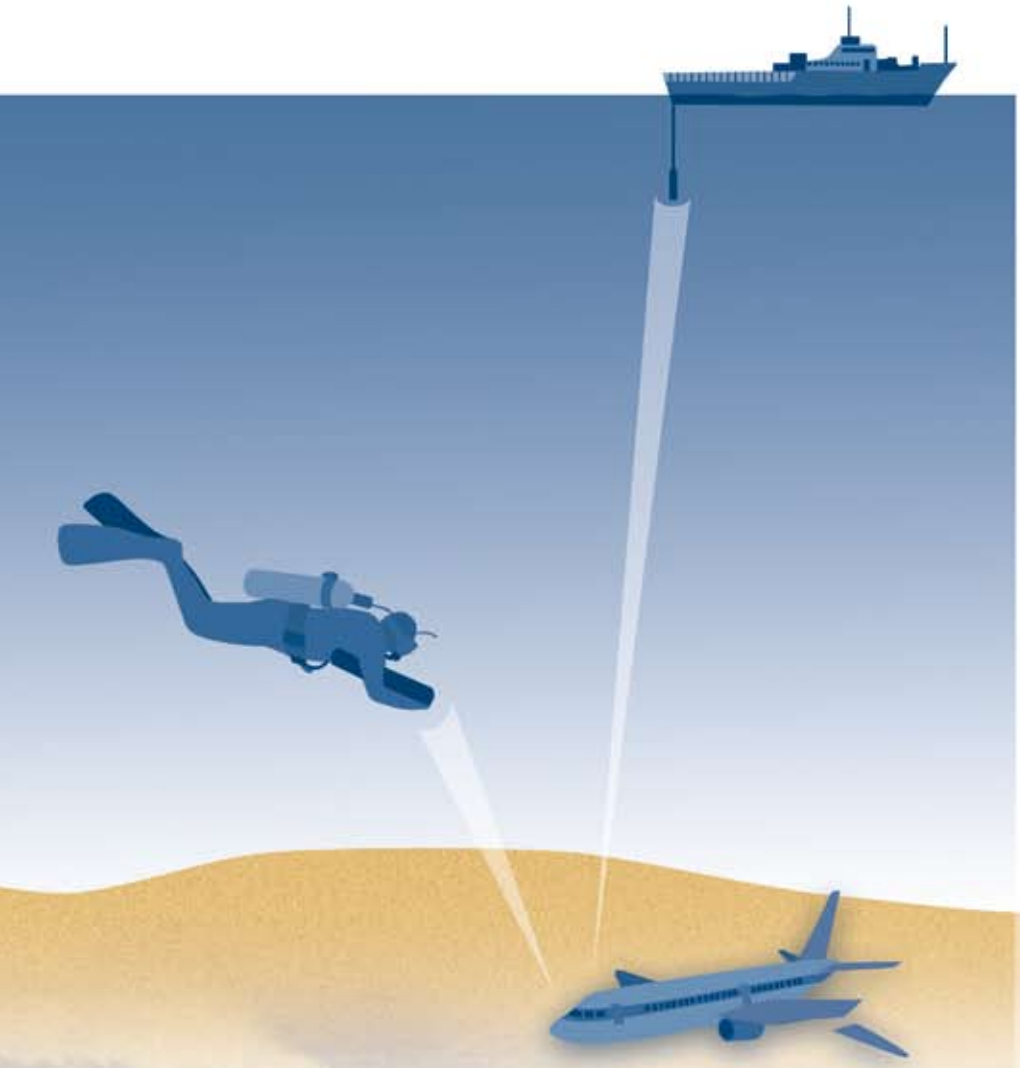
Locator

ACOUSTIC LOCATOR PINGERS

Track, Locate, Recover



Find it with Locator.

Teledyne Benthos provides a complete line of proven underwater locator products. Whether your needs are for the underwater locating of aircraft or other objects, underwater navigation, underwater tracking, search and recovery, military or special operations, Teledyne Benthos has a solution.

Perhaps the most important product Teledyne Benthos produces is the FAA-approved ELP-362D Emergency Locator Beacon, an underwater "pinger" used on flight and voyage data recorders to insure the safe and timely recovery of black boxes when aircraft or ships go down at sea.

