Digital torque wrench user manual

◆ Summary

1.1 Main usage& application

Digital torque wrench is different from general torque wrench,it has strong operation function including torque setting,time setting ,mode setting ,data storage,data clear,data output and user calibration function. It is easy to operate, it reduce the requirements for the operator by install the digital display. It is widely used for the automotive industry,machinery industry,such as bolt fastening and control.

1.2 Features

1.2.1 Digital torsional readings

1.2.2 Accuracy +/-2（range 20~100%）

1.2.3 Clockwise and counterclockwise both operated

1.2.4 Peak hold and real-time mode

1.2.5 Buzzer and LED indication（reach preset torque value）

1.2.6 Four units（ft-lb、in-lb、N-m、kgf.cm）

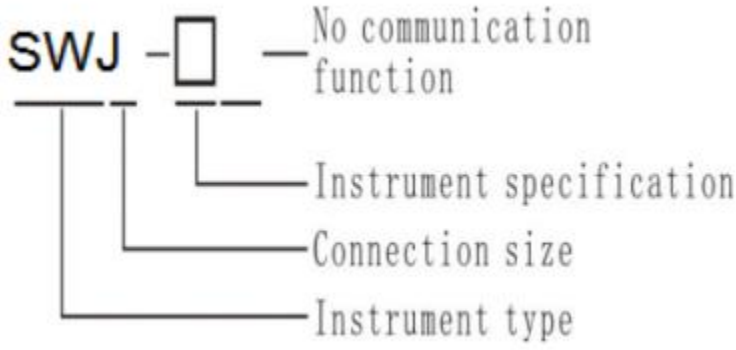
1.2.7 100 records can be stored

1.2.8 Communication function

1.2.9 Auto-shut down within 5 minutes

1.3 Model selection guide

Model：



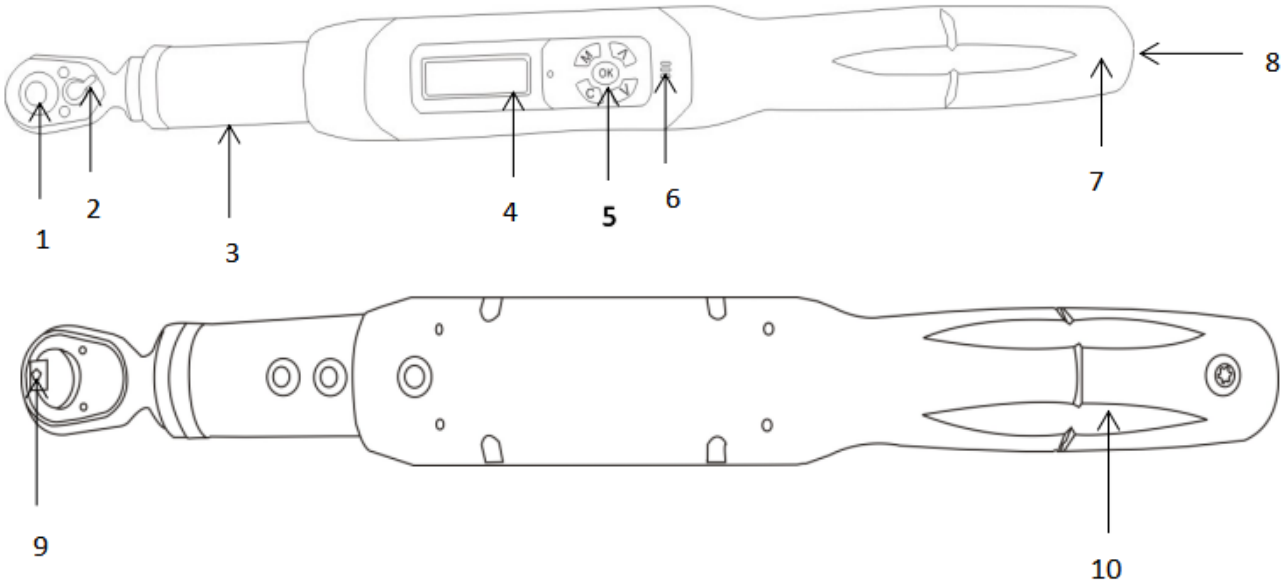
①

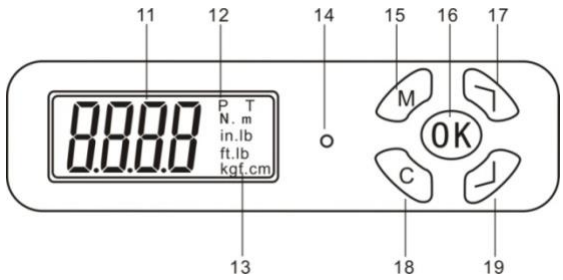
Accuracy
±2% clockwise / ±2.5%-counterclockwise

②

Communication	
N	No
R	Yes

◆ Each component function and name





1、double-sided ratchet head

2、direction paddle

3、communication hole

4、LCD screen

5、button

6、buzzer

11、torque value

12、P（peak mode）、T（Real-time mode）

13、Unit（N.m、in.lb、ft.lb、kgf.cm）

14、LED indicator

15、menu button

16、Ok button

7、battery case

8、battery cover

9、ratchet torque square head

10、Handle

17、up button

18、cancle button

19、down button

◆ Specifications

Model		SWJ2-010	SWJ2-030	SWJ3-030	SWJ3-060	SWJ3-085	SWJ3-135	SWJ4-135	SWJ4-200	SWJ4-340	SWJ6-500	SWJ6-850
