KNUDSEN

FLEET NAVIGATION

320N Navigation Echosounder

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320N NAVIGATION ECHOSOUNDER

The 320N Navigation Echosounder is a state-of-the-art system with a user friendly touchscreen interface. Its low maintenance modular construction, simple installation, easy configuration and hands-off operation make the 320N the most flexible sounder available.

The 320N Echosounder is a paperless system with an active matrix LED backlit LCD colour display and touchscreen interface. The sounder system provides control and real-time data display with internal data storage of full-resolution echogram image data for post-acquistion review and hardcopy output.

The Echosounder control software employs smart algorithms to allow hands-free operation with manual override capability for performance optimization in extreme conditions.

The 320N Echosounder's modular design and software-based configurability allows for long product life. Unit is designed to be field-upgradeable.

Connectability

The 320N Echosounder has been designed to be a plug-in replacement for the AN/UQN-4. Legacy connectors are available on the connector panel for interfaces including transducer, and power. More specialized interfaces to legacy shipboard systems can be provided if required.

Digital Signal Processing (DSP)

The 320 echosounders do all signal processing digitally. There are many advantages to an all-digital system, including the inherently higher performance and greater stability of digital filters. The processing is performed in software which can be programmed to accommodate any frequency, bandwidth, or pulse length, eliminating the need for multiple analogue hardware filters.

Correlation Processing

The 320N employs linear FM sweep (chirp) transmit pulses and correlation processing of the received signal to achieve up to 20dB signal to noise (SNR) gain over conventional CW echosounders, for improved depth capability and bottom detection reliability.

Transducer Interface

The 320N can be easily interfaced to most existing transducers, saving the expense of new transducers and dry dock installation.

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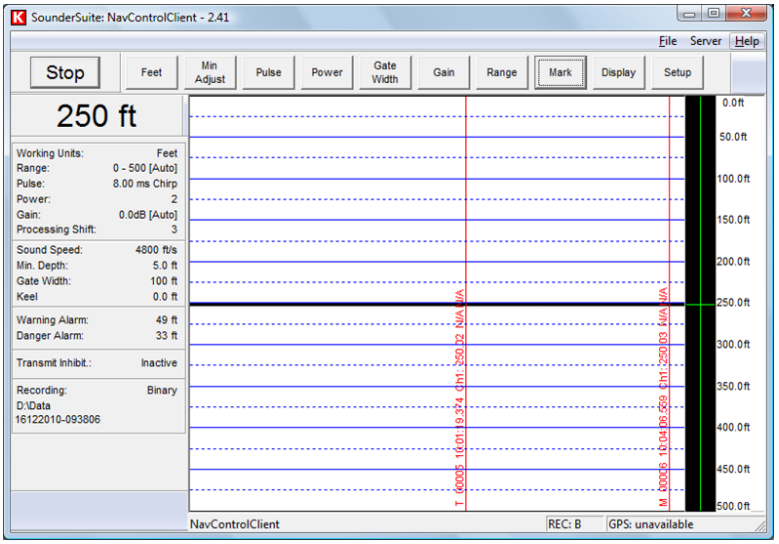

Technical Specifications: *(subject to change without notice)*:

User Interface:

Display:	15" LED Backlit LCD, 1024x768
User Interface:	Touchscreen
Data Storage:	Internal Solid State Disk, 60GB (min) Over 800 hours of continuous echogram recording

Operational Parameters:

Frequency:	Standard: 12 kHz, Optional - any frequency 3.5 - 210kHz All with "chirp" and correlation processing
Transmit Power:	4 user selectable power levels Max. 2 kW rms
Units:	Feet, Fathoms, or Meters
Depth Ranges:	50, 100, 200, 500, 1000, 2000, 5000, 10000
Depth Resolution:	0.01 ft (0-99.99), 0.1 ft (100-999.9), 1 ft (>1000) 0.01 fm (0-99.99), 0.1 fm (100-999.9), 1 fm (>1000) 0.01 m (0-99.99), 0.1 m (100-999.9), 1 m (>1000)
Pulse Length:	Up to 64 ms, operator selectable
Gain Controls:	AGC and manual receive gain for each frequency
Sound Velocity:	4800 ft/s 800 fm/s 1500 m/s
Keel Offset:	0 - 114.83 ft 0 - 19.14 fm 0 - 35.0 m
Alarms:	Visual and Audible

Network Interface: 10/100Base-T

I/O Interfaces:

Transducer	RS-422 NAVSSI (x2)	Remote Output (x3)
RS-232	Mute/Override	Transmit Inhibit
Analog Out	Sync Out	Power In

Installation:

Power Supply:	Universal input, 90 to 264 VAC
Mounting hardware:	Drop in replacement for AN/UQN-4
Dimensions:	W 16.5" x H 14" x D 9.5" (419 x 355 x 241 mm)
Weight:	52 lb (23.6 kg)
Shipping Container:	Custom Pelican case
Options:	External keyboard, mouse, trackball, printer Custom stand, Rackmount brackets Remote Displays Simulator On-site training/installation

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