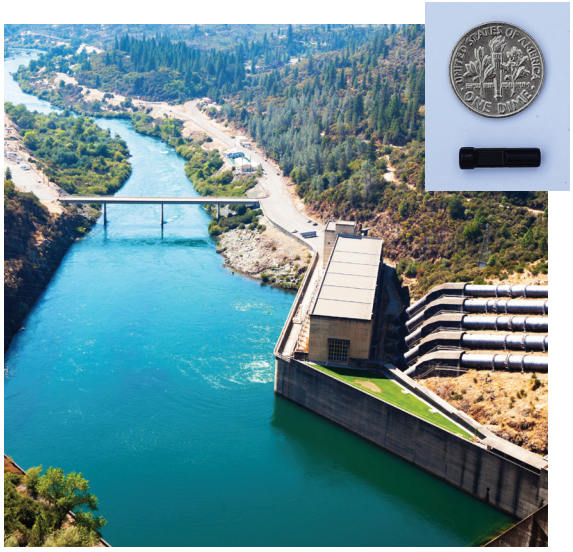
Coded Transmitters - 307 kHz

Miniature high frequency tag is ideal for tracking animals in high flow, noisy environments specifically around hydropower facilites

Weighing just under 0.3 grams and measuring 15 mm in length, the V3 tag is the smallest of our line of miniature coded transmitters and enables researchers to track and monitor smaller fish and a broader range of species than ever before! Coded tags are programmed with a unique ID that is specific to each individual fish being tagged.

The V3, operating at 307 kHz, is designed to work well in fresh water and led to the development of a lightweight tag that allows researchers to track a large number of fish in a small space. Researchers can now tag and release many more fish simultaneously due to the detection capabilities of the 307 kHz tag transmission sytem.



High Residence and HTI Coding

Hhigh Residence (HR) is a more aggressive transmission system that offers the ability to detect many more tagged animals at once. Each HR ID code is embedded in each short ping transmitted by the tag. This allows the HR3 receiver to detect many IDs in a short period of time.

The HTI coding structure provides researchers with high performance in noisy and reflective environments. Alternating HTI and HR coding schemes provide researchers with interesting study possibilities that previously weren't possible, in a tag designed for very small fish. The HTI coding (i.e. the ability to vary pulse widths and signal types, etc.) in the V3 tag also allows for cross-compatibility with HTI equipment.

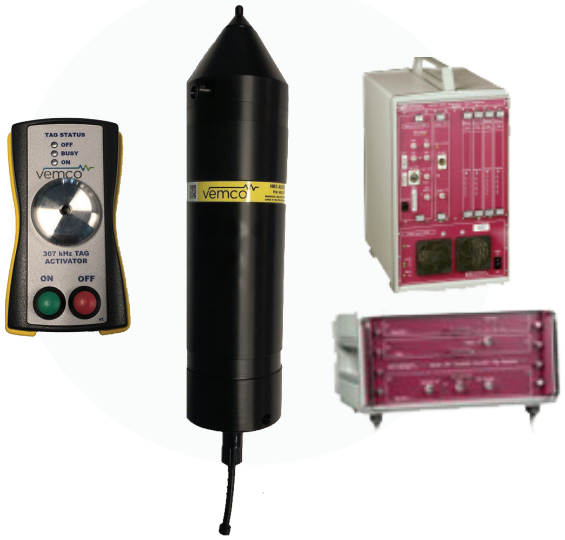
Benefits

- Ideal for use in high noise/flow evnvironments (hydro facilities and fish passage)
- Track many small animals in a small space in a short period of time
- Monitor animals as they move quickly through acoustic gates (i.e. river survival study)
- Conduct accurate spatial 2D/3D positioning with sub-meter resolution
- Two transmission systems (HR and HTI) provides flexibility for study designs and research objectives
- Real time monitoring of HR and HTI tags using HR3 and HTI 290-series receivers
- Ablility to transmit HR or HTI signals, or both signals alternating

Pair With

Coded 307 kHz tags are used as a system with:

- HR3 Transponding Receiver (can be deployed remotely, or cabled for real-time detections)
- HTI 290-Series receivers and 395 data loggers
- VTA (Vemco Tag Activator)



Programmable ON/OFF

Programming options allow users to take advantage of tag behaviour over the life of their tags. Up to three programming steps can be used to define the tags transmission: status (ON/OFF), time interval, nominal delay, and transmission type (HR / HTI / Alternating).

This is an example of how V3 tag programming options can be utilized to provide a staged release tag behaviour.

Interval	Status	Time	Power (H)	Nominal Delay (sec)
Step 1	ON	1 hour	H	30
Step 2	OFF	7 days		
Step 3	ON	70 days	H	10

When finished, LOOP back to Step 3.

Step 1: The tag is programmed to start with a nominal delay setting of 30 seconds for a period of 1 hour. This allows a researcher to activate a tag and have it transmit during the surgical implantation phase.

Step 2: The tag is programmed to turn OFF for a period of 7 days, in order to conserve battery life while the animals recover from surgery. The tags are switched to the OFF status since the location of the animals is known.

Step 3: The tag is programmed to stay ON with a nominal delay setting of 10 seconds for a period of 70 days. This allows a researcher the ability to monitor the animals during what might be a more residency type setting. Note the Loop control setting is set to Step 3, thus keeping the tag in the ON status until the tag reaches its battery end of life.

PRODUCT SPECIFICATIONS

Tag Family	Diameter (mm)	Length (mm)	Weight in Air (g)	Power Output (dB re 1 uPa @ 1m)	Sensors *	Battery
V3	4 mm	15 mm	< 0.3	141	D	Lithium Micro

** D - Predation*

Ready to Get Started? Contact us today.

About Innovasea

Innovasea designs the world's most technologically advanced aquatic solutions for fish tracking and builds them to withstand the toughest conditions. It's all driven by a commitment to make our ocean and freshwater ecosystems sustainable for future generations. Today. Tomorrow. For life.

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