

ACOUSTIC RELEASES PRODUCT LINE

OCEANO

MOORINGS
& CONSTRUCTION

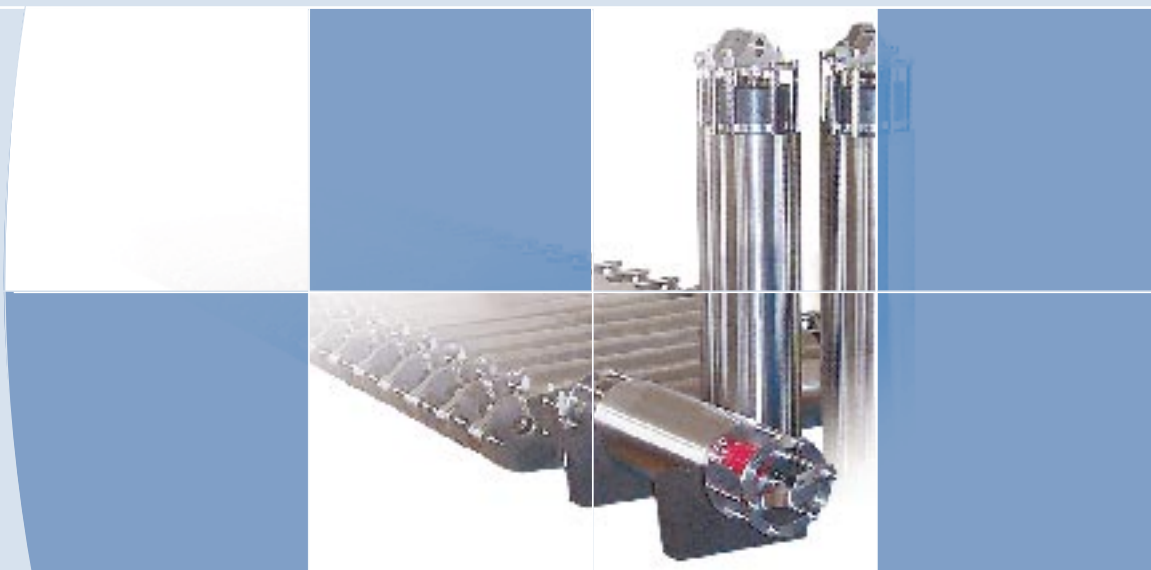


30 YEARS OF SUCCESSFUL RECOVERY

Over **4,000 iXSea underwater acoustic releases** have been sold worldwide.

Over a period of more than 30 years, OCEANO acoustic releases have proven their reliability worldwide by meeting the most demanding needs of scientific campaigns and offshore works. Some units, manufactured more than 30 years ago are still in use.

Strength, reliability, very low power consumption and long battery life make our Acoustic Releases a reference and a leading product in our field.



A permanent concern for quality and continuous evolution of our products (now in their 8th generation) have produced the widest and most reliable range of acoustic releases available to the offshore and scientific community.

Used in mooring lines in shallow or deep water they facilitate and secure the recovery of instrumentation.

Used in offshore construction, for heavy lift, they help deposit heavy structures on the seabed.

In shallow or deep waters (down to 6,000 meters), for light or heavy loads (250kg to 300 tonnes), and even in very cold waters, iXSea has the acoustic release for your application:

- ▶ **Oceano Shallow Water Acoustic Releases**
- ▶ **Oceano Oceanographic Acoustic Releases**
- ▶ **Oceano Heavy Duty Acoustic Releases**

OVER 4,000 UNITS SOLD WORLD-WIDE

RUGGED AND CORROSION-RESISTANT

- ▶ Some units manufactured 30 years ago are still operational.

RELIABLE RELEASE IN ALL CIRCUMSTANCES

- ▶ The hook is operated with a robust motor-driven mechanism.
- ▶ Reliable Positive Drive Off release mechanism: helps overcome marine growth.

SECURE CODING PRINCIPLE

- ▶ Over 30,000 unique command codes.

THE LONGEST BATTERY LIFE ON THE MARKET

- ▶ Thanks to 3.3V technology, all our oceanographic and heavy-duty releases have an extremely long battery life (4 years' listening life, alkaline batteries / more than 9 years, lithium batteries).

OFF-THE-SHELF BATTERIES

- ▶ Standard D-size or C-size cells (Alkaline or Lithium) can be purchased in any neighborhood store. It takes just a few minutes to change the batteries.



