

## SpotSee Impact Recorders

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.



### 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<sup>®</sup> 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<sup>®</sup> 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

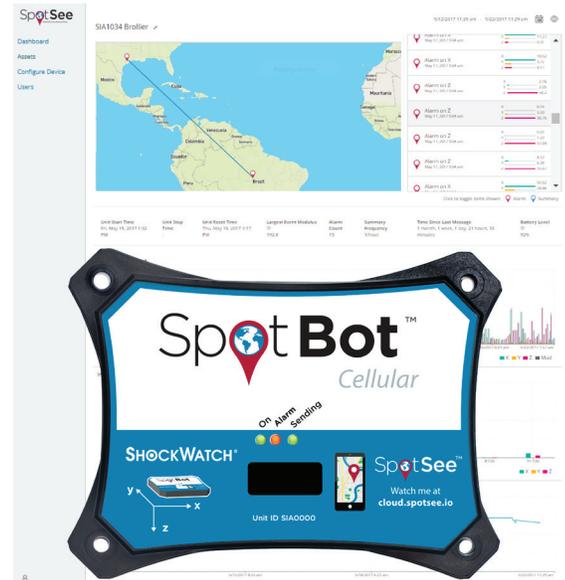
A low-cost data recorder for monitoring impact, tilt, temperature and humidity. Data connection via Bluetooth to a free mobile application.

### g-View

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

## 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, temperature, humidity, and pressure extremes
- Pinpoints potential areas for improvement in operational or logistics processes
- Confirms acceptable conditions during equipment operation, shipping and handling, and storage



## Shared Features

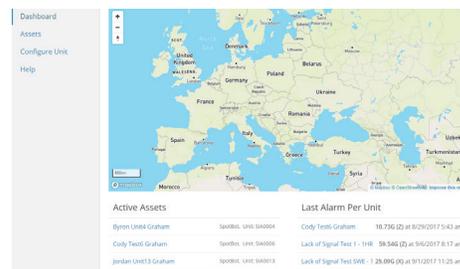
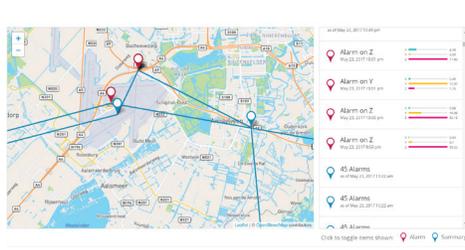
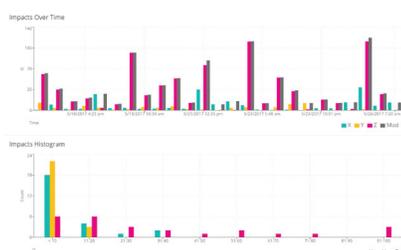
- Self-contained unit design, free of cables and wires
- User-definable alarm levels
- LED lights for visual notification



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 g-level and direction
- Real-time reporting and tracking of incidents
- Easy to read graphs
- Temperature Alarming for two temperature thresholds with 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 know



## Feature Comparison Guide

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

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