KNUDSEN

ECHOSIM
SIGNAL SIMULATOR

Give your echosounder ...a check-up!

* Test/Calibration Tool for Depth Sounders
* Echo Simulation
* Transmitter Test
* Transducer Test

Proudly Made In CANADA

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ISO9001:2015
REGISTERED

ECHOSIM SIGNAL SIMULATOR

The **ECHOSIM** is a test and calibration instrument designed to simplify performance evaluation and troubleshooting of all low frequency echosounders and transducers (3.5kHz-24kHz) including the Knudsen 320N. Its main functions are: echo simulation, echosounder transmitter tests, and transducer tests.

The **ECHOSIM** is controlled through a Windows Graphical User Interface (GUI). The **ECHOSIM** is a USB device, allowing any computer with host USB port capabilities to serve as a user interface.

Technical Specifications for EchoSIM Models

D229-04485 Portable
D229-05104 Bulkhead

(Subject to change without notice)

Units:	Metres, Feet or Fathoms
Frequency Range:	3.5kHz - 24kHz
Connections Available:	Input Power (90 - 264 VAC) USB 2.0 full-speed (12 Mbps) Transmit Volts (BNC) Transmit Amps (BNC) Aux (BNC) Transducer Echosounder
Internal Dummy Load:	Series resistive load (to simulate transducer) 120 ohms standard (other values available upon request)

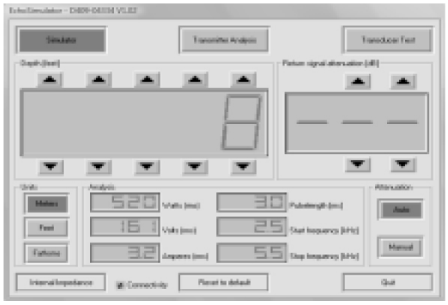
Knudsen EchoSim Software:
Windows 2000/XP/Vista compatible
Control: Easy to use graphical user interface (GUI)
Simultaneous operation with SounderSuite Software

Dimensions:
15" x 10.5" x 6" Portable
13" x 9.25" x 4.5" Bulkhead

Weight:
10 lbs Portable
12 lbs Bulkhead

Echo Simulation

One of the key functions of the **ECHOSIM** is to simulate a transducer transmitting an acoustic pulse and receiving the echo in a specified depth of water. In this mode, the user can select a desired depth value via the **ECHOSIM**'s user interface. The **ECHOSIM** senses the high-voltage transmit pulse from the echosounder, and responds with an attenuated version of the transmitted signal. The echosounder then processes, displays and digitizes the simulated echo as though it were real. The resulting depth value is then compared to the specified depth to verify correct echosounder performance.



Echosounder Transmitter Tests

The **ECHOSIM** provides measurement and characterization of the transmitted pulse both into the transducer and into an internal resistive load. These measurements include transmitted power, voltage, current, pulse duration, frequency (if CW) and sweep parameters (if chirp).

Transducer Tests

For this mode of operation, the **ECHOSIM** transmits test signals to the transducer and measures impedance magnitude.

4 x 4 transducer array

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