APPLIED ACOUSTICS
Underwater Technology



: Technical Specification

Acoustic Release Beacons

Acoustic Release beacons from Applied Acoustic Engineering provide the means by which scientific, survey or operational equipment can be deployed or reliably retrieved from its anchored seabed mooring.

Standard products and customised versions are available to meet specific underwater release, command or control challenges.

Key Features

: Positive Drive-Off Mechanisms ensure reliable mechanical release in high biofouling environments.

: Choice of beam pattern, directional or omni-directional.

: Reliable FSK acoustic command sequence for communications security in high noise/reverberant environments.

: Over 2000 possible command channels (1000 as standard).

: Compatible with Easytrak (Range/Bearing/Status Telemetry/Release), Applied Acoustics' PAM units (Range/Status Telemetry/Release) and other MF USBL Systems (Range/Bearing).

: Also operate as standard acoustic positioning beacons compatible with almost all industry standard tracking systems.

: Field adjustable internal frequency and release identities.

: Optional increased depth ratings and higher source levels.

: Longer life and higher load versions available.

Applied Acoustic Engineering Ltd
Marine House, Marine Park
Gapton Hall Road
Great Yarmouth NR31 0NB
United Kingdom

T +44(0)1493 440355
F +44(0)1493 440720
E general@appliedacoustics.com
W www.appliedacoustics.com

MODEL TYPE - PHYSICAL SPECIFICATION

Housing material; Hard anodised aluminium

	Beam Pattern	SPL	SWL	Release Load	Diameter	Length	Survival depth	Weight air/water
Model 529P	+/- 90°	187dB	200kg	200kg	100mm	785mm	1000m	11kg/6kg
Model 539P	+/- 90°	188dB	200kg	200kg	100mm	1095mm	1000m	12kg/8kg
Model 559P	+/- 90°	191dB	200kg	200kg	125mm	1350mm	1500m	27kg/14kg
Model 526P	+/- 60°	192dB	200kg	200kg	100mm	786mm	1000m	11kg/6kg
Model 536P	+/- 60°	192dB	200kg	200kg	100mm	1095mm	1000m	12kg/8kg
Model 556P	+/- 60°	192dB	200kg	200kg	125mm	1350mm	1500m	27kg/14kg

(Release load above 1500 metres is 150kg)

ELECTRICAL SPECIFICATION

Battery*

Type	Alkaline quoted (longer life options available)
Listening Life (at 2°C, alkaline)	Model 52x ; 4 months. Model 53x ; 12 months. Model 55x ; 18 months
Transmitting	Model 52x ; 200,000 replies. Model 53x ; 200,000 replies. Model 55x ; 2,500,000 replies
Releases	70

Separate battery packs for Release Motor, Receive/Processor Electronics and Transmitters are utilised to ensure release on command should transmitter batteries become exhausted. This advantage also extends overall battery life.

TWO-WAY COMMUNICATION

Status Telemetry	Acknowledge arm, Acknowledge release, Acknowledge sleep, Battery, Status OK, Tilt OK, Tilt X 15 degrees, Tilt Y 15 degrees, Motor tuned, Releasing
Commands	Arm, Release, Sleep, Status request (3), Release reset, Anti-jam

COMPATIBILITY

		Available channels	Transponder/responder
Tracking System	Easytrak	20	Yes
	Simrad HPR300	14	Yes
	Simrad HPR400	14 + 56	Yes
	Simrad HiPAP	56	Yes
	Sonardyne USBL	14	Yes
	ORE Trackpoint II	5	Yes

OPTIONS

Increased depth ratings
Higher source levels
Alternative beam patterns
Solenoid/switch output versions
Higher load versions

NOTES
*As advances in battery technology allow, AAE's policy is to continually upgrade the batteries supplied. This increases both the listening life and the operational life of the beacons.

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Due to continual product improvement, specification information may be subject to change without notice.