

Mk18-L geolocator and activity logger specification



Logger records essential dawn and dusk light transition data for geolocation purposes. Also, wet/dry activity in saline water is recorded. Potted in clear epoxy.

Weight: 1.5g in air

Dimensions: 15x10x6mm excluding pins and shoulders.

Power source: internal battery will last up to 2yrs (projected life) from time of manufacture under normal use.

Maximum number of records: depends on activity; data from albatross indicates lifetime light recording and activity memory.

Logging duration: continuous from start until memory full.

Logging interval: light resolution is 5mins. Wet/dry activity resolution is 10mins. Light is sampled every minute and maximum during 5mins is recorded. Wet/dry is sampled every 3secs and sum of samples wet during 10mins is recorded.

Download time per year logged: approx 20mins; depends on data.

Data retention: 20years (user will not be able to extract data after battery has died; possible data extraction by manufacturer in this case).

Clock drift: better than 1min/month. With start time, drift can be corrected in post processing. Results show practical drift of less than 5minutes per year.

Minimum temperature while logging: -15°C.

Minimum storage temperature while in sleep mode: -20°C.

(TEMPERATURES BELOW THESE VALUES MAY RESULT IN THE LOGGER BECOMING PERMANENTLY DAMAGED.)

Depth rating: unknown but expected to be ok for most diving animals

Interface: small interface box connects between logger and USB. Terminal emulator or BASTrak Communicate on host computer runs download and deployment start routine.

Software: data decompression software (Decompressor), sunrise/sunset transition visualisation tool (TransEdit) and transition to location calculator (Locator) is supplied with the interface box. Included is utility to find altitude angle of the sun given location and time, for calibration procedure.

<http://www.birdtracker.co.uk>

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