CTD Deck Unit & PDIM

SBE 36 & PDIM

The **SBE 36 Deck Unit** provides surface power and real-time data acquisition and control for an SBE 19, 19*plus*, 25, or 49 CTD interfacing with a **Power and Data Interface Module (PDIM)**. The SBE 36 remains at the surface, while the PDIM is installed on or near the CTD. The system allows for two-way communication for the CTD over a single- or multi-conductor sea cable, and provides ample power for auxiliary sensors that may not otherwise be supportable by a battery-powered CTD.

SBE 36 Deck Unit

Power and Data Interface Module (PDIM)

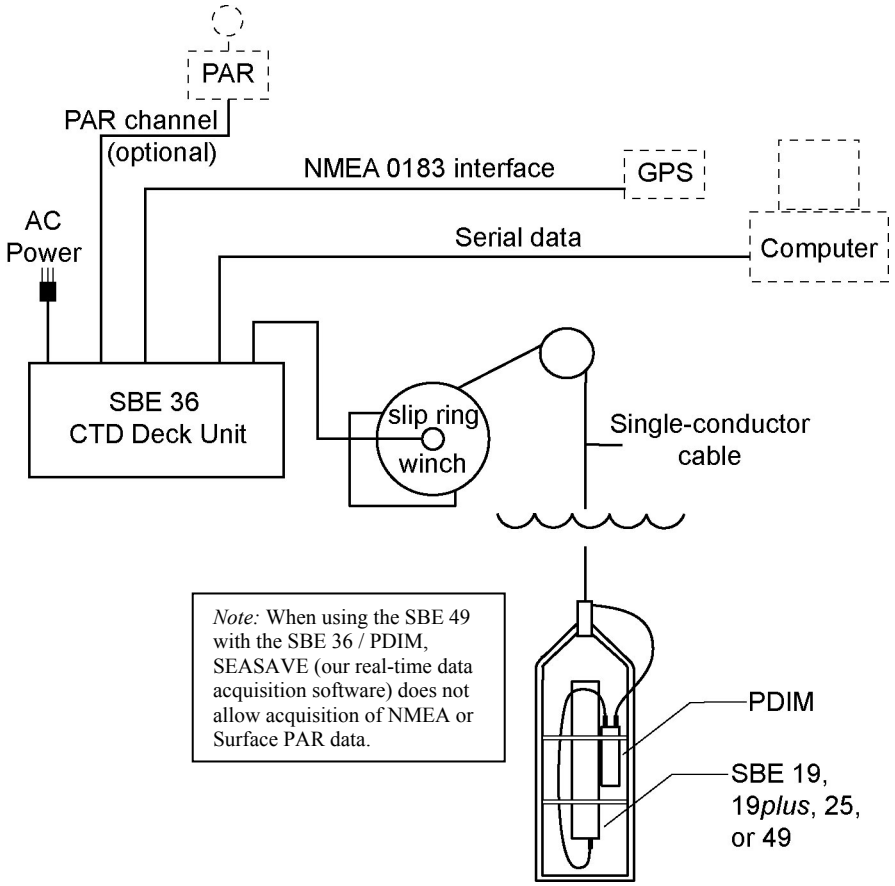
The rack-mountable SBE 36 supplies DC power for the underwater units, decodes the serial data, and passes the data to a computer. The SBE 36 rear-panel switch permits operation from 120 VAC or 240 VAC 50/60 Hz input power. Other features include:

- A NMEA Interface for navigational data - The NMEA Interface decodes messages that are output from navigation devices supporting NMEA 0183 protocol. Decoded Latitude and Longitude are appended to the CTD data stream in the SBE 36, and are passed to the computer for storage and/or display with the CTD data.
- An optional A/D converter for a Surface PAR light sensor - The SBE 36 supplies 12 volts to power the sensor. Surface PAR data is appended to the CTD data stream in the SBE 36, and is passed to the computer for storage and/or display with the CTD data.

