



ARTEMIS is a handheld underwater computer that incorporates a target detection sonar and GPS navigation aid, designed to assist commercial and search-and-rescue divers in locating objects on the seabed.

ARTEMIS has also been specifically optimized for use by Naval Mine Clearance and EOD Divers to relocate items of ordnance as an alternative to conducting a tactile or circular search around a known datum.



Typical uses are search & relocation of...

- Seabed infrastructure within the offshore oil & gas environment (e.g. pipelines, well heads, structures).
- Unexploded ordnance by navy mine clearance divers, commercial EOD divers, etc.

- Lost property, vehicles, aircraft, missing persons, wrecks by police or search & rescue divers.
- Seabed/lakebed antiquities by marine biologists, archaeologists, sports divers, etc.

Sonar

For its target search and identification role the forward scanning sonar uses digital 'CHIRP' technology to provide a good balance of long range initial detection, coupled with excellent short range detail, showing features on targets that can be recognised by the diver.

The information provided by the 90° field of view from the sonar is especially useful in poor visibility/darkness as the diver makes his final approach to an unknown or unidentified target.

Divers view and sonar image of a wrecked Wessex Dragonfly helicopter sat on top of a shipping container.



Navigation

For navigation and positioning, a small surface float containing a GPS receiver may be attached to ARTEMIS.

Mission files can be created containing waypoints and markers that can help the diver navigate a search-pattern or efficiently swim to between locations.

The diver's position, heading, depth and course history are shown on the ARTEMIS display, with any selected mission marker. Additional points of interest may also be added during the dive and reviewed post-dive.

ARTEMIS

Features

ARTEMIS is intuitive and straightforward to use. The interface has been designed by divers for divers. The user can quickly interpret information presented via the simple menu interface and graphical display, and easily switch between Sonar, Navigation and other apps.

ARTEMIS is almost neutrally buoyant. The lanyard supplied can be attached to a D-Ring or other securing point on the diver, enabling the unit to hang free during descent/ascent when the diver may need to operate gas valves, or other life-support apparatus.

ARTEMIS is a self-contained system. The console is fitted with a 3.5" colour display and simple 5-button interface. The battery pod is mounted below the unit allowing rechargeable battery-packs to be quickly swapped between dives.

Specifications

Mechanical

Dimensions	340mm long x 240mm wide x 125 mm high
Weight	2.6kg in air, 0.8kg in water (without GPS skid) 4.3kg in air, 0.6kg in water (with GPS skid)
Operating Temp.	-10°C to +35°C
Operating Depth	100msw (11 BAbs)

Electrical

Screen	Tilted 3.5", 320 x 240 pixel, 16-bit colour Liquid Crystal Display with adjustable back-light brightness.
Data Logging	16Gb Flash memory. Data Logging capacity (at approx 2Mb per minute) > 100hrs on internal storage.
Integrated Sensors	Pressure, Immersion, Attitude/Heading (pitch & roll, compass, rotational rate gyros), Battery voltage
User Interface	5 x solid-state piezo button interface for menu navigation and parameter control
Communications	3 x powered RS-232 serial ports (for Sonar and GPS modules). USB port for connection to a PC.
Connectors	Fischer UltiMate series connectors: 1 x 2 pin DC power, 2 x 4 pin Peripheral, 1 x 7 pin USB connector

Battery Pack

Operating Time	Approx 5-6 hours from charged battery pack.
Charing Time	No more than 7 hours from fully discharged state.
Charger Supply	90-264V AC Mains at 50-60Hz

Sonar

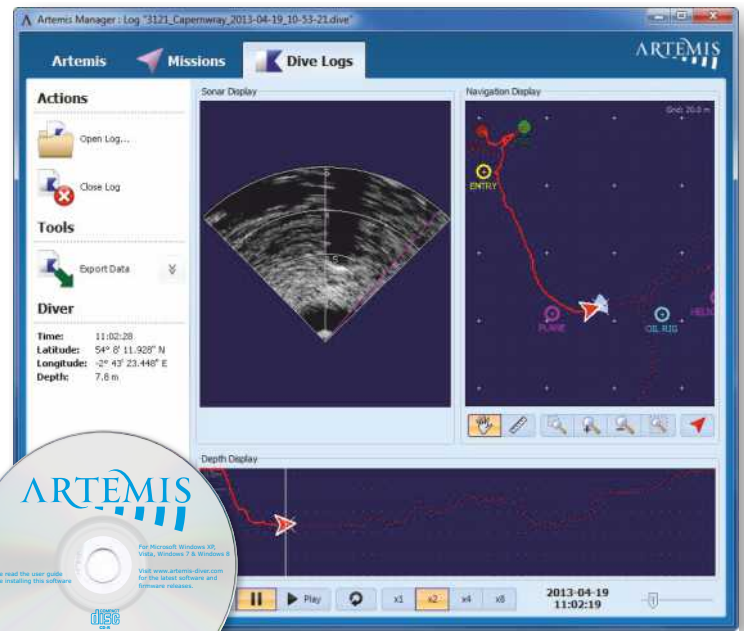
Frequency	Chirped 650kHz to 750kHz
Beam Geometry	35° vertical, 3° horizontal
Range Settings	1m, 2m, 5m, 10m, 20m, 30m, 50m, 100m

GPS Navigation Skid & Float

Cable length	40m (consult factory for other lengths)
GPS Receiver	GPS L1 C/A-code, SPS. 66 acquisition and 22 tracking channels

DA-141-D00232-04

Please note that all specifications may be subject to change in line with our policy of continual product development.



Missions & Dive-Logs

“Artemis Manager” is a PC Windows software application (supplied with Artemis) that is used pre-dive to create Mission Files that configure the Artemis Console with navigation marker locations (waypoints, targets of interest etc) and post-dive to review data collected in Dive-Log files (including the sonar, and route taken by the diver along with additional targets marked during the dive).

Artemis Manager, sample Mission and Dive-Log files are available for download and evaluation from www.blueprintsubsea.com/artemis

Artemis with Tactical skid and GPS float fitted

