Mini Digital Torque Wrench

Instruction Manual

1. Overview

1.Overview

MINI-Digital Display Torque

Wrench have a mini style viewing screen, the wrench's size is small and exquisite, it is suitable for use in narrow spaces. And it has a wealth of functions, including:

1.1. Set Torque.

1.2. Set Unit. (N.m, kgf.cm, lbf. ft, lbf.in)

1.3. Save Data.

1.4. Delete Data.

1.5. Export Data.

1.6. Calibration Functions etc.

User-friendly control, the digital display reduces the difficulty of the operation and the requirements of user. Suitable for automobile industry, machinery industry etc. Easy to use for fastening and controlling bolts.

2. Features

2.1 Large Screen Display, Backlight Function;

2.2 Precision: Clockwise ±2%, Counterclockwise ±2.5% (The total range of 20% ~ 100%);

2.3 Buzzer and LED Light will be started when predetermined torque value is reached (Only in Peak Mode);

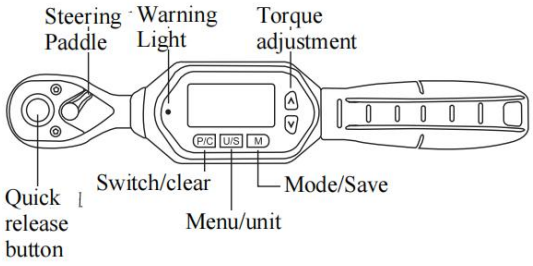
2.4 Four types of engineering units (N.m, kgf.cm, lbf.ft , lbf.in);

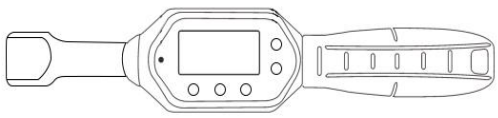
2.5 Three Measuring Modes: Real-Time Mode, Peak Mode, Preset Mode;

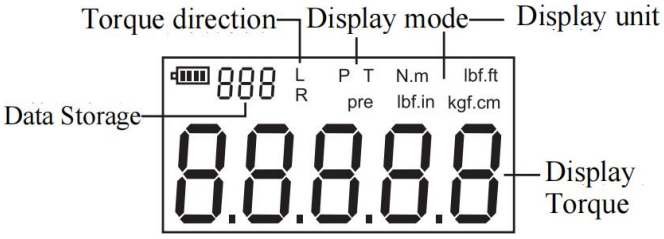
2.6 Switch itself off after 3 minutes automatically.

2.7 999 sets of record data can be saved;

3. Function and name of each component







4. Precautions before using the wrench

4.1 Press the P/C button to turn on the wrench power and check the battery power. If the system detects that the battery voltage is lower than 2.2V, the wrench will cut off the power and shut down automatically.

4.2 After the power is turned on, please press the P/C button to reset it once before use, so that the wrench can avoid deviations in the value during measurement.

4.3MINI-Replaceable Head Digital Display Torque's ratchet head uses standard values by defaul

5. Product technical specifications

*: Please refer to the remarks at the back of the form

Ordinary Model	10	30
Replaceable Head Model	0.001	0.01
Maximum operating range (N.m)	10N.m/7. 37ft.lb/88.50in.lb /101.97 kgf.cm	30N.m/22 .12ft.lb/265.5in.lb/ 305.91 kgf.cm
Connector (inches)	1/4	
Buzzer Setting range (N.m)	0.3-10	0.9-30
Length (mm)	235	
Accuracy*1	Clockwise: ±2% Counterclockwise: ±2.5%	
Data storage capacity	999	
Operation mode	Peak mode (P) Real-time mode (T) Preset value mode (Pre)	
Unit	N.m, kgf.cm, Ibf.ft, Ibf.in	
Ratchet head form	Bothway ratchet head	
Number of ratchet teeth	72 teeth	
Number of buttons	5	
Battery	2 7# batteries	
Operating temperature	T0°C~60°C	
storage temperature	-20°C~70°C	
Drop test height	1 meter	
Vibration test conditions	10G	
Life test*2	10000 times	

