



Office of Surface Mining
Reclamation and Enforcement
Technical Innovation and Professional Services Team (TIPS)



Seismograph, Geosonics, Model SSU2000DK



Description: The portable seismograph system—usually set up at a house—records ground vibration and sound (airblast) from blasting events. The seismograph system includes:

- External geophone and microphone.
- Built-in printer for immediate in-hand reports.
- Built-in keypad.
- Diskette (3.5 inch) recorder to capture event data for later processing.
- Internal battery.
- Analysis software available at manufacturer's website <http://www.geosonicsvibratech.com/seismic-analysis-software.html>.

Uses: Data collected by the unit is used to check whether blasting operations at a coal mine produce levels of ground vibration or airblast that exceed regulatory limits for dwellings, public buildings, schools, churches, or community or institutional buildings outside the permit area.

Maintenance:

- Unit should always be plugged in when not in use to maintain battery charge.
- Clean dirt from geophone, microphone, and case after use.
- OSMRE engineer ships the unit to manufacturer for annual calibration; manufacturer will check battery and other parts and replace as needed.
- Before field use, turn on unit and verify that the battery is charged, check for adequate paper in the internal printer, and ensure there are 3.5-inch diskettes for recording events.

Check-out & Contact Information:

This unit is available from the Technical Services Branch of the Mid-Continent Region of OSMRE in Alton, Illinois. Equipment is available on a case-by-case basis depending on demand. Some training on the use of the equipment and software may be required. Contact Chris Kiser at 202-513-0383 or at ckiser@osmre.gov for more information.

Equipment on loan will be temporarily transferred using a Department of the Interior Property Pass, Standard Form DI-1934, signed by the appropriate responsible individuals. OSMRE will generally pay for delivery to the requestor's office. The cost of return delivery will be borne by the requesting office. Some equipment is oversized or may need special handling.