



Torq-Tronics Digital Torque Tester

Quick Start Instructions

Installation

1. Select location that provides sufficient strength and stability to resist the reaction torque that will be generated during tester use, that has available the required source of electric power and computer communications that are needed, and that has sufficient room for the operator to operate the tools to be tested on the unit.
2. Use the Mounting Holes in the Back Plate as a template, then drill all holes as required to mount the unit solidly to the selected location.
3. Use 5/16" bolts or bolts and nuts to mount the unit in place. Grade 5 bolts are the minimum required, Grade 8 (Class 10.9) bolts are recommended.
4. Slowly and carefully test the solidity of mount before proceeding further. If the unit resists rotation throughout its' capacity, go to the next step. If the unit moves or the mounting location moves, remove and correct problem.
5. Install the Buss Fuse and Fuse Holder Cap.
6. Carefully remove the Battery Compartment Cover with a #1 Phillips screwdriver.
7. Install the four (4) AA batteries provided into the Battery Holder. Pay careful attention to battery orientation.
8. Reinstall the Battery Compartment Cover.
9. Connect supplied AC to DC Converter to the unit, then to the source of electric power.
10. If the unit is to be connected to a serial printer or computer, install the serial cable needed.
11. Test the unit by moving the Power Switch from Off to On. If the unit starts and the backlight comes on, the installation is complete.

Keys

There are six (6) keys on the faceplate of the tester below the display. Their functions are as follows:

Zero

This key is used to re-establish the no-load zero point when either the direction of use has been changed or the mode of operation has been changed. Under no circumstances should this key be pressed when a load is applied to the drive hex (or drive square) of the tester.

Clear/Print

This key causes the displayed test results to be sent to the serial port then cleared from the display.

Auto

This key is a toggle that activates and deactivates the automation of the Clear/Print function. Activating the Auto function causes the results to be sent to the serial port and cleared from the display after they have been displayed for five (5) seconds. When Auto is deactivated, the results are displayed until manually cleared.

Units

This key changes the active unit of measure. It scrolls through those available on the unit, advancing through them by one available unit with each press of the key.

Peak Select

This key pages through the four modes of operation on the tester: Track, Peak, Initial Peak, and Power Tool. The active mode is displayed on the LED to the right of the numeric values (T, Pk, Ip, Pt).

Filter

This key is available for use only in Power Tool Mode. When active, it pages through the five filters available, numbered 0 through 4. Each filter applies more filtering to the signal from the transducer than the next lower numbered filter. Filter 2 is that required for ISO 5393.

Safety Rules

To avoid possible injury, the following precautions should always be taken when using this torque tester:

- Wear safety glasses or goggles at all times.
- Be sure torque wrench properly engages torque tester prior to applying torque.
- The Torque Tester and AC Adaptor are for dry location use only. Do not stand in water when using tester or allow tester to get wet.
- Maintain firm footing and balanced body position when applying torque.
- The installation location must be capable of resisting the torque transmitted to it during tester use without moving the tester or tipping what it is mounted to either forward or to the side.

Operation

To operate the tester, follow the Preparation procedure given in this section, then follow the procedure specific to the type of tool being tested.

Preparation for Testing

1. Move the Power Switch from Off to On.
2. Allow the tester about five (5) seconds to complete its' internal procedure. At the end of the procedure it will be in the last Unit of Measure that was selected and in Track mode.
3. Use the Peak Select key on the face to select the mode of operation. Use Peak for dial, beam, camover and digital torque wrenches. Use Initial Peak for clicker torque wrenches and manual torque screwdrivers, and Power Tool mode for power tools. Note: Do NOT test impact wrenches on this tester. Doing so will damage the tester and void the warranty.
4. Press the Units key to select the unit of measure of the torque wrench to be tested.
5. If you wish the results to be displayed until manually cleared, make sure "A" is not displayed on the LED. If you wish the display to clear automatically, press the Auto key until an "A" appears on the LED.
6. If the torque value display reads other than zero, press the Zero key. Note: Never press the Zero key with a wrench connected to the tester. Doing so will cause inaccurate results.
7. The tester should be preloaded to 50% of its capacity, in the direction (CW or CCW) of testing, three times prior to actual wrench testing. Adjust a torque wrench to 50% of the capacity of the torque tester. Engage the torque wrench to the tester with the handle in the 2 or 3 o'clock position for clockwise testing or 9 or 10 o'clock position for counterclockwise testing. Slowly cycle (click) the wrench three times, stopping immediately at the click and removing pressure from the wrench each time. Remove the wrench from the tester when three cycles are done and press the Zero button. This should be performed again if the same wrench is to be tested in a different direction.

