Carousel Deck Unit

SBE 33

SUMMARY

- Surface power and real-time data acquisition and control for water samplers and CTDs; two-way communication over single- or multi-conductor sea cable.
- NMEA and Surface PAR interfaces.
- Five-year limited warranty.

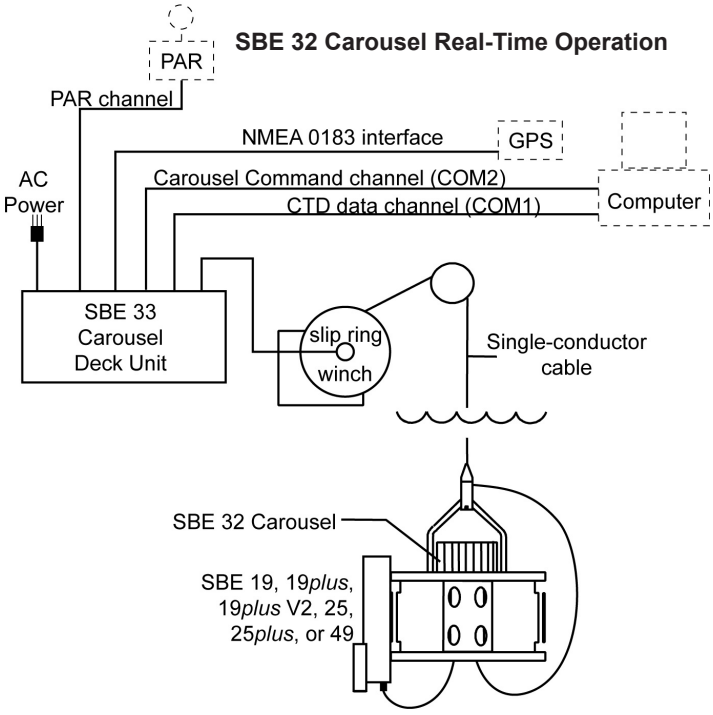
DESCRIPTION

The rack-mountable SBE 33 provides power and real-time data acquisition and control for an SBE 32 Carousel Water Sampler that has the SBE 33 interface option installed in its pylon. The SBE 33 is compatible with all Carousel sizes — full size, compact, and sub-compact. When powered and controlled by the SBE 33, the Carousel can be used:

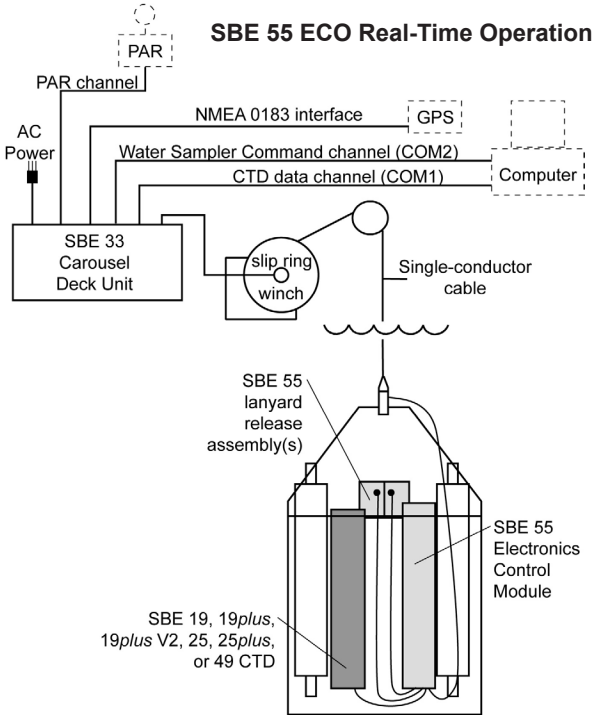
- With an SBE 19, 19*plus*, 19*plus* V2, 25, 25*plus*, or 49 CTD.
- Without a CTD.
- With a Neil Brown Mk III CTD (requires optional interface in both SBE 32 and 33).

The SBE 33 can also provide power and real-time data acquisiton and control for the smaller SBE 55 ECO Water Sampler used with an SBE 19, 19*plus*, 19*plus* V2, 25, 25*plus*, or 49 CTD, or no CTD.

SBE 32 Carousel Real-Time Operation



SBE 55 ECO Real-Time Operation



The SBE 33 / Water Sampler system provides real-time data telemetry and surface power for the CTD, and permits water sampler control with the SBE 33 front panel buttons or via our Seasave software. Bottles are fired sequentially or in any order; the front-panel LED display indicates which bottles have been fired. Other features include:

- NMEA Interface for navigational data — SBE 33 decodes messages output from devices supporting NMEA 0183 protocol.
- A/D converter for Surface PAR light sensor — SBE 33 supplies 12 volts to power the sensor.

Decoded latitude and longitude, and Surface PAR data, are appended to the CTD data stream in the SBE 33, and passed to the computer for storage and/or display with the CTD data.

The SBE 33 can also be used with the PDIM when a water sampler is not available or needed. The PDIM provides the same power and CTD data interface functionality as the water sampler, but without water sampling capability.

SOFTWARE

The SBE 33 is supplied with a powerful Windows software package, Seasoft© V2, which includes:

- **Seaterm**© and **SeatermV2** — terminal programs for easy communication and data retrieval.
- **Seasave**© — program for real-time data acquisition and water sampler bottle firing control.
- **SBE Data Processing**© — modules for calculation, display, and plotting of temperature, conductivity, pressure, auxiliary sensor data, and derived variables such as salinity and sound velocity.

