Freshwater & Marine Acoustic

WHS 4000 Series

JSATS Acoustic Node Receiver

Cost effective – JSATS compatible

Lotek is pleased to offer the JSATS compatible WHS 4000 autonomous datalogging acoustic node receiver. The WHS 4000 is an affordable, compact, lightweight, submersible datalogging receiver that operates for 100 days with two D-cell lithium batteries and enables researchers to utilize the smallest acoustic tags available (¼ gram). Applications include smolt survival studies, habitat utilization, migration behavior and fine scale 2D positioning.

Key Features

- Autonomous underwater node – complete with hydrophone, receiver, datalogger in waterproof/ submersible (100 m) package powered by one or two D-cell lithium batteries
- JSATS* Compatible – allows researchers to utilize the smallest acoustic transmitters available – ¼ gram
- Sub-millisecond ID pulse – robust against code collision in multi-tag congregations and multi-path environments
- Over 65,000 unique ID codes on a single frequency
- Energy efficient – ability to operate for 50 days with a single D-cell lithium battery or 100 days with 2 cells
- Low cost and light weight – minimizes deployment resources required
- Supplied with Host software for easy programming, data download, and data processing
- Bluetooth®-enabled for wireless programming and system diagnostics
- Real time monitoring option for mobile tracking with optional cable
- Positioning (2D) – compatible with Lotek ALPS Autonomous Logger Positioning System software
- False code filter – user programmable feature qualifies detections and conserves memory space
- Integrated transmit "beacon" – provides ongoing assurance of system functionality and means for receiver location and recovery

* JSATS: Juvenile Salmon Acoustic Telemetry System

WHS 4000

Applications

- Salmon smolt survival studies
- Fish passage/guidance efficiency studies
- Smallest acoustic tags available to minimize tagging effects
- Fish behavior, congregation, response to anthropogenic perturbations
- Habitat use, species interaction
- Migration behavior/timing

Specifications

Operating frequency	416.7 KHz
Decoding	BPSK compatible with JSATS AMT
	31-bit (7-bit Barker; 16-bit ID; 8-bit CRC)
Shape	Cylindrical
Length	370 mm
Diameter	60 mm
Weight	1 Kg
Buoyancy	Positive
Operational Life	50 or 100 days
Depth Rating	100 m
Operating Temperature (^{0}C)	0 - 50
Data Storage Capacity	2 Gb (removable SD memory card)
Diagnostic Information	Memory status, battery voltage, total no. detections, no. detections in last hr.
Remote Communications	Bluetooth®
Data File Format	Header, time, date, tag ID, relative signal strength, diagnostic information
Direct Cabled Communication	Optional: USB or RS-232
Battery	One (1) or two (2) D-cell Lithium
Real time mobile tracking	Option available with cable accessory
Integrated “beacon” transmitter	User programmable (on/off) activation schedule
False code filter	User programmable

As with all Lotek products, Application/field support and training services are available to assist project managers who may be unfamiliar with the technology, or are under tight schedules.

For more information regarding this and other telemetry products, please visit our website or contact your Lotek representative.

LOTEK WIRELESS FISH & WILDLIFE MONITORING
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