



## Recover your marine instruments with VEMCO's shallow water acoustic release

### Key Features

- ▶ Depth rating: 500 metres
- ▶ **AR** battery life: 28 months  
**AR-2** battery life: 60 months
- ▶ Real-time unit health information retrieval
- ▶ Quick and reliable release - typically within 30 seconds
- ▶ Easy re-arming method
- ▶ Release mechanism: push-off titanium pin has a copper sleeve to reduce biofouling and is controlled by a DC motor
- ▶ External case designed for easy attachment of marine instruments and flotation for buoyancy



**The Ascent Acoustic Release** is ruggedly designed for superior performance, reliability and real-time communications. It is available in two battery life models:

- ▶ **Ascent AR** with a battery life of 28 months
- ▶ **Ascent AR-2** with a battery life of 60 months

### Obtain Real-time Information from Deployed Units

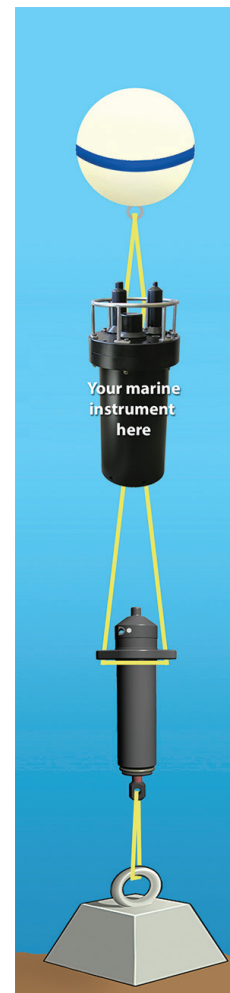
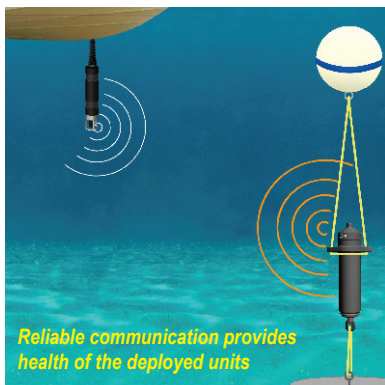
- ▶ Unit health
- ▶ Tilt, depth and temperature
- ▶ Estimated remaining battery life
- ▶ Release status and activating the release
- ▶ Ability to get range and depth information as the unit is rising to the surface
- ▶ Estimate the distance between Ascent Acoustic Releases and the surface Deck Box
- ▶ Locate deployed units

### Unit Discovery Mode Option

- ▶ Determine which Ascents are within range of the Deck Box without having to remember specific serial numbers and exact release locations

### Superior Communications

- ▶ 35 years experience in underwater communications
- ▶ Designed specifically for shallow water
  - reduced reflections
  - superior reliability
- ▶ Sophisticated transmission protocol
- ▶ Coded communication messages
  - pass more real-time information
  - eliminate false triggers



## Ascent AR and Ascent AR-2 Specifications

<b>AR</b> Dimensions <b>AR-2</b> Dimensions	Length: 401 mm, 342 mm without release lug Length: 465 mm, 406 mm without release lug Diameter: 81 mm Float attachment bracket width: 165 mm
<b>AR</b> Weight <b>AR-2</b> Weight	2350 g in air; 500 g in water 2746 g in air; 812 g in water
<b>AR</b> Power supply <b>AR-2</b> Power supply Common to <b>AR</b> and <b>AR-2</b>	1 - 3.6 V Lithium D cell battery 1 - 3.6 V Lithium DD cell battery 1 - 4 V Lithium AA cell battery (for release motor only)
<b>AR</b> Unit battery life <b>AR-2</b> Unit battery life	Approximately 28 months Approximately 60 months
Release battery life	> 100 releases per battery
Maximum depth	500 metres
Communication	Acoustic via the VR100 Deck Box and Bluetooth®
Mooring	Mooring lug opening - 19 mm; Float attachment bracket - 2 x 14 mm
Firmware	Field upgradeable acoustic release firmware
Max test load	1000 lbs
Max safe working load	250 lbs
Max release load	250 lbs



### Communicate from the Surface to Deployed Acoustic Release

The VR100 Deck Box is used with a transponding hydrophone to communicate from the surface with deployed Ascents and provides easy, remote release of your marine instruments. Researchers will be able to retrieve real-time unit status information using a simple interface. *Note that the VR100 Deck Box and transponding hydrophone are sold separately.*

### VR100 Deck Box Physical Specifications

Frequency range	12 to 200 kHz
Dimensions (approx)	34 cm x 32 cm (with handle extended) x 15 cm
Weight with gel cell	6.5 kg
Battery Life	Approximately 12 hours with backlight off
PC communication	Computer controlled via USB connection
Gain control	Automatic or manual
Hydrophone type	Omni-directional: VHTx Transponding (50-85 kHz)
Hydrophone cable length	25 metres
Display	4 x 20 character LCD display
Water resistance	Splash proof case
Software	VR100 PC Host Software compatible with Windows Vista/7/8



**VR100 Deck Box**



**Transponding Hydrophone**

### Additional VR100 Features

- ▶ GPS time and position display and data logging
- ▶ Improved sensitivity and noise rejection over conventional analog units