

INSTRUCTION MANUAL

PRODUCT TYPE
DIGITAL SCREWDRIVER

MODEL
7514-0050
7514-0200
7514-0400



DEAR USER

Thank you for purchasing this digital screwdriver. This manual will help you use the many features of your new digital screwdriver.

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

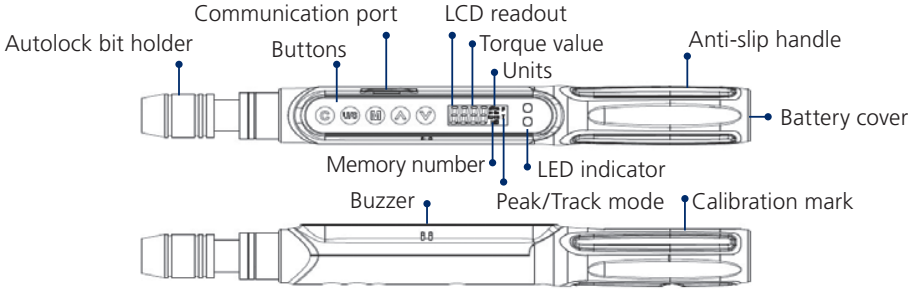
MAIN FEATURES

- Digital torque value readout.
- +/- 2.5% or 3% accuracy.
- CW and CCW operation.
- Peak and hold track mode selectable.
- Buzzer and LED indicator for the 9 pre-settable target torques.
- Engineering units (cNm, in-lb, kg-cm) selectable.
- 50 data memories for recall and joint torque auditing.
- Auto power off after about 5 minutes idle.
- Rechargeable batteries are compatible.

NAMES AND FUNCTIONS OF PARTS

MODEL

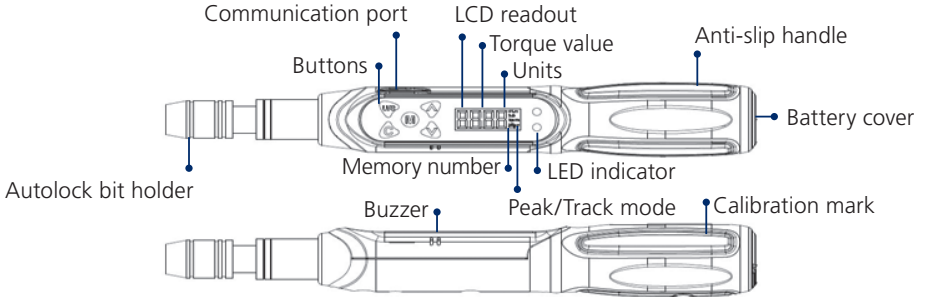
7514-0050



MODEL

7514-0200

7514-0400



SELECTION GUIDE

MODEL	BIT END FITTING (")	MAX. OPERATION TORQUE			TORQUE ACCURACY
		cNm	in-lb	kg-cm	
7514-0050	1/4	50	42.2	5.1	±3%- CW / ±4%-CCW
7514-0200	1/4	200	17.7	20.41	2.5%- CW / 3.5%-CCW
7514-0400	1/4	400	35.39	40.82	2.5%- CW / 3.5%-CCW

Communication

- No

SPECIFICATIONS

MODEL NO.	RESOLUTION cNm	MEASURED TORQUE cNm	LENGTH mm
7514-0050	0.1	5~50	193
7514-0200	0.1	10~200	203
7514-0400	0.1	20~400	203
ALL MODELS			
Accuracy *1	7514-0050: CW: $\pm 3\%$ CCW: $\pm 4\%$ 7514-0200: CW: $\pm 2.5\%$ CCW: $\pm 3.5\%$ 7514-0400: CW: $\pm 2.5\%$ CCW: $\pm 3.5\%$		
Data memory size	50		
PC connectivity *2	No		
Pre-setting no.	9 sets		
Operation mode	Peak hold / Track		
Bright LED	2 LED (1 red + 1 green)		
Unit selection	cNm, in-lb, kg-cm		
Head type	Autolock bit holder		
Button	5		
Battery *3	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 *4	10 G		
Life time *5	10.000 cycle		
Environmental test *6	Pass		
Electromagnetic compatibility test *7	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 screwdriver for a constant period time (1 year).

