APPLIED ACOUSTICS
Underwater Technology



Easytrak Alpha

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Easytrak Alpha USBL System

: Compact

: Rapid deployment

: Simple to use

: Cost-effective

Easytrak Alpha is the introductory and most compact version of the Applied Acoustics' range of USBL tracking systems that use a vessel-mounted transducer array to calculate the position of a subsea target equipped with an acoustic beacon. Ideally suited for small subsea vehicle operations or basic diver tracking, Easytrak Alpha is a condensed and cost effective system for monitoring close range subsea targets.

Centred around the desktop command console, the innovative and carefully considered design allows Easytrak Alpha to be deployed in minutes, even by an inexperienced user. Connection to the host PC running Easytrak Alpha software is direct from the console via a USB port.

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.

Easytrak Alpha has the additional advantage of its own internal GPS receiver giving the system the ability to calculate the target's absolute GPS position as well as its range and bearing. Versatility of the system is extended with the support of all AAE transponders and responders through a number of pre-defined channels.

Though ideally suited to the Micro Beacon range, other beacons from the Applied Acoustics' range can be used as well as some MF beacons from other manufacturers.

The Easytrak Alpha System consists of the Alpha console, transducer assembly and cable, power supply, GPS antenna, USB cable and operating software. In addition, positioning beacon(s) are required (ideally Applied Acoustics' 200/300 Series) and a compatible PC, running Windows XP SP2 or later, Vista or Windows 7 (min. processor, 1.5GHz).

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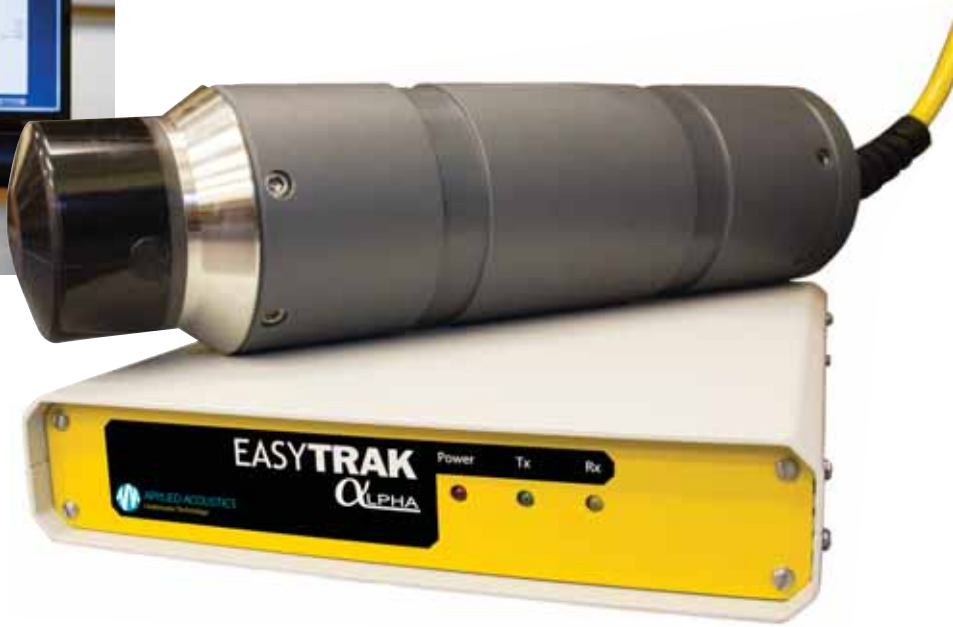



Technical Specification

EASYTRAK ALPHA CONSOLE, MODEL 2665

Dimensions	Console: 255(W) x 60(H) x 315(D) mm, excluding cables
Weight	Console: 2.6kg approx
Power Supply	Input: 115Vac – 230Vac 47-63Hz typically 2A Console Input: 12-18Vdc up to 2A depending on input dc voltage
Communications	2 x RS-232 External GPS and Data Out GPS Antenna connector All RS232C inputs comply with EIA (Electronics Industry Association) RS232C standard 1 x USB connection to external PC
Internal GPS/DGPS	SiRF Star lll 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
Interrogation Interval	1, 2, 4 or 8 second intervals
Responder Output	Positive 12V pulse 5ms long. BNC connector
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	10cm
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 SPL	Typically 186 re. 1µPa@1m
Heading sensor accuracy	<0.5° RMS
Tilt sensor accuracy	Accuracy ± <1.0° RMS Range ± 80°

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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.

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