

# Easytrak Alpha Portable USBL System



## Key features

- Compact USBL system
- Rapid deployment
- Simple to use
- Cost-effective

## Easytrak Alpha Portable Overview

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 diver tracking.

## Alpha Technical Specification

### EASYTRAK ALPHA PORTABLE, MODEL EZT-2655

Dimensions	Console: 411 x 323 x 168mm, 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, 211.2mm x 158.4mm
Input control	Full QWERTY keyboard with integrated mouse

<b>Communications</b>	2 x RS-232 (1) External GNSS + Heading and (2) Data Out 1 x GNSS Antenna Connector All RS232C inputs comply with EIA (Electronics Industry Association) RS232C standard. 1 x USB connection to external PC
<b>Internal GNSS Receiver</b>	SiRF Star III Chipset Receiver <10m, 2D RMS <5m 2DRMS, SBAS (WAAS, EGNOS, MSAS...) corrected
<b>External GNSS/Heading</b>	GNSS NMEA messages: GGA and RMC Heading NMEA messages: HDT, HDG, HDM
<b>Data Output</b>	AAE, TP-EC W/PR, \$PSIMSSB, \$PSIMSNS, \$GPRMC, Sonar SSS - \$GPGGA (Vessel position), \$GPVTG (Vessel track and speed) \$GPTLL (Target position) Data logging to HD
<b>Beacon types</b>	Transponders and Responder (1)
<b>Channels</b>	4 displayed from 35 pre-defined channels
<b>Interrogation interval</b>	1, 2, 4 or 8 second intervals
<b>Responder output</b>	Positive 12V pulse 10ms long
<b>Operating temperature</b>	-5 to 30°C
<b>Storage temperature</b>	-5 to 45°C

## TRANSDUCER, TYPE ETM903C

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

Optional higher accuracy transducer, the ETM902C, also available

# Accuracy/Performance

<b>Slant Range Resolution</b>	10cm
<b>Position Accuracy</b>	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
<b>Transducer</b>	MF frequency band
<b>Transducer beam pattern</b>	Hemispherical
<b>Interrogate SPL</b>	Typically 186 re. 1µPa@1m
<b>Heading Sensor Accuracy</b>	<0.5° RMS
<b>Tilt Sensor Accuracy</b>	Accuracy ± <1.0° RMS Range ± 80°