

Carousel Auto Fire Module AFM

The Carousel Auto-Fire Module (AFM) allows the Carousel Water Sampler (SBE 32, 32C, or 32SC) to operate autonomously on non-conducting cables. The AFM includes a microprocessor, memory, RS-232 interface, and battery power that supply the operating voltage, logic, and control commands to operate the Carousel. The AFM is typically installed on the Carousel, with the same mounting bracket used to mount a SeaCAT, and hangs vertically between the upper and lower adapter plates.

When used without a CTD, the AFM fires bottles at pre-defined elapsed times after receipt of the Arm command. The depth at which samples are taken can be determined (approximately) by monitoring cable length pay out and elapsed time. The AFM records bottle number, date and time, and fire confirmation for each bottle fired. At the end of a cast, the bottle data file is uploaded from the AFM.

When used with a CTD (SBE 19, 19plus, or 19plus V2 SeaCAT, or SBE 25 or 25plus Sealogger) or SBE 50 Pressure Sensor, the AFM:

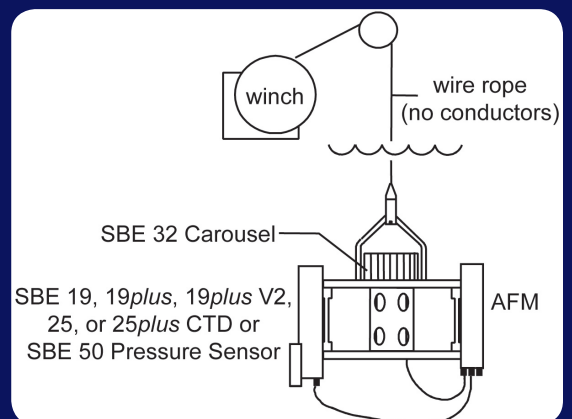
- Monitors pressure data recorded by the CTD (or transmitted by the SBE 50) in real-time,
- Fires bottles at pre-defined pressures (depths), on upcast, downcast, or when the Carousel is stationary for a specified period of time, and
- Records bottle number, date and time, firing confirmation, and five scans of CTD or SBE 50 data in AFM memory for each bottle fired.

At the end of a cast, CTD data is uploaded from the CTD (through the AFM) and bottle data is uploaded from the AFM. Sea-Bird software converts the raw CTD data and creates a CTD data file and a bottle data file.



Features

- Allows SBE 32 Carousel Water Sampler to operate autonomously on non-conducting cable, firing bottles at pre-programmed pressures or elapsed times.
- 9 alkaline D-size batteries (60 hours operation); internal memory (for bottle data).
- 6800 m aluminum housing.
- Seasoft® V2 Windows software package (setup, data upload, and data processing).
- Five-year limited warranty.



Options

- XSG or wet-pluggable MCBH connectors.
- Rechargeable Nickel Metal Hydride (NiMH) batteries and battery charger.

Memory

64K byte static RAM memory; holds data for 1 cast (24 bottles maximum).

Records for each bottle fired:

- (with a CTD) Bottle sequence and number, date and time, firing confirmation, battery voltage, scan number of first of 5 CTD scans, and 5 scans of CTD data.
- (without a CTD) Bottle sequence and number, date and time, firing confirmation, and battery voltage.

Power Supply & Endurance

9 alkaline D-size batteries (Duracell MN1300, LR20); approximately 60 hours of operation.

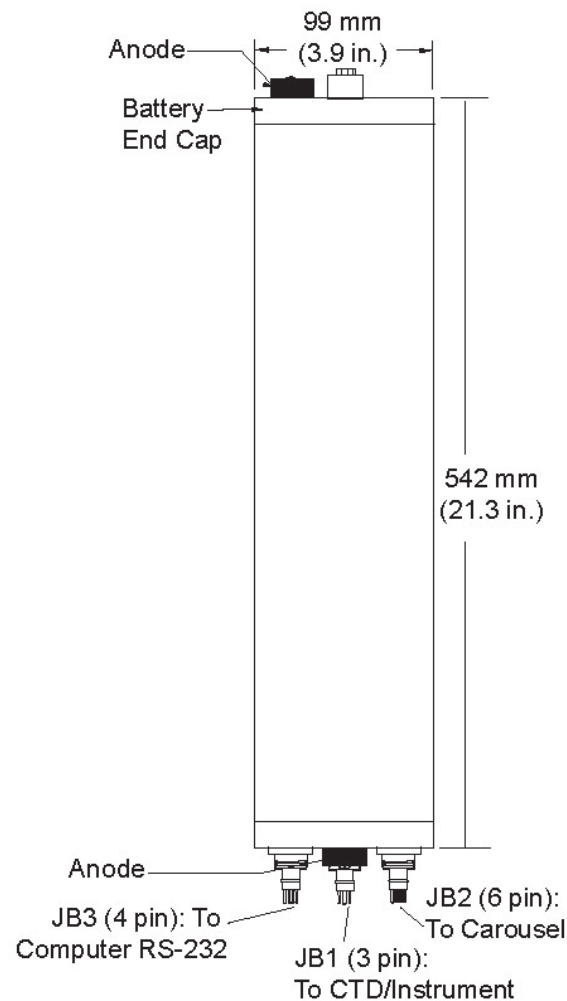
Rechargeable 9-cell NiMH battery pack (*order separately*); approximately 45 hours of operation.

Real-Time Clock

32,768 Hz TCXO accurate to ± 1 minute/year

Housing, Depth Rating, & Weight

Anodized aluminum (with zinc anode protection); 6800 m;
8.1 kg in air, 4.1 kg in water



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