

## Product Description

ShakeSense-2™ is P4's 2<sup>nd</sup> Generation, easy to use, low-cost, vibration monitoring tool that easily attaches to buildings, bridges, and private homes. The device measures acceleration time histories with user-defined acquisition rate and locally stores this data. It uses an intuitive USB-based data retrieval system. It can be used to monitor, manage, and mitigate risk of damage due to vibrations. ShakeSense-2™ combines low-cost, a small form factor, and easy use to measure and document vibrations from construction, mining, and more.

ShakeSense-2™ uses a 3-axis, high sensitivity, low noise, low drift, low-power accelerometer. The IP-rated enclosure makes it suitable for outdoor use. It uses reliable 120V power. ShakeSense-2™ is a self-contained, portable device with no maintenance required. The sensor, computer, and electronics come together in one physical unit to form an all-in-one solution. ShakeSense-2™ is a stand-alone, maintenance-free, short-term vibration monitoring solution.



## Product Features

The ShakeSense-2™ vibration monitoring has the following features:

- Low Cost (IT IS RENTABLE)
- Small Form Factor
- User-Definable Data Acquisition Rate
- User-Defined Acquisition Period (simply on/off/sleep)
- Easy-to-Use USB Data Storage and Retrieval
- Flexible Mounting (wall mounted, floor mounted, or ground mounted)
- Reliable 120V Line Power
- Outdoor Exposure Possible
- Autonomous Data Logging and Storage

## Product Specifications

The ShakeSense-2™ system includes:

- Small Form Factor: (9"x4-1/2"x3" max. dimensions)
- Included 4-ft power chord
- Stainless steel mounting plate (ground anchoring plate provided by P4 for nominal extra cost)
- Lightweight (less than 5 lb.).
- Vertical or Horizontal Mounting Orientation (clear axis orientation indicators on device)

- On-board 3-Axis High-Sensitivity, Low-Noise, Low-Drift, Low-power Accelerometer
- LoRA, WiFi, or Cellular Data Transmission
- Acquisition and Storage of Acceleration Time Histories
- Optional P4-Provided Data Synthesis into Peak Particle Velocity (PPV) Spectra (extra cost)

## Product Benefits

The P4 ShakeSense-2™ vibration monitoring device has the following benefits:

- Mounting of Sensor is Incredibly Easy (monitor many locations)
- *SIGNIFICANT* Cost Savings and Rentable (use a greater number of devices for damage monitoring)
- Low Cost Means Theft and Field Damage Less Impactful (replace without breaking the bank)
- Rentable Means Short-Term Monitoring Efforts are Possible without Long-Term Commitment
- System is "Turn-key" (mount sensor, turn on, acquire data)
- USB Data Retrieval of CSV Files (very simple)
- Monitoring Flexibility (use for mining, construction, transportation, or other sources of vibration)
- Lower Insurance Costs (those responsible for construction, demolition, and mining operations can document their operations)
- Wide Market Application
  - Ambient Vibrations Due to Human Activity
  - Ambient Vibration Impact on Equipment
  - Crowd-Sourced Vibration Monitoring
  - Regularized Building Bridge Infrastructure Monitoring