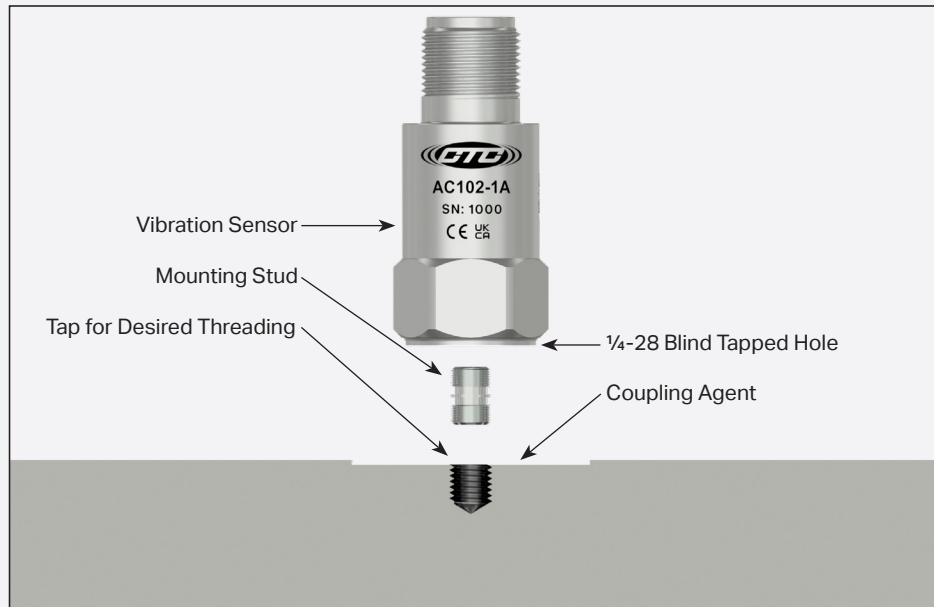


# Mounting Hardware and Accelerometer Installation

## **Sensor Installation onto Mounting Hardware/Stud Mounting**

1. Hand-tighten the sensor to the mounting disk and tighten it using **2 to 5 pounds of mounting force**.



- The mounting torque is important to the frequency response of the sensor for the following reasons:
  - If the sensor is not tight enough, proper coupling between the base of the sensor and the mounting disk will not be achieved.
  - If the sensor is over-tightened, stud failure may occur.
- A coupling agent (such as MH109-2A epoxy) will maximize the high-frequency response of your hardware but is not required.

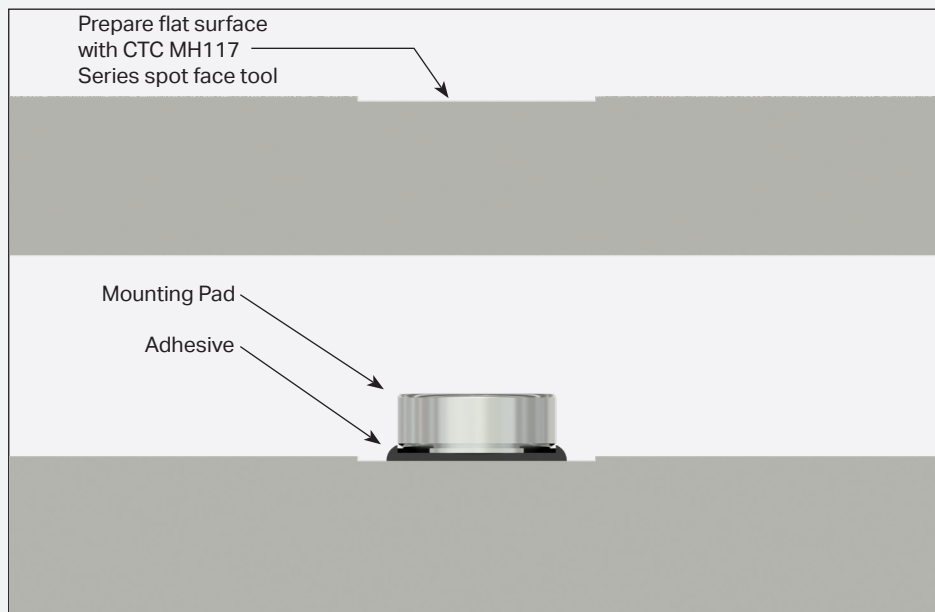
## **Permanent/Stud Mounting Surface Preparation**

