Benthos
Location & Recovery

Acoustic Locator Pingers

- TRACK
- LOCATE
- RECOVER
- WATER ACTIVATED
- FIELD PROVEN
- EXTREME CONDITIONS

TELEDYNE
BENTHOS
Everywhereyoulook™

Pingers are used to mark underwater equipment or locations. They are generally about the size of a flashlight and can be attached to any mooring. The unit pings continuously when in the water. To recover a mooring, a diver or ROV is sent with a device to "listen" for, and home-in on, the pinger sound.

Transponders offer a versatile array of subsea acoustic markers for relocation, which respond when interrogated.

TELEDYNE BENTHOS
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PINGERS

ALP-365 is an advanced acoustic device designed for versatility in the offshore environment. Its electronics are protected by a rugged aluminum housing to insure long life under extreme conditions. Water activated.

ALP-365/EL offers all the same features and user options as the standard ALP-365 but with extended battery life. Using six 9V alkaline or lithium batteries, it can operate up to 180 days in extreme conditions. Water activated.

TRANSPONDERS

SPECIFICATIONS

Frequency	25 to 40 kHz in .5 kHz increments (user selectable)	25 to 40 kHz in .5 kHz increments (user selectable)
Acoustic Output re 1μPa@1m (Acoustic Power)	162 dB (.125W) 168 dB (.5W) 174 dB (2W) 177 dB (5W)	162 dB (.125W) 168 dB (.5W) 174 dB (2W) 177 dB (5W)
Pulse Length	4 ms	4 ms
Pulse Repetition	2 pulse/sec, 1 pulse/sec, or 1 pulse/2 sec (user selectable)	2 pulse/sec, 1 pulse/sec, or 1 pulse/2 sec (user selectable)
Housing	Aluminum	Aluminum
Weight in Air	.68 kg (1.5 lbs)	1.0 kg (2.25 lbs)
Dimensions	Length: 18.42 cm (7.25 in); Diameter 5.08 cm (2.0 in)	Length: 30.2 cm (11.88 in); Diameter 5.08 cm (2.0 in)
Power Source	Two 9V alkaline or two 9V lithium batteries. Customer supplied	Six 9V alkaline or six 9V lithium batteries. Customer supplied
Battery Life	Pulse repetition dependent. 0.125W: 20-26 days 9V alkaline; 45-60 days 9V lithium 0.5W: 10-20 days 9V alkaline; 20-45 days 9V lithium 2W: 3-10 days 9V alkaline; 6-20 days 9V lithium 5W: 1-4 days 9V alkaline; 2-8 days 9V lithium	Pulse repetition dependent. 0.125W: 60-78 days 9V alkaline; 135-180 days 9V lithium 0.5W: 30-60 days 9V alkaline; 60-135 days 9V lithium 2W: 9-30 days 9V alkaline; 18-60 days 9V lithium 5W: 3-12 days 9V alkaline; 6-24 days 9V lithium
Depth Rating	750 m (2,460 ft)	750 m (2,460 ft)
Notes		

UAT-376 is a general purpose, acoustic ranging/bearing device for underwater applications. Operating in the mid-range frequency band of 20- 35 kHz, it is designed to be used with a variety of diver, ROV/AUV, and ship-installed acoustic interrogator applications.

UAT-376/EL is a general purpose, acoustic ranging device for underwater applications. The stretch housing design accommodates additional batteries for longer deployments.

DRI-267 Dive Ranger Interrogator employs advanced acoustic technology to guide users to underwater sites marked with underwater acoustic transponders. Designed primarily for divers, it can also be converted to a surface unit by using the optional ACU-266 Surface Conversion Kit. (Contact Benthos for information on ACU-266).

ACU-266 Surface Conversion Kit allows the operator to locate and track up to 7 different transponders from the surface when coupled with the DRI-267. Includes rugged aluminum staff assembly, harness and LCD that displays even in sunlit conditions.