Testing Clicker Torque Wrenches or Manual Torque Screwdrivers

1. Set the torque wrench to the first test point and engage the torque wrench to the drive of the tester (socket to hex or male square to female square) with the wrench in the 2 or 3 o'clock position for clockwise testing or the 9 or 10 o'clock position for counterclockwise testing.
2. Slowly apply pressure to the wrench grip (or rotate the screwdriver) until the wrench (or screwdriver) clicks, then release the pressure immediately. To obtain an accurate reading, make sure the pressure is applied perpendicular to the drive; do not push in, out, forward or back on the grip of torque wrenches, and keep torque screwdrivers aligned with the tester drive.
3. At the end of the wrench click, the numeric value of the torque will be displayed on the tester LED. Press the CLEAR/PRINT button to clear the display (If not automatically printing and clearing the results) for the next test, or wait 5 seconds with zero torque applied and the display will clear automatically.

Testing Camover-type Torque Wrenches

1. Set the torque wrench to the first test point and engage the torque wrench to the drive of the tester (socket to hex or male square to female square) with the wrench in the 2 or 3 o'clock position for clockwise testing or the 9 or 10 o'clock position for counterclockwise testing.
2. Slowly apply pressure to the wrench grip until the wrench cams over, then release the pressure immediately. To obtain an accurate reading, make sure the pressure is applied perpendicular to the drive; do not push in, out, forward or back on the grip.
3. At the end of the camover, the numeric value of the torque will be displayed on the tester LED. Press the CLEAR/PRINT button to clear the display (If not automatically printing and clearing the results) for the next test, or wait 5 seconds with zero torque applied and the display will clear automatically.

Testing Dial, Beam, or Digital Torque Wrenches

1. Engage the torque wrench to the tester.
2. Slowly apply force to the grip of the wrench until the wrench pointer shows the torque is at the test point. To obtain an accurate reading, make sure the pressure is applied perpendicular to the drive square; do not push in, out, forward or back on the grip.
3. Release pressure on the wrench when the wrench attains the test point. The actual torque at the test point will be displayed on the tester. Press the CLEAR/PRINT button to clear the display (If not automatically printing and clearing the results) for the next test, or wait 5 seconds with zero torque applied and the display will clear automatically.

Testing Torque Wrenches of Accuracy Tighter Than +/- 4%

Torque wrenches of these types may be tested, but not calibrated, on this tester. For torque testers to calibrate these tools, contact Sturtevant Richmond.

Testing Power Tools

1. Select the filter to be used with the tool. The recommended start point for filter selection is Filter 1, which

- is the ISO 5393 filtering rate. If prior history with the tool and joint indicates use of one of the other filters yields better results, use that filter instead. To select the proper filter, use the Filter key to page through the five filters available.
2. If a rundown filter is to be used, prepare it for testing then engage it to the drive of the tester. On hex drive testers, make sure the two hex drive locks on the sides of the fixture shank are snugged before proceeding.
 3. Engage the power tool to the drive of the tester or rundown fixture, then start the tool.
 4. When the rundown is complete or the tool has stopped, release the tool trigger and read the test results on the display.

Care and Cleaning

The tester should only be cleaned with a damp cloth. Do not allow water to enter the unit when cleaning the tester or the area around it.

The tester should be recalibrated periodically. The frequency at which recalibration is needed is dependent upon use rate and service conditions.

Tester Manual

A complete manual for the tester is included in PDF format on the CD supplied with the unit. Also included is Adobe Acrobat Reader for those who may not already possess it.

To install the program or read the manual, follow the instructions on the face of the CD and in the text file on the CD.

If the CD has been lost or misplaced, go to www.srtorque.com or call us at 800/877-1347 to obtain a replacement.

Sturtevant Richmond

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