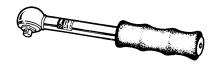
TSP (Cam-Over Wrench) Operating Instructions

Rev 1.0

Calibrating Torque Wrenches

To calibrate torque wrenches either use a torque analyzer or torque transducer within the range of the torque wrench. For cam-over torque wrenches calibrate torque in "Peak" mode with an analyzer or transducer. Make sure to apply the torque slowly and smoothly.



- 1. Select a torque analyzer or transducer that covers the torque range of the TSP wrench. Connect wrench to the torque analyzer or transducer.
- 2. Apply torque clockwise slowly until wrench 'slips' and note reading.
- 3. Adjust wrench to required torque setting as described below.
- 4. Test and repeat adjustment as necessary to obtain desired value.
- 5. Recalibrate torque wrench at prescribed intervals.

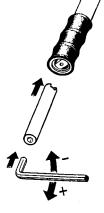
Note: Refer to ISO6789 International Standard for more information on hand tool testing requirements.



- 1. Remove end cap from the wrench using the larger hex kev.
- Insert smaller hex key into set screw in the middle of torque adjusting bolt inside wrench handle. Turn counter clockwise to loosen set screw, but do not remove screw.
- Insert hex key into adjusting key and turn clockwise to increase torque and counter clockwise to decrease torque. Do not adjust torque above or below the recommended torque ranges.
- 4. Lock adjustment set screw* and tighten end cap back on.*Note: 44 lbf.in(5 N.m) torque value for the lock screw







Applying Torque

- 1. Tighten nut or bolt by applying a steady even pull using built in ratchet as necessary. Wrench should be kept at 90 degrees to axis of bolt during tightening. When pre-set torque is reached, the wrench will 'slip.'
- 2. The wrench will automatically reset itself for the next application.
- 3. With its unique design, it's impossible to over tighten beyond the preset load.



Accessories

Keep the production area clean by hanging the TSP wrench with a ``Hanging Loop."

Hanging Loop Item # 020587





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