

## Specifications:

Model	Range	Square Drive	Weight + Bracket
SPT-0501	50.00 in-lb	3/8 inch	2.5 pound
SPT-0502	50.00 ft-lb	3/8 inch	2.7 pound
SPT-1002	100.0 ft-lb	3/8 inch	2.8 pound
SPT-1503	150.0 ft-lb	1/2 inch	3.2 pound
SPT-2503	250.0 ft-lb	1/2 inch	3.2 pound
SPT-4004	400.0 ft-lb	3/4 inch	4.6 pound
SPT-6004	600.0 ft-lb	3/4 inch	4.6 pound

**Display:** 5-digit, alpha-numeric LCD with function and battery indicator icons.

**Accuracy:** within  $\pm 0.5\%$  of Indicated Value of both CW and CCW directions. (10%-100% of Full Scale)

**Calibration:** should performed once a year or every 15,000 cycles which ever comes first.

**Resolution:**  
**Units of measure:** ft-lb, in-lb, Nm

Model	Drive	ft-lb	in-lb	Nm
SPT0501	3/8 inch	0.002 ft-lb	0.03 in-lb	0.003 Nm
SPT0502	3/8 inch	0.02 ft-lb	0.3 in-lb	0.03 Nm
SPT1002	3/8 inch	0.04 ft-lb	0.5 in-lb	0.05 Nm
SPT1503	1/2 inch	0.06 ft-lb	0.8 in-lb	0.09 Nm
SPT2503	1/2 inch	0.10 ft-lb	1.2 in-lb	0.13 Nm
SPT4004	3/4 inch	0.18 ft-lb	1.6 in-lb	0.23 Nm
SPT6004	3/4 inch	0.24 ft-lb	3.0 in-lb	0.30 Nm

### Measurement Modes:

**FIRST PEAK** - 15 seconds display of captured break-away (click) for mechanical preset or adjustable wrench. Percent error displayed on LED indicators:  
**Green**  $< \pm 3\%$  of preset torque value, with **Buzzer**.  
**Yellow**  $\pm 4\%$  of preset torque value.  
**Red**  $> \pm 4\%$  of preset torque value.

**TRACK** - real time digital indication of applied torque for dial, bending beam or electronic wrench testing.

**PEAK** - 15-seconds display of highest torque reached during each application to indicate over-shooting.

### Adjustable TARGET TORQUE: (Track and Peak Mode only)

( Visual, Audible and Tactile Alerts)

**Yellow** LED and buzzer pulse at 80% of target torque. Pulse rate increases as target torque is approached.

**Green** LED and buzzer on continuously when applied torque is within  $\pm 3\%$  tolerance of target torque.

**Red** LED and buzzer on continuously when applied torque exceeds target torque tolerance or wrench full scale.

**Temperature Drift:**  $\pm 0.0015\%/F$   
**Storage Temperature** 0°F to 125°F  
**Operating Temperature** 40°F to 110°F  
**Humidity -** up to 90% non-condensing

### Battery Power:

Rechargeable Li-Ion Polymer cell, 3.7V, up to 350 hours operation per charge. (Charger, 4 - 6 hour, 110 - 240VAC wall block with universal adaptors, supplied, or through PC with USB cable, not supplied)

### Certification:

This device is calibrated at the factory and is certified to meet the International Standards. ISO-6789-2003 & ASME B107-28-2005 standards compliant. Certificate of N.I.S.T. (National Institute of Standards Technology). Traceability from 10% to 100% of full scale.

### Maintenance:

To clean the Tester, wipe with a lightly dampened cloth. DO NOT use: solvents, thinners or engine cleaners. DO NOT immerse in any liquids. It is highly recommended that your Torque Checker be calibrated once a year or every 15,000 cycles; whichever comes first. Contact DTS representatives for repair and calibration services.

