



# **YELLOW JACKET®**

## **Digital Adjustable Torque Wrench**



**60624 Deluxe Digital Adjustable Torque Wrench  
(with 3/8" ratchet head)**



**60648 Digital Adjustable Torque Wrench**

## **Operating Manual Models 60624 and 60648**

This manual will help you use the many features of your new digital torque wrench. Before operating the torque wrench, please read this manual completely, and keep it handy for future reference.

## FEATURES:

- Interchangeable head
- Digital torque value readout
- +/- 2% accuracy
- CW and CCW operation
- Peak hold and track mode selectable
- Buzzer and LED indicator for the 9 pre-set target torques
- Water contact indicator
- Engineering units (ft-lb, in-lb, N-m, kg-cm) selectable
- 50 data memory for recall and joint torque auditing
- Auto sleep after about 5 minutes idle
- (2) AAA batteries included

## MAINTENANCE AND STORAGE

**ATTENTION:** To maintain accuracy, a one-year periodic recalibration is recommended. Please contact your local Calibration Laboratory to arrange for calibration.

## CAUTION:

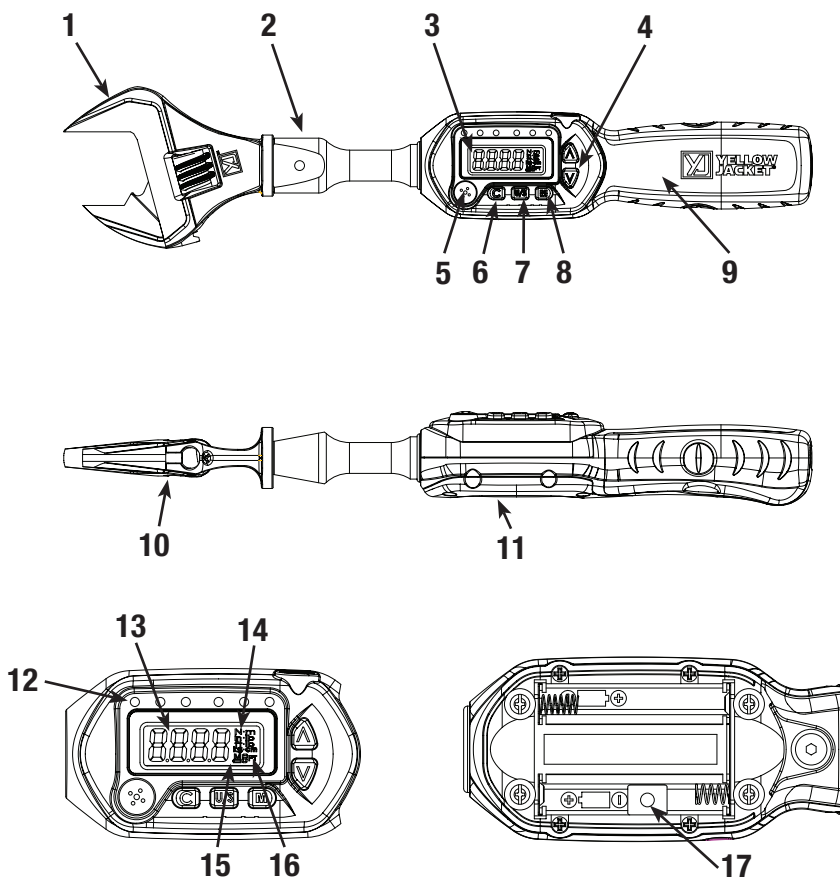


1. Over-torque (110% of max. torque range) could cause breakage or lose accuracy.
2. Do not shake violently or drop wrench.
3. Do not use this wrench as a hammer.
4. Do not leave this wrench in any place exposed to excessive heat, humidity or direct sunlight.
5. Do not use this apparatus in water (it is not waterproof).
6. If the wrench gets wet, wipe it with a dry towel as soon as possible. The salt in sea water can be especially damaging.
7. Do not use organic solvents, such as alcohol or paint thinner when cleaning the wrench.
8. Keep the 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 handle.

## BATTERY MAINTENANCE:

1. When the wrench is not used for an extended period of time, remove the battery.
2. Keep a spare battery on hand when going on a long trip or to cold areas.
3. Do not mix battery types or combine used batteries with new ones.
4. Sweat, oil and water 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 designated disposal area. Do not throw batteries into a fire.

