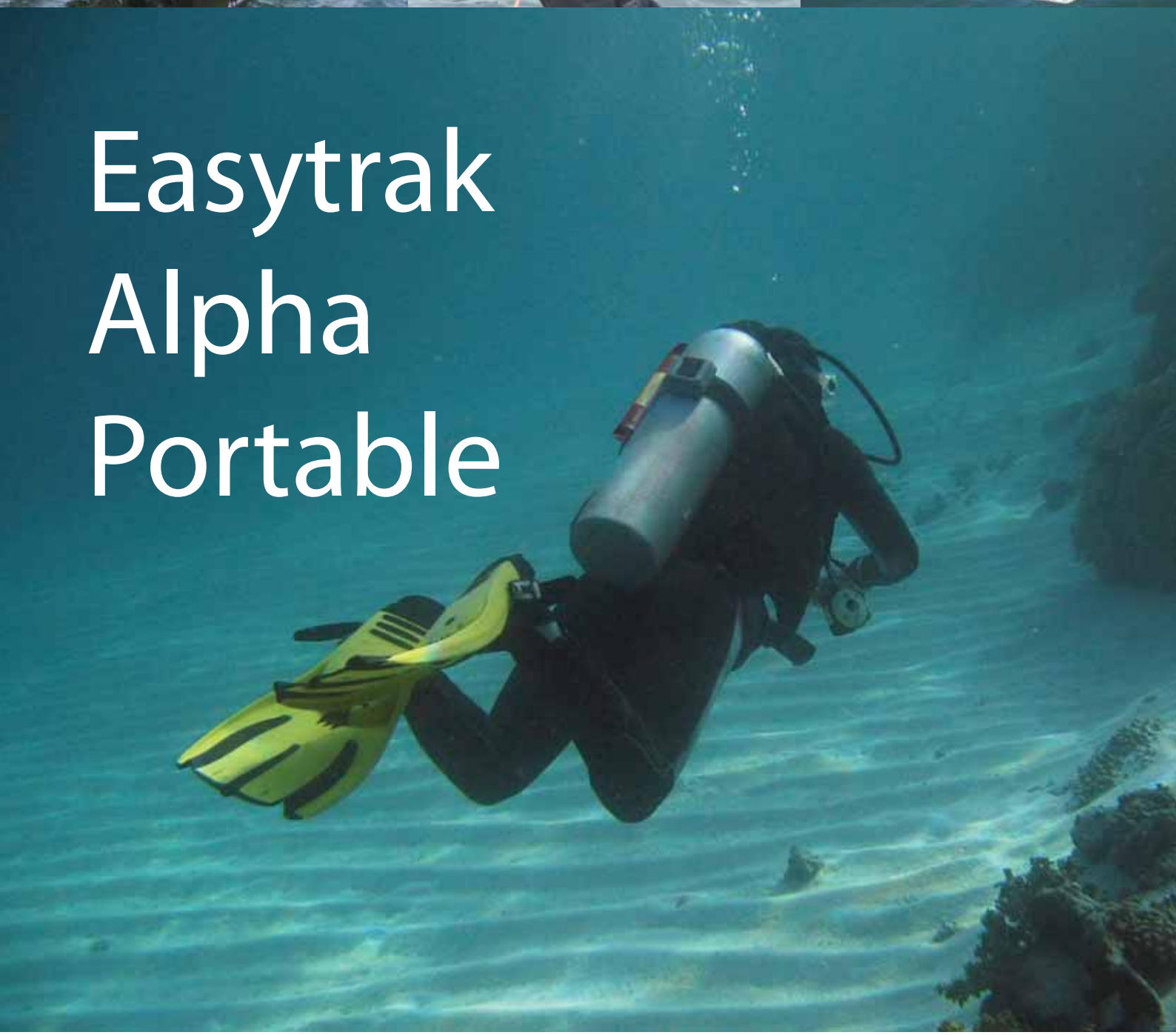
APPLIED ACOUSTICS
Underwater Technology



Easytrak Alpha Portable



www.appliedacoustics.com



Easytrak Alpha Portable USBL System

: Compact

: Rapid deployment

: Simple to use

: Cost-effective

Easytrak Alpha Portable is the compact, carry on version of the Applied Acoustics' range of lightweight USBL tracking systems that use a vessel-mounted transducer array to calculate the position of a subsea target equipped with an acoustic beacon. Quick to deploy, the Alpha Portable USBL system is ideally suited for small subsea vehicle operations or basic diver tracking.