*2: Use a special designed cable (accessory) to upload record data to PC.

*3: One AAA batteries (Toshiba carbon-zinc battery)

*4: Horizontal and vertical test.

*5: One cycle means twist the screwdriver from 0 cNm to maximum range and back to 0 cNm.

*6: Environmental test:

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

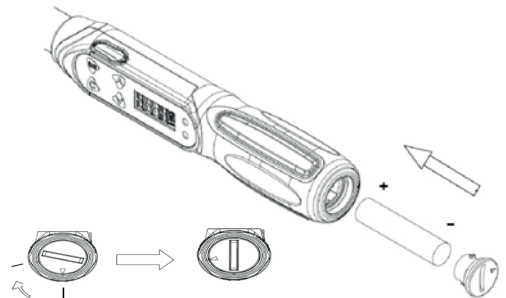
*7: Electromagnetic compatibility test:

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

BEFORE USING THE SCREWDRIVER

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 screwdriver

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



Attention

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

Auto power off

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

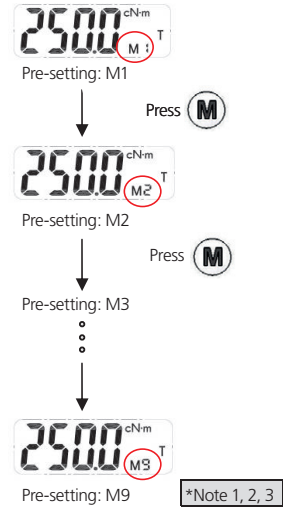
Cautions

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

Resetting the screwdriver

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

1. Pre-setting no.



Note:

- If **Er0** appears, it means the screwdriver is overloaded. Overload = 110% of maximum torque. Please contact your local dealer for recalibration.
- The maximum capacity for "Pre-setting no." is 9 sets.
- The "Pre-setting no." is cyclic.

SETUP

MODEL 7514-0050

Power on/clear Pre-setting no.



Unit selection/setting Adjust torque value

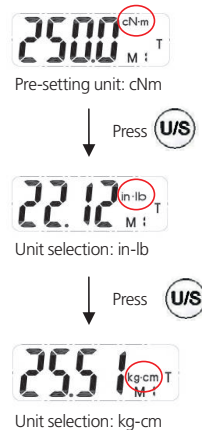
MODEL 7514-0200 / 7514-0400

Unit selection/setting Pre-setting no.




