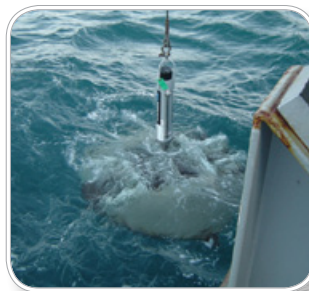


# Benthos Acoustic Releases

Wireless Recovery of Subsea Devices



- DEEP
- SHALLOW
- WIRELESS
- PROVEN IN HARSH ENVIRONMENTS
- LONG LIFE
- HIGHLY RELIABLE



**Teledyne Benthos** manufactures a wide range of Acoustic Releases for shallow water and deep sea equipment recovery. All of our releases can be operated from our deck boxes, giving users wireless topside control over their subsea devices. With over 50 years of experience in undersea applications, Teledyne Benthos Acoustic Releases deliver exceptional performance in harsh environments.

**Model 875-TD Shallow Water Release** is a low cost, versatile acoustic release designed for recovery of underwater equipment in coastal and inland waters.

**Model 875-PUB Pop Up Buoy** is configured with a syntactic flotation collar and line canister to mark and recover seabed equipment. 75 m 1/4" spectra line standard 2995 kg (6,600 lbs), other line lengths and diameters available.



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# SPECIFICATIONS

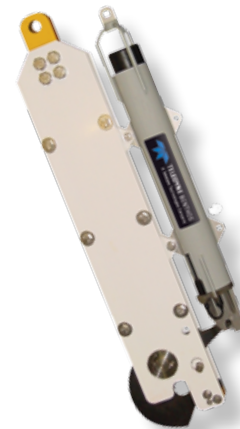
<b>Depth Rating</b>	500 m (1,640 ft.)	305 m (1,000 ft)	3
<b>Release Load Rating</b>	180 kg (0.2 tons)	–	2
<b>Lift Load Rating</b>	455 kg (0.5 tons)	–	4
<b>Actuation</b>	High torque motor	High torque motor	H
<b>Transponder Feature</b>	2-3 km slant range	–	5
<b>Range Accuracy</b>	1 m	–	–
<b>Release Confirmation</b>	Yes (acoustic)	–	M
<b>Timed Disable Feature</b>	–	–	2
<b>Enable Feature</b>	–	–	E
<b>Disable Feature</b>	–	–	D
<b>Tilt Indication Feature</b>	–	–	C
<b>Battery Life (receiver)</b>	1 year alkaline	6 months (1 yr. w/lithium)	2
<b>Battery Life (transmissions)</b>	–	–	2
<b>Factory Set Receiver (freq.)</b>	9-14 kHz	7-15 kHz	7
<b>Selectable Transmit (freq.)</b>	–	–	7
<b>Source Level (nominal)</b>	167 db ref $\mu$ pa @ 1	–	>
<b>Weight–In air</b>	4.5 kg (10 lbs)	11.3 kg (34 lbs)	9
<b>In water</b>	1.4 kg (3 lbs)	4.5 kg (15 lbs) positive	3
<b>Dimensions</b>	53.4 cm (22 in) length, 10.2 cm (4 in) width x 16.5 cm (6.5 in) height with fiberglass strongback	30 cm (15.5 in) dia. collar 50 cm (21.7 in) length	6 1
<b>Construction</b>	PVC, fiberglass, (stainless steel) 875-TD	PVC, syntactic foam	F
<b>Accessories</b>	875-TD Spare Battery (B846-0258) 875 Drop Link (0220-008) Spare-Magnet (B-855-152)	875-SB Alkaline Battery (B-855-147) 875-LI-SB Lithium Battery (B-855-157) Spare Magnet (B-855-152)	F 8 ( 8 (

**Model 867-A Shallow Water Transponding Release** is a full function acoustic release providing range and tilt verification in addition to recovery of underwater moorings in coastal and inland waters.

**Model 866-A 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 2200 kg.

**Model 865-A Deep Sea Acoustic Transponding Release** is designed for full ocean depth mooring recovery applications requiring a rugged stainless steel package and 5000 kg load handling.

**Model 865-H Load Multiplier for 865-A Release** is a secondary arm to provide a 5:1 mechanical advantage when used on the 865-A Release. This 22,600 kg rated device is used for deployment of anchors and underwater construction applications.



