NewtComm NC-50S-Diver

Diver Through Water Communications

Features:

- Selectable TX power: 50W, 25W, 5W
- Standard 25kHz Upper SSB,
- Long Range: 7.5km on High Power
- Efficient output amplifier
- High gain, very low noise receiver
- Advanced noise filtering
- High Intelligibility
- Rugged, compact
- Long battery life



NC-50S Diver Subsea Unit

Applications:

- Recreational
- Commercial
- SAR / UW Recovery Teams
- Military
- Film

The NewtComm NC-50S-Diver is an advanced through water communication system. It provides a robust communications channel through the most challenging under water environments. Built with an advanced digital signal processor the NewtComm delivers powerful, clear and energy efficient communications. The NewtComm offers best-in-class transmission range, phone size and energy efficiency. The NC-50S-Diver is compact and can communicate with other phones that utilize the same frequency. The NC-50S Portable Topside Unit is available for topside diver support. The NC50 series is standard equipment in the Nuytco DeepWorker submersible, Exosuit ADS and other manufacturers submersibles worldwide.

The standard frequency for the NewtComm NC-50S is 27 kHz (25khz Upper SSB) with a voice channel bandwidth of 6kHz (other frequencies available upon request). The phone with matched NC-XDR-27K transducers produces 50 Watts RMS transmit power with an open water range of 7.5km Three selectable TX power levels allow for use in different ranges and operating environments. Voice pre-processing ensures a consistent TX signal that utilizes the full power of the phone.

The phone features extremely low noise receiver circuitry, capable of picking up the faintest signals. The receiver has selectable auto and manual gain control with range of 102dB. Advanced receiver filtering and squelch controls help reject unwanted noise from the voice channel. Up to 24 hours run time with the built in battery.

The Newtcomm NC-50S topside unit is built into a light weight, portable, Mil-Spec rugged waterproof case that is buoyant in water and suitable for small boat deployment. It has a powerful 15W speaker for use in very noise environments. The topside unit has line outs for both received and transmitted voice for recording or PA system integration. The NC-50S has a serial port that allows it to be used as a powerful modem for wireless data transfer. Rackmount versions of the NC50-S are also available.

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NewtComm NC-50S-Diver

Diver Through Water Communications

Specifications

General:

- Advanced Digital Signal Processor
- Selectable TX Power
- 50W, 25W, 5W RMS
- 25kHz Upper SSB Modulation
- Waterproof case
- Rugged connections
- VOX and PTT available

Open Water Range:

- Low Power (5W): 3.5km
- Med Power (25W): 5km
- High Power (50W): 7.5km

Transmitter:

- Selectable TX Power
- 50W, 25W, 5W RMS TX Power
- Power efficient Class D Transmitter
- Voice envelope processing for powerful and consistent TX signal
- Matched transducer for maximum power transfer

Receiver:

- Very low noise receiver circuitry
- Automatic / Manual Gain Control with wide dynamic range of 102 dB
- Selectable voice channel bandwidth 6 – 3kHz
- Advanced 16 band Noise Reduction filter
- Squelch control
- Low RX power consumption 0.75W
- 15W speaker output

Transducer:

- NewtComm NC-XDR-27K

All specifications subject to change without notice.

Operation in Air:

- The NewtComm is powerful enough to operate in air at a range of approximately 50 feet

Run Time:

- Low TX Power (5W): 24 hr*
- Med TX Power (25W): 8 hr*
- High TX Power (50W): 3 hr*

  * Based on 15% TX duty cycle

Battery:

- 4.2 Ah 12V NiMH Battery

Dimensions:

- 250mm L x 92mm OD
- Weight: 1.72 kg (air) Neutral in water

Diving Mask:

- The Newtcomm Diver will plug into any mask and utilize the existing spkr/mic/PTT configuration



NC-50S Portable Topside Unit

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