Power on/clear Adjust torque value

2. Unit selection

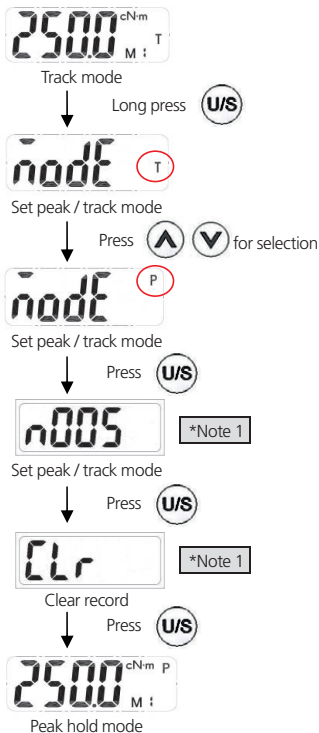



3. Set target torque



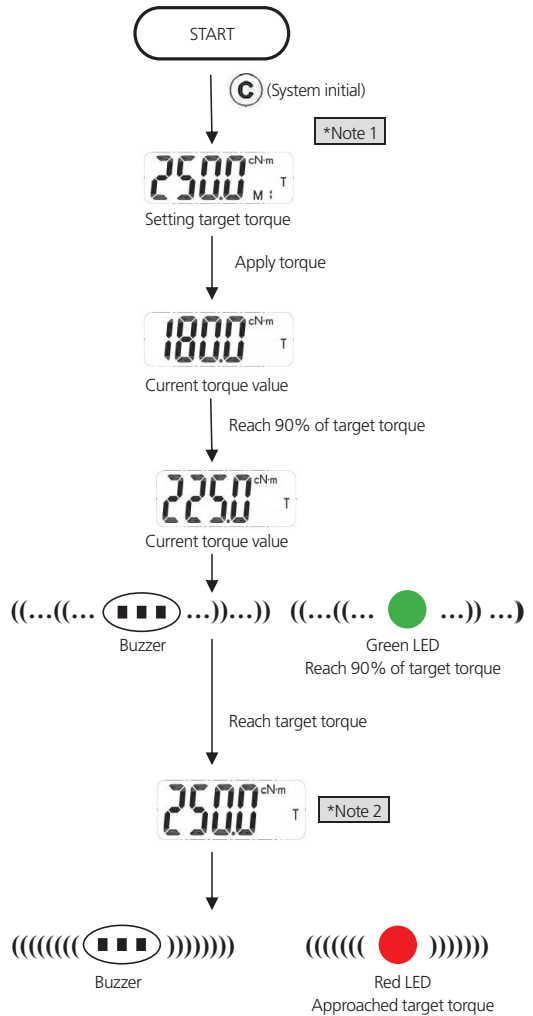
 **Note:**
The "Unit selection" is cyclic.