305 m (1,000 ft.)	2,000 m (6,562 ft.)	12,000 m (39,370 ft.)	12,000 m (39,370 ft.)
225 kg (0.25 tons)	2,200 kg (2.43 tons)	5,000 kg (5.5 tons)	22,600 kg (24.9 tons)
455 kg (0.50 tons)	2,200 kg (2.43 tons)	5,000 kg (5.5 tons)	22,600 kg (24.9 tons)
High torque motor	High torque motor	High torque motor	High torque motor
5-10 km slant range	5-10 km slant range	5-10 km slant range	5-10 km slant range
–	–	–	–
Multiple ping reply	Multiple ping reply	Multiple ping reply	Multiple ping reply
2,4,8, or 16 hours	2,4,8, or 16 hours	2,4,8, or 16 hours	2,4,8, or 16 hours
Enable command	Enable command	Enable command	Enable command
Disable command	Disable command	Disable command	Disable command
Greater than 25° off axis	Greater than 25° off axis	Greater than 25° off axis	Greater than 25° off axis
2 years	2 years (4 year option available)	2 years (4 year option available)	2 years (4 year option available)
25,000 pings	25,000 pings	25,000 pings	25,000 pings
7-15 kHz	7-15 kHz	7-15 kHz	7-15 kHz
7-15 kHz	7-15 kHz	7-15 kHz	7-15 kHz
>192 db ref $\mu\text{pa}$ @ 1m	>192 db ref $\mu\text{pa}$ @ 1m	>192 db ref $\mu\text{pa}$ @ 1m	>192 db ref $\mu\text{pa}$ @ 1m
9 kg (20 lbs)	18 kg (40 lbs)	33 kg (70 lbs)	121 kg (268 lbs)
3.7 kg (8 lbs)	13 kg (29 lbs)	25 kg (55 lbs)	104 kg (230 lbs)
63 cm (25 in) length	66 cm (26 in) length	96 cm (38 in) length	126 cm (50 in) length
13 cm (5 in) dia. housing	15 cm (6 in) dia. housing	15 cm (6 in) dia. housing	46 cm (18 in) width (Dim. are w/865-A attached)
PVC, fiberglass strongback	stainless steel (ferralium 255)	stainless steel (17-4 PH)	stainless steel (17-4 PH) high strength carbon steel
Remote head version also available	865-SB-13 Alkaline Battery	865-SB-13 Alkaline Battery	865-SL-H Drop Link
867-SB Alkaline Battery	(C-855-60)	(C-855-60)	865-SB-13 Alkaline Battery
(C-867-4)	866-SL Drop Link	865-SL Drop Link	(C-855-60)
867-SL Drop Link	(A-855-124)	(B-855-186)	
(0220-008)	866-BA Bar Anode	865-SA-K1 Bar Anode	
	(A-855-139)	(A-855-82-1)	
	866-A Tandem Release	865-A Spare Parts Kit	
	Mounting Kit (B-855-197)	(D-855-40-SPK)	
	866-A Spare Parts Kit	865-ORING Kit	
	(D-855-47-SPK)	(865-ORING-Kit)	
	866-ORING Kit		
	(866-ORING-Kit)		

The Teledyne Benthos Universal Deck Box has been designed to work with all Benthos acoustic releases, transponders and modems, including the SMART products.

# UNIVERSAL DECK BOX UDB-9400

The **Universal Deck Box** is a complete single-unit replacement for all previously offered Teledyne Benthos acoustic deck units, including the DS-7000, DS-8000, and ATM-891. The Universal Deck Box can operate standard acoustic releases, communicate and control acoustic modems, and work with the Teledyne Benthos SMART line of products.



The Universal Deck Box, (UDB), provides two RS-232 serial ports for data/command line interaction, and a large grey-scale touch screen for simple graphical user control and enhanced sunlight readability.

## Features:

- Touch screen display to send and receive commands
- RS-232 ports for direct connection to a PC or laptop
- Speaker for listening to acoustic signals
- Auxiliary jack for optional headset
- AC/DC or internal battery power
- Low frequency (LF) dunking transducer and 25 meter cable (standard)
- Up to 200 m cable available for high-reliability deep water acoustic communications
- Deck box emulation to command other vendor's products

## Touch screen to easily input, receive and view information such as:

- Real time data from subsea instrument
- Tilt indication of the subsea acoustic release
- Range information from the subsea modem, transponder or acoustic release
- Release commands and release confirmation of acoustic release
- Power sense and battery level monitoring of surface and subsea equipment (when supported)
- Frequency inputs
- Variable power level (source level) selections easily changed by the user
- Variable bit rate selections to optimize data transfer speed and reliability



The **DS-8750** Acoustic Deck Set is a low cost companion to the Benthos Acoustic Release Model 875 and 875-PUB. It is ideally suited for basic release operations requiring only command capability.

## Features:

- Operates in the 7-15 kHz range, in 500 Hz increments
- Capable of sending all Benthos FSK commands

- Lightweight and portable, splash proof case
- Internal, rechargeable battery operation
- Includes transducer with 10 meters (30 feet) of cable
- Speaker for predeployment testing provided

**TU-1000** Hand Held Acoustic Tester is a full function "in air" predeployment acoustic tester for Benthos' full line of acoustic transponders and releases. This battery operated, lightweight unit is capable of generating all Benthos FSK commands and interrogation frequencies. Constructed of rugged, black molded plastic, this device is designed to withstand years of exposure to marine environments.



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