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3.4-P2. HIGH-RESOLUTION, UITRA LOW POWER, INTERGRATED AFTERSHOCK AND SITE CHARACTERIZATION SYSTEM

Trimble has developed a self-contained, fully integrated Aftershock System, model 160-03, providing simple and quick deployment during aftershock mobilization, site characterization and microzonation studies. The 160-03 has no external cables or peripheral equipment for command/control and operation in the field. It contains three major components integrated in one case: a) 24-bit state-of-the art low power ADC with CPU and Lid interconnect boards; b) power source; c) three component 2 Hz sensors, and ±4g accelerometer. The self-contained rechargeable battery pack provides power autonomy up to 7 days during data acquisition at 200 sps on continuous three weak motion and triggered three strong motion recording channels. For longer power autonomy, the 160-03 Aftershock System battery pack can be charged from an external source (solar power system). The data in the field is recorded to a built-in swappable USB flash drive. The 160-03 configuration is fixed based on a configuration file stored on the system, so no external command/control interface is required for parameter setup in the field. For visual control of the system performance in the field, the 160-03 has a built-in LED display which indicates the systems recording status as well as a hot swappable USB drive and battery status.

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