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1. Բնակիչները պետք է օգտագործեն անհատական օգնություն, օգտագործեն անհատական օգնություն, օգտագործեն անհատական օգնություն, օգտագործեն անհատական օգնություն:

2 ስርዓቱን በጥሩ ሁኔታ ለማካተት ለሚችሉ ሁሉም ሰራተኛዎች ማስታወሻ ማድረግ፤

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ርዕ ወንጌናኤርድላኤ ለጽሑፋህጋሪላኤ ፋናጋሙ ለሚሰሙ ናይጉላናጽፊኒኑኃኤ ለጽሑፋህፋሪላጋ ካዒሙኒኃ ወሚሰፊልድላኤ ናህሪኒፋሪ ወሃሃርድላኤ ናሙኒ ልድፋ ልጋላሙ ወካካልድሙ፣ ሮኃዋበድ ልሂሚር ካኃኑሃሪሙኒር ልጋላሙ (TINMCA). TINMCA-ወ ሲኤ ፋኔሃድሮሮላኤሂር ልሙሮሃሪሙፋኔኃገር ዋላሙ ርሊኤ ፋድሮሙኔሃሪሙኒኃላኔ ፋበሮሙኔኃሮሙሃሪሂር ልወልር ፋኔኃኔኃሮሙፋሙሃራወር

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# AURAL-M2

## Specification Sheet

### General

**Supply Voltage:** 12Vdc nominal (9Vdc to 15Vdc)

**Operating temperature:** 0 °C to 40 °C

**Tested depth:** 300 meters

**Case Material:** Stainless Steel 316, Delrin, Fiberglass Epoxy

**Anode Material:** Zinc

### Analog Section

**A/D:** 16 bits

**Filter:** Programmable frequency 8th order linear phase low pass (Anti Aliasing)

**Amplifier:** Low Noise amplification with 16, 18, 20 & 22 dB selectable gain

**Pressure Sensor:** 0 to 1000 psi (0–682 m.) (resolution: 1,3 cm, display: 0,1 m, accuracy: +/- 0,25 % max)

**Temperature sensor:** -10 °C to 40 °C (resolution: 0,0625 °C, display: 0,1 m, accuracy: +/- 0,5 °C)

**Hydrophone:** HTI-96-MIN

**Usable Frequency range:** 10 to 128, 256, 512, 1024, 2048, 4096, 8192, 16 384 Hz

### Digital Section

**MCU:** 33 MIPS Dallas DS89C450 Ultra High Speed Flash Microcontroller

**Flash Type & Size:** Compact Flash 1 GB or more

**Hard Disk Size:** 1 TB

**Hard Disk Data Transfer Speed:** 1.5 MB/Sec

**Time Base:** Low Power 32.768 KHz TCXO with +/- 2ppm accuracy

**Communication:** RS232 (38.4Kbs, N, 8, 1)

**System File Format:** FAT32

**Audio File Format:** WAV

**Sampling Rate:** 256, 512, 1024, 2048, 4096, 8192, 16 384, 32 768 samples/second

Power requirement	AURAL-M2 Release 2, 3 & 4
Standby	~ 8mA
Active - Wait to Record mode "5 sec"	~ 47 mA
Active - Record mode	~ 58mA
Active - Saving mode	~ 253mA



Units Information	16 batteries	64 batteries	128 batteries
<b>A</b> Diameter (1)	14,6 cm (5,75 in)	14,6 cm (5,75 in)	14,6 cm (5,75 in)
<b>B</b> Length	90 cm (35,375 in)	120 cm (47,375 in)	178 cm (70 in)
In air weight (2) (5)	20 Kg (45 lb)	32 Kg (71,5 lb)	49 Kg (109 lb)
In water weight (2) (4) (5)	9 Kg (19,5 lb)	14 Kg (30,5 lb)	21 Kg (46 lb)
Battery capacity (3)	30 Ah	120 Ah	240 Ah
Shipping case	-	16 Kg / 19 Kg 35,27 lb / 41,89 lb	21 Kg (46,30 lb)

(1) Cylinder only (without strap)

(2) Including EN95 Batteries

(3) Battery capacity using Energizer EN95 (Based on 1.5mA constant drain)

(4) Submerged in fresh water

(5) Valid informations for AURALS made since 01-01-09



# Ascent™ Acoustic Release



## 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



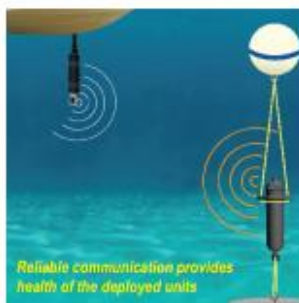
### The Ascent Acoustic Release

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

### 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



### 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