FULL CONTROL

- ▶ Ranging, command acknowledgement, battery status and tilt, pinger mode, time release function (option).

DEEP WATER, LONG RANGE

- ▶ Operations down to 6,000m standard for most units, range up to 10km.

OMNIDIRECTIONAL BEAM PATTERN

- ▶ Enables operation in even the noisiest environments.

EXPERIENCE & ADVICE

- ▶ With 30 years experience in underwater acoustics, iXSea can advise you on the design of your complete mooring line.

OCEANOGRAPHY: TRUST US WITH YOUR DATA!

Choosing an acoustic release is no easy task. Once a mooring line is in place for months or years, successful recovery will determine the fate of months of measurement data and the recovery of expensive equipment.



*Geomar
modular lander*



*St. Sprint Lander,
Oceanlab,
University
of Aberdeen.*

For more than 30 years, the most highly reputed research institutions, the marine construction industry and military organizations have been trusting us and routinely use our systems.

- ▶ **Mooring line recovery**
- ▶ **OBS (ocean bottom seismometer) recovery**



*section
drawing
of a typical
mooring line*



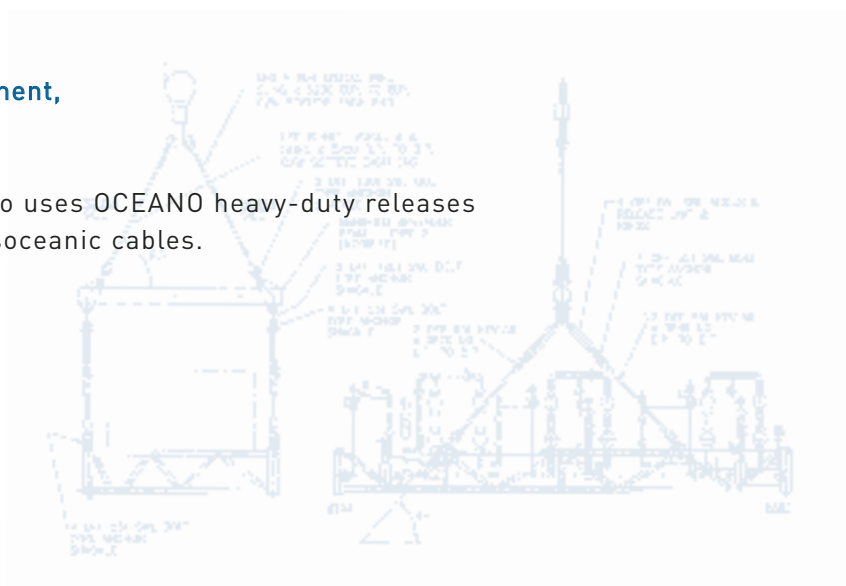
OFFSHORE CONSTRUCTION: SAVE TIME.

Many companies make frequent use of OCEANO heavy-duty acoustic releases, also known as Acoustic Shackles: in Brazil, West Africa, the Middle East or the North Sea and for offshore and marine construction.



- ▶ laying of templates,
- ▶ spool pieces deployment,
- ▶ load transfer.

The cable industry also uses OCEANO heavy-duty releases to lay and repair transoceanic cables.



THE WIDEST RANGE OF OCEANOGRAPHIC ACOUSTIC RELEASES



OCEANO 1250



OCEANO 2500 LIGHT



OCEANO 2500 UNIVERSAL

	OCEANO 1250	OCEANO 2500 LIGHT	OCEANO 2500 UNIVERSAL
SWL (kg) *	1,250	2,500	2,500
RL (kg) **	500	500	2,500
TL (kg) ***	2,500	5,000	5,000
Depth	Down to 6,000 m	Down to 6,000 m	Down to 6,000 m
Housing	Aluminium alloy	Duplex steel or Titanium	Duplex steel or Titanium
Comment	Lightweight	Our entry level for deep water	Our best selling model with Positive Drive Off release mechanism
Weight air/water (kg)	22/10	Duplex : 22/17 Titanium : 20/10	Duplex : 31/32 Titanium : 22/13
Size L x dia. (mm)	745 x 146	Duplex : 725 x 130 Titanium : 730 x 134	Duplex : 830 x 130 Titanium : 835 x 134
Order reference	AR861CE	Duplex : AR861CS Titanium : AR861CT	Duplex : AR861B2S Titanium : AR861B2T



factory
tests
before
closing



OCEANO 2500 SIDE BAR

OCEANO 5000

2,500

5,000

2,500

5,000

5,000

10,000

Down to 6,000 m

Down to 6,000 m

Duplex steel
or Titanium

Duplex steel

Side traction bar
Positive Drive
Off release mechanism

Ideal for heavy
moorings

Duplex : 36/26
Titanium : 26/16

40/31

Duplex : 855 x 202
Titanium : 860 x 202

895 x 215

Duplex : AR861B1S
Titanium : AR861B1T

Duplex : AR861DS

Options

RECOVERABLE TRANSPONDER (-RT Option)