The PDIM completes the underwater interface to the CTD. The PDIM housing is anodized aluminum rated to 6,800 meters depth.

POWER SUPPLY AND REGULATION

The SBE 36 presents a constant 250 VDC to the sea cable. The PDIM receives this voltage (minus the sea cable I-R drop) and regulates it to a constant 64 VDC. This 64 VDC is the input for a high-efficiency DC/DC converter, which outputs +15 VDC. The +15 VDC is the supply voltage to the CTD; approximately 1 amp, *in addition to CTD power*, is available at the CTD for support of auxiliary sensors.



Note: When using the SBE 49 with the SBE 36 / PDIM, SEASAVE (our real-time data acquisition software) does not allow acquisition of NMEA or Surface PAR data.

SOFTWARE

The SBE 36 is supplied with a powerful Windows 95/98/NT/2000/XP software package, SEASOFT©-Win32, which includes:

- **SEATERM**© - communication and data retrieval.
- **SEASAVE**© - real-time data acquisition and display.
- **SBE Data Processing**© – filtering, aligning, averaging, and plotting of CTD and auxiliary sensor data and derived variables.

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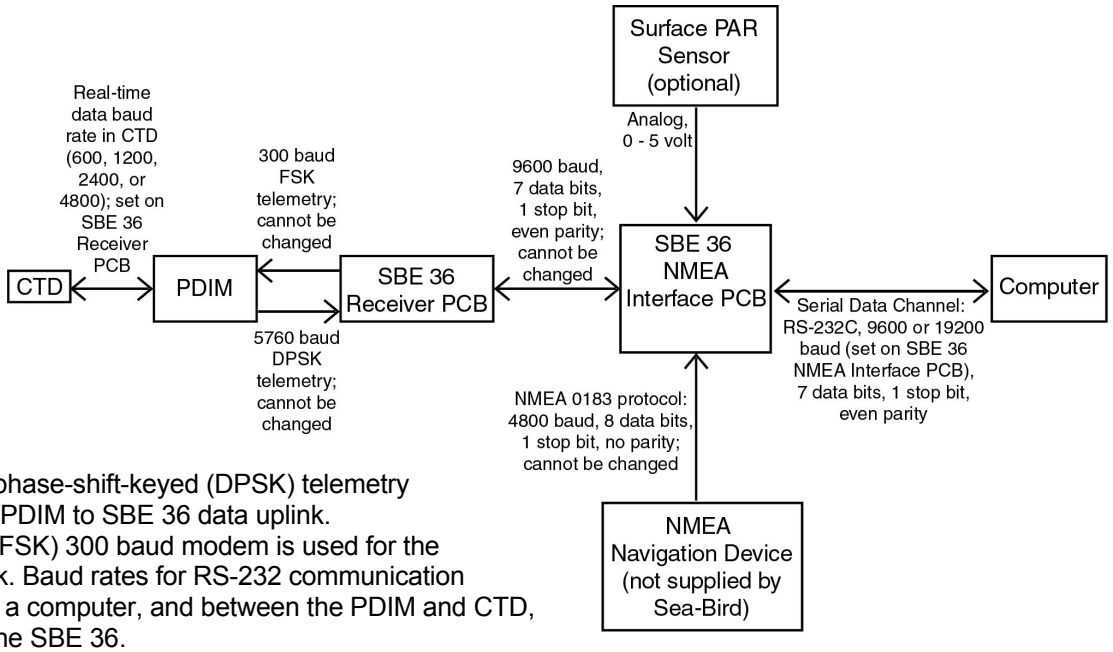
DATA TELEMETRY



A 5760 baud differential-phase-shift-keyed (DPSK) telemetry technique is used for the PDIM to SBE 36 data uplink.
A frequency-shift-keyed (FSK) 300 baud modem is used for the SBE 36 to PDIM downlink. Baud rates for RS-232 communication between the SBE 36 and a computer, and between the PDIM and CTD, are switch-selectable in the SBE 36.

