**General**

**Channels**

- Four, three seismic channels and one acoustic channel standard. Support for other sensor types is available.

**Seismic**

- **Range**
  - Standard 260 mm/s (10.24 in/s). Other ranges may be customized at the factory.
  - Resolution 0.008 mm/s (0.0003 in/s) depending on the range.
  - Frequency Range (ISEE) 2 to 250 Hz at 1024 sample rate as per ISEE Seismograph Performance Specifications for Blasting Seismographs 2017 Edition. The upper frequency limit is 1/4 the sample rate.
  - Frequency Range (DIN) From 1 to 315 Hz.
  - Accuracy (DIN) DIN 45669-1 Standard.
  - Transducer Density Approximately 2.01 g/cc (125 lb/ft³)
  - Accelerometers Optional accelerometers allow the transducer to be oriented in any direction without leveling.

**Acoustic**

- **Weighting**
  - Linear overpressure or Type 2 A weighting if appropriate hardware is present.
- **Linear Range** 512 Pa or 5.12 Mb.
- **Linear Resolution** 0.0156 Pa (0.000156 Mb) depending on range.
- **Linear Frequency Range** 2 to 250 Hz at 1024 sample rate as per ISEE Seismograph Performance Specifications for Blasting Seismographs 2017 Edition. The upper frequency limit is 1/4 the sample rate.
- **Linear Accuracy** Conforms with ISEE Performance Specifications for Blasting Seismographs 2017 Edition.
- **A Weighting Range** 50 to 120 dBA.
- **A Weighting Resolution** 0.1 dBA.

**Timer**

- Allows an instrument to be active only during selected times on a daily basis.

**Communication**

- USB or serial. Serial baud rates from 1200 to 230400.

**Internal Data Storage**

- Over 500 MB memory.

**External Data Storage**

- Up to 2048 waveform and histogram records of any duration.
- Write to USB thumb drive.

**System Log**

- The system log tracks on/off times, changes to setup parameters and internal system operation.

**Operating Modes**

- Waveform, histogram, histogram/waveform and manual.

**Data Reporting**

- The seismograph can automatically report both waveform and histogram events without needing to deactivate the current operating mode.
- Data can be downloaded without requiring deactivation of the current operating mode.

**Waveform Modes**

- **Waveform** Standard mode used for blast monitoring and discrete transient event monitoring.
- **Manual** Trigger from the keypad or an external switch.
- **Simultaneous Triggering** Using a combination of manual and triggered modes, multiple units can be connected in serial for simultaneous triggering.
- **Sample Rate** 1024, 2048, 4096 or 16384 samples per second per channel (requires latest firmware).
- **Duration** 1 to 120 seconds at 1024, 2048 or 4096. 1 to 7 seconds at 16384 (requires latest firmware).
- **Pre-Trigger** 1 second at 1024 sample rate. The pre-trigger decreases proportional to the sample rate.
- **Minimum Trigger Level**
  - **Seismic** 0.127 mm/s (0.005 in/s) depending on range.
  - **Linear Acoustic** 88 dBL depending on range.
- **Downtime Between Events** None for sample rates less than 16384.
- **Dynamic Sensor Test** A dynamic sensor test is performed at the end of every event in waveform mode. This...
Histogram Modes

Histogram
Standard mode for recording discrete measurements from continuous and semi-continuous sources.

Histogram/Waveform
A waveform is recorded while the histogram is running when one of the trigger thresholds is met or exceeded.

Sample Period
1, 10, 20, 30, 40, 50 or 60 seconds.

Data Stored
Channel peaks, their frequencies and the vector sum.

Histogram Interval
The histogram interval determines how long a histogram will run before deactivating and starting a new histogram. From 1 to 12 hours or 0 which starts a new histogram at midnight.

Histogram Storage
The internal memory is sufficient to store over a year of histogram data using a 60 second period.

Reporting

General
Reporting requires an approved remote access device capable of port forwarding serial data by TCP. The reporting can be provided by the White Reporting Service™ or handled by the user with the White AutoReceive™ software.

Waveform Mode
With reporting activated, after a recording, the seismograph will output a string of characters consisting of the unit serial number and other information.

Histogram Mode
With reporting activated, after a histogram is made inactive, the seismograph will output a string of characters consisting of the unit serial number and other information.

Physical

Size
Approximately 15 cm. x 11.5 cm. x 9 cm. (6 in. x 4.5 in. x 3.5 in.).

Weight
Approximately 1.6 Kg. (3.5 lbs.) without accessories.

Battery
Internal 6.0 volt rechargeable.

Display
The high contrast graphics display facilitates the instrument’s setup. It also allows the operator to view operating parameters and summary data.

Keypad
The alphanumeric keypad can be used to supply comments and setup data.

Clock
A 24 hour clock maintains the date and time to the second, even if the primary power fails.

Operating Time
With a fully charged battery the unit will operate from 7 to 10 days at 1024 samples per second. Longer times may be obtained using the timer mode or external power from a solar panel or deep cycle battery.

Charging
An internal charging circuit allows charging with the supplied plug-in wall mount charger or available 10 to 15 volt DC supply. Power supplies for international use are available.

Operating Temperature
0 to 130 degrees F (-18 to 54 degrees C).