Includes Dual Transponder channel (an individual channel and a common channel for multiple interrogation) and telemetry transmission (additional sensors). Recoverable 8th generation transponders are compatible with iXSea USBL and LBL.

REMOTE HEAD

Separate transducer with a 3m-long cable.



ELECTRIC SOCKET

Optional electric plug for external power supply, data telemetry, programming with no need to open instrument.

TANDEM MOUNTING KIT

Designed to assemble two OCEANO acoustic releases in a redundant configuration.

ROPE CANISTER - RC300

Recovery, lifting, marking

*SWL (Safe Working Load) :

The maximum static or dynamic load which can be supported by the instrument in normal operation condition with no release command in progress.

**RL (Release Load) :

The maximum load that can be supported by the hook while it is activated (DC motor rotating).

***TL (Test Load) :

The maximum load that can be supported by the instrument with no permanent damage or water ingress.

Not to be used in normal operation mode.

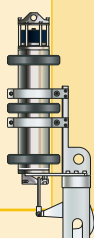
HEAVY DUTY ACOUSTIC RELEASES FOR OFFSHORE CONSTRUCTION



THE EASY AND COST-EFFECTIVE SOLUTION FOR DEPLOYMENT OF HEAVY LOADS AT SEA.

Heavy Duty Acoustic Releases or “Acoustic Controlled Shackles” allow heavy load handling (up to 300t), without the need for hardwire connection, hydraulic hoses, or ROV. Easy to operate and extremely ruggedized, the iXSea’s Heavy duty Acoustic Releases are the perfect tool for offshore construction operations

LOAD CAPACITY AND MECHANICAL PERFORMANCE



	OCEANO HD15 Lift	OCEANO HD15 Cable lay	OCEANO HD55 Lift	OCEANO HD55 Pull and Lift
SWL (T) *	15	15	55	55
RL (T) **	15	10	40	40
TL (T) ***	30	30	90	90
Depth	Down to 6,000 m	Down to 6,000 m	Down to 6,000 m	Down to 6,000 m
Housing	Steel frame	Duplex stainless steel	Steel frame	Steel frame
ROV Backup	No	No	No	Yes
Weight in air (kg) without master link	85.7	50	137	300
Size (mm) without master link	1143 x 210 x 148	960 x 366 x 221	1270 x 250 x 160	1492 x 330 x 250
Order reference	AR861ES	AR861E1S	AR861FS	AR861FSR

Safety first !

HIGH-SECURITY CODING

Prevents the instrument from inadvertent opening of the hook while operating in a noisy environment

INDIVIDUAL LOAD TEST AND CERTIFICATE

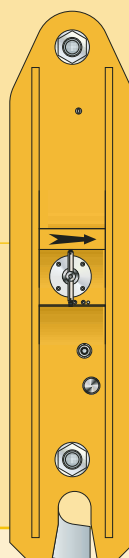
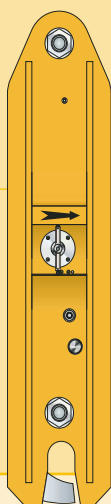
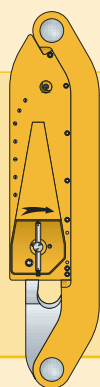
Tests conducted according to Bureau Veritas NI184.

SAFETY PIN KEEPS HOOK LOCKED

Even when the release command has been received and executed

A ROV BACKUP MECHANISM

Direct emergency opening of the hook (bypasses the acoustic command).



Option

TANDEM MOUNTING KIT

Designed to assemble two OCEANO acoustic releases in a redundant configuration allowing mooring recovery by releasing one instrument only.

