
Replacing Probe Wheels

Introduction These instructions explain how to replace the wheels of the inclinometer probe. This is not a simple task, and it can cause a shift in the calibration of the probe. Normally we recommend that this repair be performed at the factory, since the probe can be recalibrated after the repair. The repair requires kit number 50302555, which contains a wheel yoke with wheels, two springs, and four roll pins.

Clamp the Probe The probe must be held in a vise for this repair. Wrap the probe with rags to prevent damage to the finish. Position the probe as follows:

Observe the springs. The hooked end of each spring is retained by a roll pin. Position the probe, so that if you tap the roll pin down, the punch will temporarily retain the spring, ie put the springs at the top. Also, be sure that at least part of the vise grips the solid steel area that holds the wheels. Gripping just the middle section of the probe may cause damage to the hollow center tube or to the adcelerometers inside.

Remove Old Wheels If you are replacing both sets of wheels, consider replacing them one at a time, so that you always have a complete wheel assembly for reference.

Using a suitable punch and hammer, tap the roll pin down far enough so that the punch holds the hooked end of one spring. Keeping fingers away from the spring, carefully remove the punch. The spring will snap outward when released. Repeat for the second spring. Now punch out the other two roll pins. Discard both old springs.

Remove the set screw that retains the yoke axle. Be careful to keep the small Teflon button that is under the screw. Then remove the yoke axle and the wheel assembly .

Install New Wheels

1. Install wheel yoke, axle, and set screw with Teflon button. Turn the screw until it stops, then back it off about 1/8 turn. If you overtighten the screw, the wheel slot will spread and performance will suffer.

2. Start roll pins from the top.

3. Place spring under inner roll pin with long arm resting flat against the wheel yoke. Drive roll pin through the coil of the spring, as shown in the drawing. Install other spring and roll pin in the same way.

4. Use pliers to hold hooked end of spring. Drive roll pin down, then allow spring to hook onto pin. Repeat for the other spring and roll pin.