### Warranty Service and Recalibration

DTS provides a 1 year warranty that covers any Digital Torque Tester which fails to give satisfactory service due to defective workmanship or materials (excluding calibration) for 12 months from the date of original purchase. Calibration is only covered by this warranty for each new unused Torque Tester out of box. Products must be returned with proof of purchase, freight pre-paid, to the warranty service center listed below. This warranty excludes Torque Tester which have been subjected to abnormal use, accidental damage, neglect, or lack of maintenance. Any modification or disassembly of this Torque Tester or repair by an unauthorized service center will void the warranty. This warranty gives you specific rights. You may also have other rights which vary from state to state. The foregoing obligation is DTS sole liability under this or any implied warranty and under no circumstances shall DTS be liable for any incidental or consequential damages.

**Note:** Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

### For Warranty Service and Recalibration/Certification Services, contact:

#### Digitool Solutions LLC,.

13905 Ramona Ave. Unit #A  
 Chino, CA 91710  
 Phone: (909)591-9581  
 Fax (909) 233-6491  
 Website: digitoolsolutions.com



## TORQUE TESTER & Calibrator

### TRACK, PEAK, FIRST PEAK

Check or Calibration for:  
 Dial type, Bending Beam, Electronic Torque wrench,  
 Click Micrometer torque wrenches. Non Impact Power tools, Nut Runner.

### USER'S GUIDE

For Models  
**SPT0501, SPT0502, SPT1002, SPT1503**  
**SPT2503, SPT4004, SPT6004**

**Accuracy:**  
 $\pm 0.5\%$  CW & CCW from 10% to 100% of F.S.  
 Preset Torque from 5% to 100% of F.S.  
 Display Torque from 4% to 125% of F.S.

**Battery:**  
 Using rechargeable Li-Ion battery.  
 Up to 350 hours operation

**LCD display:**  
 5 digits alphanumeric display easy for instruction

**Power off:**  
 Power OFF is automatic after 4 minutes idle.



# Important Safety Instructions



## WARNING - Risk of flying particles.

- Read this entire Quick Start User's Guide before using the Torque Meter.
- Always follow good professional tool practices.



## Wear Safety goggles.

- Insure that all equipment is in good working order and that ratings of the Torque Meter, tools and drives exceed the torque being applied.
- Never use the Torque Tester with the power off.
- Never initiate ZeroTare with torque applied.
- Check Torque Tester calibration regularly.
- Save these instructions.

# Introduction

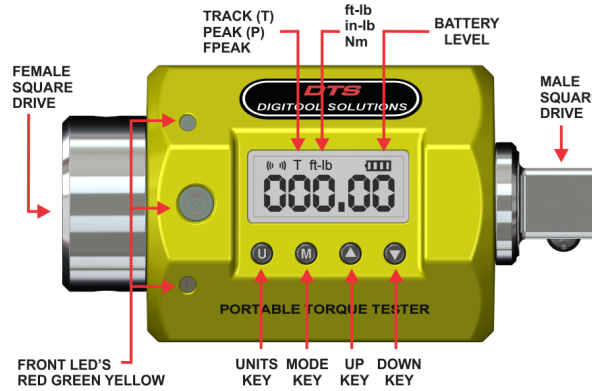
The DTS Torque Tester/Calibrator provides accuracy within  $\pm 0.5\%$  of reading between 10% and 100% of full scale for testing or calibration of most mechanical and electronic torque wrenches. Its accessory mounting bracket, allows fixing the Tester to a bench, a roll cart for portability, or to the wall for convenient torque wrench checking or calibration. It is rugged enough to accept the output torque of non-impacting: power tools or nut-runners.

The DTS Torque Tester features a rechargeable Li-Ion battery for portability and long service life.

