

UDI™

SHARE CONNECT STAY SAFE



UDI: An Underwater Communication Revolution

The UDI (Underwater Digital Interface) device utilizes innovative, patented digital messages technology, SOS / homing capabilities, a built-in dive computer and 3D compass – all combined in one easy-to-use, complete underwater communication system that will change your diving experience forever.

UTC
UNDERWATER
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COMMUNICATION NAVIGATION SAFETY

The Challenge Of Underwater Communication

Millions of people worldwide enjoy the thrill of underwater diving. At the same time, they know the underwater environment can be inherently dangerous, even life-threatening. When underwater, a diver out of sight range is essentially alone. Underwater communications have traditionally been difficult; post-dive briefings are too often teeming with discussions about opportunities for adventure that were missed, and accidents are often caused by an inability to share crucial information. Now, Israel's UTC has developed a first-of-its-kind device, the UDI (Underwater Digital Interface) that overcomes the challenges of underwater communication, enabling divers like you to communicate more easily, fully, and effectively for a richer, safer diving experience.

UDI – ALL IN ONE ➔

The UDI underwater communication device features

- ➔ Two-way digital text messaging communicator
- ➔ Diver SOS and Remote SOS
- ➔ Homing tool
- ➔ 3D Digital Compass, gyro-compensated
- ➔ RGBM Dive computer including PC simulator
- ➔ Interface connection with PC

UDI – THE NETWORK ➔

UDI technology is based on a system of networks. Each network links up to 14 divers via individual units worn on the lower arm with an elastic strap or attached on the inflator. A boat unit supports up to four networks using four different frequency ranges.

UDI – UNIQUE FEATURES ➔

Digital messaging system

Based on text messaging technology, the UDI allows divers to transmit up to 14 pre-configured messages at a range of up to 500 meters away (greater than five football fields!). Divers can send messages to other divers in the network or to the boat on the surface. When a message is received, the recipient sends an acknowledgement back to the sender. The result is a digital network connecting divers underwater like never before.



SOS

A diver in distress can send an SOS signal to other divers or to a boat unit. The UDI's built-in homing capabilities mean receiving divers see graphical 3D instructions displayed on their units, allowing them to quickly find the diver in trouble and get help.

Remote SOS

If a diver suspects that his buddy may be in trouble, he can send a Remote SOS signal, which activates his buddy's unit to send an SOS message to all other divers within 1,000 meters (1,100 yards). They can then navigate to the diver in distress following the UDI's graphical interface.

Homing

The boat unit can send a HOMING signal to assist divers in locating the boat. A diver can also send a Remote Homing signal to the boat unit. Using the graphical 3D instructions on his screen, UDI allows the diver to navigate towards the boat with ease.

DIVE COMPUTER →

The UDI all in one concept includes a high quality dive computer (based on the RGBM algorithm), licensed by Dr. Bruce R. Wienke. Divers can use any EAN mixture, altitude corrections, multiple dives, deep stop options and many additional features of this leading technology.

BOAT UNIT FEATURES →

- Compact, lightweight and easy to use
- Supports 4 different networks
- High power transmitter
- Water resistant suitcase
- Extra long battery power
- External power connection (12VDC)

ADDITIONAL UDI COMPONENTS →

- Full RGBM dive computer
- 3D gyro-compensated compass
- Dive logger and log book
- PC based simulation software
- USB connection to PC
- Long life rechargeable battery
- Battery charger
- Exclusive storage bag

ABOUT UTC →

UTC (Underwater Technologies Center Ltd) is a pioneer in the field of underwater communications. The core technology behind UDI is the result of intensive research and development by an expert team. At present, UTC is also working on new developments of the technology for applications in other industries that require underwater communication.



SPECIFICATIONS

UDI - COMMUNICATION UNIT SPECIFICATIONS ➔

Number of predetermined messages	▶ 14
Number of users per network	▶ 14
Number of networks	▶ Up to 4, depending on sea conditions
Avg. Transmission time	▶ 1.8 sec.
SOS frequency	▶ 36.266 kHz
Homing frequency	▶ Determined by network
Homing nominal range	▶ Calm sea conditions: 500 m, Sea cond. level 4: less than 300 m
Nominal message transmission range	▶ Calm sea conditions: 500 m, Sea cond. level 4: less than 300 m
Probability of correct receiving	▶ Calm sea conditions: 95%, Sea cond. level 4: 80%
SOS nominal range	▶ Calm sea conditions: 1,000 m, Sea cond. level 4: 500 m
Modulation	▶ BFSK with BCH codes
Transmission band	▶ 35kHz to 55kHz
3D compass accuracy	▶ +/- 2.5 Deg.
Acoustic output power	▶ Figure of merit
Receiver sensitivity	▶ -80 dBV
Maximal velocity of operation	▶ 2 m/sec
Battery type	▶ 7.4 V Li-ion, 1500mAh, rechargeable
Battery life	▶ 8 hrs, assuming one transmission / 4 min.
Expected battery charging cycles	▶ 300
Low battery indicator	▶ Last 90 min. on LCD screen
Transmission	▶ Piezoelectric type
Housing	▶ High impact injected mold plastic
Buzzer / Alarm	▶ Audible signal + Super bright LED
Broadcasting mode	▶ With acknowledgment indication
Weight in salt water	▶ Slightly negative

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*All specifications are subject to changes with no prior notice.



UDI - DIVE COMPUTER SPECIFICATIONS ➔

Calculation model	▶ Full RGBM (Reduced Gradient Bubble Model)
Gas Mixtures	▶ Nitrox EAN from 21% to 99%
Deep stops option	▶ Yes
Salt water correction	▶ Yes
High altitude correction	▶ Yes
Real time clock	▶ Yes
Safety stops /	
Deep stops countdown	▶ Yes
Maximum depth	▶ 70 m
Depth resolution	▶ 0.1 m
Ascent rate alarm	▶ Yes
Full decompression data	▶ Yes
Maximum depth display	▶ Yes
Temperature display	▶ Yes
Lifetime history black box	▶ Yes
Log book memory	▶ Yes, for hundreds of dives
Compass	▶ Digital with gyro-compensation, Graphic or Digital heading

UDI - GENERAL SPECIFICATIONS ➔

Rechargeable battery	▶ Yes, Li-Ion
Operating temperature	▶ 4°C to 40°C
Storage temperature	▶ -10°C to 60°C
Metric/imperial units select	▶ Yes
PC software	▶ DiveSim
PC communication	▶ USB, incl. cable
PC simulation	▶ Yes, with simulated log files
UDI simulation	▶ Yes, with simulated log files
PC Log book	▶ Database + Graphical presentation
Dive planning	▶ Yes

