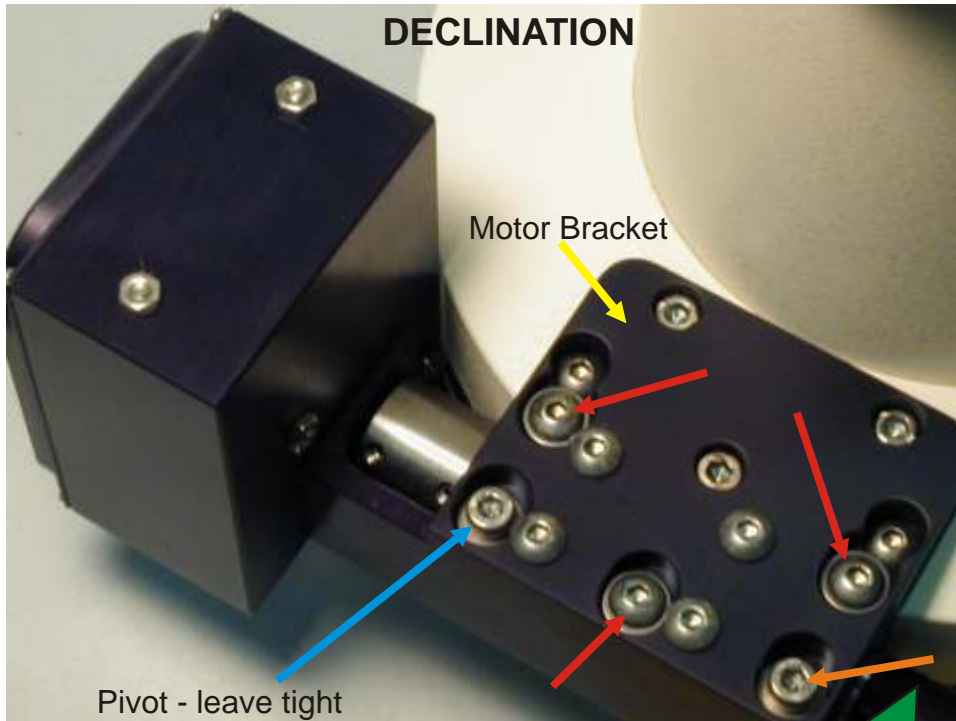


1200QMD Backlash Removal Instructions for Both Axes

ONLY loosen screws with washers!! Do not touch any other screws!



- ★ Loosen, but do not remove the 3 button head screws shown with the red arrows.
- ★ Barely loosen the socket head screw shown with the orange arrow
- ★ Leave the socket head screw shown with the blue arrow tight. It will act as a pivot.
- ★ Using a block of wood and a hammer, lightly tap the worm gear housing - NOT THE MOTOR BRACKET - in the direction shown by the green arrow. Tap the housing as far from the pivot screw as possible, but DO NOT tap on the drive test knob.
- ★ Tighten all screws and test for backlash. Test through an entire worm cycle every 60 degrees of rotation or so. You want a gear mesh that minimizes backlash while still allowing the worm to turn through any minute high spot that it may have.
- ★ Multiple tries may be required to "tweak it just right."
- ★ DO NOT over-tighten the gear mesh or your motor will not be able to turn the worm.
- ★ DO NOT turn the drive test knob manually! Its purpose is to provide visual verification that the worm is turning. *Turning this knob by hand can destroy your stepper motor.*
- ★ If you need to loosen the gear mesh, tap lightly on the motor side of the Motor / Worm Gear Housing. You may wish to further loosen the orange arrowed socket head screw before trying to tap the mesh looser. Then snug it back before trying to re-tighten the mesh.
- ★ Hammer notwithstanding - this is precision work. The difference between too tight and having backlash is a matter of one or two thousandths of an inch.

