



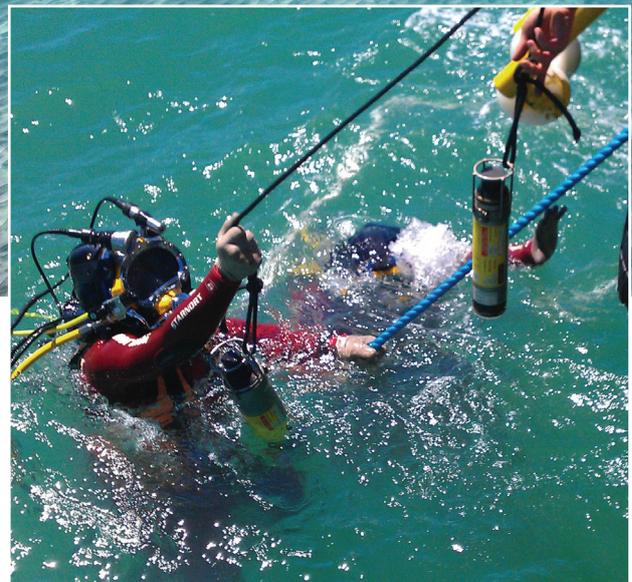
APPLIED ACOUSTICS

Underwater Technology

An AAE Technologies Group Company

Positioning and Release Beacons

Selection and Application Guide



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Positioning and Release Beacons

This extensive range of subsea beacons is one of the most comprehensive range available from any manufacturer worldwide and consists of small, lightweight models for use in shallow waters up to larger models that operate in deeper, more challenging environments.

Selecting the most appropriate beacon relies on the optimum balance between power, battery life and physical characteristics. The chart shows the many permutations offered by the range along with additional variations and typical applications. Customised options may also be available.

All medium frequency positioning beacons include Sigma spread spectrum bi-directional protocols. Most also have integrated MiQ data telemetry and Multi-Fire common interrogate capabilities, as indicated.



Positioning Beacons



Release Beacons



		Beam Pattern	SPL	Survival Depth	Listening Life	Operational Life at 1.Opps, Sigma spread spectrum mode, continuous	Typical Operating Range	Length inc. cage where supplied	Diameter inc. sleeve where supplied	Weight in air/water	Recharge	Options	Compatible with non AAE USBL systems	Typical Applications
1200 & 1300 SERIES MICRO														
1219A		± 90°	183dB	600m	30 days	30 hours	500m	248mm	52mm	850g/360g	✓		✓	Diver tracking Inspection ROV AUV
1319A		± 90°	183dB	600m	30 days	30 hours	500m	298mm	52mm	1000g/440g	✓	Remote transducer. Depth sensors.	✓	
1329A		± 90°	183dB	600m	45 days	60 hours	500m	298mm	52mm	1200g/550g	✓	Remote transducer. Depth sensors.	✓	
1100 SERIES MINI														
1119		± 90°	188dB	1500m	60 days	55 hours	1000m	395mm	74mm	2.90kg/1.40kg	✓	Remote transducer. Depth sensors.	✓	Diver tracking Inspection ROV Workclass ROV Towfish. AUV
1113H		± 30°	196dB	2000m	60 days	35 hours	1500m	410mm	74mm	3.10kg/1.50kg	✓	Remote transducer. Depth sensors.	✓	
1130 SERIES MIDI														
1139		± 90°	191dB	4000m	90 days	150 hours	1000m	540mm	100mm	6.90kg/3.00kg	✓	Remote transducer. Depth sensors.	✓	Large work class ROV Crane/winch hook Cable trenching/jetting Towfish
1133H		± 30°	203dB	4000m	90 days	30 hours	3000m	540mm	100mm	6.90kg/3.00kg	✓	Remote transducer. Depth sensors.	✓	
1160 SERIES FATBOY														
1163		± 30°	203dB	4000m	90 days	110 hours	3000m	652mm	130mm	14.80kg/6.60kg	✓	Remote transducer. Depth sensors.	✓	Large work class ROV Cable trenching/jetting Deep water ROV Subsea mining
1162		± 15°	208dB	4000m	90 days	110 hours	4000m	652mm	130mm	14.80kg/6.60kg	✓	Remote transducer. Depth sensors.	✓	
1150 SERIES SEABED														
1159		± 90°	188dB	4000m	120 days	1800 hours	1000m	1095mm	125mm	22.80kg/11.00kg	✓	Depth sensors. Longer life batteries.	✓	Dynamic positioning Reference beacons Long deployment applications Large mobile structure tracking
1153		± 30°	195dB	4000m	120 days	1200 hours	1500m	1095mm	125mm	22.80kg/11.00kg	✓	Depth sensors. Longer life batteries.	✓	
1600 SERIES LOW FREQUENCY														
1669		± 90°	191dB	4000m	90 days	100 hours*	5000m	710mm	130mm	15.00kg/7.00kg	✗	Remote transducer. Depth sensors.	✓	Deep water cable laying/repair
1663		± 30°	199dB	4000m	90 days	50 hours*	5000m	800mm	130mm	15.00kg/7.00kg	✗	Remote transducer. Depth sensors.	✓	Long range applications
1400 SERIES														
1419 V-NAV		± 90°	184dB	600m	>18 months	168 hours	500m	410mm	63mm	1.50kg/1.00kg	✗		✗	OBC Time-lapse monitoring
1439		± 90°	184dB	600m	>18 months	168 hours	500m	410mm	63mm	850g/340g	✗		✗	Burn wire release Activation beacon

