VR2Tx Receiver and Transmitter

vemco

Receivers

The VR2Tx (Receiver and Transmitter) combines a VR2W receiver with a built in V16-like transmitter that allows communications with receivers while still deployed.

Built In Transmitter
The built in transmitter can be used as a sync tag for improved VPS results and also provides a means to retrieve receiver status on demand through communications to a VR100 tracking receiver at the surface. The VR2Tx maintains all of the existing features of the VR2W plus the following:

Maintains all features of the VR2W

Programmable Watch Table
▸ Sets a list of tag ID's and monitors the number of detections received from the watch table
▸ Collects summary detection information for VPS sync tags or range test tags to verify performance without having to retrieve receivers

Range Detection between VR2Tx and VR100
▸ Estimates the distance between the VR2Tx and the VR100
▸ Use the VR100 to locate a potentially lost VR2Tx

Communicate receiver status to the surface without having to retrieve deployed units

Unit Discovery Mode
▸ Determines which receivers are within range of the VR100 without having to remember specific serial numbers and exact receiver locations

Programmable Built In Sync Tag
▸ Logs its own transmissions
▸ Four programmable power levels:
  - Low = 142 dB
  - Medium = 148 dB
  - High = 154 dB
  - Very High = 160 dB
▸ ID and random delay transmission interval factory programmed at VEMCO. Transmit frequency fixed at 69 kHz (compatible with all VEMCO 69 kHz receivers)

Use as a sync tag in a VPS system

Receivers | Transmitters

Accessories | Data Loggers
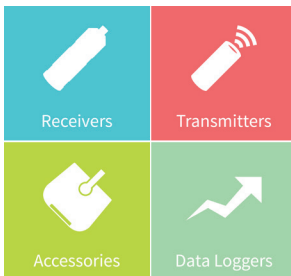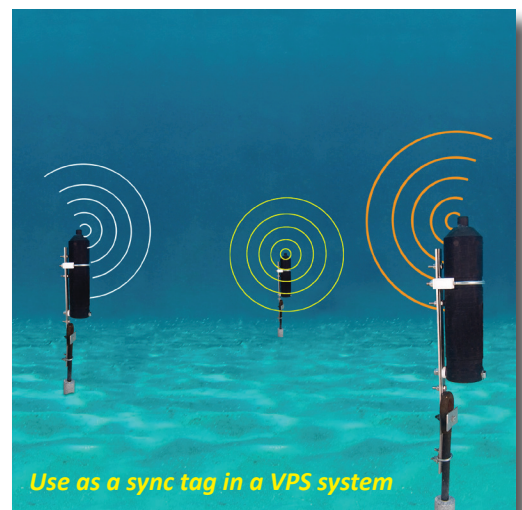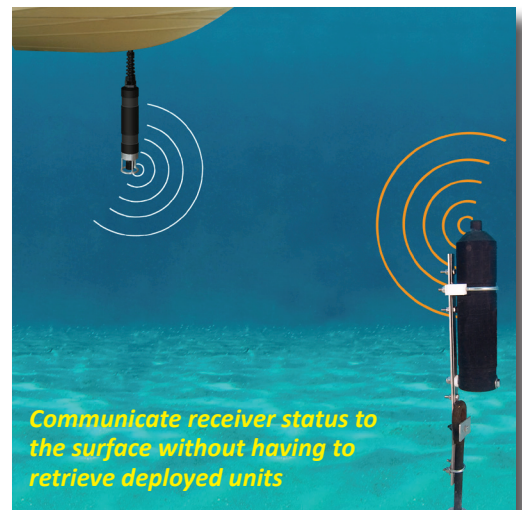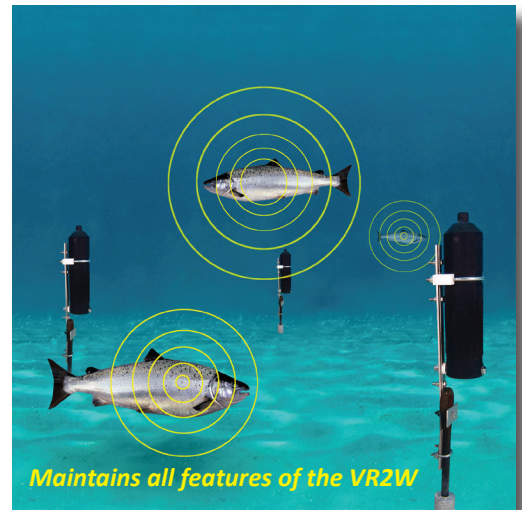
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Surface to Receiver Communications
Using the VR100 Receiver

The VR2Tx communicates to the surface using the VR100 active tracking receiver with a transponding hydrophone. Researchers will be able to retrieve the following information, with a simple user interface, from any deployed VR2Tx:

▶ Unit health
▶ Number of detections
▶ Programmable watch table
▶ Tilt, range and temperature
▶ Estimated remaining battery life and memory

The VR2Tx is compatible with all VR100-200 models sold since January 2013. Customers will require a new transponding hydrophone to attach to the VR100 to communicate with the VR2Tx.

Transponding Hydrophone

VR100 Receiver

VR2Tx Specifications			
Dimensions	Length: 308 mm Diameter: 73 mm	Communication	Acoustic via VR100 and Bluetooth®
		Attachment	Standard: cable ties
Weight	1190 g in air, 50 g in water	Firmware	Field upgradeable receiver firmware
Power supply	1 - 3.6 V Lithium D cell battery		
Battery life	Approximately 14 months	Software	VEMCO User Environment (VUE) software
Max. depth	500 metres		
Frequency	69 kHz standard	Transmitters	Decodes and logs all VEMCO 69 kHz coded transmitters
Storage	32 MBytes non-volatile flash memory (~3-million detects)	Code Maps	Support for all current and planned VEMCO Code Maps

The VR2Tx operates with VUE PC software

The VEMCO User Environment (VUE) PC Software for initialization, configuration and data upload from VEMCO receivers allows users to combine data from multiple receivers of varying types into a single integrated database. Studies using 69 kHz and 180 kHz tags can also be combined into one VUE database.

The VEMCO Bluetooth Communications Package includes everything you need to talk to your VR2W:
▶ VUE Software
▶ Software Manual
▶ Two Magnetic Activator Probes
▶ Adapter for USB to Bluetooth®

VUE requires Windows XP SP3, VISTA, Windows 7, 8 and 10 operating systems. See VEMCO's website for more details on VUE Software.