Model	60	100
Minimum graduation value	0.01	0.1
Maximum operating range (N.m)	60N.m/4 4.25ft.lb/531.04in. lb/611.82 kgf.cm	100N.m/73 .7ft.lb/885 .Oin.lb/101 9.7kgf.cm
Connector (inches)	3/8	1/2
Buzzer Setting range (N.m)	1.8~60	3~100
Length (mm)	245	290
Accuracy*1	Clockwise: ±2% Counterclockwise: ±2.5%	
Data storage capacity	999	
Operation mode	Peak mode (P) Real-time mode (T) Preset value mode (Pre)	
Unit	N.m, kgf.cm, Ibf.ft, Ibf.in	
Ratchet head form	Two-way ratchet head	
Number of ratchet teeth	72 teeth	
Number of buttons	5	
Battery	2 7# batteries	
Operating temperature	-10°C~60°C	
Storage temperature	-20°C~70"C	
Drop test height	1 meter	
Vibration test conditions	10G	
Life test*2	10000 times	

Notice:

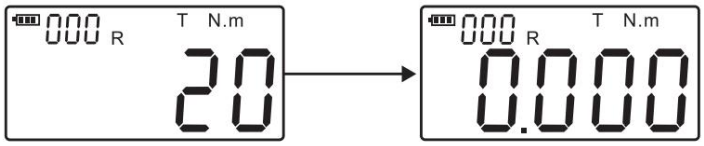
*1. The accuracy guarantee range is 20% to 100% of the maximum operating value. The torque accuracy is the normal value. The calibration accuracy takes the middle groove of the five grooves on the handle as the calibration point. To ensure accuracy, it is recommended to calibrate it once a year.

*2. "Once" means that the wrench is applied from 0 N.m to the maximum operating setting value of the wrench, and then back to 0 N.m.

6. Instructions

6.1 Boot

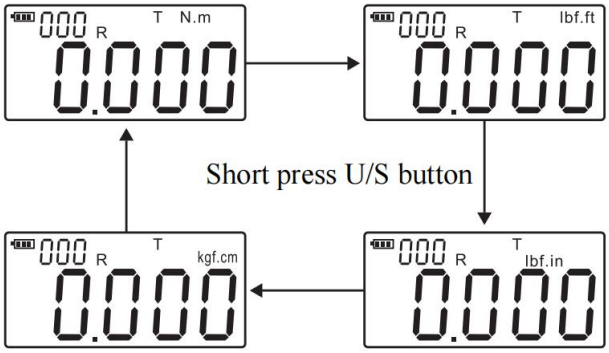
Press the P/C button lightly to turn on the device. If the battery is insufficient after the device is turned on, it will automatically shut down and it can be used normally after replacing the battery.



Range Display　　Range Interface

6.2 Unit switching

In the power-on state, when the user interface is not the setting interface, press the U/S button to switch between the four engineering units.



6.3 Measurement mode conversion

In the power-on state with no power, press the M button to switch modes.

A. Real-time mode

Real-time measurement mode: The torque value will display the current value in real time as the applied torque changes. When the torque is unloaded, the torque value will automatically return to zero. The “T” character displayed on the screen is the real-time mode.

B. Peak mode

The force applied by the wrench will increase from the minimum measured value gradually. When the force is continuously applied, the on-screen torque value will always display the maximum torque value when the user applies a different magnitude of force; when the user unloads the force, the on-screen display will record and lock the maximum torque value during the force application process, which is the peak torque. And this value will be flashing. Press the P/C button to clear the peak torque. Maybe, if it needs to be measured again, the user can reload the applied force to update the locked peak torque without clearing and resetting directly.

C. Preset value mode

First, set an ideal preset torque value through the /\ or V button, and then press the U/S button lightly to save and return to the measurement interface. The force applied by the wrench will increase from the minimum measured value gradually. When a force is applied, the on-screen torque value will change as the user applies different forces; the reading will increase with the increase of the force, and decrease with the decrease of the force. When the user unloads the force, the on-screen display will return to 0. The “Pre” character displayed on the screen is the preset mode.

