

Installing Surface Mount Tiltmeters

Tech Note

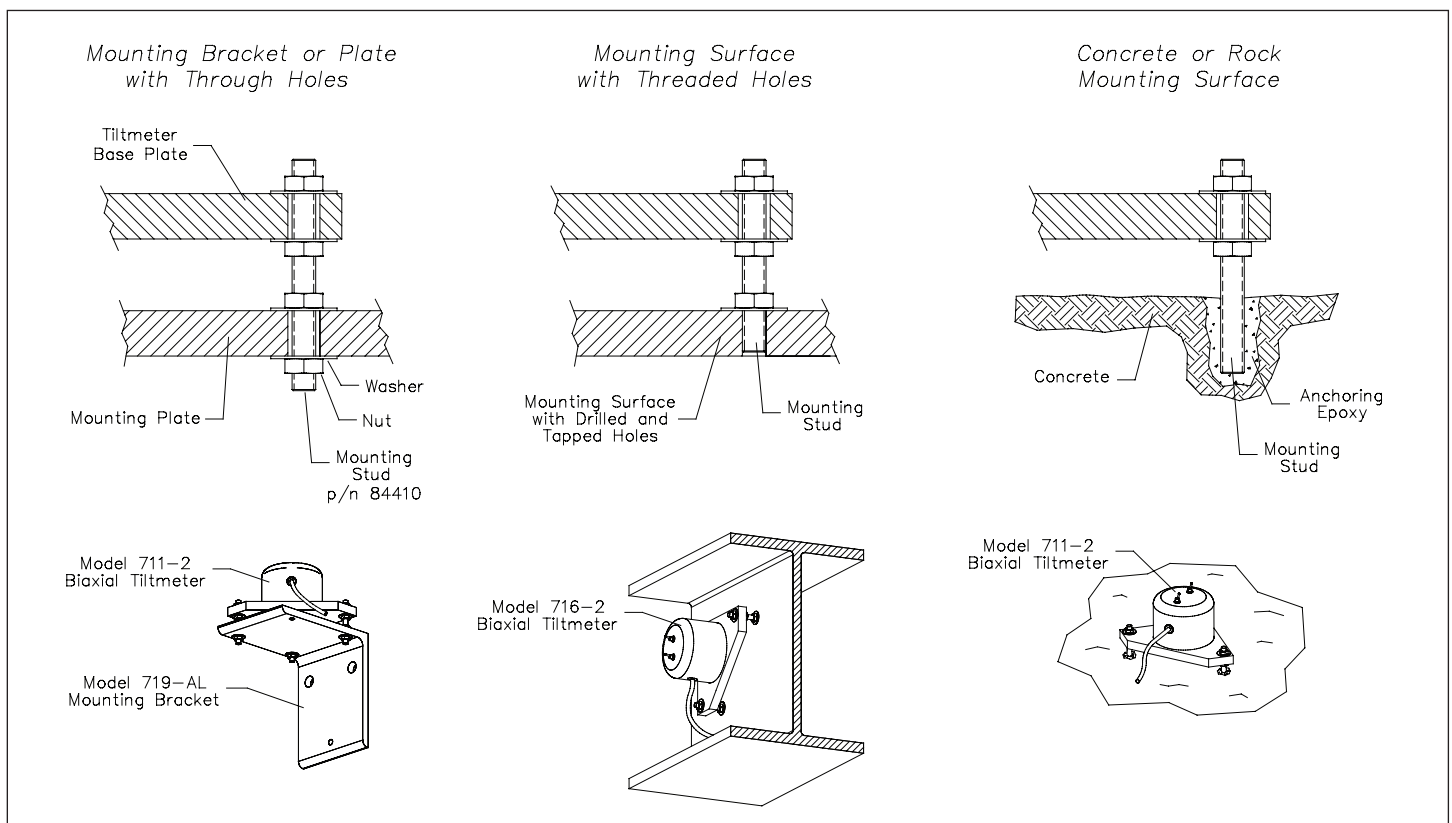
These guidelines will help you achieve stable and reliable tiltmeter readings. Applied Geomechanics supplies all of the installation accessories you need for an effective monitoring program.

