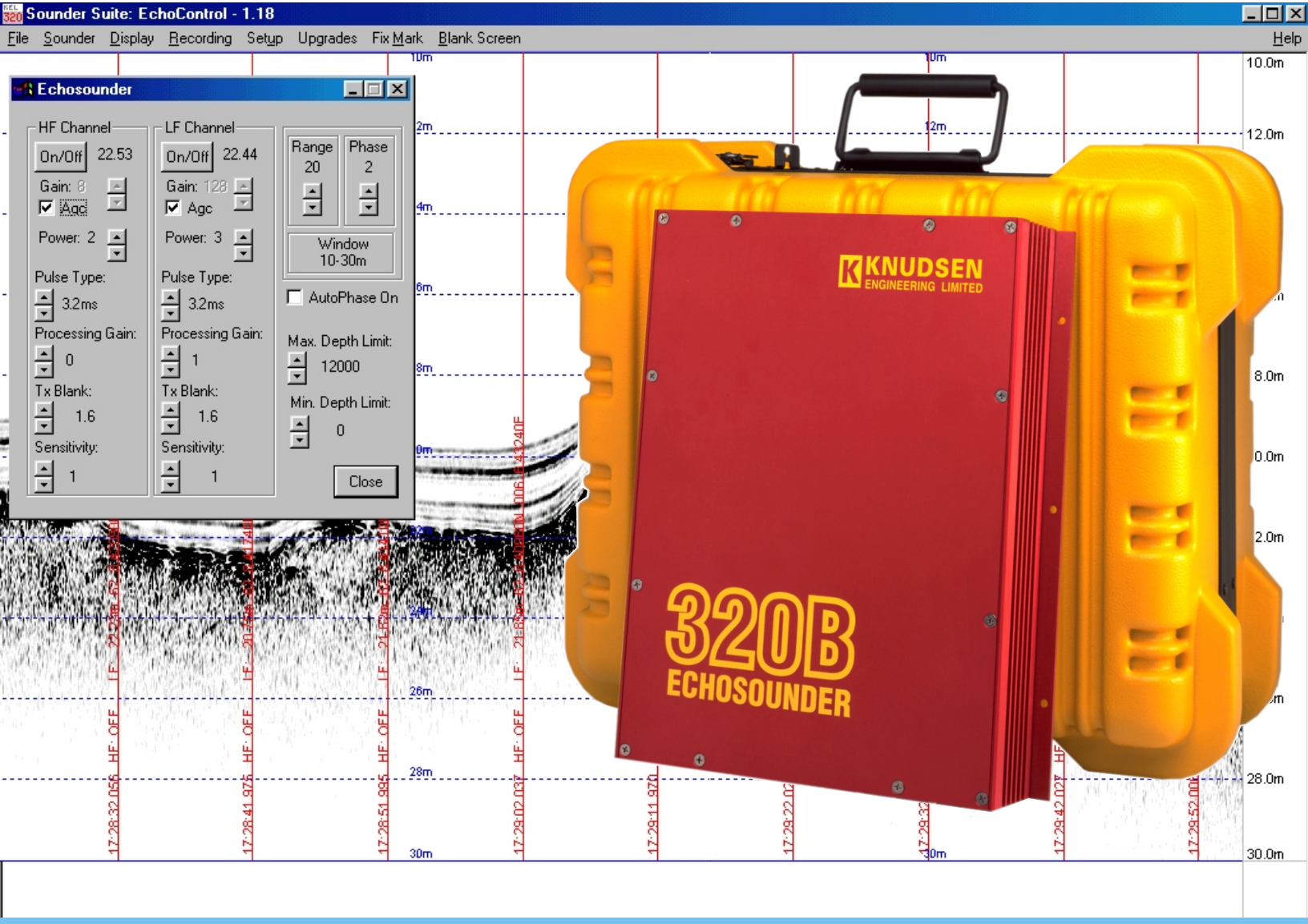


Open Your Windows® to Survey!

"WINDOWS®" Interface/Data Display

- **Capabilities of full-featured 320M less printer & control panel**
- **Remote control from PC or data logger**
- **SCSI plus 4 serial ports**

DUAL FREQUENCY - Simultaneous Operation

- **Built in digitizers - both channels**
- **Standard interface to all modern survey tools including: GPS, data loggers, and heave sensors**
- **Hands-off operation/automatic phase & gain control**

COMPACT/LOW COST

- **Easy integration/operation**
- **Rugged**
- **Reliable**

320B ECHOSOUNDER

KNUDSEN ENGINEERING LIMITED

Precision Survey

System Package Available Now - Includes 320B, transducer, and over-the-side transducer mount, in one compact carrying case.

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

Main Ranges: Metres, Feet or Fathoms
10
20
50
100
200
500
1000
2000
5000

Phased Ranges: Multiple 50% overlapped phases of each range (20% overlap optional), manual or automatic selection.

Frequencies: 3.5 kHz to 250 kHz. Standard frequencies include - 3.5, 12, 24, 28, 30, 33, 50 ,200, 210 kHz.

Power: 4 selectable levels up to 2 kW on a single frequency or 1 kW on dual frequency.

Resolution: 1 cm (0-99.99), 1 dm (100-999.9), 1 m (>1000)
1/100 ft (0-99.99), 1/10 ft (100-999.9), 1 ft (>1000)
1/100 fm (0-99.99), 1/10 fm (100-999.9), 1 fm (>1000)

Sound Velocity: 1300 - 1700 m/s Resolution: 1 m/s
4265 - 5577 ft/s Resolution: 1 ft/s
710 - 929 fm/s Resolution: 1 fm/s

Clock: Internal battery backed time and date clock.

