

INSTRUCTION MANUAL

PRODUCT TYPE

DIGITAL TORQUE MINI WRENCH

MODEL

7614-0020

7638-0085



DEAR USER

Thank you for purchasing this mini digital torque wrench. This manual will help you to use the many features of your new digital torque wrench.

Before operating the torque wrench, please read this manual completely, and keep it nearby for future reference.

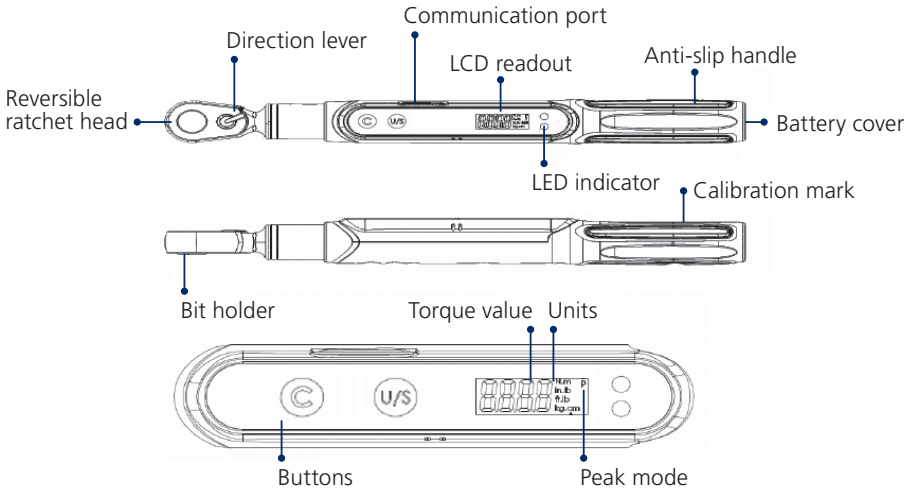
MAIN FEATURES

- Digital torque value readout.
- +/- 3% for torque accuracy.
- CW and CCW operation.
- Peak and/or hold track mode selectable.
- Buzzer and LED indicator for the pre-settable target torques.
- Engineering units (Nm, ft-lb, in-lb, kg-cm) selectable.
- Auto sleep after about 5 minutes idle.
- Rechargeable batteries are compatible.

NAMES AND FUNCTIONS OF PARTS

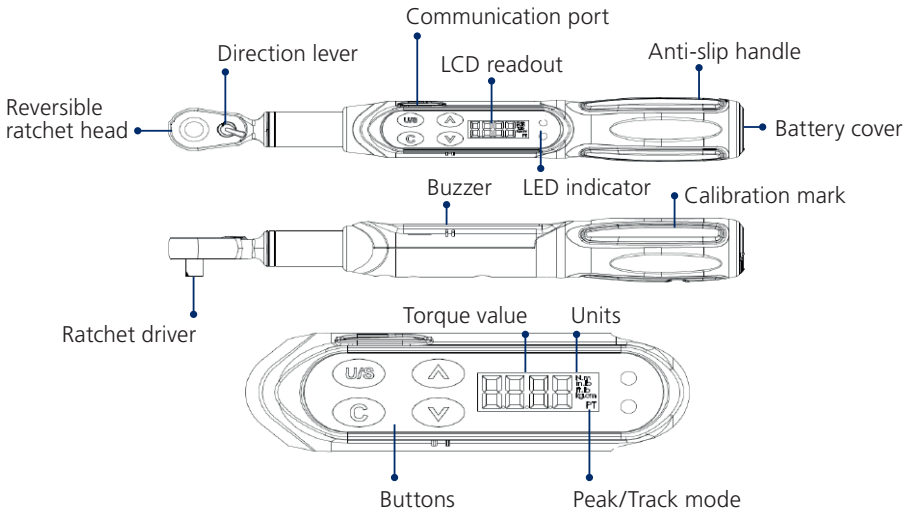
MODEL

7614-0020



MODEL

7638-0085



SELECTION GUIDE

MODEL	SQUARE DRIVE "	BIT END FITTING "	MAX. OPERATION TORQUE			
			Nm	ft-lb	in-lb	kg-cm
7614-0020	–	1/4	20	14.75	177	204.1
7638-0085	3/8	–	85	62.7	752	867