At the heart of the system is the Alpha Portable console, a yellow marine grade splash-proof case containing all the electronics for the USBL system, including an internal GPS receiver for absolute positioning data, a full size keyboard, large LCD display and built-in battery. Target beacons include both transponders and responders that are supported through a number of pre-defined channels, with switchable interrogation rates. Channels can also be pre-set at base limiting the work and checks required at mobilisation.

The system's lightweight transducer incorporates heading and tilt sensors and offers hemispherical tracking making it ideal for shallow water applications. The transducer cable is pre-moulded to the transducer, removing the need for a separate connector.

Designed as a user -friendly and uncomplicated system, the Alpha Portable provides a complete turnkey operation, requiring only the addition of acoustic beacons, ideally from the Applied Acoustics' Micro range, though some MF beacons from other manufacturers can also be used.



Technical Specification

EASYTRAK ALPHA PORTABLE, MODEL 2655

Dimensions	Console: 411(W) x 323(D) x 168(H) mm, excluding cables
Weight	Console: 6.0kg approx
Power Supply	Input: 115Vac – 230Vac 47 – 63Hz typically 2A Output: 18Vdc up to 4A depending on input dc voltage
Battery Life	2-3 hours from built-in battery pack Auxiliary battery pack available
Display	Colour LCD 10.4 inch display (diagonal) Active area, 211.2 x 158.4mm
Input control	Fully QWERTY keyboard with integrated mouse
Communications	2 x RS-232 External GPS In and Data Out 1x USB port GPS Antenna connector
Internal GPS / DGPS	SiRF Star III Chipset Receiver <10m, 2D RMS <5m 2DRMS, SBAS (WAAS, EGNOS, MSAS…) corrected
External GPS / DGPS Input	NMEA; GLL, GGA, RMC
Data Output	AAE, TP-EC W/PR, $PSIMSSB, $PSIMSNS, $GPRMC, Sonar SSS - $GPGGA (Vessel position), $GPVTG (Vessel track and speed) $GPTLL (Target position)
Beacon Types	Transponders and Responder (1)
Channels	4 displayed from 35 pre-defined channels
Interrogation Interval	1, 2, 4 or 8 second intervals
Responder Output	Positive 12V pulse 10ms long
Operating Temperature	-5 to 30°C
Storage Temperature	-5 to 45°C

TRANSDUCER, TYPE ETM903C

Dimensions	Transducer: 370mm long x 100mm diameter Cable: 12.5mm diameter, yellow polyurethane sheathed Standard length is 20m
Weight	Transducer: 4.6kg in air, 2.6kg in water approx Transducer housing material: PVC
Depth Rating	20m
Operating Temperature	-5 to 30°C
Storage Temperature	-5 to 45°C

Optional higher accuracy transducer, the ETM902C, also available

ACCURACY/PERFORMANCE

Slant Range accuracy	10 cm
Position accuracy	2.0° RMS, 3.5% of slant range. Excluding effects due to GPS error, incorrect VOS, ray bending, compass, pitch and roll effects, and acceptable S/N ratio
Transducer	MF Frequency band.
Transducer beam pattern	Hemispherical
Interrogate power	Typically 186dB re.1µPa@1m
Heading sensor accuracy	<0.5° RMS
Tilt sensor accuracy	Accuracy ± <1.0° RMS Range ± 80°

APPLIED ACOUSTICS
Underwater Technology

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

With on-going research and development in cutting edge technology and acute awareness of current and future industry needs, our commitment to our customers is second to none. We are equally determined to aid and assist our customers worldwide with a network of partners, suppliers and overseas Support Centres. Together, we offer engineering excellence, trusted products and a first class professional service on a global scale.

www.appliedacoustics.com