Draft: 0 - 100 m Resolution: 1 cm
0 - 328.08 ft Resolution: 0.01 ft
0 - 54.68 fm Resolution: 0.01 fm

Pulse Length: Automatically selected, with operator override.

Gain Controls: AGC, TVG and manual receive gain for each frequency.

TX Blanking: 0 - 300 m. Resolution: 0.1 m
0 - 984.3 ft. Resolution: 0.1 ft
0 - 164.0 fm Resolution: 0.1 fm

Serial Ports: Four RS-232 ports, 300-38,400 baud, optional RS-422.

SCSI Port: Standard, 50 pin Centronix

Heave: TSS and Seatex compatible.

Position: Compatible with all popular GPS receivers.

Power Supply: 12 to 36 VDC.
85 - 240 VAC adaptor available.

Dimensions: W 267 x H 75 x D 371mm. (10.5" x 3.0" x 14.6")

Weight: 7 kg. (15.5 lb)

Units: Metres, Feet or Fathoms

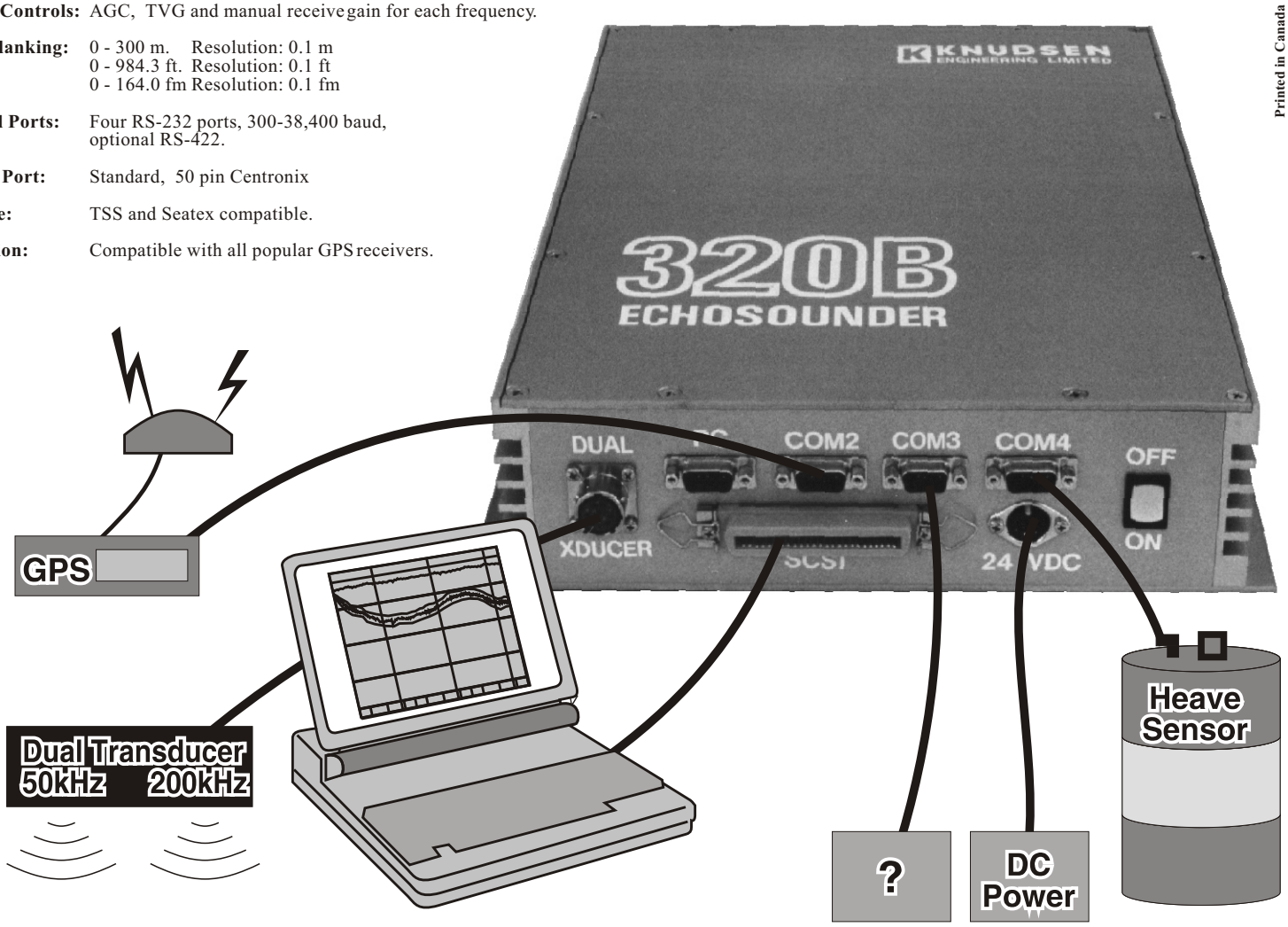
Knudsen SounderSuite Software:
Windows XP, Windows 2000, & Windows 98 SE compatible.
Full function remote control of echosounder.
Real-time Data Display.
Simultaneous operation with other Survey software such as HYPACK.
Post-Processing Software

Output Data:
Full resolution envelope data, SEG-Y or KEL format.
User Configurable ASCII Digital Depth Strings

Serial Output Data:
NMEA compatible heave corrected depths for both frequencies.
Uncorrected depths, time, date, position (if available), raw heave, pitch and roll.
Loopthrough from external devices (ASCII).

Options:
Single frequency (upgradeable to dual frequency)
Transducers (many are available)
Transducers 'over the side' mounting brackets
Remote Display

Printed in Canada
D131-01838-Rev9



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