INNOVATIVE UNDERSEA SYSTEMS TECHNOLOGY

TELEDYNE BENTHOS
A Teledyne Technologies Company

Acoustic Locator Pingers

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. It pings continuously when in the water. When it's time to recover your mooring, you send a diver with a handheld device to "listen" for, and home-in on the pinger sound.

ALP-364A is designed for a variety of uses in the offshore environment. It uses standard 9V alkaline or lithium batteries and will mark and relocate underwater equipment sites or targets. Water activated.

ALP-364/EL is designed for applications where extended battery life is required. It has the same features as the ALP- 364A but a longer housing to hold 4 additonal batteries, which can extend operational life up to18 months. Water activated.

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.

Specifications

	ALP-364A	ALP-364/EL	ALP-365
Frequency	27, 37.5, 45, or 54 kHz (specify at time of order)	27, 37.5, 45, or 54 kHz (specify at time of order)	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) 180 dB (8W)	162 dB (.125W) 168 dB (.5W) 174 dB (2W) 180 dB (8W)	162 dB (.125W) 168 dB (.5W) 174 dB (2W) 177 dB (5W)
Pulse Length	5 ms	5 ms	4 ms
Pulse Repetition	1 pulse/sec	1 pulse/sec	2 pulse/sec, 1 pulse/sec, or 1 pulse/ 2 sec (user selectable)
Housing	Aluminum	Aluminum	Aluminum
Weight in Air	0.68 kg (1.5 lbs)	1.0 kg (2.25 lbs)	.68 kg (1.5 lbs)
Dimensions	Length: 18.42 cm (7.2 in); Diameter: 5.08 cm (2.0 in)	Length: 30.2 cm (11.88 in); Diameter: 5.08 cm (2.0 in)	Length: 18.42 cm (7.25 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	Two 9V alkaline or two 9V lithium batteries. Customer supplied
Battery Life	0.125W: 3 mos 9V alkaline; 6 months 9V lithium 0.5W: 25 days 9V alkaline; 2 months 9V lithium 2 W: 6 days 9V alkaline; 16 days 9V lithium 8W: 2 days 9V alkaline; 5 days 9V lithium	0.125W: 9 mos 9V alkaline; 18 months 9V lithium 0.5W: 75 days 9V alkaline; 6 months 9V lithium 2 W: 18 days 9V alkaline; 48 days 9V lithium 8W: 6 days 9V alkaline; 15 days 9V lithium	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
Depth Rating	750 m (2460 ft)	750 m (2460 ft)	750 m (2460 ft)
Notes	User-activated version available		User-activated version available.

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

ELP-362A is a small, rugged underwater pinger rated to full ocean depth. Its compact size makes it ideal for use on ROVs, AUVs, ordnance and equipment recoveries. It can withstand extreme shock, vibration, pressure and temperature. Water activated.

DPL-275A is our most advanced system for locating and tracking underwater pingers. The DPL-275A steers users to pingers operating between 5 and 80 kHz. It can be used as a diver-held unit or converted a surface unit using the DHA-151.

DHA-151Surface Directional Hydrophone Kit converts the DPL-275A into surface unit.The DHA-151's directional hydrophone allows users to quickly navigate any surface vessel to a pinger source.

APR-272B Portable Acoustic Pinger Receiver is used for tracking underwater pingers from the surface. The APR-272B coupled with the DHA-151 will provide directionality. Unit comes supplied with omni-directional hydrophone.