1. Prepare a flat surface using a spot face tool and drill a pilot hole for tapping
2. The mounting surface should be clean and free from any residue or paint
3. Tap for desired threading
4. Install sensor
  - Suggested Installation Tool Kit: MH117 Series

# Mounting Hardware and Accelerometer Installation

## **Adhesive Mounting Installation**

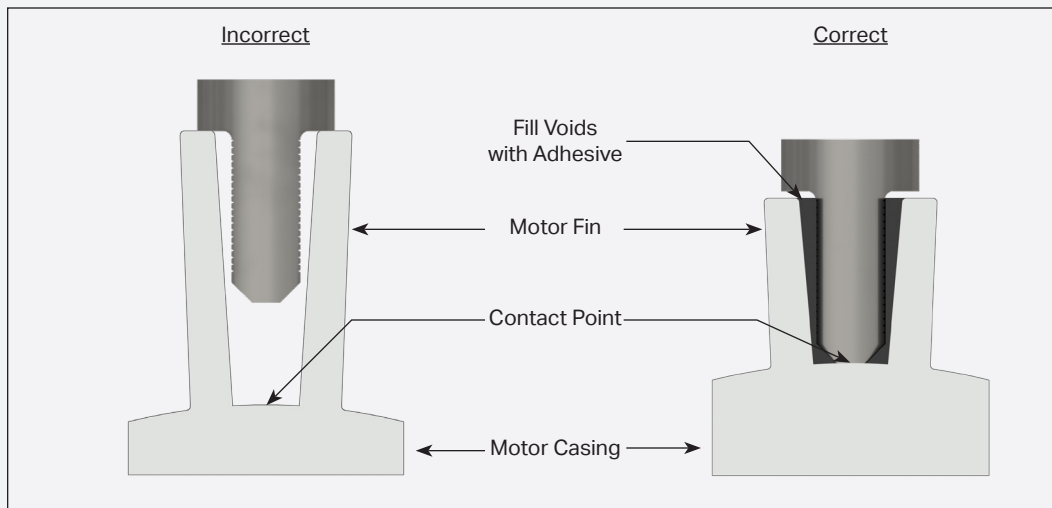
1. Ensure the mounting surface is clean and free from residue or paint to bond the adhesive properly.
2. A smooth, flat mounting surface is desirable and can be achieved by milling or grinding at the surface where the mounting stud will be installed.
3. Place a small portion of adhesive on the underside of the mounting base.
4. Firmly press the mounting disk down on the mounting area to force the adhesive out from under the disk.
5. Hold the disk onto the surface until the adhesive can support the weight of the mounting disk, ensuring the disk does not move or slide on the adhesive.
6. Allow the adhesive to cure fully.
7. Install sensor.



# Mounting Hardware and Accelerometer Installation

## **Motor Fin Mount Probe/Pad Installation**

1. Prepare cooling fins on the motor for mounting by scraping or grinding any paint or debris between the cooling fins.
2. Clean the mounting area with a spray degreaser that will not leave any residue.
3. Mix adhesive.
4. Apply adhesive to the sides and the bottom of the probe portion of the motor fin mount probe/pad (please note: the surface is roughened to enhance the bonding area).
5. Place the motor fin mount probe/pad between the motor fins at the desired location.
  - The probe must fit in between the motor fins, and the bottom of the probe must contact the motor casing.
  - For motors with a space greater than ½ in. between each fin, motor fin mount pads with a thickness of ½ in. are available and will reduce the amount of adhesive needed.
6. Firmly press the motor fin mount probe/pad into place, ensuring the bottom of the motor fin mount probe/pad is touching the motor casing (this contact area is where the vibration is transferred from the motor to the sensor).
  - **The motor fin mount probe/pad should not be resting on the top of the fins – if it does, then the bottom of the probe may not be in direct contact with the motor casing** (See below, left).
  - The tip of the motor fin mount probe/pad should be as flat against the motor casing as possible (See below, right).
7. Use a spatula to redirect any epoxy displaced from the mounting area when pushing the fin mount probe/pad into place.
8. Fill in any remaining voids with adhesive to ensure the motor fin will be fixed in place.
9. Allow the adhesive to cure fully.
10. Install sensor.