- Surface mount tiltmeters are typically attached to the measurement surface by mounting studs (threaded rods) fastened or anchored into the surface. Three-point mounting is best because it prevents bending and torsion that can lead to unstable readings. Single-stud (monopod) mounting is more prone to drift and disturbance. It is not recommended for long-term applications.
- Mounting studs should be as short as possible, of the same length and of the same material for maximum thermal stability. In special cases thermally stable, but more expensive, invar studs can be used.

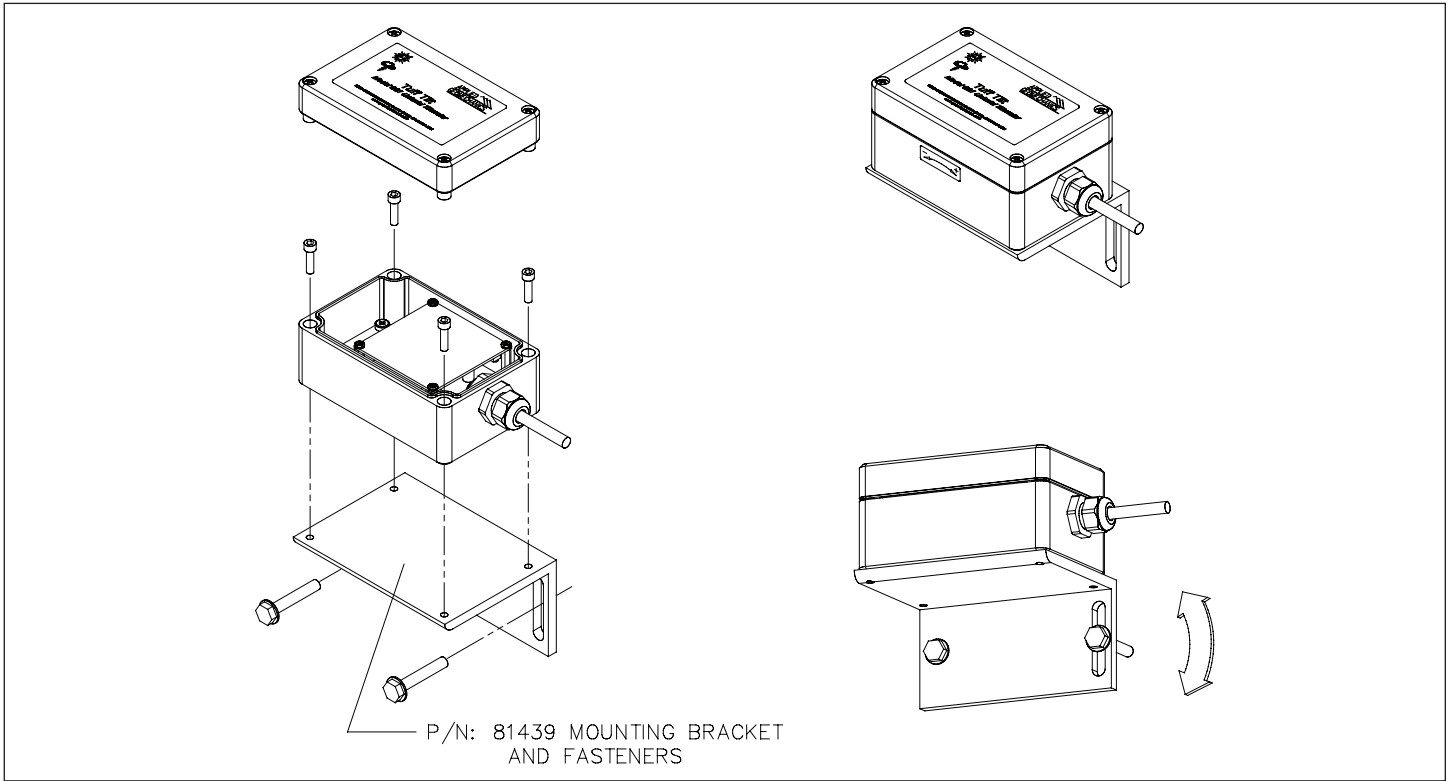
- Anchoring a mounting stud in a concrete or rock surface is normally done by drilling a hole to a depth of 4–5 cm (1 ½–2 inches), then injecting a small amount of anchoring epoxy. When the stud is inserted into the hole, the epoxy squeezes to the top, surrounding the embedded part of the stud. Lead anchors and expanding anchors can also be used, but only if the mounting plate or bracket is drawn tight against the surface and cannot shift laterally.

