

SEISMOGRAPH INSTALLATION GUIDE

Monitoring stations

Watch Series™

Rev 5 - 07-2026

Soft dB

BEST PRACTICES

1. The vibration sensor must be:
   a. Positioned within 3.05 m (10 ft) of the foundation to be monitored
   b. Placed in compact, undisturbed soil; granular fill soils should be avoided
   c. Oriented with Y axis of the sensor towards the source of the vibrations
   d. Between the structure to be protected and the source of vibrations
   e. Perfectly leveled
2. The seismograph may also be attached to the foundation of a structure within 0.305 m (1 ft) of ground level
3. Ensure that the wires are secured properly and that the sensor is firmly attached/installed. Any strain on the cabling and connectors must be avoided to ensure system integrity.

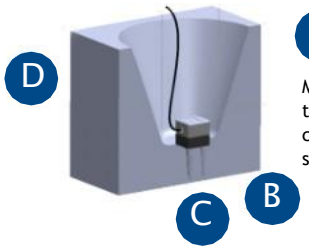
Note: Based on the "ISEE Field Practices Guidelines for Blasting Sismographs" or other reference documents. Refer to the applicable standards for the determination of an exact location for installation.

INSTALLATION OF VIBRATION SENSORS

BURIED:

Dig a hole large enough to bury the sensor at least 3x its thickness (A)

1. Compact the ground and place the sensor (including its base) and spikes at the bottom (B)
2. Firmly attach the sensor to the base of the hole (C)
3. Ensure the sensor is perfectly leveled
4. Fill the hole and progressively compact the soil over and around the sensor (D)

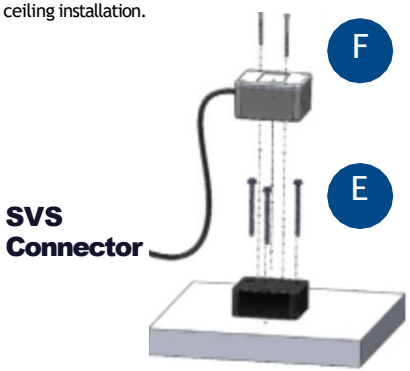


ANCHORED:

SVS installation

1. Place the sensor base (SVS) at the desired location and indicate with a pencil the position of the holes for the concrete screws
2. Drill the desired number of holes using concrete drill bit
3. Fix the base on the desired surface with the concrete screws (E)
4. Fix the sensor to its base with screws (F)

Note that SVS sensors are **insensitive** to orientation, thus a similar procedure can be followed for wall or ceiling installation.

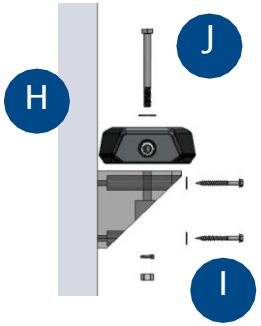


SGS installation

Wall installation

Option 1 – wall mount base

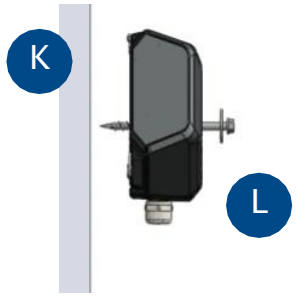
- Place the wall mount support at desired location and indicate with a pencil the position of the holes for the concrete screws (H)
- Drill holes
- Fix the wall-mount base on the desired surface with concrete screws (I)
- Fix the sensor to its base (J)



Option 2 – direct installation

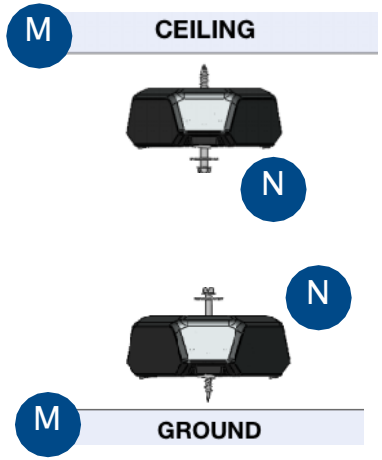
Note: the internal configuration of the SGS sensor needs to be modified to allow a vertical wall mount

- Place the seismograph at the desired location and indicate with the pencil the position (K)
- Drill a hole using a concrete drill bit
- Fix the sensor on the surface with a concrete screw (L)



Floor and ceiling installation

- Place the seismograph at the desired location and indicate with the pencil the position (M)
- Drill a hole using a concrete drill bit
- Fix the sensor on the surface with a concrete screw (N)



IMPORTANT

SGS sensors are sensitive to inclination. To guarantee measurement accuracy, the sensor must be perfectly leveled and oriented correctly.

Caution: When installing on a ceiling, do not mount the sensor upside down, otherwise the data will be invalid.