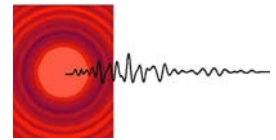


MINI-RECORDER SEISMOGRAPHS



The *Mini-Recorder* is a digital, multi-event seismograph that can automatically record ground vibrations and air pressures for all blasting and construction needs. The *Mini-Recorder* has been proven to be highly accurate and reliable for close-in as well as far-field (low signal) applications. Multiple units can be connected in series for monitoring time-correlated vibrations at multiple locations. The system can be used for structure response monitoring using versatile single-component geophones for flexibility as well as crack displacement gages.

The *Mini-Recorder* is

- compact
- affordable
- rugged
- reliable

FEATURES

- immediate on-site readout
- self-triggering on vibrations or air pressure
- stores up to 340, 8-second events, or up to 315, 12- to 18-second events
- waveforms may be rapidly downloaded and stored to a field laptop computer
- ground motion and air pressure (noise) sensors have a flat (linear) frequency response between 2 and 200 Hz
- vibration resolution as low as 0.00125 ips (0.03 mm/s) or as high as 20 ips (508 mm/s)
- acoustic sensors record up to 148 dB above ground air pressure effects
- sample rates of 1024 and 512 samples/sec
- accessories include a communication cable, charger, windscreen, and carrying case
- software is provided for setup, data upload, waveform viewing, analysis, and printing

MULTI-UNIT APPLICATIONS

For large monitoring jobs, multiple units can be deployed quickly using software that will allow interrogation, set-up and downloading data from each unit via one common cable. By linking units with one simple cable, several units may be triggered by one master unit. In this configuration, all units may connect to one external power source for continuous operation. Multi-unit configurations are ideal to measure engineered structure response to both ground vibrations and air over-pressures.

SOFTWARE

Software for the Mini-Recorder, developed by White Industrial Seismology, Inc. (www.whiteseis.com), is powerful and easy to use. Uploading and analysis software is Windows 95/98/2000/NT/XP compliant.

- Multiple or Single Event Processing
- Automatic or Operator Attended Analyses
- Fast Fourier Analysis (FFT)
- Custom Velocity/Frequency Graphs
- Summarized Data Lists
- Transcription of Multiple Events on a Single Page of Paper
- Text Storage of Data Files for Use With Custom Software.
- Regression Analysis
- Response Spectra
- Response Wave Forms
- Transfer Functions
- Displacement and Acceleration wave for



SPECIFICATIONS

| | |
|-----------------------|------------------------------------------------------------------------------------------------|
| Size | Approximately 7.5" or 8 " x 4.5" x 2.5" (190 x 114 x 64 cm) |
| Weight | Approximately 3.5 lbs. (1.6 kg.) |
| Operating temperature | 0 to 130 °F (-18 to 54 °C) |
| Battery | Internal 6 volt rechargeable. |
| RS232 serial port | For setup and data retrieval via computer or modem at baud rate selectable from 1200 to 38.4 K |
| Display | High contrast LCD |
| Frequency range | 2 to 200 Hz (0.5 Hz optional vibration) |
| Sensors | acoustic, tri-axial or single component geophones |
| Trigger levels | 0.0025 – 1.14 ips (0.065 – 65 mm/s) 106 – 149 dB |
| Calibration | automatic electronic sensor test following each event recording |
| Resolution | four recording ranges available |

Aimone-Martin strongly recommends users of the *Mini-Recorder* follow the International Society of Explosives Engineers (ISEE) Field Practice Guidelines for Blasting Seismographs. A PDF format version of this is available at www.aimonemartin.com or www.isee.org
Aimone-Martin Associates is an authorized dealer of the Mini-Recorder