

Specifications:

| Model | Range | Square Drive | Weight |
|---------|----------------|--------------|-----------|
| TM-502 | 5-50.0 ft-lb | 3/8 inch | 0.6 pound |
| TM-1002 | 10-100.0 ft-lb | 3/8 inch | 0.6 pound |
| TM-1503 | 15-150.0 ft-lb | 1/2 inch | 0.8 pound |
| TM-2503 | 25-250.0 ft-lb | 1/2 inch | 0.8 pound |

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

Accuracy: Within $\pm 1\%$ of Indicated Value of both CW and CCW directions. (10%-100% of F.S)

Calibration: Recommended to be performed (by DTS) once a year or every 15,000 cycles which ever comes first.

Resolution:

| Model | Drive | ft-lb | in-lb | Nm |
|---------|----------|------------|-----------|--------|
| TM-502 | 3/8 inch | 0.01 ft-lb | 0.2 in-lb | 0.0 Nm |
| TM-1002 | 3/8 inch | 0.1 ft-lb | 0.5 in-lb | 0.2 Nm |
| TM-1503 | 1/2 inch | 0.1 ft-lb | 0.5 in-lb | 0.4 Nm |
| TM-2503 | 1/2 inch | 0.2 ft-lb | 0.5 in-lb | 0.6 Nm |
| | | | | |
| | | | | |

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

Modes of measure: Torque Mode

Measurement Modes:

TORQUE - Display torque value in real time when torque is loading and show peak torque when torque is released.

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 alerts 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 $\pm 4\%$ tolerance of target torque.

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

Battery Power:

Using 3 AAA batteries up to 400 hours of 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 Meter, 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 Meter 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 Meter 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 Meter out of box. Products must be returned with proof of purchase—freight prepaid—to the warranty service center listed below.

This warranty excludes Torque Meters which have been subjected to abnormal use, accidental damage, neglect, or lack of maintenance. Any modification or disassembly of this Torque meter, 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:

Digitool Solutions LLC.,

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



DIGITOOOL SOLUTIONS
 Professional Torque Products

USER'S GUIDE

TORQUE METER

For Models
 TM-502, TM-1002, TM-1503, TM-2503

Accuracy:

Torque. $\pm 2\%$ CW & CCW of 10%-100% of Full scale

Battery:

Up to 400 hours operation

Display:

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

Power off:

Auto shut off after 2 minutes idle



Important Safety Instructions



- **WARNING** - Risk of flying particles.
- Read this entire 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 Meter with the power off.
- Never initiate ZeroTare with torque applied.
- Save these instructions.

Introduction

The DTS Torque Meter provides Torque accuracy within $\pm 2\%$ both directions CW and CCW of reading between 5% and 100% of full scale. It is rugged enough to accept the output torque of non-impacting: power tools, nut-runners or robotic spindles. It may be used as an adaptor between any square drive hand tool, such as a ratchet wrench or breaker bar, and common fastener drive sockets

Because the Torque Meter is entirely self-contained, there is no wrap up of interconnecting cables during use.

It features a rechargeable Li-Ion battery for long service life and the display is user selectable for ft-lb, in-lb or Nm units of measure. One mode is featured:

- **TORQUE** - Display torque value in real time when torque is loading and show peak torque when torque is released.

Front Panel Display and Keypad

Keypad Functions:

Power ON - M key

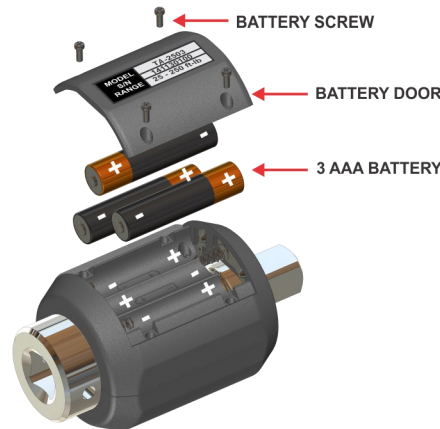
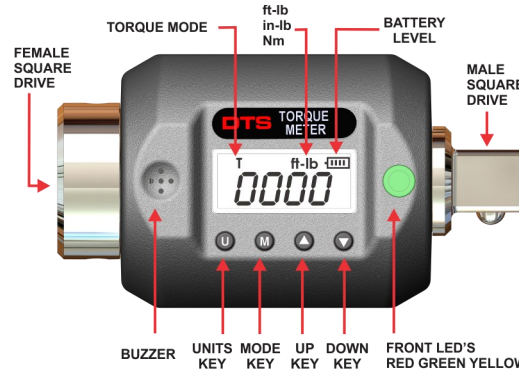
U - Unit Select - ft-lb, in-lb or Nm
 - Zero Tare Torque (Press and hold key 3 seconds)

M - Power ON/OFF
 - Manual power off, (Press and hold key 3 seconds)

▲ - Increase TARGET TORQUE value
 (Press and Hold for rapid scrolling Up)

▼ - Decrease TARGET TORQUE value
 (Press and Hold for rapid scrolling Down)

Powers OFF is automatic after 5 minutes of idle time.



Rear Panel battery replace

Operator Instructions

1. Setup:

- Power ON** the Torque Meter by pushing the **M** key.
Power OFF Push and hold the **M** key for more than 3 sec
- Push the **U** key (Select Engineering Units)
 Repeatedly push the **U** key to display the desired units of measure, **ft-lb, in-lb or Nm.**

Push the **▲** or **▼** key to view the TARGET TORQUE. Use these same keys to increase or decrease to the desired value.

During loading in PEAK modes, the Torque Meter will display applied torque in real time.

2. Application:

- With the power on, install the Torque Meter between the driver and the socket.
- Apply torque load to the fastener in either CW or CCW directions. During loading, the Torque Meter will display applied torque in real time.
- When the applied torque is within 4% of the TARGET TORQUE value in PEAK modes, the green LED, buzzer and vibrator (optional) will alert 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 Meter range is exceeded by 125% the display will indicate "OVER TORQUE."

Box Includes :

- Torque Meter
- User 's Guide

P/N TM-XXXX
 P/N DTS-UG-TA