OCEANO HD100 Lift

OCEANO HD100 Pull and Lift

OCEANO HD200 Pull and Lift

OCEANO HD300 Pull and Lift

100

100

200

300

50

50

50

50

150

150

270

400

Down to 6,000 m

Down to 6,000 m

Down to 6,000 m

Down to 6,000 m

Steel frame

Steel frame

Steel frame

Steel frame

Yes

Yes

Yes

Yes

328

860

1060

1815

1590 x 418 x 378

1930 x 450 x 378

2250 x 510 x 400

2600 x 669 x 470

OIAR861GS

AR861GSR

AR861HSR

AR861IS

* SWL (Safe Working Load) :

The maximum static or dynamic load which can be supported by the instrument in normal operation condition with no release command in progress.

** RL (Release Load) :

The maximum load that can be supported by the hook while it is activated (DC motor rotating).

*** TL (Test Load) :

The maximum load that can be supported by the instrument with no permanent damage or water ingress.

Not to be used in normal operation mode.

TELECOMMAND UNIT TT801



The TT801 is the portable splashproof remote control unit designed to activate all OCEANO Acoustic Releases and their variants. It is also compatible with all the units designed previously by the company. The TT801 is rugged and highly immune to noise interference.

Main specifications

FRONT PANEL

- ▶ Keypad, LCD display with backlighting, headphones (output from transducer)

POWER SUPPLY

- ▶ Power 100-240 V AC / 20-30 V DC,
- ▶ Battery charger 100-240 V AC

ACOUSTIC

- ▶ Frequency range 8 to 16 kHz
- ▶ Source level 191+/- 4 dB
- ▶ Transducer beam pattern (omnidirectional) +/- 3 dB
- ▶ Command coding Secure 2 states FSK 8-bit words, optional MFSK. More than 30,000 unique codes
- ▶ Range Up to 10km
- ▶ Receiving signal CW Pulse, FSK and MFSK
- ▶ Receiving channel CW or MFSK, field programmable
- ▶ Minimum detectable signal 70 +/- 3 dB

ENVIRONMENT

- ▶ Splashproof IP 65
- ▶ Storage temperature -40° to +70° C
- ▶ Operating temperature -5° to +50° C

MECHANICAL

- ▶ Size 430 x 250 x 160mm
- ▶ Weight 9kg
- ▶ Standard Transducer weight 4 kg (includes 30m cable)

Options

Ruggedized, active transducers
Enhance performance in deep water in case of poor acoustic propagation conditions.



Standard dunking transducer



Ruggedised transducer



Acoustic module

SHALLOW WATER ACOUSTIC RELEASES AND TELECOMMAND

With its shallow water range of acoustic products, iXSea can offer a low-cost solution for applications in coastal and continental shelf waters, with no compromise on reliability.

APPLICATIONS

- ▶ Shallow water deployments
- ▶ Coastal oceanography, lakes and rivers

	OCEANO 250	OCEANO 500	
SWL* (kg)	250	500	
RL** (kg)	250	200	
TL*** (kg)	500	1,000	
Depth	700 m	400 m	
Housing	Plastic model 100% corrosion free	Epoxy painted, hard-anodized aluminium	
Comment	Cost/performance compromise	One-way communication	
Option	Transponder function		
Weight air/water (kg)	17 / 4	6.5 / 2	
Size (mm)	745 x ø 160	564 x ø 140	
Order reference	OIAR801AP	OIAR701AE	

***SWL (Safe Working Load) :**
The maximum static or dynamic load which can be supported by the instrument in normal operation condition with no release command in progress.

****RL (Release Load) :**
The maximum load that can be supported by the hook while it is activated (DC motor rotating).

*****TL (Test Load) :**
The maximum load that can be supported by the instrument with no permanent damage or water ingress.
Not to be used in normal operation mode.

TT701 Main specifications

ENVIRONMENT

- ▶ Splashproof plastic cabinet (IP65)

ACOUSTIC

- ▶ Frequency range : 8 to 16 kHz
- ▶ Source level: 190+/- 4 dB
- ▶ Transducer beam pattern (omnidirectional) +/- 3 dB
- ▶ Command coding : Secure 2 states FSK 8-bit words ; more than 30,000 unique codes
- ▶ Range: up to 10 km

POWER SUPPLY

- ▶ Battery / Charger: External 115 or 230 V AC (built-in battery & charger)



Specifications subject to change without notice



iXSea specializes in navigation and positioning solutions for the marine offshore oil and gas industry, harbour authorities, scientific and defence agencies.

Capitalizing on 30 years of Research and Development, iXSea offers unique mastery of mutually complementary technologies: inertial-grade gyroscopes, underwater acoustics, magnetic sensors, data acquisition and processing.

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