

Cobra-Tac

DIVER NAVIGATION AND MAPPING CONSOLE

Revolutionary Advancement in Diver Navigation

Cobra-Tac is a revolutionary navigation and survey platform that operates autonomously without the need for acoustic baselines or floating-point buoys.

Integrating the data from a Doppler Velocity Log (DVL), fluxgate compass, and pressure transducer with Cobra-Tac's onboard navigation computer allows a diver to map the bottom topography (bathymetry), navigate accurate grid patterns, mark and relocate waypoints, and survey the bottom using geodetic data points.

Simply enter the geodetic starting position for the dive (GPS, LORAN, etc.) into the system's on-board navigation computer, and Cobra-Tac's user-friendly firmware and LCD readout allow the diver to navigate with ease.

All position and bathymetry data is saved in the navigation computer's memory. CobraWare software enables you to retrieve and manage your mission data while the mapping software allows you to create powerful maps in a variety of formats. Additional file formats, such as ASCII and NEMA 0183 allow any third party software to be used.

For complete field system capability, Cobra-Tac can be purchased with a weatherized notebook computer. This ruggedized computer, with its sunlight readable LCD, is ideal for managing your data even in the harshest offshore conditions.



Cobra-Tac Applications:

- *Diver navigation and positioning*
- *Underwater search and relocation*
- *Hydrographic survey*
- *Harbor survey*
- *Coastal survey*
- *Inland waterway survey*
- *Marine biology survey*

CobraTac Features:

- *Waypoint, grid, mark and survey navigation*
- *Location marking and tagging*
- *Automatic bathymetric data collection*
- *Diver track and event mapping*
- *Bathymetric mapping*
- *User-friendly setup/download software*

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Technical Specifications

System Performance

Along track navigation accuracy (@5kts)	±0.2% track length
Cross track navigation accuracy (@5kts)	±3.5% track length
Duration	7 hours on fully charged battery
Maximum bottom tracking range	25m
Minimum bottom tracking range	0.5m
Velocity range	±7.5m/s
Swath width	111% of altitude
Swath resolution	35% of altitude
Operating depth	90m

Hardware

Display	Monochromatic liquid crystal display, 240 x 180, yellow-green backlight
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Acoustic Doppler Velocity

Frequency	1229kHz
Bandwidth	307kHz
Beamwidth	1.2°
Beam Angle	30°
Maximum Pitch /Roll	15°
Sound Pressure Level	214dB re 1 uPa @ 1m
Configuration	4-beam 2" ceramic convex rotated 18.4°

Sensors

Temperature Range	-5° to 45° C (23° to 113° F)
Temperature Accuracy	±0.4°
Pressure Sensor	MP50C-50A titanium, 0-50 psi, ±0.25% FS BFSL
Heading accuracy	±2° @ 60° dip, 0.5g
Heading resolution	0.01°
Attitude sensor range	±15°
Attitude sensor accuracy	±0.5°
Attitude sensor resolution	0.5°

Software

CobraWare, LatLong Converter, 3rd party mapping software

Power

Power source:	Rechargeable Ni-Cad battery
Voltage:	12VDC nominal
Battery charger:	110/220 VAC

Communications

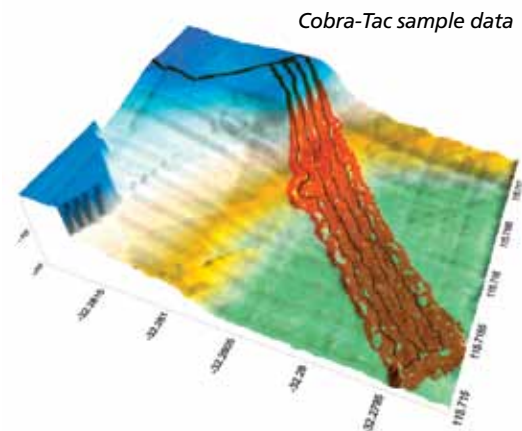
Serial port:	RS232 external wet mateable connector
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Mechanical Controls

Single-pole double-throw oil-filled push-button switches

Weights & Dimensions

Weight in air:	12.7kg
Weight in water:	-0.9kg
Overall dimensions:	Length 31cm Width 37cm Height 33cm



Better the DVL you know...



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Specifications subject to change without notice. ISO 9001:2008 certification applicable to Poway, CA facility only.
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