# NAMES AND FUNCTIONS OF PARTS



- |                                        |                                      |
|----------------------------------------|--------------------------------------|
| 1. Head Insert                         | 10. Jaw Adjust                       |
| 2. Sensor Yoke                         | 11. Battery Cover                    |
| 3. LCD Readout                         | 12. LED Indicator                    |
| 4. UP/DOWN Button                      | 13. Torque Value                     |
| 5. Buzzer                              | 14. Units (ft-lb, in-lb, N-m, kg-cm) |
| 6. Power ON/CLEAR Button               | 15. Pre-Setting Number               |
| 7. Unit/Setting Button                 | 16. Peak/Track Mode                  |
| 8. Pre-setting Number Selection Button | 17. Water Indicator Viewing Window   |
| 9. Anti-Slip Handle                    |                                      |

# SPECIFICATIONS

| Model No.                             | Length                            | Max Torque                | Torque Measuring Range           |
|---------------------------------------|-----------------------------------|---------------------------|----------------------------------|
| 3/8" Ratchet Head                     | 10.6"<br>270 mm                   | 62.7 ft. lb.<br>85 N-m    | 3.1-62.7 ft. lb.<br>4.2-85 N-m   |
| 5-30 mm Adjustable Wrench             | 12.8"<br>325 mm                   | 49.0 ft. lb.<br>66.5 N-m  | 2.4-49.0 ft. lb.<br>3.3-66.5 N-m |
| 8-41 mm Adjustable Wrench             | 13.3"<br>338 mm                   | 47.0 ft. lb.<br>63.75 N-m | 2.3-47 ft. lb.<br>3.2-64 N-m     |
| <b>All Models</b>                     |                                   |                           |                                  |
| Accuracy *1                           | CW : $\pm 2\%$<br>CCW : $\pm 3\%$ |                           |                                  |
| Data Memory Size                      | 50                                |                           |                                  |
| Pre-Sets                              | 9                                 |                           |                                  |
| Bright LED                            | 6 LEDs<br>(1 Red + 5 Green)       |                           |                                  |
| Operation Mode                        | Peak Hold/Track                   |                           |                                  |
| Unit Selection                        | ft-lb, in-lb (N-m, kg-cm)         |                           |                                  |
| Gear Teeth                            | 52                                |                           |                                  |
| Button                                | 5                                 |                           |                                  |
| Battery                               | AAA x 2 (included)                |                           |                                  |
| Operating Temperature                 | 14°F ~140°F (-10°C ~ 60°C)        |                           |                                  |
| Storage Temperature                   | 4°F ~158°F (-20°C ~ 70°C)         |                           |                                  |
| Humidity                              | Up to 90% Non-Condensing          |                           |                                  |
| Drop Test                             | 1 m                               |                           |                                  |
| Vibration Test *2                     | 10G                               |                           |                                  |
| Environmental Test *3                 | Pass                              |                           |                                  |
| Electromagnetic Compatibility Test *4 | Pass                              |                           |                                  |

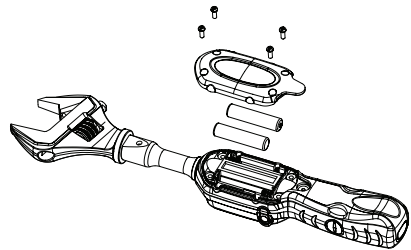
**NOTE: Accuracy is guaranteed from 20% to 100% full scale.**

- 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 at the middle line black circle area on the rubber grip. To ensure continued accuracy, yearly calibration is suggested.
- Horizontal and vertical test.
- Environmental test:
  - Dry heat
  - Cold
  - Damp heat
  - Change of temperature
  - Impact (shock)
  - Vibration
  - Drop
- Electromagnetic compatibility test:
  - Electrostatic discharge immunity (ESD)
  - Radiated susceptibility
  - Radiated emission

## BEFORE USING

### BATTERY INSTALLATION

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



**ATTENTION:** When opening the battery cover of your wrench, you can see a viewing window for the **water contact indicator**. Through this viewing window, you can check if this wrench is damaged by water penetration where the water contact indicator turns red.

## BEFORE USING - continued

### 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/reset or wake-up period, an initial torque offset will exist in memory.

### ACTIVATION DURING SLEEP MODE

- The wrench will auto sleep after about 5 minutes of being idle for power saving. Press **(C)** to wake up the wrench during sleep mode.

### RESETTING THE WRENCH

- Press **(C)** **(▲)** together will reset the wrench.
- If the wrench does not function normally, press **(C)** **(▲)** together to reset the wrench.

### LOW BATTERY VOLTAGE PROTECTION

- If the battery serial voltage is in low voltage status, the wrench will display a battery symbol and then turn off after awhile.



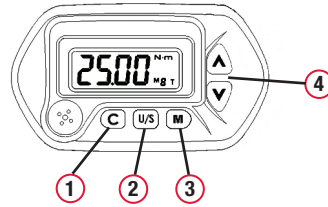
### WHEN CHANGING THE TYPE OF HEAD

- If you use the different head of the wrench, the reading on the display will be different for the different length of the head. See explanation below.

