



USB AE Educational Package | Acoustic Emission Instruments

YOUR TRAINING SOLUTION

As a world leader in Acoustic Emission (AE) monitoring, instrumentation and systems, we have developed a powerful yet inexpensive AE instrument for educating students on the theory and application of Acoustic Emission in the classroom.

The USB AE Node is a single channel AE system allowing each student to perform hands-on laboratory experiments, bringing this advanced science to the student level. No longer are these principles left to textbook theory, expensive AE systems or high level research institutions. The USB AE Module is relevant for all levels of science teaching and learning from high school through college as well as in the laboratory.

As a teaching tool, each USB AE unit is packaged with simple to follow experiments that guide students through the scientific method to discovery and greater understanding of the AE written text. AEwin Lite™, the easy to use companion software, offers a convenient method of sharing, comparing and documenting laboratory findings.

The USB AE Node can be connected via a USB port of the lab or notebook computer for up to five channels of AE inspection, allowing a global inspection on larger specimens and location analysis of AE sources.

EXPERIMENTS COVERED INCLUDE:

- AE Detection
- Transient Signals (Waveform) Processing
- Continuous Signals (simulated and real)
- Zonal and Linear Location
- AE Signal Feature Analysis
- Correlation Plots of AE Signal Features
- Optional Pattern Recognition and Signal Classification

PRINCIPLES & FUNDAMENTALS

Acoustic Emission (AE) Testing is a non-destructive method for monitoring structural integrity, detecting leaks and incipient failures in mechanical equipment and for characterizing the behavior of materials.

Wave theory, propagation and attenuation are underlying principles in the characterization of materials. Teaching the fundamentals of these

Package Contains Five of Each:

- USB AE Nodes
- USB keys for AEwin Lite™
- Sensor with Cable
- Couplant
- Experiment Manual

principles is important in understanding how materials react to stresses so that structures can be designed to withstand those stresses.

For more information:

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