

## GUIDE TO ACCELEROMETER MOUNTING

Thank you for purchasing a Precision Air Bearing Shaker system from The Modal Shop. Listed below are simple mounting instructions that will help improve calibration results. If you have any additional questions, please contact The Modal Shop, [info@modalshop.com](mailto:info@modalshop.com) or 513-351-9919.

- A smooth clean surface is required. Any residual glue or wax must be removed from the mounting surface of the sensor to achieve the most accurate calibration results. Adhesive residue should be removed from both the sensor and shaker surface using an appropriate solvent, such as acetone. Significant burrs or scratches on the shaker mounting surface should only be repaired by professionals capable of handling Beryllium safely. Call the factory for more information.



- Whenever possible, the sensor under test (SUT) should be stud mounted directly to the shaker armature to achieve the best performance. If mounting to the tapped hole in the armature is not practical, a mounting adapter can be used. Be sure to apply mounting grease between all mating surfaces.



- A small amount of mounting grease, such as Dow Corning silicone compound DC4, should be applied between all mating surfaces prior to stud mounting the sensor. The mounting torque should conform to the manufacturers specification for the particular sensor. Typical mounting torques, as specified by PCB Piezotronics, are as follows:

Stud Size	Torque
1/4-28 or M6	24-30* in-lbs (271-339 N-cm)
10-32 or M5	10-20 in-lbs (113-225 N-cm)
5-40 or M3	4-5 in-lbs (45-55 N-cm)

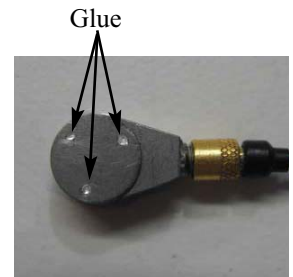
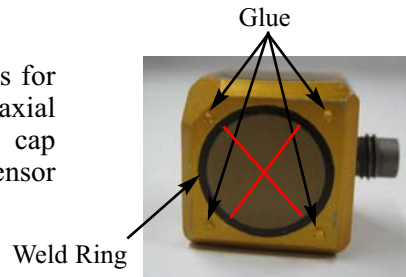
\*Do not exceed 30 in-lbs (339 N-cm)





## Adhesive Mounting & Dismounting:

- Apply 3 small dots of glue for a teardrop or 4 small dots for other sensor types to the edges of the sensor. For triaxial sensors, it is important **NOT** to glue onto the welded cap (circular mark on the sensor surface) which can excite sensor package resonances and/or damage the sensor.



- When adhesively mounting a sensor, an appropriate instant adhesive, such as cyanoacrylate, is commonly used. **Be sure that the armature is completely lowered such that the internal armature locking mechanism is engaged.** Firmly press the sensor onto the reference insert or adapter so that the accelerometer does not move while the adhesive is curing or inaccurate calibrations; (particularly at higher frequencies) can result.



- When removing an adhesively mounted sensor, apply solvent like acetone to the base of the sensor and let soak for ~10 seconds. Then use an appropriately sized wrench or customized removal tool to remove the sensor. We recommend tools with rounded edges or use caution with wrenches so as not to scrape the armature.



Be careful that the edges of the wrench do not push into a sensor weld or case as this can damage the sensor, particularly light weight aluminum designs.



- NEVER SCRAPE, FILE, SAND, OR LAP THE ARMATURE MOUNTING SURFACE!** To remove adhesive on the shaker mounting surface, apply acetone to the adhesive and wipe off with a paper towel. Repeat this process until all adhesive is removed. Any rework requiring machining should be sent back to the factory to be handled professionally.



**WARNING: ARMATURE and INSERT CONTAIN BERYLLIUM**  
Hazardous dust or vapors may be reproduced by improper shaker operation, machining, filing, welding, grinding or chemical etching.

*Failure to follow these instructions may cause undesirable results or damage the sensor.*