Imperial/US Drill + Tap (Best Method for Frequency Response)

Captive Mounting Bolt 1/4"-28

Tools Required

- Power Drill
- 3/16" Allen Wrench/Hex Key
- #3 drill bit (7/32”)
- UNF 1/4"-28 Steel Tap, 3-4 Flute, Right-Hand Thread
- Captive 1/4"-28 Mounting Bolt
- Loctite Threadlocker 242 (Blue/Removable)
- Torque Wrench

Procedure

1. Choose mounting location. Accelerometer/Sensor Mounting Location Selection
2. Verify the machine casing is thick enough to drill 0.3 inches (7.65mm).
   If the casing is not thick enough, choose a different mounting method.
3. Use the #3 drill bit (7/32”) to drill into the machine casing 0.3 inches (7.65mm).
   The hole should be perpendicular to the face of the machine.
4. > Make sure to drill a straight hole. Crooked holes can result in convolution of the triaxial signals.
5. Use the UNF 1/4"-28 tap to cut the threads into the drilled hole.
   Be sure to keep the tap perpendicular to the face of the machine while tapping to avoid a crooked thread.
6. After tapping completely to the bottom of the 0.3 inches (7.65mm), clean any metal shavings from the hole and clean with a Q-Tip and degreaser.
7. Insert 3/16" Allen Wrench/Hex Key into the hex depression on the captive 1/4"-28 mounting bolt.
8. Screw the 1/4"-28 mounting bolt into the TriVibe, starting on the LED side.
   When completely inserted, the threaded tip of the mounting bolt should stick out of the

backside of the TriVibe.

9. Add a dab of Loctite Threadlocker 242 to the exposed threads.
10. This step is important because, over time, movement can cause the mounting bolts to become loose and result in improper vibration levels.
11. Insert the wet, loctite-ed threads into the newly tapped hole.
12. Rotate the Allen Wrench/Hex Key clockwise to tighten until the torque on the Allen wrench is 25.0 lb-in (3.0 N-m).
13. DO NOT OVER TIGHTEN. Excess force can damage the TriVibe.

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