

DNC-200[®]

Diver navigation console



Ordering information

DNC-200[®]

T.99.03645

The DNC-200 Diver Navigation Platform is a small and rugged platform which allows a diver to navigate underwater autonomously like a surface based GPS receiver. Ideal for recreational, commercial or scientific diving, the DNC-200 weighs only 2.0kg (4.5lbs.) and is very easy to operate. Using five switches, the operator can access all functions of the operational firmware to depth of 30M (99ft). Designed for the harsh marine environment, the sealed housing provides protection for all internal components while rechargeable batteries allow the DNC-200 to be continuously operated for up to 8 hours.

Completely self-contained, the DNC-200 arrives at a navigation solution using internal sensors which supply geodetic position, depth and heading. To complete the navigation solution, the diver's estimated swim speed is input into unit's firmware. The DNC-200 takes this sensor information, plots and updates the diver's position and displays it on a LCD display in real time.

Intuitive firmware and simple-to-read screens make using the DNC-200 effortless. Once activated, the internal GPS receiver immediately provides accurate geodetic

positioning to the unit's processor. The diver then recalls, from the DNC-200 menu, a dive plan created and uploaded from the DiveNav 2.0 Planning Software. This dive plan can include waypoint and routes to navigate to. Once underwater, bearing and distance to the selected waypoint is displayed on the DNC-200 easy-to-read screen along with diver's depth, dive time and other important navigation information. If position updates are needed, a retractable antenna is deployed.

All navigation position fixes and event marks are saved in the DNC-200 memory for later access and analysis. Ideal for support scientific and environmental diving.

Finally underwater navigation with all the functionality of a GPS receiver for the diving community. UNDERWATER GPS!

Specifications

Navigation Sensors

Heading Sensor

- Accuracy <math>< 0.5^\circ \text{ to } 1.5^\circ \text{ RMS}</math>

Pitch and Roll

- Range $\pm 40^\circ$
- Accuracy $\pm 0.4^\circ \text{ @Tilt} < 20^\circ$
 $\pm 0.6^\circ \text{ @Tilt} \geq 20^\circ$

GPS

- Channel L1, C/A Code, 14ch
- Accuracy 2.5 Meters CEP
- Cold Start <math>< 30 \text{ seconds (90\%)}</math>
- Reacquisition <math>< 2 \text{ sec (90\%)}</math>

Navigation Accuracy

*Along Track Error 500m square $\pm 3 \text{ to } 4.5\text{m}$

**Cross Track Error 500m square $\pm 1 \text{ to } 2\text{m}$

** based on compass error

* based on consistency of diver maintain swim speed and environmental conditions

Power

- Battery Rechargeable Lithium Polymer
- Operational Life 8 hours

Single Board Computer and Display

- Processor 16-bit Primary Processor
32-bit Sensor Processor
- Input/output Interface USB
- Dive Data ACSCII Format
- LCD Display 5.7" TFT LCD

Mechanical

- Size 231mm x 272mm x 33mm
9.0"x10.50"x1.3"
- Weight 2.0kg (4.5 lbs) In air
-0.20kg (-0.50 lbs) In water
- Housing Material Anodized Aluminum
- Switches Sealed Mechanical

Environmental

- Depth Rated 30m (99 ft.)
- Operating Temperature $-20^\circ\text{C to } 55^\circ\text{C}$
($-4^\circ\text{F to } 131^\circ\text{F}$)
- Storage Temperature $-40^\circ\text{C to } 65^\circ\text{C}$
($-40^\circ\text{F to } 149^\circ\text{F}$)
- Vibration To Mil-Std-810E



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