4. Peak hold / track mode selection



 **Note:**
1. Please skip this procedure and continue to the next step.

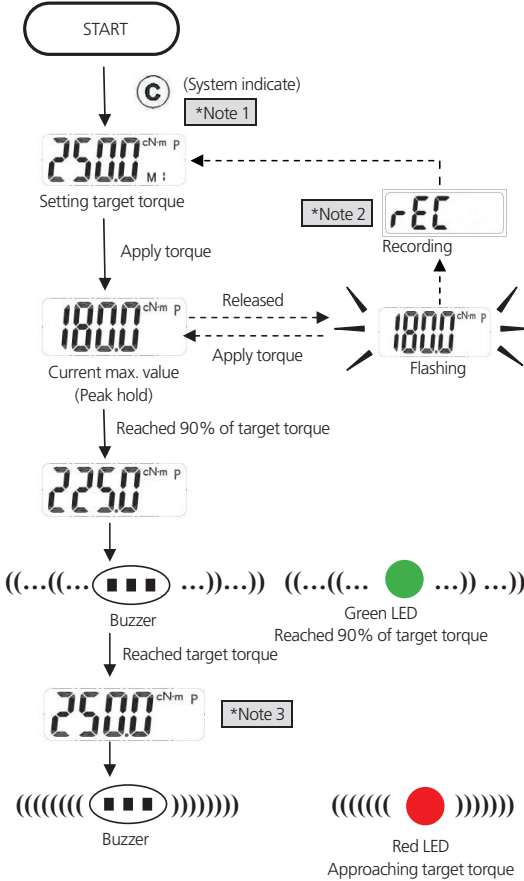
TRACK MODE OPERATION



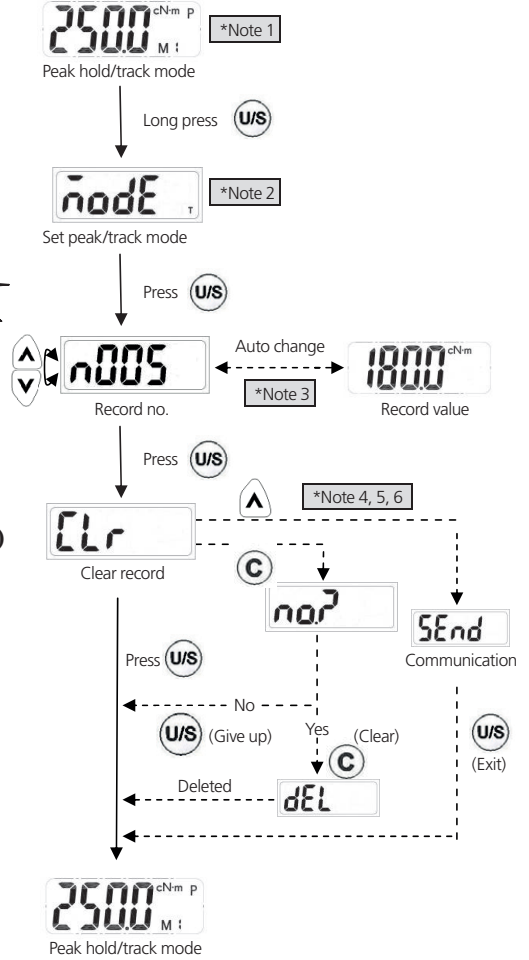
 **Note:**

1. If **Er0** appears, it means the screw-driver is overloaded. Overload = 110% of maximum torque. Please contact your local dealer for recalibration.
2. When reaching the setting target torque, the green and red LED will be on at the same time.

PEAK HOLD MODE OPERATION



PEAK HOLD MODE RECORDED VALUE REVIEW



Note:

- If **Er0** appears, it means the screwdriver is overloaded. Overload = 110% of maximum torque. Please contact your local dealer for recalibration.
- If **Ful1** appears, that means the screwdriver's memory is full and the next value record can not be written in. Please refer to the "Peak hold mode recorded value review" section to clear the memory records.
- When reaching the setting target torque, the green and red LED will be on at the same time.



Note:

- The "Peak hold" mode recorded value review can also be operated from "Track" mode operation.
- If you operate in the "Peak hold" mode, the display will show **node**. Please go to next step.
- If the record is empty, it will show **nor**.
- This function is not supported on all models.
- Communication mode is for uploading recorded data to PC.
- Communication mode is also for calibration of the screwdriver. Please contact your local dealer for information.

COMMUNICATION

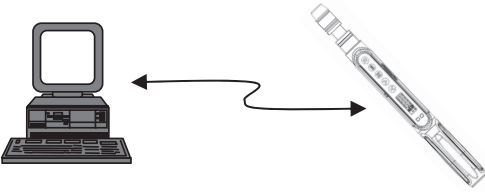


Precaution:

1. Communication function is only supported on some models. Check the model no. and its specification before using communication function.
2. Do not insert the plug of communication cable into a screwdriver that does not support communication function.

Connecting communication cable

- Turn off power and then connect the accessory cable between the COM port of the PC and screwdriver.



Uploading record data

- Make sure the connection between the PC and the screwdriver is normal.
- Change the screwdriver operation mode to "Send". (Please refer to the "Peak hold mode recorded value review" section).
- Use a PC to start the uploader program.
- In the uploader program, first select the correct COM port no.
- Next, select the file path to save the uploaded data.
- Finally, press "upload" button to transmit the torque records to the PC.
- The uploaded data is then shown on the column and saved in the *.csv file. Use Microsoft Excel to view *.csv file.



Cautions:

Refer to the uploader program user guide for the detail operations.

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 lose of accuracy.
2. Do not shake violently or drop screwdriver.
3. Do not use this screwdriver as a hammer.
4. Do not leave this screwdriver 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 screwdriver 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 screwdriver.
8. Keep this screwdriver away from magnets.
9. Do not expose this screwdriver 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.

BATTERY MAINTENANCE

- When the screwdriver 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 fire.

POLAR TOOLS A/S

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