

[illegible]

ርዕዮ አደጋ ለግብርና ሚኒስቴር ለጥቅም ላይ የዋለውን ማረጋገጫ ሰነድ ለማግኘት ማቅረብ አይቻልም፡፡

ርዕሰ ልሳኝነቱንም ማረጋገጥን የሚችል የሥነ ምግባርና የቴክኖሎጂ ምርምርና ልማት ማዕከል ማቆየትና ማረጋገጥን በጥንቃቄ እንገምገማለን። በተጨማሪም የቴክኖሎጂ ምርምርና ልማት ማዕከል ማቆየትና ማረጋገጥን በጥንቃቄ እንገምገማለን። በተጨማሪም የቴክኖሎጂ ምርምርና ልማት ማዕከል ማቆየትና ማረጋገጥን በጥንቃቄ እንገምገማለን።

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2 ስራውን ለማጠናቀቅ፣ ማረጋገጫ ስራውን በጥሩ ሁኔታ ለማጠናቀቅ፣

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ፀጋሮ ምርጫ 1

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ርዕሳ ልሰላጥላቸው ወይም ሌላ ምንም ዓይነት ጥላቻ ላይ ሳይገባቸው ለሰላም ማስጠበቅ ማስፈረም ይገባል።

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ᐅᓗᓕᐱᑦᓇᓂᓂᓐ. ᑕᓐᑲ ᓴᑲᓯᒪᓴᓐᑲ, ᓄᑕᓐᑲᓴᓯᐅᓂᓗᑦᓇᓐᑲ, ᐃᑕᓐᑲᓯᒪᓴᓐᑲ ᐅᓯᓐᑕᓐᑲᓂᓯᑕᒪᓯᑕ ᐱᓴᒪᓗ ᑲᑲᑕᓯ ᐱᓂᓯᑕᐅᓐᑕᓐᑲᓯᒪᑕᓐᑲᓂᓯᓂᓐ ᓂᑲᒪᓂᓐᓄᑦ ᐃᑕᓐᓂᐅᓐᑲᓴᓴᐱᓄᑦᓗ.

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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
A Diameter (1)	14,6 cm (5,75 in)	14,6 cm (5,75 in)	14,6 cm (5,75 in)
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 15mA 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



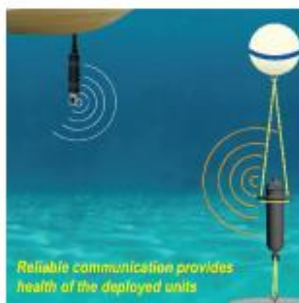
The Ascent Acoustic Release

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

