TOKii®

Intelligent torque meter tester

User's manual

05C

Operation manual No. ET— C006

Contents

About DTM Series Torque Meter

DTM series torque tester is designed and manufactured for a variety of torque an intelligent measurement tester. Mainly used for measuring and testing a variety of electric screwdriver, pneumatic size screwdriver, torque screwdriver and torque wrench torque; correcting electric screwdriver, pneumatic screwdrivers, torque screwdrivers and torque wrenches, torque cap torque to conform need; you can also measure the torque of other tools, such as: a variety of fixtures. The torque meter simple operation, high accuracy, full-featured, easy to carry, suitable for a variety of industrial products and service enterprises.

The main function

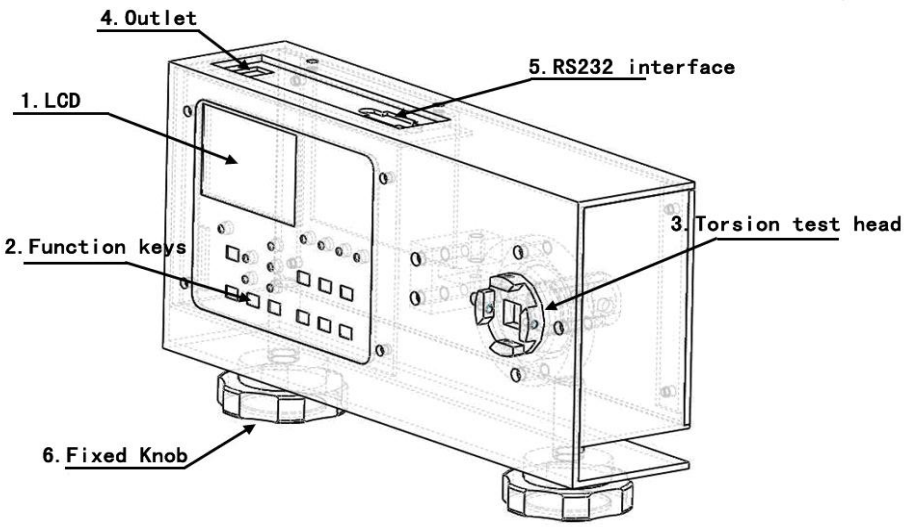
1, torque orientation.
2, automatic alarm settings.
3, can be stored and printed 10 test data.
4, automatic calculation of the average of the data stored.
5, can easily switch between Kgf.Cm, Lbf.in, Nm.
6, with peak hold function.
7 shows exactly lithium battery.
8,1-60 minutes adjustable-free operation of automatic shutdown of the power design.
9, green high-capacity lithium battery (1800 mA.h), safety automatic charge control.
10, a touch of a button, durable, reliable, easy to operate.
11, can be connected to the computer and displayed in real time the force value curve.

Performance

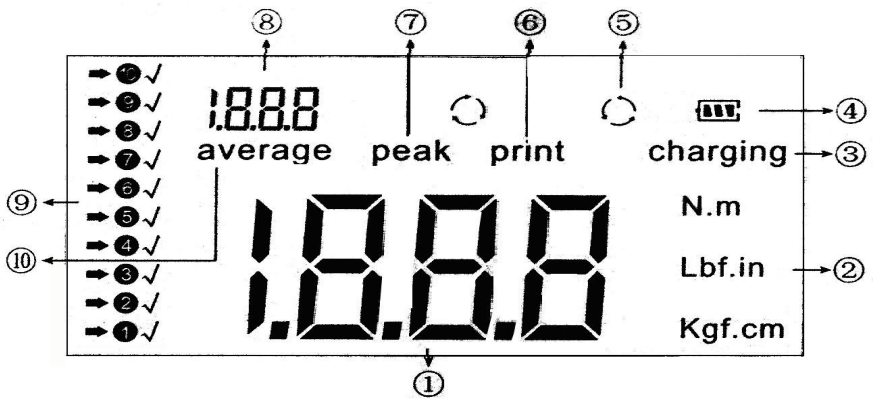
Type / Parameters	DTM-10	DTM-20	DTM-50	DTM-100	DTM-200
Measuring range （ Unit ）					
KGf.cm	0.05-10.00	0.5-20.0	0.5-50.0	0.5-100.0	1-200
N.m	0.004-1.000	0.04-2.00	0.04-5.00	0.04-10.00	0.1-20.0
Lbf.in	0.05-9.00	0.5-18.0	0.5-45.0	0.5-90.0	1-180
Accuracy	±1%				
Sampling rate	1000HZ				
Power supply	Lithium Battery：7.4V				
Charging time	>8 hours				
Full power continuous use	45 hours				
Battery Life	≥500 tims				
Size	1 20mm x 230rnm x 50mm				
Weight	3KG				
Charger	Input:AC 100-240V 50HZ				
Operating temperature：-10℃一 40℃ Operating Humidity： 35%RH 一 65%RH					

