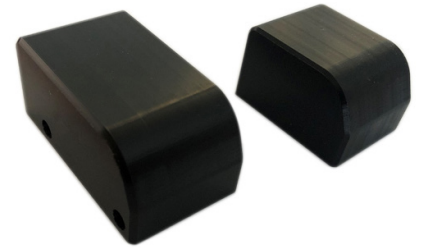




## Activity Logger (ALOG)

Product:  Accessory

Roe deer (*Capreolus capreolus*)



## The most powerful sensors! Observe the unseeable!

Over the past decade, biologists have been enhancing their research studies with the addition of activity sensors. These sensors have become a useful tool in helping biologists answer questions that they were not able to answer before. Lotek is pleased to introduce the Activity Logger (ALOG) accessory for Lotek GPS or VHF Collars. The addition of an ALOG unit allows for the collection of acceleration, magnetic field strength, and gyroscope readings in 3 axis with data frequency of up to 50 Hz. The ALOG accessory records acceleration, angular velocity and rotational velocity. When combined with spatial data the ALOG fills in the gaps between GPS fixes, allowing a more complete view into the animals temporal habits.

## Options

- Units can be scheduled to sample sensors as the users see fit in a very flexible manner known from all Lotek products.
- Accelerometer, Magnetometer and Gyroscope can be used individually or simultaneously

### Features:



Accelerometer



Magnetometer



Gyroscope

### 3 in 1:

Collects and logs readings of accelerometer, magnetometer, and gyroscope.

### Recordings are in 3D:

All recordings can be taken with a frequency of up to 50Hz.

## Product Applications

Useful to estimate a range of behaviour-specific energy expenditure, GPS augmentation (dead reckoning/path integration), activity budget, determination of behaviour classes (rest/locomotion/feeding/foraging),

metabolic tax assessment, animal welfare analysis, 2D and 3D visualization of animal activity, predation event assessment and magnetic field vector strength for heading and course positioning.



| Model   | Size<br>(L x W x H) (mm) | Weight<br>(g) |
|---------|--------------------------|---------------|
| ALOG S+ | 38.2 x 32.0 x 33.0       | ~40           |
| ALOG L+ | 53 x 29.5 x 23.5         | ~58           |

| Sensor / Scenarios | Accelerometer<br>(Hz) | Magnetometer<br>(Hz) | Gyroscope<br>(Hz) | Expected life (days) |         |
|--------------------|-----------------------|----------------------|-------------------|----------------------|---------|
|                    |                       |                      |                   | ALOG S+              | ALOG L+ |
| 1                  | 25                    | 25                   | 1.6               | 121                  | 240     |
| 2                  | 50                    | -                    | -                 | 166                  | 332     |
| 3                  | 12.5                  | -                    | -                 | 560                  | 1120    |

Features and specifications subject to change without notice.

Using Lotek's ActivityLogger Host software, ALOG data from the accelerometer, magnetometer and gyroscope can be viewed simultaneously. Waveforms from each triaxial sensor are displayed side-by-side allowing at-a-glance assessment of the data. Each axis is represented by a unique colour on each pane. The data allows the ability to create visualizations of animal activity such as actograms, ethograms, triaxial spherical plots and more. Detailed data is available on microSD card in CSV format.

### Data output examples:

**Fig. 1:** Data collected at 25 Hz for accelerometer, 25 Hz for magnetometer, and a sample of gyroscope readings every 1.6 Hz.

**Fig. 2:** Magnetometer's calibration verification window.



Fig. 1

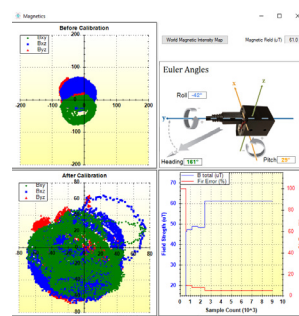


Fig. 2

### Technical Specifications:

Operating Temperature: -30°C to +70°C

### Accessories:

A micro USB for scheduling, and downloading data.

Activity Logger software is required to analyze the data.

### Warranty

Contact one of our telemetry specialists for details about our warranty. For Warranty terms and conditions, please review our [Warranty Statement](#).