	communication	SNB2-010R	SNB2-030R	SNB3-030R	SNB3-060R	SNB3-085R	SNB3-135R	SNB4-135R	SNB4-200R	SNB4-340R	SNB6-500R	SNB6-850R
Min. Resolution		0.01					0.1					
Max. Operation Range（N.m）		10N.m/7.37ft.lb/88.50in.lb/101.97kgf.cm	30N.m/22.12ft.lb/265.5in.lb/305.91kgf.cm	30N.m/22.12ft.lb/265.5in.lb/305.91kgf.cm	60N.m/44.25ft.lb/531.04in.lb/611.82kgf.cm	85N.m/62.69ft.lb/752.31in.lb/866.75kgf.cm	135N.m/99.57ft.lb/1195in.lb/1376.61kgf.cm	135N.m/99.57ft.lb/1195in.lb/1376.61kgf.cm	200N.m/147.5ft.lb/1770in.lb/2039.43kgf.cm	340N.m/250ft.lb/3009in.lb/3467.03kgf.cm	500N.m/4424in.lb/368.7ft.lb/5098.58kgf.cm	850N.m/7521in.lb/626.8ft.ln/8667.58kgf.cm
Square Drive（inches）		1/4		3/8				1/2			3/4	
Measured Torque Range（N.m）		0.5~10	1.5~30	1.5~30	2~60	4.25~85	6.75~135	6.75~135	10~200	17~340	25~500	42.5~850
Length		390		420				535		655	950	1220
Accuracy		Clockwise：±2% counterclockwise：±2.5%									Clockwise：±2.5% counterclockwise：±3.5%	
Data storage capacity		100										
Operation mode		Peak hold mode（P）/Real-time mode（T）										
Unit		N.m、in.lb、ft.lb、kgf.cm										

Ratchet head type	Double-side ratchet head	
Number of ratchet gear	45	24
Button	5	
Battery	AA battery × 2 1.5V （No. 5 battery）	
Operation temperature	-10℃~60℃	
Storage temperature	-20℃~70℃	
humidity	No condensation to 90%	
Drop test height	1 meter	
Vibration test condition	10G	
Life time test	10000 times	

Note：

*1 when you use the torque wrench within the 10% to 100% of the whole range ,we can ensure the accuracy .Torque accuracy is normal value. To make sure accuracy ,we suggest to make calibration once a year.

