

# SBE 17plus V2

Searam Recorder & Auto Fire Module

The SBE 17plus V2 Searam provides power to and saves data from the SBE 9plus CTD (and integrated auxiliary sensors), without the need for conducting winch cable. The Searam includes Auto-Fire capability: when integrated with an SBE 32 Carousel Water Sampler, users can collect water samples at pre-programmed depths and record 9plus CTD data with one autonomous system. The Searam is typically installed in the CTD cage with the 9plus CTD; other mounting options are possible for Compact Carousels (SBE 32C) or custom applications.

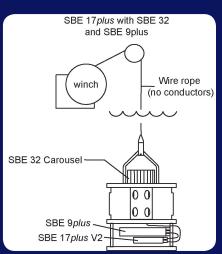
The Searam's auto-fire feature monitors pressure data transmitted by the 9plus in real-time, fires bottles on upcast at pre-defined pressures (depths), and records a firing confirmation for each bottle fired.

Each time the Searam is switched on by pushing in the magnetic switch, a file header containing date, time, and cast number is written to memory. The Searam's memory can record full-rate CTD and 8-channel auxiliary sensor data (24 scans/sec) for approximately 6 hours. When desired, the data is uploaded to a computer. Sea-Bird software converts the raw CTD data and bottle fire confirmations and creates a CTD data file and a bottle data file.



## **Features**

- Auxiliary equipment for use with SBE 9plus CTD and SBE 32 Carousel Water Sampler, allowing for autonomous operation without conducting winch cable:
  - Memory and power module for 9plus; CTD data uploaded upon recovery.
  - Auto-fire module, allowing Carousel to collect samples on upcast at pre-programmed depths (for up to 24 bottles).
- D-size batteries (NiMH or alkaline) to power 9plus and Carousel; memory for 9plus data (including auxiliary sensors) and bottle firing confirmation.
- Seasoft<sup>®</sup> V2 Windows software package (setup, data upload, and data processing).
- Depths to 10,500 m.
- Five-year limited warranty.





### **Options**

- 6800 m aluminum housing, or 7000 or 10,500 m titanium housing.
- XSG or wet-pluggable MCBH connectors.
- AC-powered junction box (can provide external power to Searam, permitting setup and data upload without use of battery capacity).

#### Memory

16M byte non-volatile FLASH RAM; records all data from 9plus, plus bottle firing confirmations. Approximately 6 hours of memory endurance when storing data at 24 Hz for 9plus with 8 voltage auxiliary sensors.

#### **Power Supply & Endurance**

- Rechargeable 12-cell NiMH battery pack *(battery pack and charger included)*; approximately 10 hours of operation for 9plus with no auxiliary sensors, or 7 hours for 9plus with auxiliary sensors.

- 12 alkaline D-size batteries (Duracell MN1300, LR20); approximately 12 hours of operation for 9plus with no auxiliary sensors.

#### **Real-Time Clock**

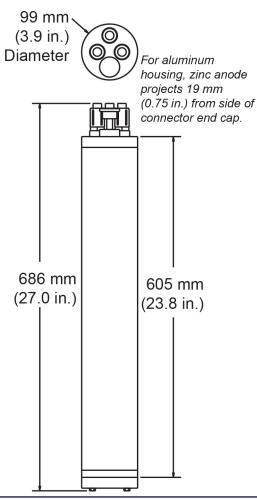
Watch-crystal type 32,768 Hz

**Carousel Compatibility** 

Can close up to 24 bottles. If using with 36-bottle Carousel, can only close 24 bottles.

Housing, Depth Rating, & Weight

7075-T6 anodized Aluminum (with zinc anode protection): 6800 m; 9.0 kg in air, 4.5 kg in water Titanium: 7000 or 10,500 m





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