

Specifications:

Model	Range	Square Drive	Weight
DTS-100F	100.0 ft-lb	3/8 inch	2.2 pound
DTS-250F	250.0 ft-lb	1/2 inch	3.4 pound

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

Accuracy: **Torque:** within $\pm 1\%$ of Indicated Value of both CW and CCW directions. (10%-100% of F.S)
Angle: within $\pm 1^\circ$ when rotating to 90° at the speed rate @ $2^\circ/\text{s}$ to $400^\circ/\text{s}$

Calibration: should be performed once a year or every 15,000 cycles whichever comes first.

Resolution:

Model	Drive	ft-lb	in-lb	Nm
DTS-100F	3/8 inch	0.01 ft-lb	0.2 in-lb	0.02 Nm
DTS-250F	1/2 inch	0.03 ft-lb	0.6 in-lb	0.06 Nm

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

Modes of measure: Track, Peak Hold, Angle

Measurement Modes:

ANGLE- 15 seconds display of peak Angle.

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.

Visual, Audible Alerts:

Yellow LED and buzzer pulse at 80% - 96% of target torque. Pulse rate increases as target torque is approached.

Green LED and buzzer on continuously when applied torque is within 96% - 104% of target torque.

Red LED and buzzer on continuously when applied torque exceeds >104% target torque or wrench full-scale.

Tactile Vibration when applied torque is within $\pm 4\%$ of target torque.

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

Battery Power:

2 AA battery up to 400 hours of continuous operation

Certification:

This device is calibrated at the factory and is certified to meet International Standards. ISO-6789-2003 and 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 wrench, 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 & Angle wrench be calibrated once a year or every 15,000 cycles, whichever comes first. Contact Digitool Solutions representatives for repair and calibration services.

Warranty Service and Recalibration

Digitool Solutions provides a 1 year warranty that covers any Digital Torque & Angle Wrench 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 & Angle Wrench out of box. Products must be returned with proof of purchase, freight prepaid, to the warranty service center listed below.

This warranty excludes Torque & Angle Wrench that have been subjected to abnormal use, accidental damage, neglect, or lack of maintenance. Any modification or disassembly of this Torque & Angle wrench 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 Digitool Solutions sole liability under this or any implied warranty and under no circumstances shall Digitool Solutions 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:

CONTACT INFORMATION

Phone: (909) 591-9581
 Fax: (909) 233-6491

13905 Ramona Ave Unit A
 Chino, CA 91710 USA

TORQUE & ANGLE WRENCH

TRACK, PEAK, ANGLE INDICATOR

For Models
 DTS-100F and DTS-250F

USER'S GUIDE

Ratchet head:

3/8" or 1/2" drive 36 teeth

Accuracy:

Torque. $\pm 1\%$ CW & CCW
 From 10%-100% of Full scale
 Angle. $\pm 1^\circ$ of 90° rotation
 @ speed rate $2^\circ/\text{s}$ - $400^\circ/\text{s}$

Display:

5-digit, alpha-numeric LCD
 With functions, units and battery indicator icons.

Indicators:

LED Green, Yellow and Red
 Buzzer
 Vibrator

Power:

Manual/Auto shut off after
 2 minutes Idle

Battery:

2 AA size Battery Regular Alkaline
 up to 400 hours of continuous operation



**DIGITool
 SOLUTIONS**



REV: Aug 2013

Important Safety Instructions



WARNING - Risk of flying particles.

- Read this entire User's Guide before using the Torque and Angle Meter.
- Always follow good professional tool practices.
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Wear Safety goggles.

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

The DTS Torque and Angle Wrench provides Torque accuracy

Introduction

within ±1% both direction CW and CCW of reading between 10% and 100% of full scale and angle accuracy ±1° of 90° rotation @ speed 2°/s to 400°/s. Further more, by showing torque values to the hundredths of decimal, the wrench gives the most precise and accurate torque that no other wrenches can compare.

The wrench also employs a vibrator, a buzzer, and a 3-color LED. These indicators alert users when torque or angle approaches its preset value.

The wrench requires only two AA batteries and can operate up 400 hours of continuous use.

In addition, the DTS Torque and Angle Wrench features three selectable torque units. They are ft-lb, in-b, and Nm.

Three modes are featured:

- **TRACK** - real time digital indication of applied torque
- **PEAK** - 15-second display of highest torque reached during each application
- **ANGLE** display mode reports maximum Angle applied for 15 second.

