

Rugged splashproof solutions to demanding survey requirements



Available for interface to your existing Pentium, or as an integrated package including the 320BP, Windows[®], SCSI adapter, and a Pentium laptop.

 *Open your Windows[®] to Survey!*

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

- Splashproof - ideal for small boat operation
- Easy integration/operation
- Rugged - the case is molded from tough ABS
- Reliable - shock mounted circuit boards

"WINDOWS[®]" Interface/Data Display

- Capabilities of full-featured 320M less printer & control panel
- Remote control from PC or data logger
- SCSI plus 3 serial ports

**320BP
ECHOSOUNDER**

K **KNUDSEN**
ENGINEERING LIMITED

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: Three RS-232 ports, 300-38,400 baud, optional RS-422.

SCSI Port: Standard, 50 pin Micro D

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)

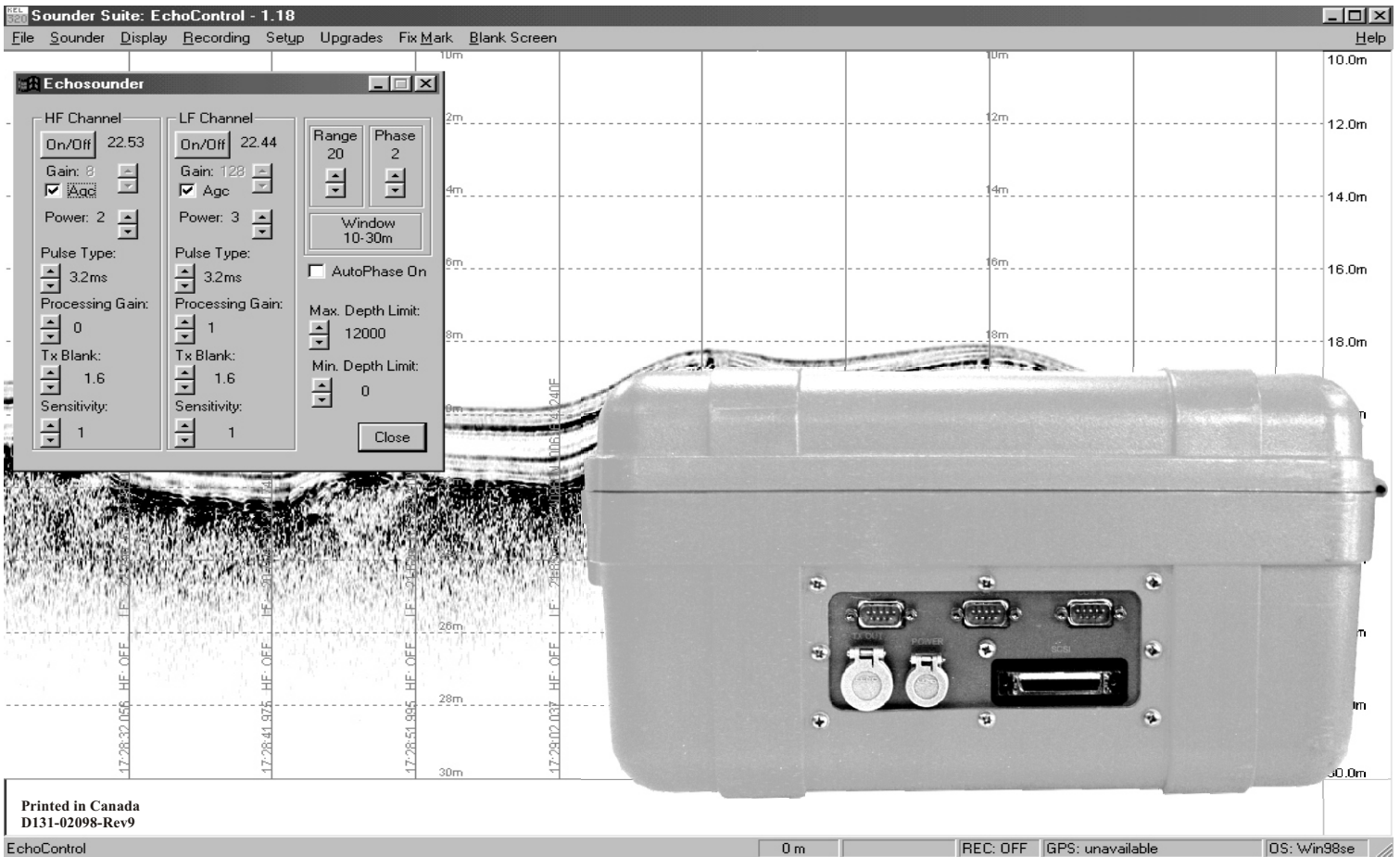
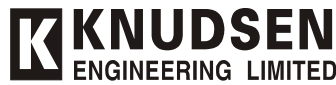
Units: Metres, Feet or Fathoms

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.
 Loophrough from external devices (ASCII).

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



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EchoControl 0 m REC: OFF GPS: unavailable DS: Win98se