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SPECIFICATIONS

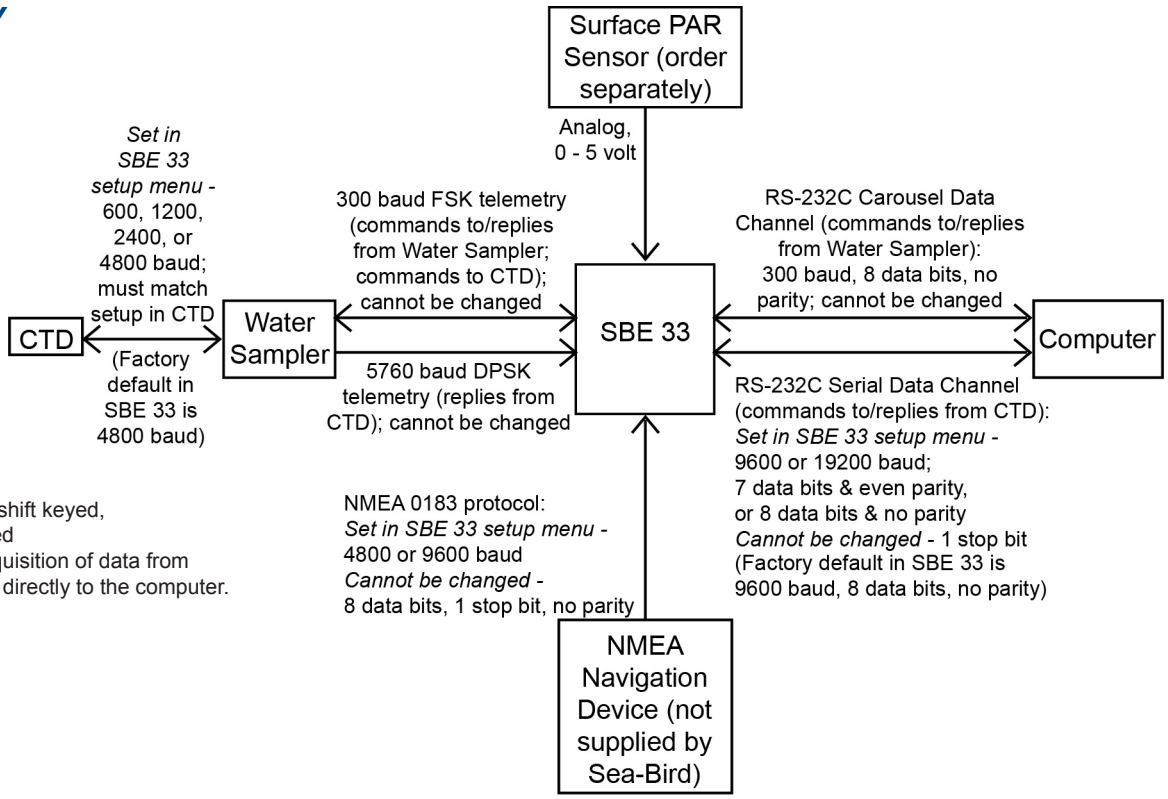
Power requirement: 120 VAC at 60 Hz and 1.75A or 240 VAC at 50 Hz and 1A (switchable)

Cable compatibility: Single / multi-core armored cable up to 10 km (32,800 ft) long with inner core resistance up to 350 ohms and armor used as return

Dimensions: 89 mm (3.5 in.) high cabinet with standard 48 mm (19 in.) electronics rack mounting brackets.
Detailed information:
89 mm high x 432 mm wide x 381 mm deep (3.5 inches x 17 inches x 15 inches);
Feet add 13 mm (0.5 inches) to height; Rack mount *ears* add 51 mm (2 inches) to depth.

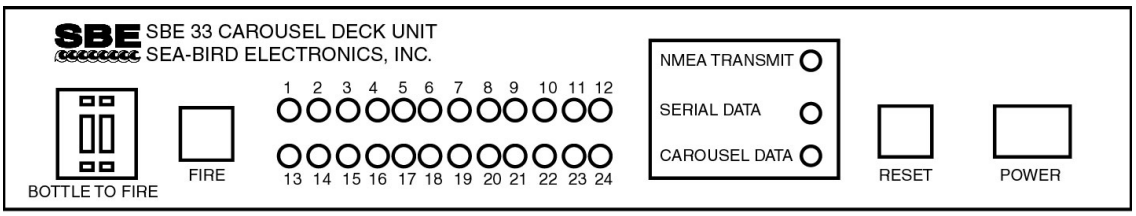
Weight: 9.0 kg (20 lbs)

DATA TELEMETRY

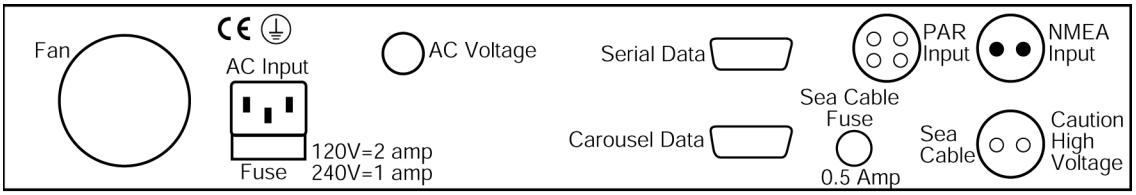


Notes:
1. DPSK = differential phase shift keyed, FSK = frequency shift keyed
2. Seasave also supports acquisition of data from a NMEA device connected directly to the computer.

FRONT AND BACK PANELS



SBE 33 Front Panel



SBE 33 Back Panel

03/14

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