HR2 High Residence Receiver

Track more fish in less time and with more accuracy than ever before

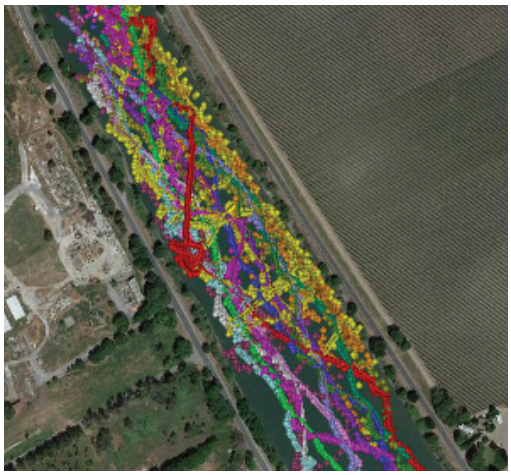
Receivers

The feature rich HR2 High Residence Receiver is an excellent choice for tracking many fish with higher accuracy than ever before using our smallest fish tags (V4,V5 and V9). The HR2 and HR telemetry system was designed specifically to allow researchers to monitor or position many tagged animals with sub-meter accuracy.

The HR2 is capable of decoding two different methods of transmitting IDs to satisfy different study design objectives. To remain backward compatible with VR2W receivers, the HR2 can detect tags transmitting our traditional PPM (pulse position modulation) and the new HR transmissions at the same time. This means that you can use the HR2 with your existing VR2W-180 receivers in collaboration with other researchers in a large scale monitoring network or you can use HR2 receivers to set up a small scale positioning experiment.

HR2s are currently being used to monitor and position migrating salmon in rivers, eels migrating to sea and non-native predator impacts on native fish.

There's no need to worry about mooring integrity, lost receivers or if fish have passed your receivers. You can talk to the HR2 through the water using a VR100 surface receiver and a VHTx transponding hydrophone (both sold separately). You can query your moored HR2 for tilt, temperature, noise and number of detections, or you can program the on-board sync tag and then move on to the next receiver. Our unique Watch Table feature also allows you to query for data on specific fish IDs or sync tags. If your HR2 shifts its mooring position or drifts away in the tide, you can locate it by setting up two-way communication between the receiver and VR100 and measure the precise distance between you and your HR2.



VEMCO Positioning System (VPS)

There is no need to purchase sync tags. The HR2 has a built-in sync tag for receiver synchronization in positioning studies. If you are setting up a VPS study, you can use the HR2's transponding features to quickly verify if your receiver spacing is appropriate to provide high accuracy positioning.

Real-time Monitoring

The HR2 supports real-time monitoring. You can connect a cable to the bottom of the HR2 allowing you to talk directly to the receiver to a PC or through a data logger or cellular modem to an IP address. Through the data port, you can offload detection data, view data in real time, and check the health of the receiver.

Receivers | Transmitters | Accessories | Data Loggers

Tel: (902) 450-1700
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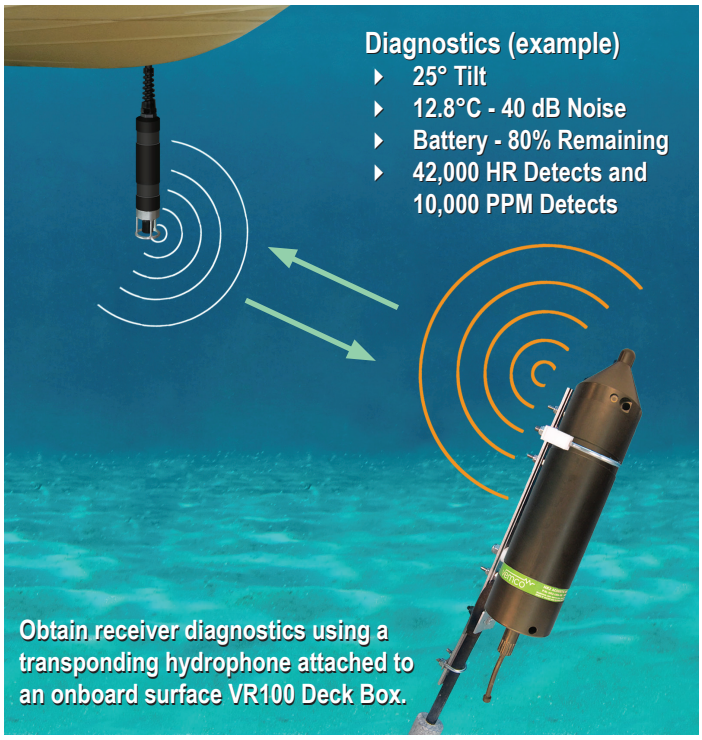
www.vemco.com

Transponding

Rather than employing a diver to check your receivers, you can talk to them remotely from the surface to learn about their status (i.e. tilt, battery level, number of detections, and number of detections of IDs of interest). Having transponding capability adds tremendous value in numerous scenarios including VPS studies, range testing and knowing if fish have passed a receiver gate.

Applications

- High residence studies of hundreds of tagged animals
- Frequent and precise positioning of fish (i.e. sub-meter every second depending on tag transmission rate)
- Monitor migration survival
- Monitor predator and prey behavior
- Multi-frequency: detects two transmission systems simultaneously (PPM & HR) to support high residence and long term monitoring studies
- Flexible: detects VEMCO's family of high frequency tags (weighing 0.42g to 2.0g) making it ideal for juvenile to large fish (20g+ weight)
- Real-time data access and precise positioning (standalone or cabled)



Note that the HR2 is compatible with VR2W-180 kHz receivers.

General Specifications	
Weight	2.88 kg (Lithium battery); 3.16 kg (Alkaline battery)
Dimensions	Length 40 cm (15.9 inches); Diameter 10 cm (3.9 inches)
Battery Life	6 months (Lithium); 2 months (Alkaline)
Power	Internal Lithium or Alkaline battery pack and optional external power supply: 10-30 VDC
Temperature Limit	-5°C to +40°C (Water must not freeze)
Depth	300m (440 psi)
Frequency	180 kHz
PC Software	fathom™
Data Capacity and Type	PPM/HR: (170,000,000 detections)
Diagnostics	Transmitted signal strength, receiver noise, tilt, temperature, battery capacity, etc.
Transponding	2 way acoustic communications between the HR2 and the researcher at the surface (requires a VR100 Deck Box and 180 kHz transponding hydrophone, both sold separately)

VR100 Deck Box

180 kHz Transponding Hydrophone (Available Fall 2016)