

Model 2671, Easytrak M-USBL



Key Features

- Accurate and stable
- Integrated pitch, roll and heading sensors
- Tested to military standards for compatibility
- Easy to integrate
- Approved for military use

Easytrak is an Ultra Short Baseline (USBL) underwater positioning and tracking system centred on a multi-element single transducer that transmits and receives acoustic signals to and from a beacon attached to a dynamic subsea target from which range, bearing and depth information can be determined.

The Easytrak M-USBL has been developed to operate in the military environment as an OEM supply for integration into client systems.

Technical Specification

PHYSICAL SPECIFICATION

Dimensions

Model 2671 Inboard Electronics Unit	360.0mm x 240.0mm x 130.0mm
Model ETM902C Acoustic Sensor	410.0mm x Ø100.0mm (including connector)
Model 2675 Interface Box	161.0mm x 163.00mm x 91.0mm

Weight

Model 2671 Inboard Electronics Unit	11.0kg including x mounts
Model ETM902C Acoustic Sensor	9.5kg in air 7.0kg in water
Model 2675 Interface Box	1.6kg
ETM902C Depth rating	50m

Model 2671, Easytrak M-USBL specification continued...

ACOUSTIC SPECIFICATION

Accuracy is based on the correct speed of sound being entered, no ray bending and an acceptable S/N ratio

Slant Range accuracy	0.2m (accuracy dependent on correct speed of sound)
Position accuracy	0.6° drms 1.0% of slant range (acoustic accuracy excluding heading errors)
Frequency Band (MF)	Reception 24 - 30 kHz Transmission 17 – 26 kHz Transmitter power > 187dB ref. 1μPa at 1m
Tracking Beam Pattern	Hemispherical
Beacon Types	Transponders and responders
Interrogation Rate	Internally set or external key
Compass accuracy	0.5°

ELECTRICAL SPECIFICATION

Power Requirements: 90 to 240VAC 50A

ENVIRONMENTAL SPECIFICATION

Temperature

DEF STAN 00-35 Part 3: Issue 4 including temperature shock test.CL14

Operation in water	-4°C to +32°C
Operation in air	-20°C to +44°C
Storage temperature	-40°C to +70°C

High ambient temperature operation in air is for short duration system checks only, thermal protection is fitted and unit will auto shut down.

Vibration

DEF STAN 00-35 Part 3: Issue 4

M1: General Purpose Vibration Test: Deployed or installed in surface ships: Sine sweep

M1: General Purpose Vibration Test: Deployed or installed in surface ships: Sine dwell

Test Type	Region	Amplitude (mm pk)	Frequency (Hz)	Duration (mins)
Sine Sweep	Upper deck, Protected Compartment and Hull	0.125	5 to 33	60
Sine Dwell	All	1.250	14	20
		0.300	23	20
		0.125	33	20

Model 2671, Easytrak M-USBL specification continued...

Shock

DEF STAN 00-35 Part 3: Issue 4

M7: Shock Testing for Warship Equipment & Armament Stores: Classical Shock Pulse

NCUE – Classical Shock Pulse

	Vertical	Lateral	Longitudinal
Pulse Shape	Half Sine		
Pulse Width	10ms		
Acceleration	45g	25g	25g
Duration	1 shock in each direction of each orientation (6 in total)		

COMPATIBILITY

EMC

DEF STAN 59-41 Part 3*

*subject to power supply

Magnetic Signature

Acoustic sensor housing is Aluminum Silicon Bronze (NES 834) with a typical relative magnetic permeability of 1.05.

MODEL UC30 DECK CABLE

Cable Jacket	Polyurethane jacket
Construction	7 screened twisted pairs (STP)
Diameter	10.8mm approx.
Bend Radius	200mm minimum
SWL (Safe working load)	25kg, (tested to 50 kg)



APPLIED ACOUSTICS
Underwater Technology

Due to continual product improvement, specification information may be subject to change without notice.
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