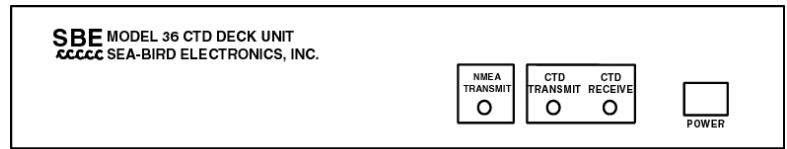
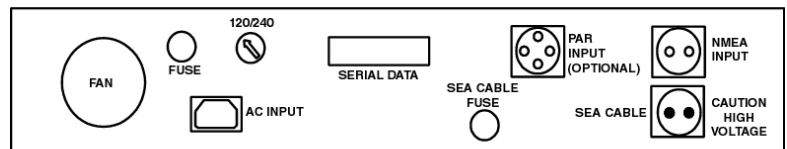


The SBE 36 provides surface power and two-way communication for self-contained Sea-Bird CTDs (e.g., SBE 19 or 25), allowing users to operate with typical single- or multi-conductor sea cables. The SBE 36 has ample power available for auxiliary sensors that may not otherwise be supportable by battery-powered CTDs. The SBE 36 also includes a NMEA 0183 interface that permits GPS time and position data to be merged with the CTD data. One A/D input channel for use with a surface reference PAR sensor (QSP-240R) is optional. PAR sensor (QSP-240R) is optional.

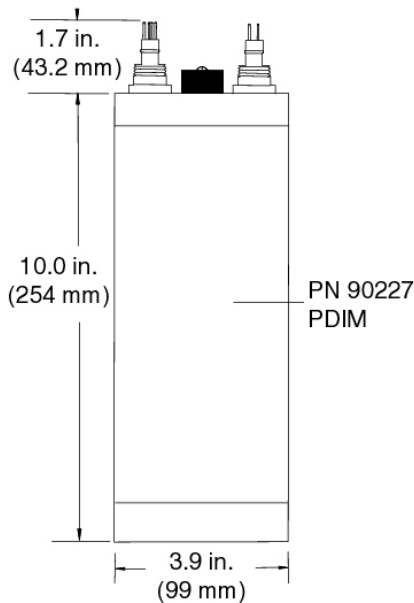
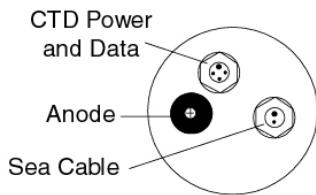
An underwater power and data interface module (PDIM, PN 90227) is used with the SBE 36, to complete the underwater interface to the CTD. The PDIM housing is anodized aluminum rated to 6,800 meters depth.



FRONT PANEL

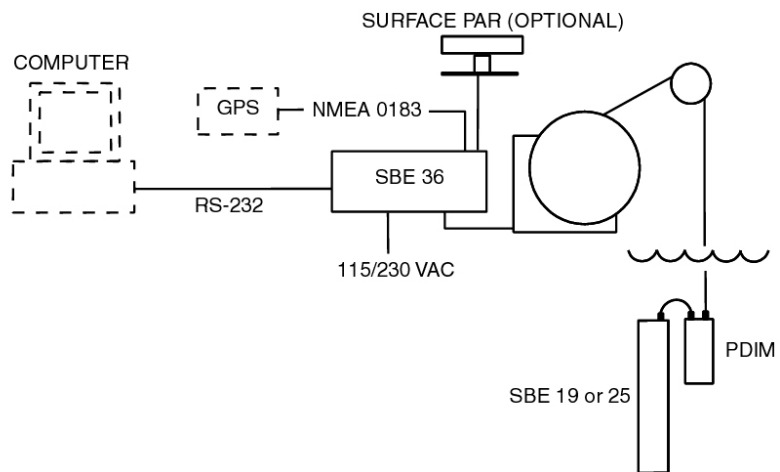


BACK PANEL



Power supply and regulation: The SBE 36 presents a constant 210 volts DC to the sea cable. The power and data interface module (PDIM) regulates this voltage (minus the sea cable I-R drop) to a constant 64 VDC, which is the input for a high-efficiency DC/DC converter. The CTD supply voltage (+15 VDC) is provided by the DC/DC converter. The advantages of this method are: the amount of power lost in the sea cable is greatly reduced (in addition to CTD power, approximately 1 amp is available for auxiliary sensors); and the user does not need to monitor and adjust the sea cable supply to compensate for changing power demands that can occur when using different sea cables, or when auxiliary sensors are added or removed.

Data Telemetry: A 5760 baud differential-phase-shift-keyed telemetry technique is used for the PDIM to SBE 36 data uplink. A frequency-shift-keyed 300 baud modem is used for the SBE 36 to PDIM downlink. RS-232 communication between the SBE 36 and a computer is switch-selectable to 9600 or 4800 baud. RS-232 communication between the PDIM and CTD is switch-selectable to 600, 1200, 2400, or 4800 baud.



SBE 36 Deck Unit
Power requirement
Cable Compatibility

3.5 inch [89 mm] high cabinet with standard 19 inch electronics rack mounting brackets
115/230 VAC (user selectable), 100 watts
Single/multi-core armored cables up to 10 km long with inner core resistance < 350 ohms and armor used as return