

# Coastal Acoustic Release Transponder



- Proven EdgeTech components ensure system reliability
- 1000M depth rating suitable for a wide array of deployment applications
- 500 kg load rating
- Full transponder capability
- Integral 45° tilt sensor (20° optional)
- Unique Active Biofouling Prevention (ABP) mechanical design inhibits biofouling



## EdgeTech's Coastal Acoustic Release

**Transponder (CART)** has been designed to provide our customers with a comprehensive tool for release applications from the surf zone through the continental shelf. With standard transponder capability, a depth rating of 1000 meters, and a release load of 500 kg, the CART will significantly reduce both inventory and life cycle costs.

The CART incorporates EdgeTech's proven acoustic release technology and a robust motor driven release mechanism to enhance the unit's reliability and ease of operation. The CART also incorporates the Active Biofouling Prevention (ABP) mechanism, which inhibits biofouling by scheduled rotation of key mechanical components.

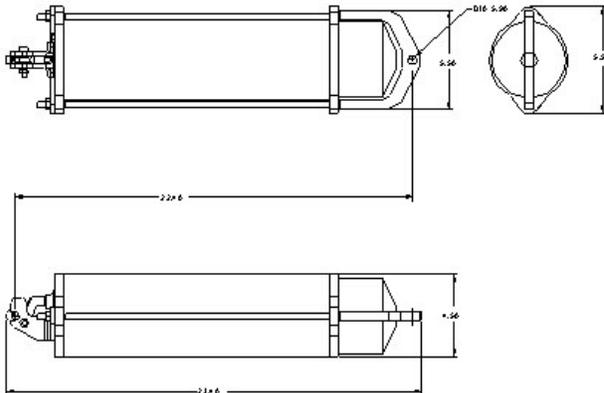
The rugged external materials are nickel aluminum bronze alloy, hard-coated aluminum or stainless steel. The unit provides 1.5 years of operation on alkaline batteries, with a long life option available for extended deployments.

The acoustic command structure has proven reliable in the harshest of underwater environments. The standard system has a transponder capability, as well as enable, disable, and release commands. Every command is unique and no command is reissued, thus eliminating the risk of unintentional operation of the system. After receiving a valid command, the release returns status information including attitude (vertical or horizontal) and release state (released or not released).

# Coastal Acoustic Release Transponder (CART)

## Specifications:

<b>Interrogate Frequencies:</b>	11 kHz standard, other frequencies available
<b>Minimum Interrogate Pulse Width:</b>	5 msec
<b>Reply Frequencies:</b>	Range of 7.5 to 15 kHz in 0.5 kHz increments Switch adjustable in 0.5 kHz steps (within a tuned range)
<b>Reply Pulse Width:</b>	10.0 msec
<b>Turn-Around Time:</b>	12.5 msec
<b>Transmitter Source Level:</b>	192 dB re 1 micro Pa
<b>Jitter:</b>	±0.1 msec
<b>Commands Coding:</b>	Binary FSK - 16, 11 block cyclic codes, possibility of 12,000 unique command codes
<b>Codes:</b>	Enable Transponder; Disable Transponder; Release/Arm
<b>Status Reply:</b>	Acoustic reply on confirmation of receipt of commands. Reply coded according to attitude and release status.
<b>Battery Life:</b>	1.5 years / 40,000 replies ( Standard Instrument) 2.5 years / 200,000 replies (Extended Option)
<b>Battery Type:</b>	"AA" welded alkaline batteries
<b>Release Mechanism:</b>	Motor driven rotary release
<b>Release Load:</b>	500 Kg, central axis loading
<b>Lifting load:</b>	750 Kg



*Illustration depicts standard configuration*

<b>Depth Rating:</b>	1000 meters
<b>Ports:</b>	Purge port for back filling housing with dry gas.
<b>Housing:</b>	Hard Coated Aluminum
<b>Length:</b>	Standard: 24 in. (61.0 cm) Extended: 30 in. (76.2 cm)
<b>Weight in Air:</b>	Standard: 20 lbs. (9.1 Kg) Extended: 24 lbs. (10.9 Kg)
<b>Weight in Water:</b>	Standard: 8 lbs. (3.6 Kg) Extended: 9 lbs. (4.1 Kg)