Torque accuracy

- 3%- CW / 4%-CCW

Communication

- No

SPECIFICATIONS

MODEL NO.	RESOLUTION	GEAR TEETH	MEASURED TORQUE (Nm)	LENGTH (MM)
7614-0020	0.01	–	1~20	207
7638-0085	0.1	48	4.2~85	239
ALL MODELS				
Torque accuracy *1		CW: ±3% CCW: ±4%		
PC connectivity		No		
Pre-setting no.		1 set (only 7638-0085)		
Operation mode		Peak Hold / Track (only 7638-0085)		
Bright LED		2 LED (1 red + 1 green)		
Unit selection		Nm, ft-lb, in-lb, kg-cm		
Head type		Bits (7614-0020) Lever type ratchet (7638-0085)		
Button		2 (7614-0020) / 4 (7638-0085)		
Battery *2		AAA x 1		
Operating temperature		-10°C ~ 60°C		
Storage temperature		-20°C ~ 70°C		
Humidity		Up to 90% non-condensing		
Drop test		1 m		
Vibration test *3		10 G		
Life time *4		10.000 cycle		
Environmental test *5		Pass		
Electromagnetic compatibility test *6		Pass		

Note:

*1: The accuracy of the readout is guaranteed from 20% to 100% of maximum range + /- 1 increment.
The torque accuracy is a typical value.
Calibration point is on the rubber grip.
For keeping the accuracy, calibrate the wrench for a constant period time (1 year).

*2: One AAA battery (Toshiba carbon-zinc battery)

*3: Horizontal and vertical test.

*4: One cycle means swing the torque wrench from 0 Nm to maximum range and back to 0 Nm.

*5: Environmental test:

- Dry heat
- Cold
- Damp heat
- Change of temperature
- Impact (shock)
- Vibration
- Drop

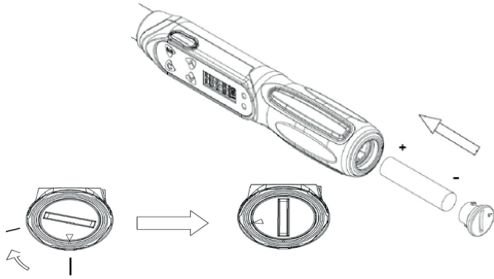
*6: Electromagnetic compatibility test:

- Electrostatic discharge immunity (ESD)
- Radiated susceptibility
- Radiated emission

BEFORE USING THE WRENCH

Battery Installation

- Remove the battery cap.
- Insert one AAA battery matching the -/+ polarities of the battery to the battery compartment.
- Replace the battery cap and fasten it tightly according to the following figures.



Power on and resetting the wrench

- Press **C** to power on the digital torque wrench.
- Usually press **C** to reset the digital torque wrench before using it.



Attention

If an external force is applied to the torque wrench during power-on period, an initial torque offset will be recorded in the memory.

Auto power off

The wrench will auto power off after about 5 minutes idle for power saving. Press **C** to power on the wrench again.

Cautions

During communication period (Send appears), the auto power off function is disabled.

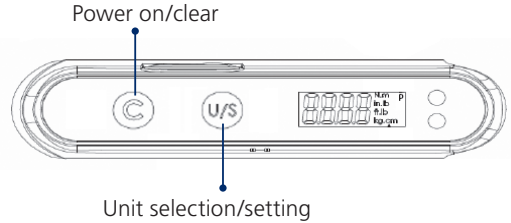
Resetting the wrench

If the wrench does not function normally, loosen the battery cap then tighten it to re-start.