6.4 Sound and light alarm function

This function is only available in peak mode and preset value mode. Use /\ or V button to set a warning target value early. After setting, tap the U/S button to save and return to the measurement interface. When the torque value reaches 80% of the pre-warning target value during the measurement, the buzzer will sound intermittently, and the indicator light will also flash to warn. When the torque value continues to increase, the audible and visual alarm will have a gradual to rapid change process, and when the torque value reaches 100% of the pre-warning target value, the buzzer will beep and the indicator will be ON. (Buzzer and backlight must be ON)

6.5 Data storage

During the measurement process, once the torque value is generated, save the current torque value by pressing the M button lightly. At this time, the character “Sure” will appear on the display, indicating that the torque value has been saved successfully. The three digits in the upper left corner of the display screen will display the number of data currently which saved in real time.

6.6 Data View

In the power-on state, long press the M button to view the saved data. In the data view interface, you can use the /\ or V buttons to view each group of saved data. When the viewing is finished, just tap the M button to exit.

6.7 Data deletion

In the data viewing interface, press the U/S button lightly to select the mode of deleting data, ″ALL” means that all saved data will be deleted at one time, “ONE” means that the saved data will be deleted one by one starting from the last set of data (It is not feasible to select to delete, the error code of "DEL" character will pop up, you need to press the M button to exit this interface and operate again). After selecting, tap the P/C button to delete the data.

6.8 Buzzer settings

In the power-on state, long press the U/S button to enter the menu options, then press the U/S button lightly to select the "BUZZ" option, and then press the /\ button lightly to select whether to turn on the buzzer. If the buzzer is turned on, select the "1" character; if not, select the "0" character. After the selection is completed, finally press the P/C button to save and exit the menu with one button.

6.9 Backlight function setting

In the working state, once there is torque output, the display will light up automatically, making it easier to observe the data.

In the power-on state, long press the U/S button to enter the menu options, then press the U/S button lightly to select the “LTON” option, and then press the /\ button lightly to select whether to turn on the backlight function. If the backlight function is turned on, select the "1" character; if not, select the "0" character. After the selection is completed, press the P/C button lightly to save and exit the menu with one button.

6.11 Restore factory settings

The user can use this function to restore the wrench to the factory default initialization.

In the power-on state, long press the U/S button to enter the menu options, then press the U/S button lightly to select the "RSET" option, and then press the A button lightly to select the number 1 or 0 character. To restore the factory settings, after selecting the "1" character, press the U/S button lightly to return to the measurement interface automatically. At this time, the wrench has been restored to the factory settings. If it is not restored, after selecting the "0" character, press the P/C button lightly to exit the menu with one button.

Warning:

When the torque exceeds 120% of the full scale, the screen will display the "OLOAD" character. At this time, the wrench is in a suspended state. Please remove the torque first, and then press the P/C button to restore the wrench.

(In case of unrecoverable situation, please contact the manufacturer for after-sales service in time)

Do not use a wrench over the range, that is, the torque value exceeds 120% of the full range. Long-term over-range may cause damage to the wrench or loss of accuracy.

7. Maintenance and storage

7.1 Calibration cycle, need to be re-calibrated once a year.

7.2 Do not shake the wrench violently, drop it on the ground or use it as a hammer to strike at will.

7.3 When the battery power is insufficient, please replace the battery in time.

7.4 Do not place the wrench in high temperature, high humidity or direct sunlight.

7.5 Do not use wrenches near water.

7.6 If the wrench gets wet accidentally, please wipe it with a dry towel immediately.

7.7 Do not use organic solvents to clean the wrench, such as alcohol or paint thinner.

7.8 Do not put the wrench close to magnetic objects.

7.9 Do not place the wrench in dusty or sandy places, as this will cause serious damage to the wrench.

7.10 Do not put too much pressure on the LCD screen.

8. List of attached accessories

No.	Name	Qty
1	Mini digital torque wrench	1 pcs
2	7#Battery	2 pcs
3	manual	1 pcs
4	Certificate of conformity	1 pcs
5	Warranty Card	1 pcs
6	Desiccant	1 bag