Receive: 26 kHz; Transmit: 25, 27, 28, 29, 30, 31, 32 kHz	Receive: 26 kHz; Transmit: 25, 27, 28, 29, 30, 31, 32 kHz	Receive: 25, 27, 28, 29, 30, 31, 32 kHz (user selectable) Transmit: 26 kHz	Receive: 25, 27, 28, 29, 30, 31, 32 kHz (user selectable) Transmit: 26 kHz
180 dB (8W)	180 dB (8W)	184 dB (20W)	n/a
5 ms	5 ms	5 ms	n/a
Receiver turn-around time: 20 ms from interrogation; transmit lockout time: 246 ms	Receiver turn-around time: 20ms from interrogation; transmit lockout time: 246 ms	1 pulse/sec or 1 pulse/2 sec (user selectable)	1 pulse/sec or 1 pulse/2 sec (user selectable)
Aluminum	Aluminum	PVC	ABS plastic alloy
.68 kg (1.5 lbs)	1 kg (2.25 lbs)	3.4 kg (7.5 lbs)	1.58 kg (3.5 lbs)
Length: 18.42 cm (7.25 in); Diameter: 5.08 cm (2.00 in)	Length: 30.2 cm (11.88 in); Diameter: 5.08 cm (2.00 in)	Length: 30.5 cm (12.0 in); Diameter: 11.4 cm (4.5 in)	Length: 21.6 cm (8.5 in) Width: 15.2 cm (6.0 in) Depth: 7.6 cm (3.0 in)
Two 9V alkaline or 9V lithium batteries	Six 9V alkaline batteries or 9V lithium batteries	10.8 V rechargeable NiCad battery pack	10.8 V rechargeable NiCad battery pack
Alkaline: 4 months or 150,000 replies Lithium: 8 months or 300,000 replies	Alkaline: 12 months or 450,000 replies Lithium: 24 months or 900,000 replies	12 hours per 12-hour charge	8 hours per 12-hour charge
750 m (2,460 ft)	750 m (2,460 ft)	183 m (600 ft)	n/a
		24 kHz receive frequency available	RS-232 interface at 2400 bps. LCD display has 8 user selectable contrast settings

BFP-312 Bottom Finding Pinger

A bottom finding pinger, used in conjunction with a standard 12 kHz shipboard bathymetric recorder can be used to monitor the height off bottom of instruments or sampling equipment being lowered through the water column. The instrument can be used effectively for positioning of CTD instrumentation, fishing nets, coring tools, water bottles or other items where accurate vertical positioning relative to the bottom is required.

Model BFP-312HP High Power Bottom Finding Pinger

Precision pingers and positioning beacons require high power, long life and a high level of frequency and repetition rate stability to allow asynchronous operation with shipboard recording and processing instrumentation.

Frequency	Operating Frequency: 12 kHz Carrier Frequency Stability: ±50 Hz	Operating Frequency: 12 kHz Carrier Frequency Stability: ±50 Hz
Source Level	195 dB re 1 µPA @ 1 meter	210 dB re 1 µPA @ 1 meter
Pulse Length	Internally selectable 0.5, 2, 5, 10 msec	Internally selectable 0.5, 2, 5, 10 msec
Repetition Rate	0.5, 1, 2, 4, 8, 16, or 32 sec (Two User-Selectable Jumpers) Factory setting 1 sec or 0.5 sec when activated by mercury tilt switch	0.5, 1, 2, 4, 8, 16, or 32 sec (Two User-Selectable Jumpers) Factory setting 1 sec or 0.5 sec when activated by mercury tilt switch
Housing	Aluminum Adonized	Aluminum Adonized
Weight	42 lbs (in air), 23 lbs (in water)	70 lbs (in air), 33 lbs (in water)
Dimensions	75.5 cm (29.7 in) length 17.9 cm (7 in) width 24.8 cm (9.8 in) height	80.6 cm (31.8 in) length 20.3 cm (8 in) width 27.2 cm (10.7 in) height
Battery Type	20 rechargeable "C" cells (20 alkaline "C" cells optional)	20 rechargeable "C" cells (20 alkaline "C" cells optional)
Operating Life	Rechargeable Batteries: 100 hrs typical @ 1PPS, 0.5 msec pulse width Optional Alkaline Expendable Batteries: 250 hrs typical @ 1PPS, 0.5 msec pulse width Rechargeable Battery Charging Time Using Model BC-31 Battery Charger: 16 hours maximum	Rechargeable Batteries: 40 hrs typical @ 1PPS, 0.5 msec pulse width Optional Alkaline Expendable Batteries: 100 hrs typical @ 1PPS, 0.5 msec pulse width Rechargeable Battery Charging Time Using Model BC-31 Battery Charger: 16 hours maximum
Transducer Beam Pattern	Omni-directional in the horizontal plane, Cardoid in the vertical plane	Omni-directional in the horzontal plane, 45° (conical) in the vertical plane
Depth Rating	6,000 m (19,680 ft)	6,000 m (19,680 ft)

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