

1600 Series LF Acoustic Release Beacon



Key features

- Positive drive-off mechanism
- Command and configured by 3510 PAM with 3191 LF Dunking transducer
- Reliable FSK acoustic command protocol
- SWL includes a 4x factor of safety
- Field adjustable internal frequency and release identities
- Long operational life

Applications

- Oceanographic long term marking
- Equipment recovery/ deployment
- Long range operation

LF Acoustic Release Beacon Overview

The 1600 Series release beacon provides the means by which scientific, survey or operational equipment can be deployed or reliably retrieved from its anchored seabed mooring.

Its positive drive-off mechanism ensures a reliable mechanical release in high bio-fouling environments.

Technical Specification

PHYSICAL SPECIFICATION

Housing Material:

1669: PVC housing with hard aluminium endcaps, stainless steel protection cage.

1679: Hard anodised aluminium endcap and tube, stainless steel cage and release mechanism, AliBronze release.

Model	Beam Pattern	SPL	SWL*	Release Load	Survival Depth	Beacon Diameter	Overall length	Weight air/ water
1669	±90°	191dB	125Kg	125kg	400m	125mm	730mm	7Kg/3.2Kg
1679	±90°	191dB	1000Kg	1000Kg	3000m	181mm	1128mm	27Kg/12.5Kg

*SWL includes a 4x factor of safety

Electrical Specification

BATTERY

Battery type	Alkaline
Listening life (At 2°C ambient)	5 years (At 2°C ambient)
Releases	50

A combined battery pack is fitted to separately power the release motor, transmit and the receive/processor electronics. This extends overall battery life and facilitates field servicing using 1 replacement pack.

TWO-WAY COMMUNICATION

Frequency	LF, 10KHz to 17KHz
Status Telemetry	Range, Acknowledge arm, Acknowledge release, Battery
Commands	Arm, Release, Battery Status, ID Commands, Tilt

COMPATIBILITY AND CONFIGURATION

Internally configured

Command/control	3510 PAM c/w 3191 LF Dunking transducer.
Navigation/ Tracking channels	Legacy Systems: AAE - LF USBL Kongsberg - HPR4 LF and HPR1507 ORE/ Edgetech - USBL

Optional Equipment

- Syntactic flotation to mark and recover seabed equipment

Options

- Removal of release mechanism. Interchanged for rechargeable battery, positioning endcap. For operation as LF navigation beacon and LF pinger applications.
- Directional $\pm 30^\circ$ Transducer, increased output power to 199dB.