

# Benthos Acoustic Recovery

A Full Line of Acoustic Release Products



**TELEDYNE MARINE**  
**BENTHOS**  
Everywhereyoulook™

Teledyne Benthos manufactures a wide range of Acoustic Releases for shallow, mid and deep water operations. Acoustic releases have been used for decades as a safe and reliable means of deploying and recovering critical subsea instrumentation. A secure acoustic command is sent from the topside unit to the subsea unit to release up to 10,000 lbs of in-line instrumentation to the surface for recovery.

All of Teledyne Benthos acoustic releases can be operated from our feature-rich Universal Topside unit, which provides access to a wide spectrum of system capabilities and diagnostics to ensure ease of operation and

successful instrumentation recovery. As an alternative, the R500 Series Acoustic Release can also operate with our value-priced Release*it* deck box, providing users with an ideal solution for coastal applications.

With nearly 60 years of experience in undersea applications, Teledyne Benthos Acoustic Releases have become synonymous with quality and dependability, even in the harshest of environments.

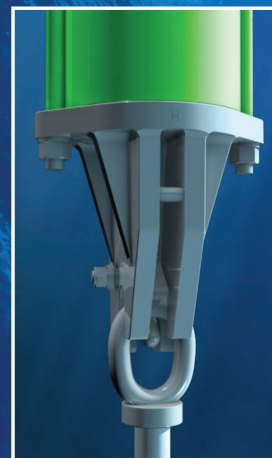
**Model R500 Shallow-Water Acoustic Transponding Release** is our shallow-water release rated to 500 meters depth and release loads of up to 455 kg (1000 lbs). The R500 is compatible with our full-feature UTS Universal Topside or our value-priced Release*it* Deck Unit.



**Model R2K Mid-Water Acoustic Transponding Release** is a full function acoustic release in a rugged and compact stainless steel housing for use in depths to 2000 meters and loads up to 2,000 kg (4,400 lbs.).



**The R12K Deep Water Acoustic Transponding Release** is designed for full ocean depth mooring recovery applications requiring a highly-reliable rugged stainless steel package and 5000 kg (10,000 lbs.) load handling.



# SPECIFICATIONS

<b>Rated Depth</b>	500 m (1,640 ft)	2,000 m (6,562 ft.)	12,000 m (39,370 ft.)
<b>Release Load Rating</b>	180 kg (396 lb) release	2,000 kg (4,400 lbs)	4,540 kg (10,000 lbs)
<b>Lift Load Rating</b>	455 kg (1000 lb) <sup>1</sup>	2,000 kg (4,400 lbs) <sup>1</sup>	4,540 kg (10,000 lbs) <sup>1</sup>
<b>Release Actuation</b>	High torque motor	High torque motor	High torque motor
<b>Slant Range</b>	Up to 2 km (1.2 miles)	Up to 12 km (7.5 miles)	Up to 12 km (7.5 miles)
<b>Range Accuracy</b>	0.3 m (1 ft)	0.3 m (1 ft)	0.3 m (1 ft)
<b>Tilt Range</b>	0-180 degrees at 1° increments	0-180° in 1° increments	0-180° in 1° increments
<b>Operating Life</b>	Up to 18 months <sup>2</sup>	Up to 4 years <sup>2</sup>	Up to 4 years <sup>2</sup>
<b>Frequency Band</b>	9-14 kHz (LF)	9-14 kHz (LF)	9-14 kHz (LF)
<b>Source Level (typical)</b>	167 dB re 1uPa @ 1m	185 dB ref 1 µPa @ 1m	185 dB ref 1 µPa @ 1m
<b>Weight—In air In water</b>	5.9 kg (13.1 lb) 2.1 kg (4.6 lb)	18 kg (40 lbs) 13 kg (29 lbs)	36 kg (80 lbs) 28 kg (62 lbs)
<b>Dimensions</b>	48 cm (18.9 in) length 11.4 cm (4.5 in) dia	66 cm (26 in) length 15 cm (6 in) dia.	93.7 cm (36.9 in) length 16.3 cm (6.4 in) dia.
<b>Housing Construction</b>	PVC	Stainless steel (ferrallium 255)	Stainless steel (17-4)
<b>Topside Compatibility</b>	UTS / Release <i>it</i> / Test <i>it</i>	UTS / Release <i>it</i> <sup>3</sup> / Test <i>it</i>	UTS / Release <i>it</i> <sup>3</sup> / Test <i>it</i>
<b>Accessories</b>	Turnaround Kit Tandem Release Mounting Kit Alkaline Batteries Drop Link Anode Kit	Turnaround Kit Tandem Release Mounting Kit Alkaline Batteries Drop Link Anode Kit	Turnaround Kit Tandem Release Mounting Kit Alkaline Batteries Drop Link Anode Kit

<sup>1</sup> Refer to manual for static and dynamic loading.

<sup>2</sup> Refer to manual for more detailed battery life conditions.

<sup>3</sup> Depth limited due to 3 km slant range.

## R-Series Key Features

- 4 year deployment life on standard alkaline batteries
- Measurement of tilt to 1 degree
- Positive confirmation on release status (armed, released...)
- Remote measurement of battery voltage
- Remote measurement of battery % capacity
- Longer range communication for broadband versus tone type releases
- Ability to modify transmit power remotely
- Domain feature allows unlimited number of release addresses
- Green colored housing for visibility

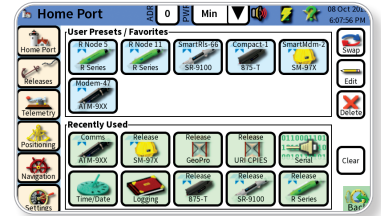
# Teledyne Benthos Topside Options

## Universal Top Side (UTS)

The UTS-9500 Universal Topside is used to operate all of Teledyne Benthos acoustic releases (and most industry standard releases) and to control and communicate with Teledyne Benthos' full line of acoustic modems and positioning products.

The UTS is the result of a focused engineering effort to devise the ideal topside unit for any level of user. From the novice user to the seasoned pro, the UTS delivers a user-friendly interface, with powerful, intuitive communication, command and control features to ensure you remain in control of your operations at all times.

The full color, touch screen display and intuitive menus ensure the successful use by any level of user; while advanced features like ambient condition analysis and the logging of all sent and received commands provide power users with valuable, insightful tools and peace of mind. An optional GNSS feature also allows users to survey in their mooring, saving valuable time and money by calculating and recording the location of their release and/or modem for expedited recovery.



*New full-color touch screen display for novice to advanced users.*



Teledyne Benthos new ReleaseIt Deck Unit and dunking transducer has been designed to serve our coastal users with high expectations and limited budgets. Encompassing Teledyne Benthos' proven engineering and reliability, ReleaseIt is a value priced alternative deck unit created to operate with our R500 Coastal Acoustic Release, providing users with a lower cost turn-key system for shallow water applications up to 500M water depth. For those with basic, coastal operational needs, ReleaseIt is an attractive, value-priced alternative to our feature-rich UTS-9500.



TestIt is a fully functioning "in air" predeployment acoustic tester. This battery operated (AA Alkaline) lightweight unit is capable of generating all commands needed to test your R-Series Release in the lab or on deck prior to deployment. The unit is splash proof and is designed to withstand exposure to marine environments. This unit allows you the opportunity to move freely around the lab or deck of a ship testing your Benthos Releases without the need to have your top side deck unit nearby.



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