SETUP

MODEL

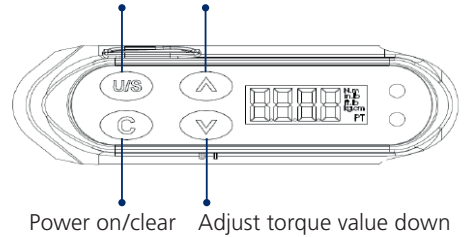
7614-0020



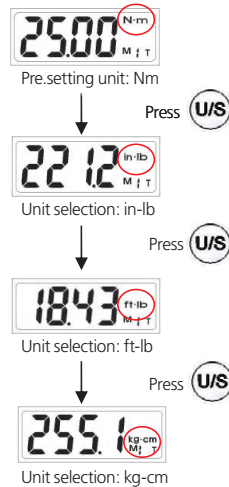
MODEL

7638-0085

Unit selection/setting Adjust torque value up



UNIT SELECTION


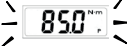


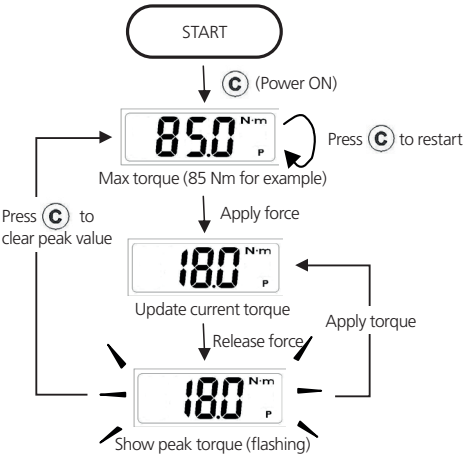
Note:

The "Unit Selection" is cyclic.

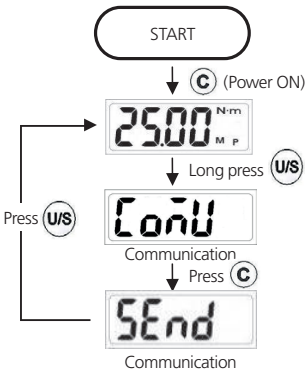
Only 7614-0020:

OPERATION

- Press **C** to power on the wrench and the max torque value will be shown on screen.
- Swing the wrench and the current torque will be updated on screen. 
- Release wrench and the peak torque value will be flashed on screen. The peak torque is the maximum torque during the wrench pulling. 
- Press **C** to clear current peak value or directly swing wrench again to get another peak torque value.
- Usually press **C** to reset wrench before any new measurement. Notice to keep the wrench horizontal and rest during reset process.



CALIBRATION

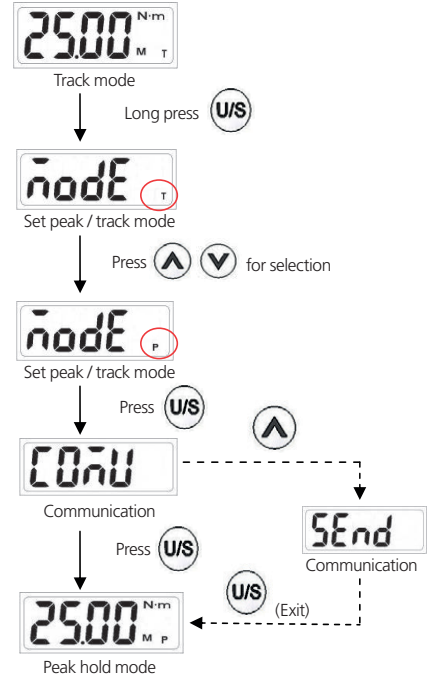


Only 7638-0085:

SET TARGET TORQUE



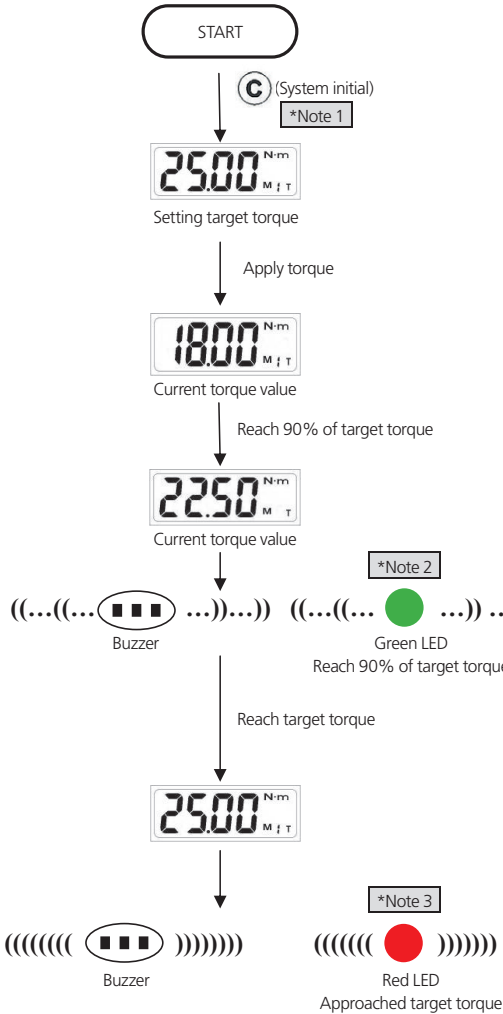
PEAK HOLD/TRACK MODE SELECTION



Note: (Both 7614-0020 and 7638-0085)
Communication is for calibration of torque wrench.
Please contact your local dealer for information.

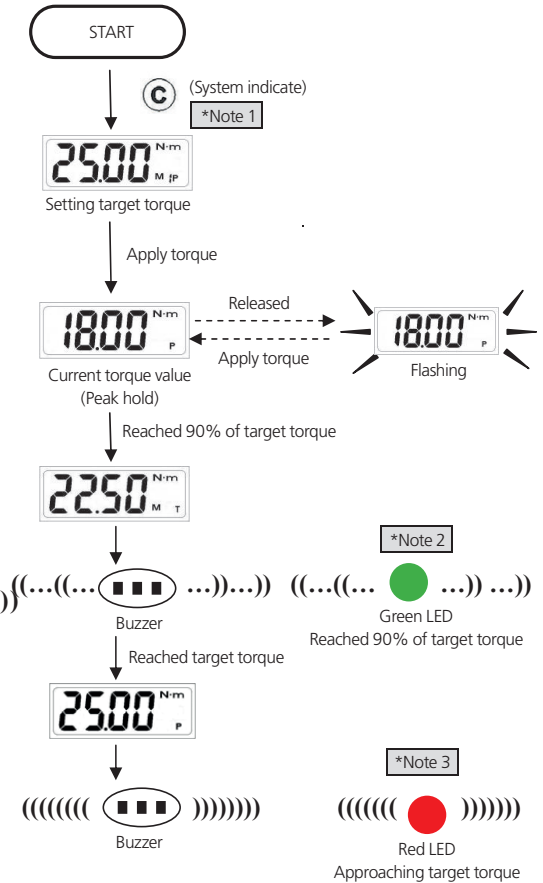
Only 7638-0085:

TRACK MODE OPERATION



Only 7638-0085:

PEAK HOLD MODE OPERATION



Note:

1. If **Er0** appears, it means the wrench is overloaded. Overload = 110% of max. torque. Please contact your local dealer for recalibration.
2. When 90% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently.
3. When 99.5% of the target torque has been reached, the alarm will change to a steady tone and the green LED will stop flashing and stay on. The red LED will also illuminate.



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MAINTENANCE AND STORAGE

Attention!

One-year periodic recalibration is necessary to maintain accuracy. Please contact your local dealer for calibrations.



Caution:

- 1. Over-torquing (110% of Max. torque range) could cause breakage or loss 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 (it is not waterproof).*
- 6. If the wrench gets wet, wipe it with a dry towel as soon as possible. The salt in seawater can be especially damaging.*
- 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 panel.*
- 11. Apply torque slowly and grasp the center of the handle. Do not apply load to the end of the handle.*
- 12. When checking the accuracy or calibration, please use the bit head packed inside the blow mold case. (only 7614-0020)*

BATTERY MAINTENANCE

- When the wrench is not going to be used for an extended period of time, remove the battery.
- Keep a spare battery on hand when going on a long trip or to cold areas.
- Sweat, oil and water can prevent a battery's terminal from making electrical contact. To avoid this, wipe both terminals before loading a battery.
- Dispose of batteries in a designated disposal area. Do not throw batteries into a fire.

POLAR TOOLS A/S

SOLDALEN 9 . 7100 VEJLE . DENMARK . INFO@POLARTOOLS.COM . WWW.POLARTOOLS.COM