The following drawings illustrate installation techniques for 700-Series Biaxial Tiltmeters (Models 711-2, 716-2, and 712), the Model 801 Tuff Tilt Uniaxial Tiltmeter, the Model 904-T Clinometer Pak and the Model MD900-T Digital Clinometer. Please contact us with questions or for additional details.

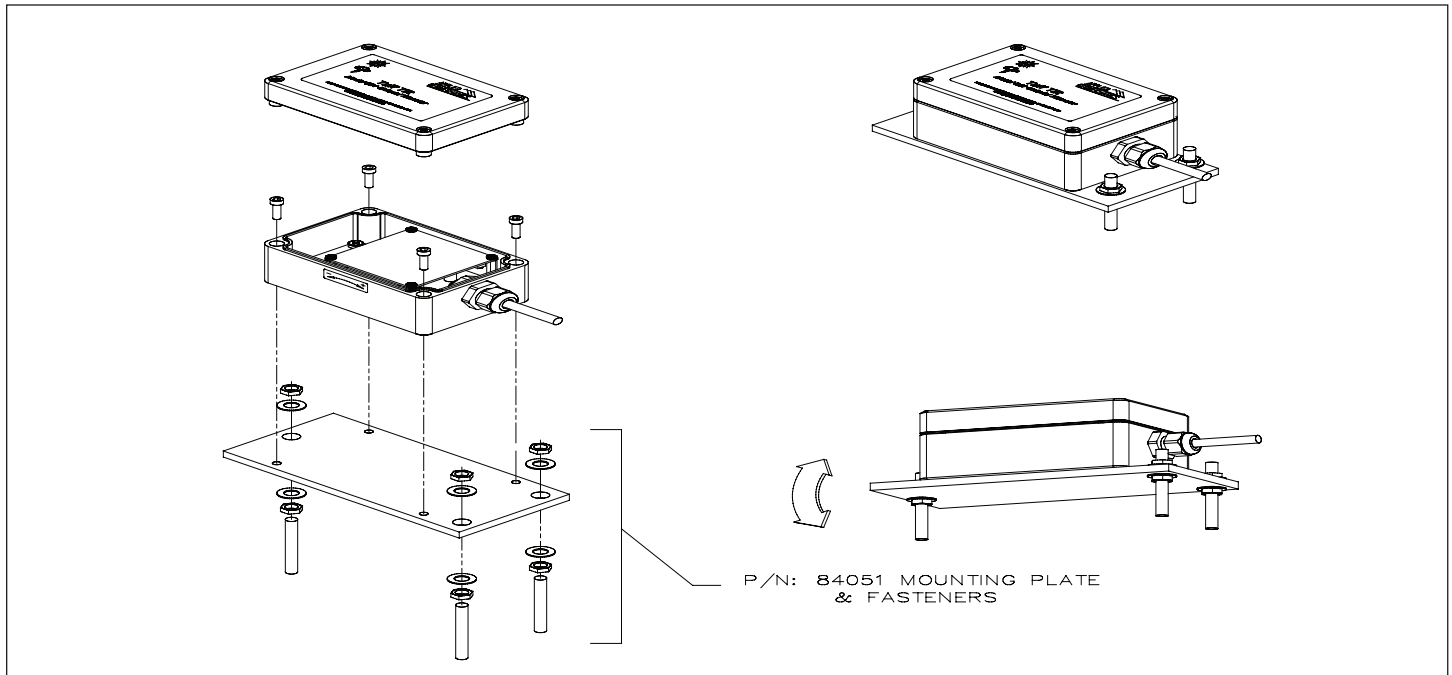
INSTALLING 700-SERIES TILTMETERS



INSTALLING MODELS 801, 904-T AND MD900-T ON VERTICAL SURFACES



INSTALLING MODELS 801, 904-T AND MD900-T ON HORIZONTAL SURFACES



Note: The tiltmeter enclosure may also be screwed directly to the mounting surface without use of the P/N 84051 Mounting Plate.

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