# Mounting Hardware and Accelerometer Installation

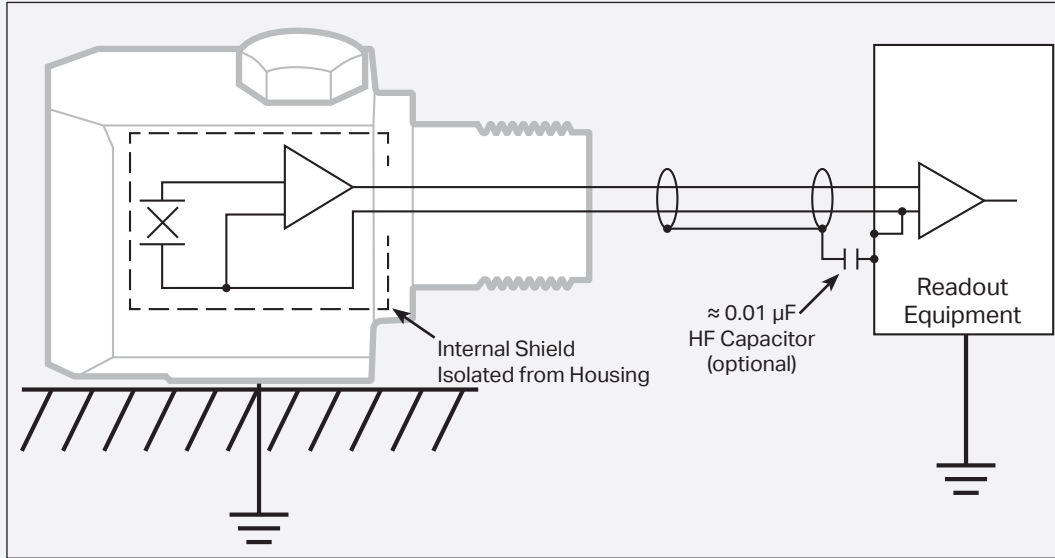
## **Quick Disconnect Instructions**

1. Ensure the mounting surface is clean and free from residue or paint to bond the adhesive properly.
2. A smooth, flat mounting surface is desirable and can be achieved by milling or grinding at the surface where the mounting stud will be installed.
3. Determine the orientation of the axis on the machine.
4. Place a small portion of adhesive on the underside of the mounting base.
5. Firmly press down the mounting disk to the mounting area to force the adhesive out from under the disk.
6. Hold the disk onto the surface until the adhesive can support the weight of the mounting disk, ensuring the disk does not move or slide on the adhesive.
7. Allow the adhesive to cure fully.
8. Screw receptacle into captive bolt through the multi-axial sensor
9. Align the notch from the receptacle with the notch on the mounting stud base
10. Turn the receptacle 90° clockwise and take readings
  - CTC's Quick Disconnect mounting stud feature allows for consistency in the field when taking measurements with multi-axial accelerometers. CTC's MH107-1B is a flat-base, epoxy mount stud which connects to CTC's MH107-1A for sensor mounting and configuration. Many times, vibration routes are walked with different personnel on different shifts. Shift A member sets the triaxial sensor on an asset to take and record readings. Shift member B walks his routes and measures the same assets at the same points; however, he rotates the sensor 90°, thus altering the orientation of the axis and changing the readings of the sensor. CTC's MH107-1A and MH107-1B prevent this by having notches on each piece for proper alignment and only able to rotate 90° one-way for consistent axial configuration.

# Mounting Hardware and Accelerometer Installation

## Cable Anchoring

All CTC cables are shielded. The cable shield protects the signal from EMI and ESD. Grounding the shield at only one point is best practice, generally to your analyzer equipment.



The cable should be secured for permanently mounted sensors to reduce stress and flexing that may result in cable breakage or noise. CTC's CB929 cabling loop clamps are an excellent tool for anchoring cabling. It is important to ensure there is enough slack so as not to stress the sensor connection.

