**Bathy-500DF Dual Frequency Survey Echo Sounder**

### Specifications – Main Unit

**Depth Ranges**
- 0-15, 0-30, 0-60, 0-120, 0-240, 0-480, 0-960, 0-1920 Feet.
- 0-5, 0-10, 0-20, 0-40, 0-80, 0-160, 0-320, 0-640 Meters.

**Phasing**
- 0-120, 60-180, 120-240, 180-300, 240-360, 300-420, 360-480 through 1800-1920 Feet, Auto

**Chart Record**
- 8.5 inch X 90 Feet High-Contrast Thermal Paper
- User selectable gridlines.

**Frequencies**
- Dual or single frequency (user selectable via keypad)

**Resolution**
- 0.01 units for depths less than 100 meters;
- 0.1 for depths greater than 100 meters; 0.1 feet on all ranges

**Sound Velocity**
- 4600 - 5250 feet/second (1401 - 1600 meters/second)
- (user selected via keypad)

**Graphic Display**
- LCD (4 lines X 16 characters) 0.25 inch characters
- (Depth Display: 0.75 inch characters)
- (Back-lighting: Electro-luminescent)

**Data Outputs**
- ODEC dt (True Depth & Status)
- PMC dt (True Depth & Status)
- Atlas DESO-25 - compatible
- Odom Digitrace - compatible
- Odom Echotrac - compatible
- NMEA 0183 DBT / NMEA DBS
- Hypack & HydroPro - compatible
- Odom Digitrace 150 - compatible
- Odom Echotrac 150 - compatible
- NMEA 0183 DBT / NMEA DBS
- Hypack & HydroPro - compatible

**Input Power**
- 11 – 30 volts D.C. (1.5 amps @ 12v, 0.5 amp @ 30v) or 115/230 volts A.C. 50/60 hertz (20 watts)

**Dimensions**
- Height (including handle) 19 inches (48 cm)
- Width 17.5 inches (44.5 cm) — Depth 9 inches (23 cm)

**Weight**
- 35 lbs. (16 kg) (Recorder with P01540 200kHz Transducer)

**Operating Temperature**
- -10˚ C to +55˚ C / Humidity 95% Non-Condensing

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**Ocean Data offers a wide variety of transducers. Please contact the factory for information relating to your specific application, and the transducer or model most effective for you.**
Underwater Topography Recordings from Compact Survey Instrument

The Bathy-500DF is a state-of-the-art electronic survey instrument used to generate precision chart recordings and digital data output. Low power consumption, portability, ease of use, rugged construction, and built-in communication interfaces for navigation/data logging devices make the Bathy-500DF ideal for shipboard use. The instrument is housed within a splash-proof, aluminum enclosure.

KEY FEATURES

- Interleaved Dual Frequency Operation: 33/210kHz or 50/210kHz
- Single Frequencies: 33, 40, 50, 200, 210kHz
- Built-In Digitizer with RS232 and RS422 Data Output Interface Ports
- Advanced Microprocessor Based Electronics
- NMEA 0183 Navigation Input Interface
- User-Selectable DC or AC Input Power
- Automatic Chart Annotation for Date, Time, Depth, and Position Data
- Non-Volatile Internal Clock and Parameter Setup Memory
- Built-In Self Test
- External Mark / Annotation
- 1 cm Resolution
- 640m Maximum Depth
- Rugged, Splash-Proof

Operating Characteristics

All operating functions are set via the front panel interface. Important setup selections are stored within internal, non-volatile memory for instant availability upon power-up.

Display Range

The instrument operates in units of feet or meters. Resolution to .01 units.

Position - GPS / DGPS

The instrument decodes and processes the NMEA 0183-formatted sentence GGA or GLL from GPS/DGPS variable 4800/9600 baud. The Bathy-500DF can be purchased with an internal DGPS receiver built in. Simply attach the antenna and the Bathy-500DF will annotate depth sounding with GPS Position.

Depth Recordings can be date/time tagged using manual input via the key panel.

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Alarm Status

The Bathy-500DF includes programmable shallow and deep water alarms with visual and audio indications, as well as alert bottom warning.

Receiver Gain / TVG Control

The user controls receiver & TVG gain manually or selects automatic receiver gain control for each channel. Sound Velocity

For maximum depth measurement accuracy the sound velocity adjustment allows the user to compensate for water salinity and temperature variations.

The Bathy-500DF is from a family of echo sounders available from SyQuest. Call or write for information concerning other echo sounder models or configurations.

Communication Interfaces

The user configures receive and transmit data to both RS232 and RS422 specifications via connector wiring options. The baud rate and output formats are selected as follows:

- Baud Rate: 9600 or 4800
- Output Format Types: NMEA 0183, SYQWEST

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The Bathy-500DF is a state-of-the-art dual frequency survey echo sounder from SyQuest. It is technologically advanced and features a state-of-the-art Bathy-500DF. It is housed within a splash-proof, aluminum enclosure. The instrument operates in units of feet or meters, with a resolution of .01 units. All operating functions are set via the front panel interface. The instrument decodes and processes NMEA 0183-formatted sentences and includes an internal DGPS receiver. It includes programmable shallow and deep water alarms with visual and audio indications, as well as alert bottom warning. The user controls receiver & TVG gain manually or selects automatic receiver gain control for each channel. For maximum depth measurement accuracy, the sound velocity adjustment allows the user to compensate for water salinity and temperature variations. The Bathy-500DF is part of a family of echo sounders available from SyQuest.