

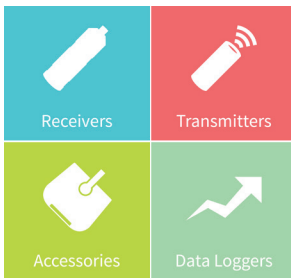
VR2AR Receiver, Transmitter and Acoustic Release



Now Available!

Long Life
Acoustic Release
Receivers

The new VR2AR-X
is capable of
deployments up
to 26 months



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The VR2AR (Receiver, Transmitter and Acoustic Release) combines an acoustic release with a VR2Tx (a VR2W receiver with a built in V16-like transmitter) that allows communications with receivers while still deployed, and also enables researchers to retrieve the unit using a simple and reliable built in acoustic release. **The acoustic release receiver is also available as a long life option. The VR2AR-X is capable of deployments up to 26 months.**

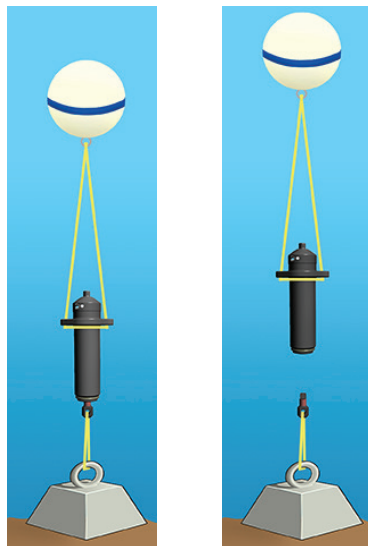
Acoustic Release Features

- ▶ Quick and reliable release typically within one (1) minute
- ▶ Easy re-arming method
- ▶ Release mechanism: push-off titanium pin has a copper sleeve to reduce bio-fouling and is controlled by a DC motor
- ▶ External case designed for easy attachment of flotation for buoyancy



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 receiver at the surface. The VR2AR maintains all of the existing features of the VR2W plus much more.



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 VR2AR and VR100

- ▶ Estimates the distance between the VR2AR and the VR100
- ▶ Use the VR100 to locate a potentially lost VR2AR

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)

Surface to Receiver Communications

Using the VR100 Receiver

The VR2AR 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 VR2AR:

- ▶ Unit health
- ▶ Number of detections
- ▶ Programmable watch table
- ▶ Tilt, depth and temperature
- ▶ Estimated remaining battery life and memory
- ▶ Release status, arming the release and activating the release
- ▶ Ability to get range and depth information as the unit is rising to the surface



Transponding Hydrophone



VR100 Receiver

The VR2AR is compatible with all VR100s sold since January 2013. Customers will require a new transponding hydrophone to attach to the VR100 to communicate with the VR2AR.

| VR2AR and VR2AR-X Specifications | | | |
|----------------------------------|--|-----------------------|---|
| VR2AR Dimensions | Length: 401 mm (341 mm without release lug) | Communication | Acoustic via VR100 Deck Box and Bluetooth® |
| VR2AR-X Dimensions | Length: 465 mm (405 mm without release lug) Diameter: 81 mm Mooring bracket width: 170 mm | Attachment | Receivers purchased after October 2014 : 2 x 14 mm mooring holes; 1 x 19.3 mm for release lug Receivers purchased prior to October 2014 : 3 – 14 mm mooring holes (2 in mooring bracket, 1 in release lug) |
| VR2AR Weight | 2350 g in air, 500 g in water | Firmware | Field upgradeable receiver firmware |
| VR2AR-X Weight | 2746 g in air, 812 g in water | Software | VEMCO User Environment (VUE) software |
| Power supply | 1 - 3.6 V Lithium D cell battery (VR2AR Rx) 1 - 3.6 V Lithium DD cell battery (VR2AR-X Rx) 1 - 4V Lithium AA cell battery (AR) | Transmitters | Decodes and logs all VEMCO 69 kHz coded transmitters |
| VR2AR Rx batt life | Approximately 14 months | Code Maps | Support for all current and planned VEMCO Code Maps |
| VR2AR-X Rx batt life | Approximately 26 months | Max test load | 1000 lbs |
| Release battery life | > 100 releases per battery | Max safe working load | 250 lbs |
| Maximum depth | 500 metres | Max release load | 250 lbs |
| Frequency | 69 kHz standard | | |
| Storage | 32 MBytes non-volatile flash memory (~3-million detects) | | |

The VR2AR operates with 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.

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

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®