

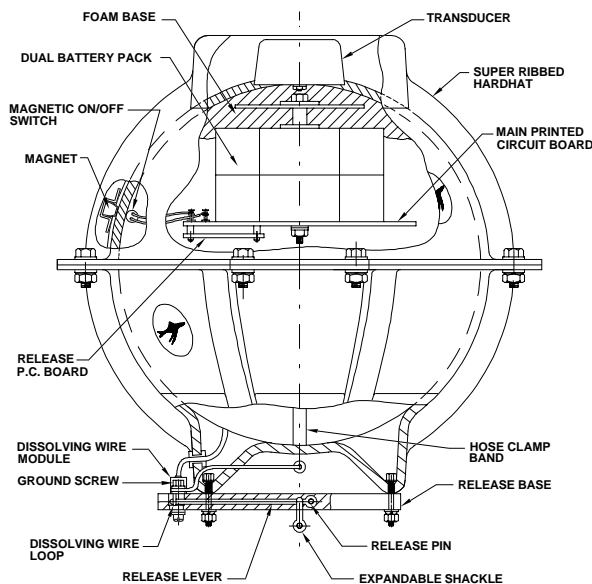
TR-6000 & XT-6000 ACOUSTIC TRANSPONDERS

The TR-6000 & XT-6000 Transponders consist of deep sea acoustic transponders in 17 or 13-inch diameter glass housings and super ribbed hardhats. The TR-6000 incorporates a releasing mechanism, bolted to the bottom of the hardhat including a release lever which is tripped by a dissolving wire when activated by an acoustic command sent from the surface to the transponder. The entire assembly is a self-buoyant package which will flip over from the "transducer - up position" when deployed, to the "transducer - down position" when released and floating on the surface. Two molded handles in the hardhat are provided for ease of recovery and shipboard handling.

The XT-6000 is designed as a more affordable unit that does not incorporate release recovery components. The XT-6000 is used in applications as an expendable device or mounted to other subsea equipment.

The TR-6000 is intended for acoustic navigation and providing range to subsea locations. Interrogations and release commands are transmitted by the Benthos Model DS-7000 Deck Unit, which also provides a four-digit readout of slant range.

Using the DS-7000 Deck Unit, the TR-6000 & XT-6000 can be commanded to enable or disable their transmitters. Additional optional command configurations are available for external control of other devices.



49 Edgerton Drive
No. Falmouth, MA 02556 USA
Tel: 1-508-563-1000
Toll Free (USA only): 1-800-446-1222
Fax: 1-508-563-6444
Web: <http://www.benthos.com>

TR-6000 & XT-6000 SPECIFICATIONS

Configuration and Dimensions	17 or 13 -inch Glass Instrument Housing in Super Ribbed Hardhat. 24-inch maximum diameter x 22½ inch maximum height.
Weight in Air	60 pounds (26 kg) (17-inch diameter housing).
Buoyancy in Seawater	38 pounds (17 kg) (17-inch diameter housing).
Maximum Depth Rating	All units are factory tested to 22,000 feet (6700 meters).
Operating Range	10 km slant range with Benthos Model DS-7000 Deck Unit (ideal conditions).
Transducer Pattern	Omnidirectional from upper hemisphere.
Receive Frequencies	The receiver frequency is factory set to any one frequency between 7.0 kHz and 15.0 kHz in 250 Hz increments to be compatible with the DS-7000 deck unit. The receiver bandwidth is ± 125 Hz.
Transmit Frequencies	Transmit frequency is set jumper selectable to frequencies between 7.5 KHz and 17 KHz in 250 Hz increments to be compatible with the DS-7000.
Minimum Detectable Signal	Less than 85 dB re 1 upascal.
Source Level Output	Greater than 192 db re 1 micropascal at 1 meter from 9.0 to 13.0 KHz. Greater than 185 db from 7.5 to 8.5 KHz., 13.0 to 17 KHz.
Detection Jitter (or repeatability)	±.4 milliseconds.
Receiver Lockout Time	1.5 seconds.
Transmit Pulse Length	10 ms ±1% is standard.
Turnaround Delay	10 ms (±.1ms) minimum.
Commands	Eight standard channels (A, B, C, D, E, F, G or H) are available from the deck unit which, in combination with the receive frequencies, provides 256 different codes of non-interfering operation.
Power Source	16 amp-hour alkaline battery pack.
Maximum Operating Life	Up to 2 years depending on model. Operating life specifications are based on 10 millisecond transmit pulse length.
Release Method (TR-6000)	Electrolytic dissolving wire (upon receipt of correct command).
Release Indication (TR-6000)	Changes from single to quadruple ping upon receipt of RELEASE command.
Commands	Release (TR-6000) Enable/Timed Disable Transponder (optional) Enable/Disable Transponder (optional) Permanent Disable Transponder (optional) External Switch Closure (optional)

Specifications are subject to change without notice (02/00).
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ISO 9001 CERTIFIED



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