Type / Parameters	DTM-250	DTM-300	DTM-500	DTM-1000	DTM-2000
Measuring range （ Unit ）					
KGf.cm	1-250	1-300	2-500	5-1000	5-2000
N.m	0.1-25.0	0.1-30.0	0.2-50.0	0.4-100.0	0.4-200.0
Lbf.in	1-225	1-270	2-450	5-900	5-1800
Accuracy	±2%				
Sampling rate	1000HZ				
Power supply	Lithium Battery：7.4V				
Charging time	>8 hours				
Full power continuous use	45 hours				
Battery Life	≥500 tims				
Size	1 20mm x 230rnm x 50mm				
Weight	3KG				
Charger	Input:AC 100-240V 50HZ				
Operating temperature：-10℃一 40℃ Operating Humidity： 35%RH 一 65%RH					

Part names and functions



1 LCD



①Torque size numeric display

②Torque unit display

Choose Kgf.cm, Lbf.in, Nm torque three different units, is able to convert according to the needs of users between the three units.

③Battery charging indicator: When the battery charge will show CHARGING; when the battery is fully charged, it will automatically stop charging, CHARGING display off.

④Battery display: When the battery is low battery charge indicator will flash.

⑤Directional torque:

Clockwise display ;Counterclockwise display 。

⑥Printing Instructions: Print data storage instructions.

⑦Peak indication: for maximum torque reading lock.

⑧Vice display area: used to store data and store the mean torque value indication.

⑨Torque value stored in the display area: ❶❷❸❹❺❻❼❽❾❿A total of 10 cells, each cell can store a torque measurement;: indicates that the grid is currently stored and read grid; √: indicates that the cell has been stored torque measurements.

⑩Average of instructions: store data automatically calculate the average of instruction AVERAGE.

2、Function keys

1) Display: The main display area.

2) [POWER] switch key: for the system on and off.

3) [RESET] clears key: Each time you use this key to be cleared, ready for testing.

4) fixing bolts: for fastening torque meter test bench.

5) [CLR] Delete key: All data is stored when the key is valid, press to delete the store.

6) [MEMORY] key store:

Torque values for storage and store data automatically calculate averages, press this key after "AVERAGE" in the display disappears into the store show the torque value of the state, then press [CLR] key to clear all the data storage unit, in order to avoid An error occurred while calculating the average. Press this button to exit the store torque value of the state, and automatically calculates the mean, "AVERAGE" shows the average value is displayed in the sub display area.

7) [▲]UP KEY:

A, the torque value stored in the state (AVERAGE disappear), plus one button press, the symbol will jump forward one space. If the grid right there √ symbol indicates that the stored data grid, vice display will show the value of the storage location, to continue testing the stored data will automatically overwrite the original, and the new torque value stored into that position; if the grid √ no sign on the right, it means that the cell is blank, the torque value of the new test will be deposited into the grid.

B, in the automatic alarm state, press the plus one button, the alarm value will be incremented by one. Press and hold the data can be continuously increasing.

C, during unmanned automatic shutdown settings, press the plus one button, one minute off time will increase, added 60 minutes after returning to 0 minutes.

1) torque test connector: For testing the first batch.

9)[▼]DOWN KEY：

A, the torque value stored in the state (AVERAGE disappear), minus one key press, the symbol will jump back one space. If the grid right there √ symbol indicates that the cells have been stored torque value, vice display will show the value of the grid, and continue to test the value of the position will be automatically overwritten, and the torque value of the new test deposit into the grid ; if the cell to the right of no √ symbol, it means that the cell is blank, the torque value of the new test will be deposited into the grid.

B, in the automatic alarm, press minus one key, the alarm value will be reduced by one. Press and hold the data can be reduced in a row.

C, during unmanned automatic shutdown settings, press the minus one key off time will be reduced by one minute, reduced to 0 minutes to 60 minutes after returning.

10)[SET] Parameter setting key：

A. unmanned automatic shutdown time settings: first press SET key to display the sub-display area [SE.1] on the keypad [P.ON] lit, press the up / down keys unmanned automatic shutdown time to set the size.

B. alarm limit settings: Press the second SET key to display the sub-display area [SE.2] on the keypad [Min] lit, press the up / down keys to set the alarm limit value, when the torque value is less than When the value of this setting, the trigger button panel [Min] lights flashing alarm.