Front Panel Display and Keypad

Keypad Functions:

Power ON - U or M key

U - Unit Select - ft-lb, in-lb or Nm

- Clear angle in **ANGLE** mode, display “CLEAR”
- Zero Tare Torque/Angle (hold key 3 seconds)

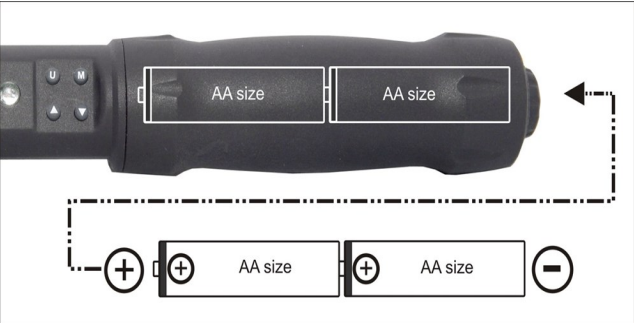
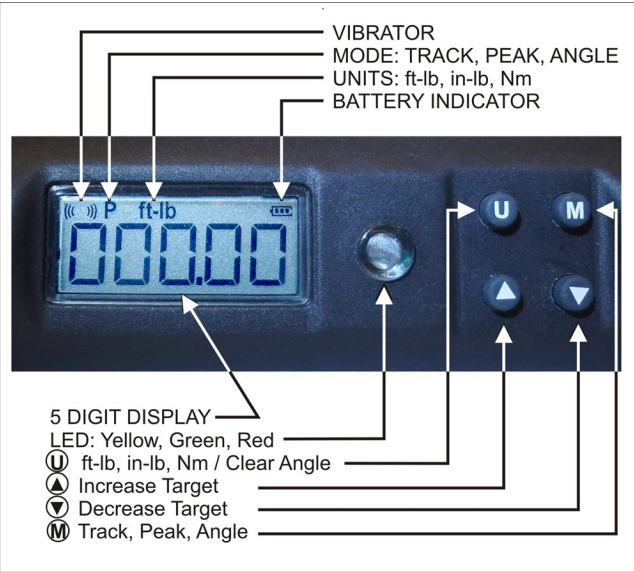
M - Mode Select - TRACK, PEAK, ANGLE

- Manual power off, (hold key 3 seconds)

▲ - Increase TARGET TORQUE / ANGLE value
(Hold for rapid scrolling)

▼ - Decrease TARGET TORQUE / ANGLE value
(Hold for rapid scrolling)

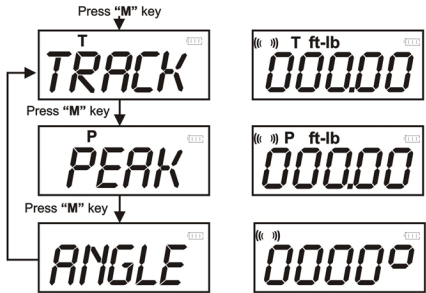
Automatic Power OFF after 2 minutes of idle time.



Operator Instructions

1. Setup:

- Turn on the Torque and Angle wrench by pushing the **U** or **M** buttons.
- Press the **U** key
For **Track** and **Peak** to view the units of measure. Repeatedly push the **U** key to display the desired units of measure, ft-lb, in-lb or Nm.
For **Angle**, pushing the **U** key will clear the Angle to 0°
- Press the **M** key to select the display mode:



- Push the ▲ or ▼ key to view the TARGET TORQUE or ANGLE value. Use these same keys to increase or decrease to the desired value.
During loading in TRACK, PEAK and ANGLE modes, the Torque and Angle wrench will display applied torque or angle in real time. The yellow LED and the buzzer will begin to pulse at 80% of TARGET TORQUE, getting faster as the TARGET TORQUE value is approached.

2. Application:

- With the power on, install the Torque and Angle wrench insert the driver into the socket.
- Apply torque load to the fastener in either CW or CCW directions. During loading, the Torque and Angle wrench will display applied torque in real time.
- When the applied torque is within 4% of the TARGET TORQUE value in TRACK or PEAK modes, the green LED, buzzer and vibrator (optional) will output continuously. Stop applying torque, as the installation is complete.

Release Indications:

Should the applied torque exceed the TARGET TORQUE value by more than 4%, the red LED and buzzer will alert continuously. If the Torque wrench range is exceeded by 125% the display will indicate “OVER TORQUE.”

Re-Order Components :

- Torque Angle wrench
- User 's Guide

P/N DTS-XXXF
P/N DTS-UG-TA4