*2 To use a special transmission line to transfer data to computer.

*3 Life testing including level and vertical test.

*4 “Once” means put force from 0 N.m to max. Force and then return back to 0N.m.

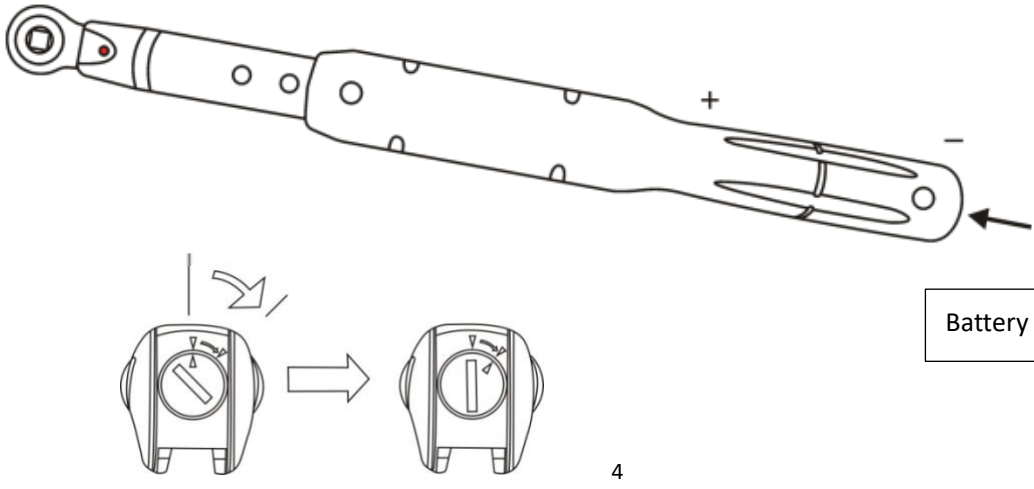
◆ Attention before using the torque wrench

4.1 Put into the battery

4.1.1 Put out the battery cover

4.1.2 Put two pcs No. 5 battery into the battery case ,please notice the positive and negative direction

4.1.3 Cover the battery cover ,and then rotate the battery cover to the place show belows:



Battery and battery cover

4.2 turn on the power and reset

4.2.1 Press “C“ to turn on the wrench power

4.2.2 After power on ,before using ,press “C” to reset the wrench

Notice：

① If has a force applied on the wrench before turning on the power, turn on /after resetting, it will have a offset value show on the screen.

② “N.m”and“T”are loaded from EEPROM. Once the user change the unit or mode ,it will always exist on EEPROM.

4.3 Wake up wrench during sleep state

4.3.1 For save power, if no operation within 5 minutes, the wrench will into sleep statement , press “C” to wake up it.

Cautions：During communication period (send appears),the sleep function is disabled

4.4 Reset the wrench

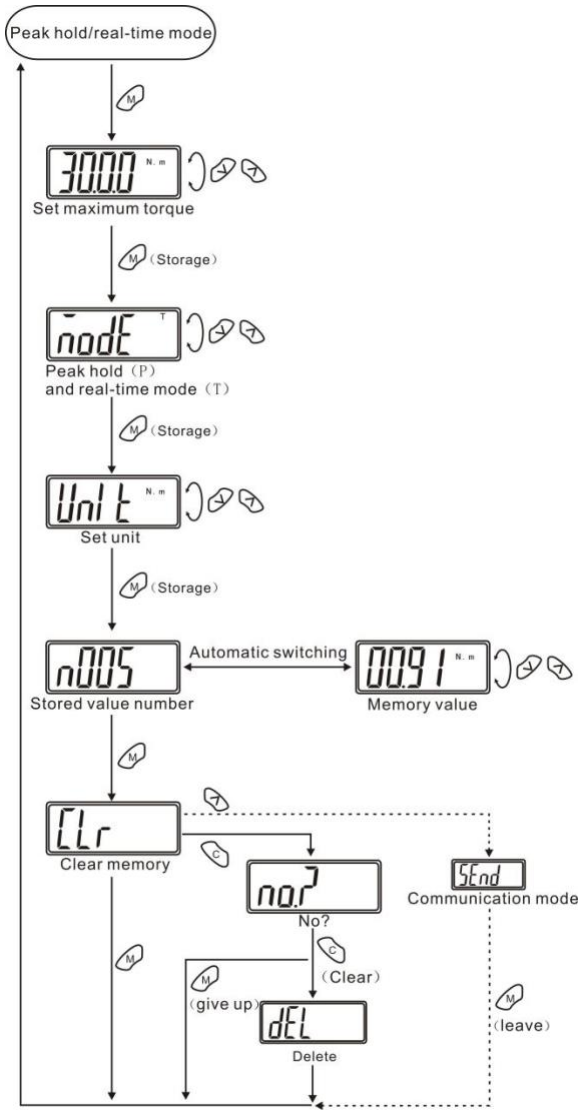
4.4.1 Press “C” and “ ” together will reset the wrench.