C. Comparison of value: Press the third SET key to display the sub-display area [SE.3] on the keypad [Ave] lit, press the up / down keys to set the alarm limit value, when the torque is greater than this When the value is set to trigger on the keypad [Ave] lights flashing alarm.

D. alarm limit values set: Press the SET button on the fourth sub display area [SE.4] on the keypad [Max] lit, press the up / down keys to set the alarm limit value, when the torque value is greater than When the value of this setting, the trigger button panel [Max] lights flashing alarm.

E. gravitational setting: Press the SET button fifth vice display area [SE.5], press the up / down keys to set the value of the acceleration of gravity.

11) [PRINT] key printout: Torque values stored in the state (on the screen when not significant AVERAGE), press the Print button, you can print the stored data.

12) [UNIT] key unit conversion:Click the convert units, in this order conversion: Kgf.cm-Lbf.in-Nm.

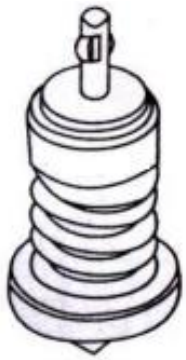
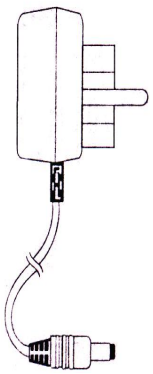
13) [MODE] Peak / tracking mode keys:Press this button and the track will be converted at the peak of two states.

14) [RESET]& [MODE] key combination to restore the factory settings:

Hold down the [RESET] key is not to relax, press [POWER] key to boot, that is to achieve the parameters of the device to factory settings.

Fitting

①、Buffer

Buffer	Charger
	

② Charger：

Input: AC 110-240V-50HZ

③ Micro-printer: 8 dots / mm, 384 dots / line, serial communication (optional)。

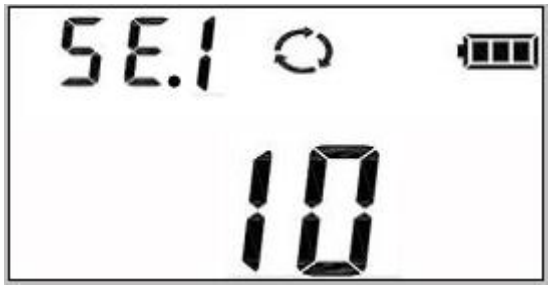
④ RS232 cable (with a computer program, optional)

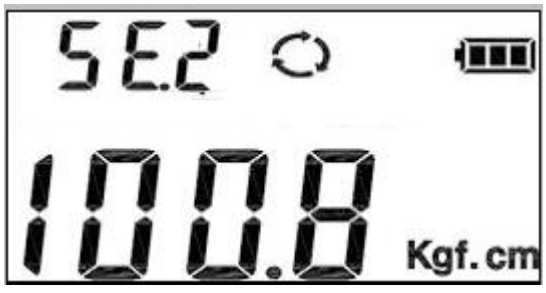
The basic function uses the example

（一）、To stand up, with a fixed knob fixed tester. According to the test to select the appropriate buffer, the buffer is fixed torque test head; For other than when the rotation torque screwdriver test tools or other items, you can choose other appropriate adapter.

（二）、Press the POWER button to turn, confirm the tester has enough power, if the battery level indicator is flashing, indicating low battery, charging time required more than two hours, so as not to automatically shut down during the test; display zero torque value at this time, if the display torque reading is not zero, press [RESET] key is cleared, the torque value to zero.

（三）、When the interface is properly displayed, press UINT key, transferred Kgf.cm (kg) or N (Newton) instructions. Press the SET button, the screen shown in Figure 1, the sub display area for [SE.1], keypad [P.ON] lights when entering unattended operating system shutdown time setting, press the up and down keys to adjust the value 0- 60 (minutes) adjustable, the default is 10 minutes. Press the SET button, as shown in two display as [SE.2], this time into the alarm limit settings, press the arrow keys to adjust the alarm limit. Continue to press the SET button to compare value, the alarm upper limit, gravitational acceleration settings.





1 2

If you need to measure the peak, press the MODE key to make the indicator refers to PEAK at that peak test status, if the display is not zero, press RESET to zero, ready for testing.

Test applied torque, the screen displays the test peak (When this value reaches the alarm value, it will send an alarm), the test is completed, press RESET to zero, waiting for the next test.

