

TSC RECALIBRATION PROCEDURE

DATA SHEET: 007

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TEST METHODS:

As adopted and stipulated by MHH, and in accordance with ISO 6789 recommendations for the testing of TSC Wrenches

1. Testing should be done at normal ambient temperature of $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$ after a period of stabilisation and with the tool being maintained within this temperature band throughout the test.
2. A good quality Electronic Torque Analyser should be used for testing with an accuracy of $\pm 0.25\%$ of reading ± 1 LSD (Least Significant Digit).
3. The Transducer should be mounted with its axis in a vertical position.
4. The Torque Analyser should have a "Peak Hold" facility, as it is impossible to read the maximum torque achieved in "Track Mode". (It should be remembered that it is impossible to over-torque with TSC/P's and similar cam-over mechanism wrenches unlike "Clicker" wrenches that become solid levers after achieving the pre-set torque value).
5. Under test, the wrench should be operated without pauses to give a slow, consistent and smooth action.

*It should be realised that currently all Electronic Torque Analyser manufacturer's quoted accuracies refer to results obtained during **Static** testing. In practice most torque tool testing is done **Dynamically** using Transducers - for which there are no dynamic Calibration Standards at present.*

It is also known that Electronic Torque Analysers with differing sampling/response rates will provide differing torque readings for the same tool at the same setting!

Procedure:

1. Peel back the rubber hand grip from the end of the tool to reveal the three equally spaced socket set Screws located in the adjusting sleeve.
2. Ensure that the red lock knob is pulled fully out and engage the tool with the test device.
3. Disregarding any scale or bezel markings, rotate the adjusting sleeve as required until the test device displays a reading equal to the first setting on the wrench and at the same time ensure the lock mechanism has engaged with one of the ten lock positions in the handle tube. It should be possible to feel and hear this action, which will be confirmed by pushing in the red knob to lock the tool. Ensure that the tool is operated as slowly as possible during the test procedure.
4. If, to achieve the correct reading, the zero position on the bezel is no longer in alignment with the centre line of the main scale, unscrew the three socket set screws by two full turns each and rotate the adjusting sleeve until the zero position is in alignment with the centre line of the main scale. (A 1.5 mm A/F hex key is required for the screws).
5. Apply a minimal amount of Loctite 222 to the threads of each screw and carefully “nip up” each of the screws evenly with sufficient torque to enable the tool to be adjusted.
6. Re-test the tool and if satisfactory readings are obtained throughout the range, fully tighten the socket screws and release the rubber grip to its original position.
7. If, after several attempts, should it be found impossible to obtain satisfactory readings, it is recommended that the tool be returned to the manufacturers for re-calibration.