4.4.2 If the wrench does not work well ,press “C” and “ ” to reset the wrench.

4.5 Low Battery Voltage Protection

4.5.1 If the battery voltage is under 2.2V,the wrench will cut off the power supply and then turn off after a while.

◆ Set up

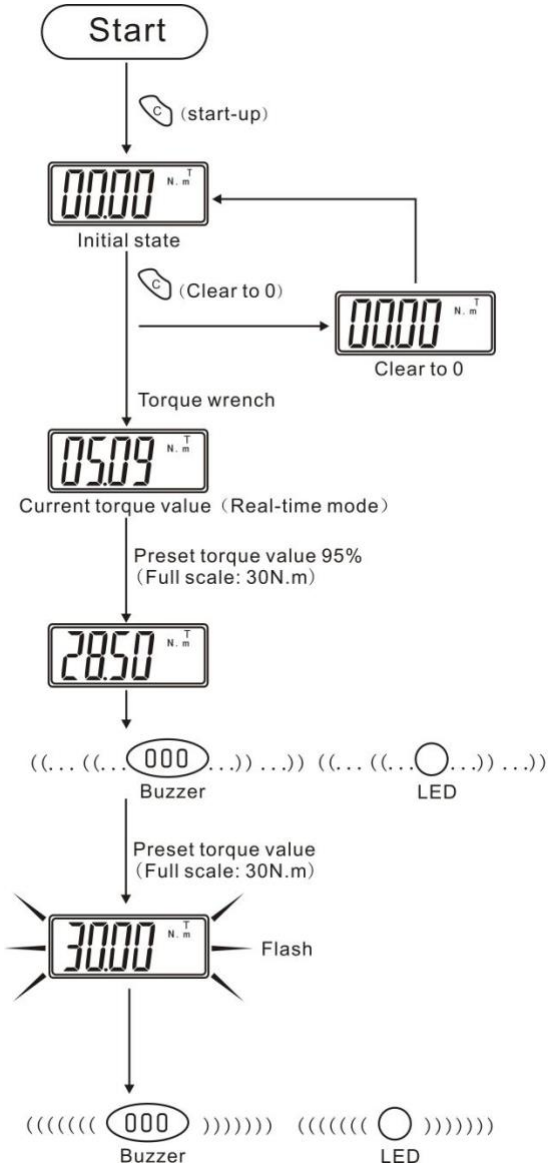


Note:

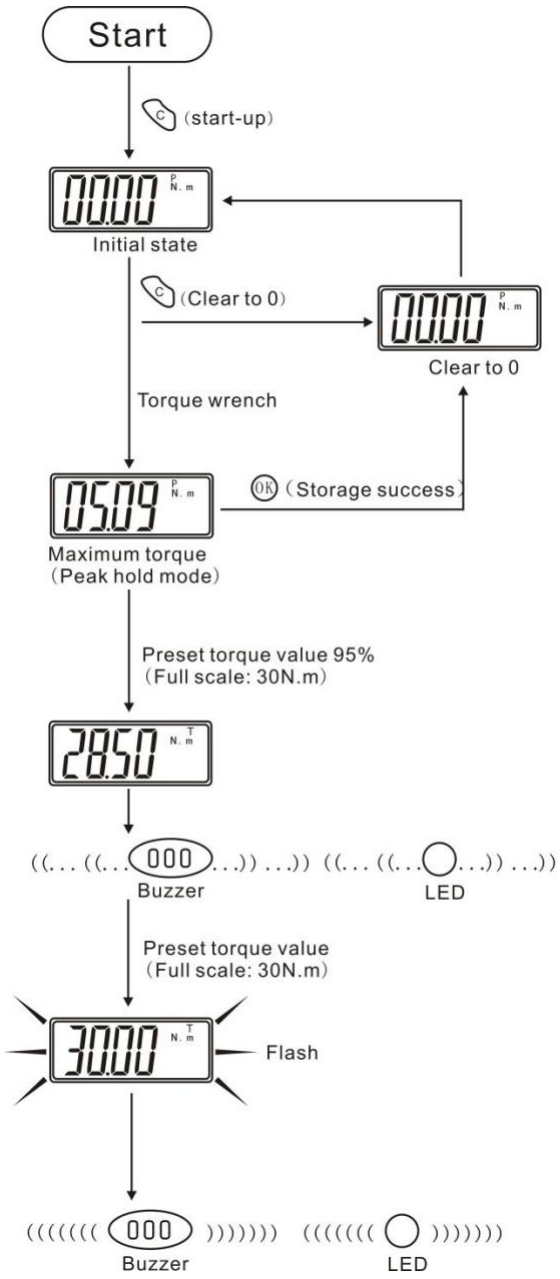
1.If the the record is empty, the screen shows “n000” and then jump to storage value “0000” .

2 Communication mode is used for transfer record to computer.

◆ Real-Time MODE



◆ PEAK HOLD MODE



◆ COMMUNICATION

8.1 Connect to communication line

8.1.1 After close the wrench power ,use the communication line to connect PC communication port with wrench.

8.2 Upload storage value

8.2.1 Confirm the PC is connected to wrench.

8.2.2 Press the wrench operation mode to“send”.（Refer to “set up”section)

8.2.3 Use PC to start the uploader program.

8.2.4 Before upload the program ,first choose correct COM port and click “Port Open”to open the port .

8.2.5 Next step ,click upload to transfer data to PC.

8.2.6 At last ,click “Export”, the system will auto-open the data by Excel form.

8.2.7 To choose suitable storage path to save the data file.

◆ MAINTENANCE AND STORAGE

ATTENTION:
One year periodic recalibration is necessary to maintain accuracy.

① Over-torquing(105% of Max. Torque range)could cause breakage or lose of accuracy.

② Do not shake violently or drop wrench.

③ Do not use this wrench as a hammer .

④ Do not leave this wrench in any place exposed to excessive heat ,humidity,or direct sunlight.

⑤ Do not use this apparatus in water (this is not waterproof)

⑥ If the wrench gets wet,wipe it with a dry towel soon.The salt in seawater can damage the wrench.

⑦ Do not use organic solvents,such as alcohol or paint thinner when cleaning the wrench .

⑧ Keep this wrench away from magnets.

⑨ Do not expose this wrench to dust or sand as this could cause serious damage.

⑩ Do not apply excessive force to the LCD screen .

◆ BATTERY MAINTENANCE

① Please put the battery out if you do not use wrench for a long time .

② When you are on a long trip or in cold area ,keep a spare battery.

③ Do not mix battery types or combine used batteries with new ones.

④ Sweat,oil and so on can prevent a battery’s terminal from making electrical contact.

To avoid this, wipe both terminals before loading a battery .

⑤ Dispose of batteries in a designed disposal area .Do not throw batteries into a fire.