Averaging (continuous measuring 10 the peak average value)

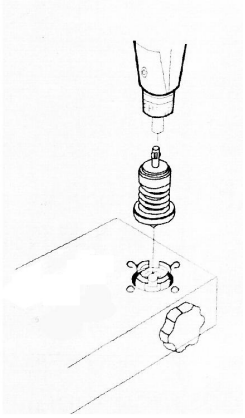
(1) According to the above steps 1-5.

(2) Then press the MEMORY button, AVERAGE disappear on the screen, enter the storage mode, press the CLR key to clear the storage unit.

(3) After testing the torque peak, press the RESET button to zero, the current peak is automatically saved, the screen displays the first left marked " √ ", followed by repetition, measured 10 data, press the arrow keys to view the stored force values.

(4) Then press the MEMORY button, then the sub display area (above) is the average of the measured data of 10, according to CLR cleared.

After use, remove the bumper or adapter, turn off the power, a good place.



torque test installation

Torque screwdriver test steps

l、First bumper mounted torsion torque tester test head, and then approved Tsui screwdriver stuck in the buffer head .

2, the switch screwdriver according to REV, reverse rotation force, the spring buffer to relax a little bit.

3. Press the zero key, so that the LCD display to zero.

4. Press the switch screwdriver to FOR, start screwdriver, screwdrivers automatically stop until until the (continuously by two to three times).

5, when the screwdriver stops rotating torque value displayed on the LCD screen is a screwdriver torque output. Repeat the above operation 2-5, can verify

that the output torque screwdriver and loosen or tighten the adjusting nut torque screwdrivers, torque screwdrivers make use compliance needs.

Buffer installation, inspection

1 Install buffers

According to the need to test and choose the bearing and spring, then rotate counterclockwise, install the spring (Figure 4)

2 Check the buffer

A, prior to use to check the buffer, gathering dust, grease, or lack of bearing wear seriously affect the accuracy of the torque test。

B Regularly check bearing buffer, long-term repeated use buffer, the buffer will bearing wear, resulting in a buffer is not smooth rotation, and ultimately affect the accuracy of the torque testing.

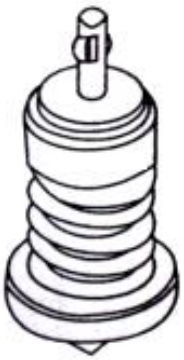
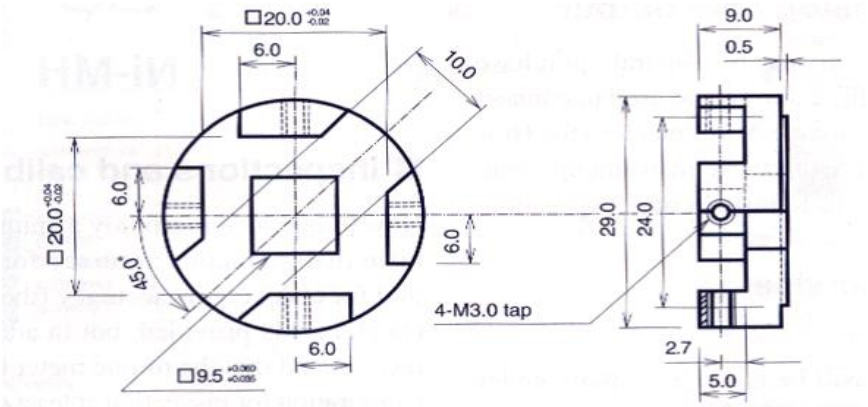


Figure 4

Torque test head size

Here is the size chart torque test head:



Precautions

1. Do not overload torque test, be sure to test the range of the torque tester

Test torque, otherwise, would permanently damage the sensor torque tester, a serious danger.

2 Do not knock or place objects on the LCD screen, to prevent damage to the LCD screen.

3. Do not use nails, sharp or pointed objects pressing the function key; but can not loosen the screws torque test head.

4. Do not use a torque tester in water, oil or other liquids spilled place to be

The torque tester stored in a cool, dry place and no vibration, in order to ensure the stability and accuracy of the test data.

5. Do not open the device, easily adjust non-electrical components inside the device.

6, the device is a precision calibration equipment should be in use and handling gently.

☆**Storage and average calculation:**

1. 【Turn on the power 】->into the 【PEAK】 mode-> press 【MEMORY】 key to enter the storage mode -> start the test (writhing test head and then press the zero key on the left display repeated several times to observe 1-10 store to properly store the data, if the data is stored to the correct number after there will be " √ " appears when the store several sets of data after press【MEMORY】key to exit the storage mode and automatically calculate the average of press again to get the required data after 【MEMORY】 key when there is an arrow in front of store numbers can press 【CLR】Clear)