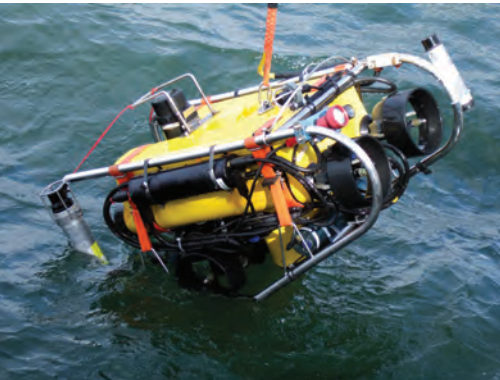




# APPLIED ACOUSTICS

Underwater Technology



## : Technical Specification

### Easytrak Alpha Portable

The Easytrak Alpha Portable is the introductory and most compact version of the Applied Acoustics' range of USBL tracking systems. Quick to deploy, it 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 internal GPS, a full size keyboard, large LCD display and built-in battery. Transponders and responders are supported through a number of pre-defined channels, with switchable interrogation.

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.

#### Key Features

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



Model 2655 Alpha Portable with 903C Transducer

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## Easytrak Alpha Portable Model 2655

|                                          |                                                                                                                                                                                  |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimension                                | Console: 411(W) x 323(D) x 168(H) mm, excluding cables                                                                                                                           |
| Weight                                   | Console: 6.0 kg approx                                                                                                                                                           |
| External Power Supply                    | Input: 115V AC - 230V AC 47-63Hz typically 2A<br>Output: 18V DC up to 4A depending on input DC voltage                                                                           |
| Battery Life                             | 2-3 hours from built-in battery pack<br>Auxiliary Battery Pack Available                                                                                                         |
| Display                                  | Colour LCD 10.4 inch display (diagonal)<br>Active area, 211.2 x 158.4 mm                                                                                                         |
| Input Control                            | Full QWERTY keyboard with integrated mouse                                                                                                                                       |
| Communications                           | 2 x RS232 External GPS and Data Out<br>1 x USB Port<br>GPS Antenna connector                                                                                                     |
| Internal GPS / DGPS                      | SiRF Star III Chip set Receiver<br><10m, 2D RMS<br><5m 2DRMS, SBAS (WAAS, EGNOS, MSAS...) corrected                                                                              |
| External GPS / DGPS Input<br>Data Output | NMEA; GLL, GGA, RMC<br>AAE, TP-EC W/PR, \$PSIMSSB, \$PSIMSNS, \$GPRMC,<br>Sonar SSS -\$GPGGA (Vessel position),<br>\$GPVTG (Vessel track and speed)<br>\$GPTLL (Target position) |
| Beacon Types                             | Transponder and Responder (1)                                                                                                                                                    |
| Channels                                 | 4 displayed from 35 pre-defined channels                                                                                                                                         |
| Interrogation Interval                   | 1, 2, 4 or 8 second intervals                                                                                                                                                    |
| Responder Output                         | +12V pulse 10ms long                                                                                                                                                             |
| Operating Temperature                    | -5 to 30°C                                                                                                                                                                       |
| Storage Temperature                      | -5 to 45°C                                                                                                                                                                       |

## ETM903C Transducer

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

## Accuracy / Performance

|                         |                                                                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Slant Range Resolution  | 10cm                                                                                                                                                           |
| Position Accuracy       | 2.0° RMS, 3.5% of slant range. Excluding effects due to<br>GPS error, incorrect VOS, ray bending, compass, pitch and roll effects,<br>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<br>Range ± 80°                                                                                                                            |

