

Model 835C

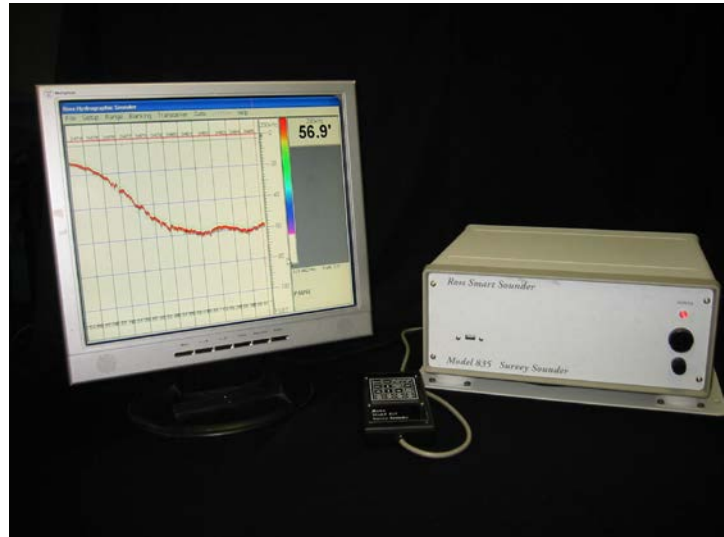
Ross
Laboratories Inc.

Desktop Survey Recorder (Single or Dual Frequency)

The technology of a Ross Smart Sounder outputs reliable depth data for data acquisition systems.

All of the quality and performance that you expect from a Ross sounder in a small easy to operate package, for interior installation (desktop or under a counter).

- **Simple Remote Key Pad control.**
- **Digital storage of sounding chart - 32GB Solid State Hard Drive.**
- **USB memory stick data download.**
- **VGA Output. (Monitor optional)**
- **Data logging software. (optional)**
- **12v DC or 115v AC.**
- **Interior use – multiple mounting options**
- **NMEA-0183 output.**
- **Position data input ports with logging software option.**



Size – 14.3”w x 5.8”h x 14.0”d

Weight - 17 lbs.

Temperature - operating 0° to 50° C
- storage -25° to 75° C

Humidity - 0 to 95% RH

200 kHz Standard Configuration

Additional Frequency choices:

100 kHz 50 KHz

28 kHz 12 kHz

Custom frequencies are also available

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Model 835C Desktop Survey Sounder

The Model 835C Desktop Survey Sounder is a high performance instrument designed to meet the needs of surveyors who require a source of clean, reliable depth data for hydrographic survey systems.

One feature of the 835C is the easy-to-use key pad operation. A simple, user friendly menu system has been developed from Ross Laboratories' many years of experience in the field.

Depth soundings are displayed on the screen and sent to a data collection system via a standard serial port. GPS position information (lat., long. and time) can be connected to the sounder and recorded along with the corresponding depth providing a simple but complete data logging system when using the optional data logging software.

General

The Ross 835C sounder is a leading edge hydrographic survey sounder that uses Ross Smart Sounder technology to provide a source of reliable depth data for data collection systems. A key pad operated menu system and sounding chart are both shown on the display. The sounding chart or "sonogram" can be recorded on the internal solid state hard drive and transferred to an office computer for display using optional software.

Hard copy

When the sounding chart or sonogram is recorded on the internal hard drive, the digitized analog data can be printed (with optional Ross Playback™ software) on any Windows compatible printer.

Serial Output

Custom NMEA-0183 output string in feet or meters (interfaces with Hypack™ software). Standard NMEA-0183 data string. SDDBT or SDDPT (user selectable).

Operators' Display

Displays the actual chart recording or sonogram. The sonogram represents the bottom echo trace by digitizing the analog echo signal levels.

Data Storage and Playback

The entire sonogram (received echo) can be stored on the sounder's Solid State hard drive for future playback and printing. The playback of the data can be done on the sounder. Optional playback software is available for display and editing of the soundings on a personal computer. The transfer of data to the second computer is done using a USB jump drive or memory stick.

Ross 835C Portable Survey Recorder

Specifications

Physical

Size: 14.3"w x 5.8"h x 14.0"d
Weight: 17 lbs
Case: Epoxy coated aluminum
Power Supply: 10-18vDC, 24 Watts, 2.0 Amps @ 12v
Display: External LCD flat panel (not included)
Operating Temperature: 32°F to 122°F (0°C to 50°C)
Storage Temperature: -13°F to 167°F (-25°C to 75°C)
Humidity: 0% to 95% RH

Sounder

Scale: Feet or meters
Range: 0-25, 0-100, 0-250, 0-500 ft. (or metric equivalent) fixed scales

Display

Display Type: External LCD Flat Panel (not included)
Size: Standard commercially available sizes
Resolution: VGA
Functions: Operator key pad control panel, sounding chart, and large numeric depth readout

Transceiver

Frequencies: 12kHz, 28kHz, 50kHz, 100kHz and 200kHz.
Transmitter output power: 100 watts (RMS)
Pulse length: 0.1msec or .5msec
Min Depth: 200kHz – 1.0 (30cm) below draft

Interfacing and Annotation

Serial Ports: Two ports, 4800 to 115,200 baud
USB: Two: one internal, one external
Ethernet: One Ethernet
Digital Depth output: Continuous, user selected interval or requested output using a custom NMEA-0183 sentence. XXX.X Ft. Fa. or M.
Compatibility: HYPACK™, HYDROpro™, and Ross Playback Software
Annotation: Internally generated event marks from 1 minute to 10 minute.

Ross 825C Portable Survey Recorder

Specifications (continued)

Data logging: Option 1 – Windows™ playback software. Allows playback of “sonogram” on standard PC when down loaded from 825C’s 40GB internal hard drive.

Option 2 – Record sounding and position data (Lat., Long.) on internal solid state hard drive.

Controls

Sound Velocity: 4800 ft/sec \pm 25% (1463 m/sec \pm 25%)
Draft: 1’ (0.30m) to 100’ (30m)
Gauge, Tide: \pm 100’ (\pm 30m)
Operating Range: 15, 25, 50, 100, 250, 500 and 1000 Feet, Fathom or Meter equivalents
Auto range: Bottom following 25, 50, 100, 250 ft. range window
Annotation: On / Off, selected items for annotation

Additional Features: Adjustable blanking and bottom following gate.
Bar Check depth gate
AGC and TVG functions

Sounding Rate:

Range	Soundings/second
0’ - 15’ (0m – 4.5m)	12
0’ - 25’ (0m – 7.5m)	10
0’ - 50’ (0m - 15m)	9
0’ - 100’ (0m - 30m)	7
0’ - 250’ (0m - 75m)	5
0’ - 500’ (0m-150m)	3
0’ - 1000’ (0m- 300m)	1.7