



## Wireless Hydrophone System JSATS Acoustic Autonomous Receiver/Datalogger

Lotek JSATS compatible wireless hydrophone system WHS 4350 is an autonomous, submersible receiver/datalogger that detects, decodes and records the presence of JSATS transmitters. WHS 4350 is an affordable, compact, and lightweight system that enables researchers to utilize the smallest acoustic tags available. Digital BPSK binary phase shift keying coding algorithm permits over 65,000 unique ID codes on a single frequency (416.7 kHz) and sub-millisecond ID burst is robust against code collision in multi-tag congregations and multipath reverberant environments.

### Options

- Increased Sensitivity Omni-Directional Spherical Piezo or Cylindrical Piezo compatible
- 2 or 4 Lithium D-Cell Battery variants
- Sensor options include: Pressure, Temperature, and Tilt

### Product Applications

Salmon smolt survival studies, fish passage/guidance efficiency studies, habitat utilization and species interaction studies, migration timing and behavior, fine scale 2D positioning with Lotek UMAP positioning software. A cost effective solution in both flat and fast moving water.

#### Features:



Beacon



Duty cycling



Temperature



Depth/Pressure

#### Frequency Shift (Doppler)

##### Immunity:

Yields higher probability of detection, decoding and logging in fast flowing water.

##### Improved Sensitivity:

Improved Detection range compared to WHS 4250

##### Integrated transmit beacon:

Provides ongoing assurance of system functionality and means for receiver location and recovery.

##### Compatible with Lotek UMAP positioning software:

For continuous 2D position tracks

| Model                  | WHS 4350S                   | WHS 4350L          |
|------------------------|-----------------------------|--------------------|
| Weight (kg)            | 1.2                         | 1.7                |
| Life (days)            | 100 <sup>[1]</sup>          | 200 <sup>[2]</sup> |
| Size (ØxL) (mm)        | 60 x 435                    | 60 x 585           |
| Buoyancy               | Slightly Negative (< 100g)  |                    |
| Depth rating (m)       | 400                         |                    |
| Data storage/ capacity | 8 GB Removable microSD card |                    |

- Operational life based on 2 lithium primary D-cells. Operational life may vary slightly based on beacon schedule and ambient temperature.
- Operational life based on 4 lithium primary D-cells. Operational life may vary slightly based on beacon schedule and ambient temperature.

### Technical specifications:

Operating temperature range: 0°C to 50°C

Operating frequency: 416.7 KHz

Decoding: BPSK compatible with JSATS AMT

31-bit (7-bit Barker; 16-bit ID; 8-bit CRC)

Data File Format Header, time, date, tag ID, relative signal strength, diagnostic information

Diagnostic Information Memory status, battery voltage, total no. detections, no. detections in last hr.

## Warranty

WHS 4350 hydrophones are warranted to be free of defects in materials and workmanship under Normal Use subject to the depth rating, deployment and maintenance practices outlined in the corresponding Product Manual for a duration of 12 months.

For Warranty terms and conditions, please review our [Warranty Statement](#).