak)	Threshold	Event threshold
Standard Measurements	Triaxial acceleration and max peak and internal temperature	Modulus over threshold (impact), temperature, humidity	Triaxial over threshold and internal temperature
Number of Events	Up to 15 (1st plus 14 most significant)	2 year (15 min measuring cycle) memory capacity	Up to 100 per axis
Amplitude Scale	Fixed scale: 10g, 30g or 100g	8g	Fixed scale: 10g or 25g
Frequency Filter	Fixed calue: 40Hz, 90Hz, 250Hz	N/A	Fixed value: 25Hz or 40Hz
Battery Life	Up to 12 months (One AA sized 3.6V lithium battery recommended)	2 year (10 min measuring cycle)	Up to 6 months (Singale AA alkaline)
Expandability	Temperature/Humidity	N/A	N/A
Alert	LED - running and alarm	LED	LED - alarm
Data Transfer/Communication	USB & i-Button interface	BLE	i-Button interface
Ingress Protection	IP67	IP54	IP65