		Beam Pattern	SPL	Survival Depth	Listening Life	Operational Life at 1.Opps, Sigma spread spectrum mode, continuous	Typical Operating Range	Length inc. cage where supplied	Diameter inc. sleeve where supplied	Weight in air/water	Recharge	Options	Compatible with non AAE USBL systems	Typical Applications
529P	SWL 250kg	± 90°	187dB	1000m	4 months*	70 releases	1000m	810mm	100mm	11.00kg/6.00kg	✗	Syntactic floatation. Lead multiplier.	✓	Oceanographic USBL calibrations Cable repair Pipe laydown
1519	SWL 75kg	± 90°	187dB	400m	12 months	70 releases	500m	500mm	110mm	4.60kg/2.10kg	✗	Syntactic floatation and line canister.	✗	
1559	SWL 250kg	± 90°	187dB	1000m	60 months	70 releases	500m	1350mm	125mm	19.60kg/8.70kg	✗	Syntactic floatation and line canister.	✗	
1569	SWL 75kg	± 90°	191dB	3000m	12 months	70 releases	3000m	730mm	110mm	6.50kg/3.00kg	✗	Syntactic floatation and line canister.	✗	
1579	SWL 1000kg	± 90°	191dB	3000m	36 months	70 releases	3000m	1130mm	125mm	26.80kg/12.00kg	✗	Syntactic floatation and line canister.	✗	

*Legacy CW

Specification subject to change without notice

Charge, Test and Configure

The beacon range has a comprehensive choice of ancillary devices for charging, testing and configuration.

Key	Charge	Test	Configure	USB	Beacon Editor 'App'	1082 Smart Switch	1083 Multi-Charger	3510 PAM Portable
Positioning Beacons								
1200 & 1300 SERIES MICRO				▲	●			■
1100 SERIES MINI					●	▲ ■ ●	▲ ■ ●	■ ●
1130 SERIES MIDI					●	▲ ■ ●	▲ ■ ●	■ ●
1160 SERIES FATBOY					●	▲ ■ ●	▲ ■ ●	■ ●
1150 SERIES SEABED					●		▲ ■ ●	■
1600 SERIES LOW FREQUENCY					●			■
1400 SERIES								■ ●
Release Beacons								
500 RELEASE								■
1500 RELEASE								■ ●



USB Connectivity and Beacon Editor App
Micro beacons make use of USB connectivity for charging and channel configuration via the beacon editor app. The Mini, Midi, Fatboy and Seabed beacons can also access this app using a serial communications lead to a PC.



1082 Smart Switch
The 1082 Smart Switch is a pocket sized device for Mini, Midi and Fatboy configuration, fast charge activation and monitoring. It has just 4 buttons, a backlit display and operates with an internal rechargeable battery.



1083 Multi-Charger
The 1083 provides independent, simultaneous charge, test and configuration for multiple beacons; 3 x Mini, Midi or Fatboy (or a single Seabed beacon).



3510 PAM Portable
The 3510 PAM Portable is a versatile tool for testing multiple acoustic positioning beacons. With a compatible dunking transducer it is able to perform basic ranging functions as well as the command and control of release beacons. The 3510 PAM also functions as the top side transceiver for the 1419 V-NAV positioning system.



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