25 to 40 kHz in .5 kHz increments (user selectable)	27, 37.5, or 45 kHz (±1kHz)	5-80 kHz, 2 kHz bandwidth	Refer to the DPL-275A	5-80 kHz, 2 kHz bandwidth
162 dB (.125W) 168 dB (.5W) 174 dB (2W) 177 dB (5W)	160.5 dB (.125W)	Hydrophone directivity: typically 30° between 3 dB limits	Hydrophone directivity: typically 30° between 3 dB limits	Omni-directional hydrophone
4 ms	10 ms	n/a	n/a	n/a
2 pulse/sec, 1 pulse/sec, or 1 pulse/ 2 sec (user selectable)	1 pulse/sec	n/a	n/a	n/a
Aluminum	Aluminum	PVC	PVC	ABS plastic alloy
1.0 kg (2.25 lbs)	190 g (6.7 oz)	3.08 kg (6.8 lbs)	3.63 kg (8 lbs)	3.63 kg (8 lbs)
Length: 30.2 cm (11.88 in); Diameter: 5.08 cm (2.0 in)	Length: 10.16 cm (4 in); Diameter: 3.30 cm (1.3 in)	Length: 27 cm (10.63 in); Diameter: 11.4 cm (4.5 in)	Cable length: 6 m (20 ft); Staff assembly length 1.4 m (4.5 ft)	Length: 21.6 cm (8.5 in); Width 15.2 cm (6.0 in); Depth: 14.5 cm (5.7in)
Six 9V alkaline or six 9V lithium batteries. Customer supplied	7.2V lithium battery	10.8V rechargable NiCad battery pack	n/a	12V rechargeable cell
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	>30 days	16 hours per 12-hour charge	n/a	24 hours per 16-hour charge
750 m (2460 ft)	6096 m (20,000 ft)	183 m (600 ft)	n/a	n/a
	Optional long life battery.	Comes complete with compass, bone conduction earphone, rechargeable battery pack with charger,operation manual, and water-tight, shock-resistant carrying case.	The kit includes a directional hydrophone, staff and cable assembly, compass and headset. Can be purchased with DPL-275A (DPL-275XS)	The kit includes an omnidirectional hydrophone, rechargeable battery pack with charger, headphones and manual. There is also a connector that allows for an external 12 VDC power source.

Transponder Ranging Products

Transponders are also used to mark equipment or underwater locations and are directly attached to a mooring. Unlike a pinger, they sit quietly until they are interrogated by the diver unit. When it's time to recover your mooring, a diver is sent in with a handheld device to range on the unit. The diver unit provides range and direction to the transponder.

UAT-376 is a general purpose, acoustic ranging 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 or ship installed acoustic interrogators.

UAT-376/EL is a general purpose, acoustic ranging device for underwater applications with a stretch housing design that offers an extended battery life for longer deployments.

DRI-267A 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.

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-267A. Includes rugged aluminum staff assembly, harness and LCD that displays even in sunlit conditions.

XT-6001 & TR-6001 Acoustic Transponders are glass instrument housings with general purpose transponder electronics. The XT-6001 (left) is an expendable transponder. The TR-6001 (right) incorporates a burn wire release mechanism for ease of recovery. They can be used for acoustic navigation or location marking.

Specifications

Frequency	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	Refer to the DRI-267A	7-17 kHz in 250 Hz increments
Acoustic Output re 1µPa@1m (Acoustic Power)	180 dB (8W)	180 dB (8W)	184 dB (20W)	n/a	185 dB (20W)
Pulse Length	5 ms	5 ms	5 ms	n/a	10 ms
Pulse Repetition	Receiver turn-around time: 20 ms from interrogation; transmit lockout time: 246 ms	Receiver turn-around time: 20 ms from interrogation	1 pulse/sec. or 1 pulse/2 sec (user selectable)	Refer to the DRI-267A	Turnaround delay 10 ms from interrogation
Housing	Aluminum	Aluminum	PVC	ABS plastic alloy	Glass sphere, positively buoyant
Weight in Air	.68 kg (1.5 lbs)	1 kg (2.25 lbs)	3.4 kg (7.5 lbs)	1.58 kg (3.5 lbs)	26 kg (60 lbs)
Dimensions	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 (6.0in); Depth: 7.6 cm (3.0 in)	24 in maximum diameter
Power Source	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	16 amp-hour alkaline battery pack
Battery Life	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	Up to 2 years
Depth Rating	750 m (2460 ft)	750 m (2460 ft)	183 m (600 ft)	n/a	6700 m (22,000 ft)
Notes			24 kHz receive frequency available	RS-232 interface at 2400 bps. LCD display has 8 user selectable contrast settings	XT model is expendable; TR model has burn wire release. DS-7000, DS-8000 or UDB deck boxes.

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