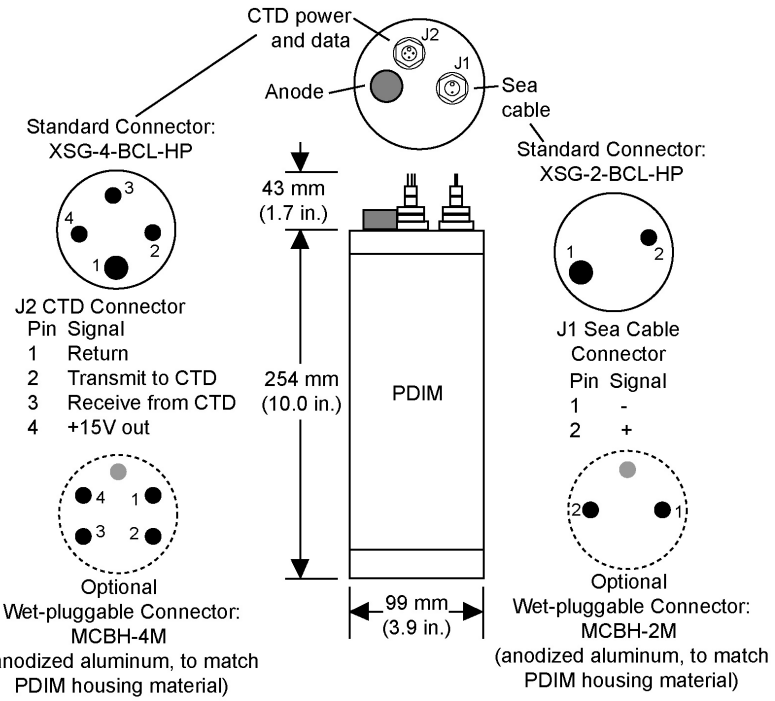
SPECIFICATIONS

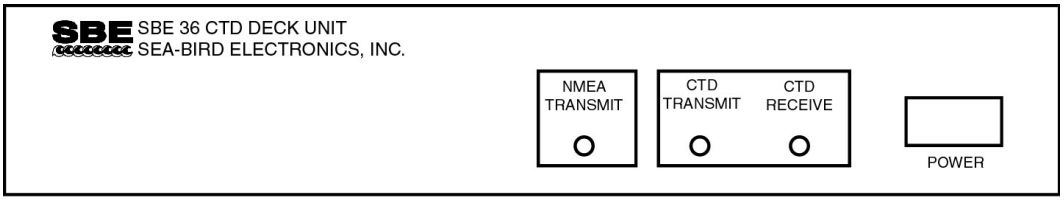
Power Requirements
120 or 240 VAC 50/60 Hz (user-selectable)

Cable Compatibility
Single or multi-core armored cable up to 10 km long with inner core resistance of up to 350 ohms and armor used as return

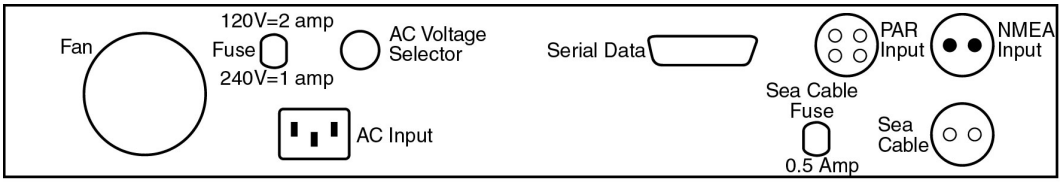
SBE 36 Deck Unit Dimensions
89 mm (3.5 inch) high cabinet with standard 48 mm (19 inch) rack mounting brackets

PDIM Weight
3.6 kg (8 lbs) in air
1.6 kg (3.6 lbs) in water





SBE 36 Front Panel



SBE 36 Back Panel

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