



Wireless Hydrophone System JSATS Acoustic Autonomous Receiver/Datalogger

Lotek JSATS acoustic compatible wireless hydrophone system WHS 4250 is an autonomous, submersible receiver/datalogger that detects, decodes and records the presence of JSATS transmitters. WHS 4250 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

- Direct Cabled Communication: USB
- Remote Communications: Bluetooth® option
- Real time mobile tracking: Option available with cable accessory

Features:



Beacon



Duty cycling

Energy efficient:

Ability to operate for up to six (6) months with four (4) D-cell lithium batteries.

Over 65,000 unique ID codes:

Including sensor data on a single frequency

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

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.

Model	WHS 4250	WHS 4250L
Weight (kg)	1.2	1.7
Life (days)	100 ^[1]	200 ^[2]
Size (ØxL) (mm)	60 x 435	60 x 585
Buoyancy	Slightly Negative (< 100g)	
Depth rating (m)	400	
Memory	2 Gb Removable SD card	

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

Features and specifications subject to change without notice.

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 4250 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](#).