ROSS LABS LLC

TEKNOLOGIC

ROSS MODEL 875-X
PORTABLE SWEEP SYSTEM

Standard System Features:

- Three to Eight channel data collection
- Operation from 1 to 250 feet
- Lightweight portable boom system - stores in transportable shipping case
- 200KHz, narrow beam transducers
- Portable, ruggedized, splash-tight case
- 12" High-brightness display
- Internal logging of all digitized depth data
- 12Vdc operation

System Options:

- Optional 110 VAC operation
- Optional external high-brightness display
- ROSS Multichannel playback software
- RTK or DGPS and vessel motion sensors available
- Ruggedized processor configured with Hypack™ survey software

Multi-Channel Shallow Water Survey System

Run sweep surveys in small ponds and backwaters with the Model 875-X Portable Sweep System. Just add your DGPS, heading sensor and laptop running survey software and you are ready to go!

Three to Eight transducers on a lightweight 18 foot portable boom, easily mounted on small skiffs or john boats.

Significantly reduce your bathymetric survey time for habitat or resource studies in shallow areas by collecting multiple channel data.

System Description:

The 875-X is a compact hydrographic survey depth system that can be configured from three to eight transducers. Our standard model is packaged in a portable splash-tight case.   During active surveys, the 875-X is connected to a standard PC running hydrographic survey software (Hypack™) and collecting GPS data. Back at the office, Hysweep™ software can be used for post-survey data review and editing.

Standard System Specifications:

General

| Input Power	12 Vdc @ 5amps
Environmental	0° to 40°C (32°F to 104°F), 5% to 95% RH, -25° to 75°C (-13°F to 167°F) storage
User Display	12" 1000 nit LCD
User Navigation	splash-tight industrial mouse mounted on the front panel, also supports external USB keyboard and mouse
Internal Processor	1.6GHz Intel™ processor or better Windows Embedded Standard 7**™**
External Interfacing	Custom NMEA 0183 serial string to Hypack or HySweep

System Operation

Operating Frequency	200KHz, 100W (rms) power, selectable 0.1 or 0.5 msec pulse width
Range/Resolution	1 to 250 foot range with 0.06" (1.8cm) resolution
Transducer Beam Patterns	10° @ -3db or 12° @ -6db
Transducer Spacing	6 foot nominal (adjustable from 3' to 8')
Accuracy	1% of a depth range +/- 0.1

Physical

Case Size	16" x 19.5" x 8" (41cm x 50cm x 20cm) W x H x D
Case Weight	24 lbs. (10.7 kg) for a 5 channel system
Typical Boom Weight including transducers	Five channel portable system typically TBD lbs.
Serial Ports	Two USB, two RS-232 minimum
Power Input Connection	12Vdc via supplied cable

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SmartSweep Software

Depth Display	Each transducer plotted in separate color on a scrolling display <u>and</u> displayed as digital depth. Signal strength bar graph for any selected channel.
Signal Processing	The 875 uses the same return processing as our *825, 835* and *960* systems
Internal Logging	SmartSweep records all transducer channels to internal disk drive
User Controls	Tide or gauge: ±100' (±30m)
	Draft: 1' (0.30m) to 100' (30m).
	Speed of sound: 4800 ft/sec ±1200 ft/sec 1500 m/sec ±375 m/sec
Tracking Control	Adjustable tracking gates for each depth channel that can continuously track a changing seabed without user input.
Annotation	User-definable annotation can be displayed and recorded Data Logging annotation is recorded and displayed
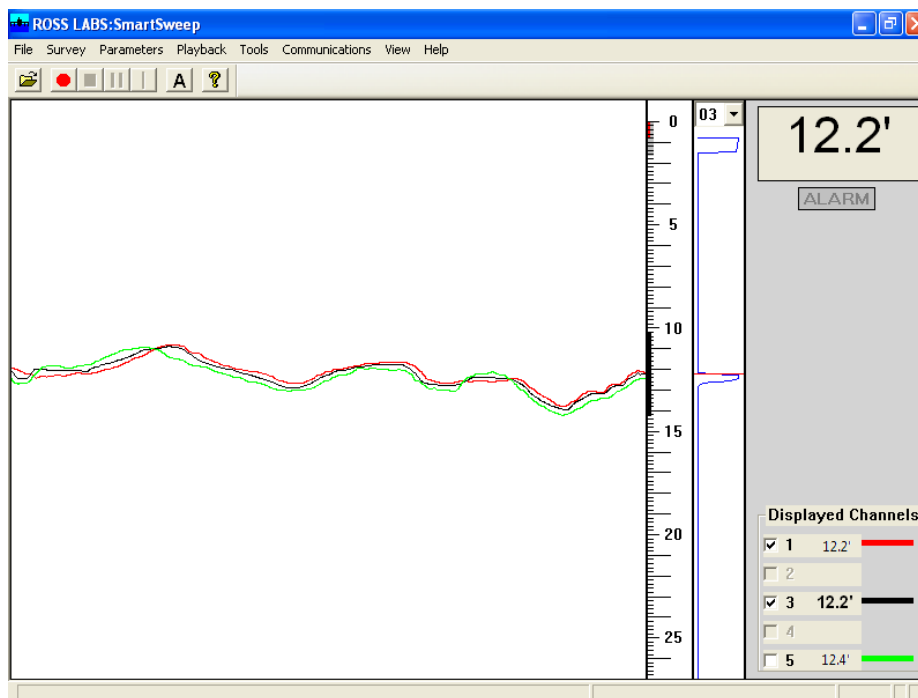
SmartSweep Display

Ross Laboratories Inc. of Seattle Washington joined with Teknologic Engineering Services of Edmonds Washington in July 2014 becoming Ross Labs LLC.   Ross products continue to be supported by Jim Ross and his engineering team. For more information on Teknologic, visit us at www.teknologic.net