The display is user selectable for fl-lb, in-lb or Nm units of measure. Three testing modes are featured:

- **TRACK (T)** mode displays applied torque in real time for testing dial type, bending beam or electronic torque wrenches.
- **PEAK (P)** display mode reports maximum torque applied for dial follower or peak reading electronic wrenches, non-impacting power tools or nut runners. This mode is also useful for training wrench users to avoid over-shooting the preset torque value.
- **FIRST PEAK (no icon)** display mode is used to capture the "click" of mechanical preset or adjustable wrenches. The Checker is programmed to match the preset value on the wrench and a unique LED indication signals the percent error of the click wrench;  
**Green** <  $\pm 3\%$ , **Yellow** :  $\geq \pm 3\%$  & <  $\pm 4\%$ , **RED**  $\geq \pm 4\%$ .

## Front Panel Display and Keypad



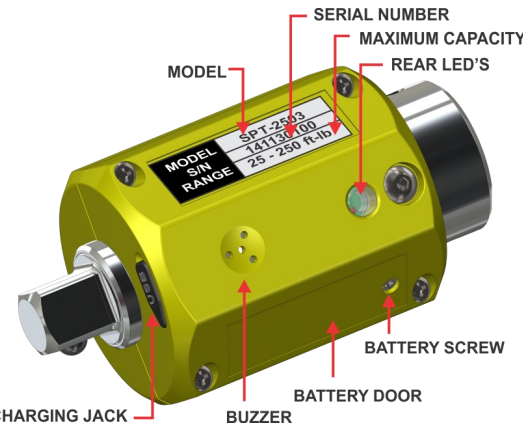
### Keypad Functions:

#### Power ON - U or M key

- U** - Unit Select - ft-lb, in-lb or Nm (With power on, hold 3 seconds for Zero Tare)
- M** - Mode Select - TRACK, PEAK, FIRST PEAK (Hold 3 seconds for manual power off)
- ▲** - Increment TARGET TORQUE value (Press and Hold Key for rapid scrolling Up)
- ▼** - Decrement TARGET TORQUE value (Press and Hold Key for rapid scrolling Down)

**Power OFF is automatic after 4 minutes idle.**

### Rear Panel



### Installation:

- Attach the accessory mount to a sturdy bench, roll-cab or waist high on a wall using the supplied hardware. Insert the Torque Tester Meter male square drive into the female square drive mounting bracket with the display facing up. Secure the Torque Tester meter to the mounting bracket by tightening the hex screw on top of bracket.
- **Insure that the Torque Tester range is equal to or exceeds the range of the equipment to be tested.**
- Refer to the manufacturer's testing or calibration instructions

# Operator Instructions

## 1. Setup:

- With no torque applied, (wrench removed from the Tester) turn on the Torque Tester by momentarily pushing the **M** buttons.
- Momentarily push the **U** key to view the units of measure. Repeatedly push the **U** key to the desired units of measure, ft-lb, in-lb or Nm.
- Momentarily push the **M** key to select the modes:

**TRACK (T)** for dial, bending beam or electronic wrenches.

**PEAK (P)** for dial follower or peak reading electronic wrenches or non-impacting Power tools or nut runners.

**FIRST PEAK ( F.P)** for "click" type preset or adjustable wrenches.

- Momentarily push the **▲** or **▼** key to view the TARGET TORQUE value. Use these same keys to increment or decrement to the desired value. For "click" type wrench testing set the TARGET TORQUE on the meter to the same value as the preset torque on the wrench. For all other wrenches set the TARGET TORQUE to the wrench full-scale value. During loading in TRACK and PEAK modes, the Torque Tester will display applied torque in real time. The yellow LEDs and the buzzer begin pulsing at 80% of TARGET TORQUE, getting faster as the TARGET TORQUE value is approached.



### Re-Order Components :

- Torque Tester Display P/N SPTXXXX
- L-Bracket P/N DTS-L-BK
- Rechargeable Li-Ion Polymer cell P/N DTS-BAT1
- Universal battery charger P/N DTS-CHARGER1
- User's Guide P/N SPT-UG