

INSTRUCTION MANUAL

For Model 35, Isomin™ Triaxial Accelerometer IM35, Revision A

IMPORTANT: To meet all published specifications, the constant current source used to power this accelerometer must be adjusted to 4.0 ± 0.5 mA.

The Endevco Model 35 is a microminiature, piezoelectric triaxial accelerometer with integral electronics. Because of its extremely small size and physical construction, certain special precautions must be observed when mounting and removing the accelerometer to avoid damaging the unit.

Adhesive, Solvent and Tools

For use up to 125°C:

- * Adhesive: Cyanoacrylate (Aron Alpha CE-480, # 201 Rapid Bonding Adhesive is recommended)
- * Recommended solvent: Acetone or equivalent hydrocarbon solvent
- * Cotton swabs or lint-free tissue
- * Toothpicks or equivalent applicators

WARNING: When Cyanoacrylate is used, do not break cement bond by striking accelerometer or by using any tool that makes a metal-to-metal contact with the accelerometer. Always break the bond with the supplied tool after cement has been softened, by twisting or torquing the accelerometer, stressing the bond in shear.

CAUTION: Observe precautions recommended by manufacturer of adhesive or solvent.

Mounting Procedure

1. Ensure that mating surfaces are smooth and flat.
2. Remove all traces of grease and oily residue from mating surfaces using cotton swabs and solvent.
- 3a. With Cyanoacrylate, apply a tiny drop to approximately 1/5 the diameter of the mounting pad (the side opposite the Z axis).
- 3b. Spread the cement with toothpick to form thin, uniform layer covering area of contact.
- 3c. Press down immediately and hold accelerometer firmly in place for 30 seconds while cement sets. Allow cement to set for at least several minutes for maximum strength.

Removal Procedure

- 1a. With Cyanoacrylate, apply acetone around accelerometer base (the side opposite the Z axis) with cotton swab and wait a short period for cement to soften. Repeat the procedure if the solvent evaporates too soon.
- 1b. Break cement bond, using removal tool P/N 31662 (supplied with the accelerometer). Always use this tool to remove the Model 35 Accelerometer from the test structure. Twist or torque the accelerometer, stressing the bond in shear.
- 1c. Remove cement residue on the accelerometer using a cotton swab dipped in acetone or equivalent remover. A short soak will facilitate this process. Repeat, if necessary, to remove all traces of adhesive. Ensure that all excess adhesive forming fillet around the accelerometer case or built up on the sides of the accelerometer has been removed.

Failure to heed this caution may prevent proper use of removal tool and result in damage to the accelerometer.

3. Wipe surfaces clean with cotton swabs or lint-free tissue dipped in solvent.
4. **NOTE:** The accelerometer base must **not** be filed, sanded, roughened, or edges burred during removal of the cement. A rough mounting surface on an accelerometer can result in poor frequency response and an increase in transverse sensitivity.

Repair/Replacement of Leads

Four 72-inch, 34 AWG leads have been soldered and potted to the output and ground terminals at the factory. These lightweight leads are essential to the frequency response characteristic of the accelerometer. The supplied Model 3024-120 cable should be used for extension purpose only. If any of the leads are cut, it may be repaired in the field with proper care.

If the leads are damaged at or around the potted area, the unit should be returned to the factory or one of the authorized service centers for repair. Do not dig into the potted material in the field. It may result in permanent damage.