Teledyne RD Instruments

Cobra-Tac

Diver and Mapping Console

Revolutionary Advancement in Diver Navigation

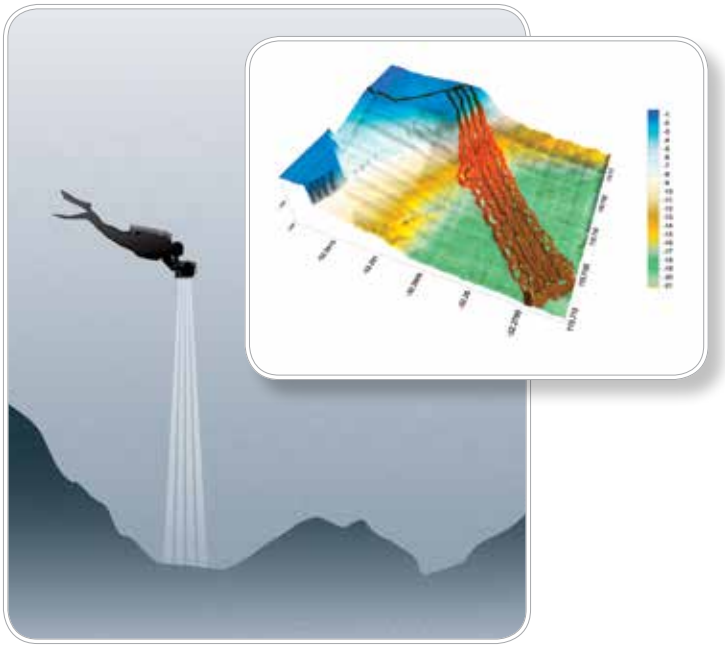
COBRA-TAC is a revolutionary navigation and survey platform that operates autonomously without the need for acoustic baselines or floating-point buoys.

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.



PRODUCT FEATURES

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

Cobra-Tac Applications:

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

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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
Acoustic Doppler Velocity	Frequency	1229kHz
	Bandwidth	307kHz
	Beamwidth	1.3°
	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
Mechanical Controls	Single-pole double-throw oil-filled push-button switches	
Weights and Dimensions	Weight in air	12.7kg
	Weight in water	-0.9kg
	Overall dimensions:	Length 31cm, width 37cm, height 33cm *(line drawings available upon request)*

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Specifications subject to change without notice.

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