#### Applied torque at setpoint = Entered Torque Setting \*

- For ratchet head 1
- For adjustable head 0.782
- For large adjustable head 0.75

## SET UP



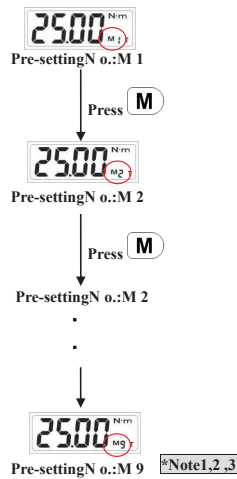
### 1. Power On/Clear

### 2. Unit Selection/Setting

### 3. Pre-setting No.

### 4. Up/Down Button

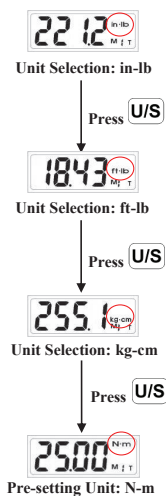
## STEP 1: PRE-SETTING NO.



#### NOTE:

1. If **Er0** appears, that means this wrench has had more than 110% of torque applied.
2. The maximum capacity for "Pre-setting No." is 9 sets.
3. The "Pre-setting No." is cyclic.

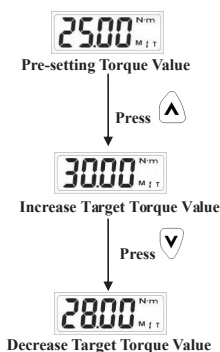
## STEP 2: UNIT SELECTION



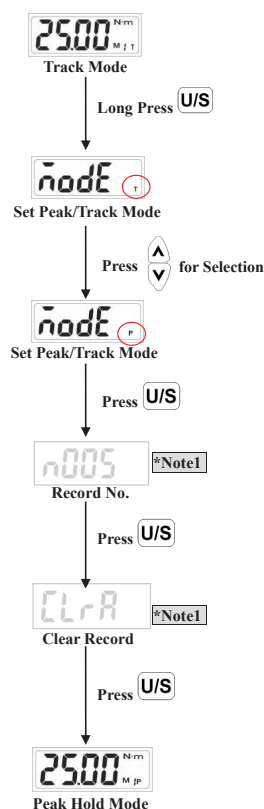
### NOTE:

1. The "Unit Selection" is cyclic.

## STEP 3: SET TORQUE VALUE



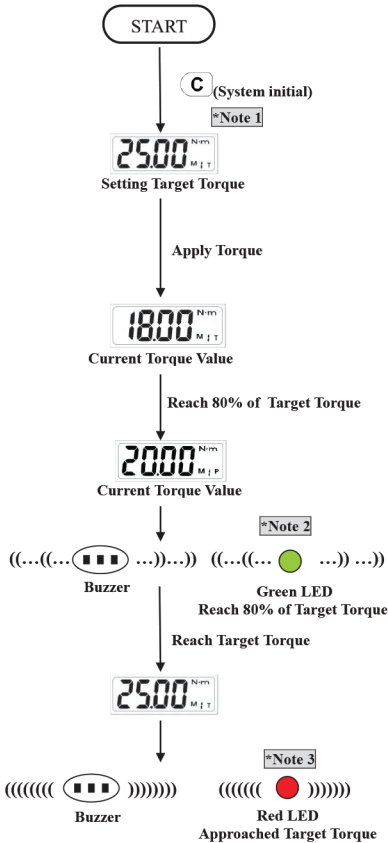
## STEP 4: PEAK HOLD/TRACK MODE SELECTION



### NOTE:

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

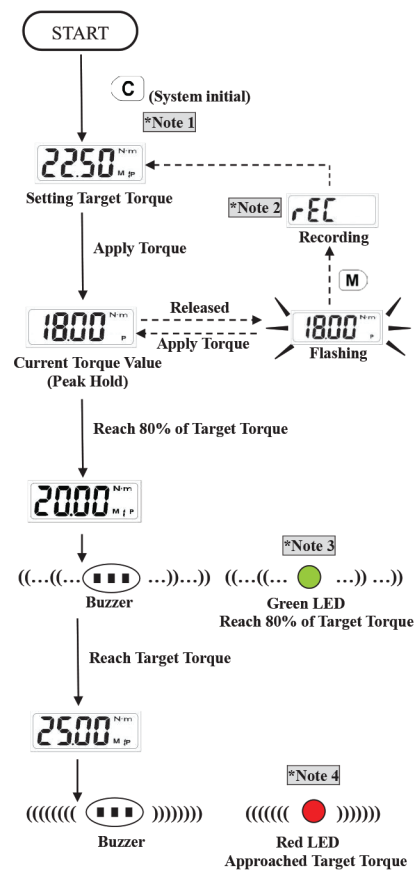
## TRACK MODE OPERATION



### NOTE:

1. If **Err** appears, that means this wrench has had more than 110% of torque applied.
2. When 80% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently.
3. When the target torque is reached, the alarm will change to a steady tone and the green LED will stop flashing and stay on. The LED will also illuminate.

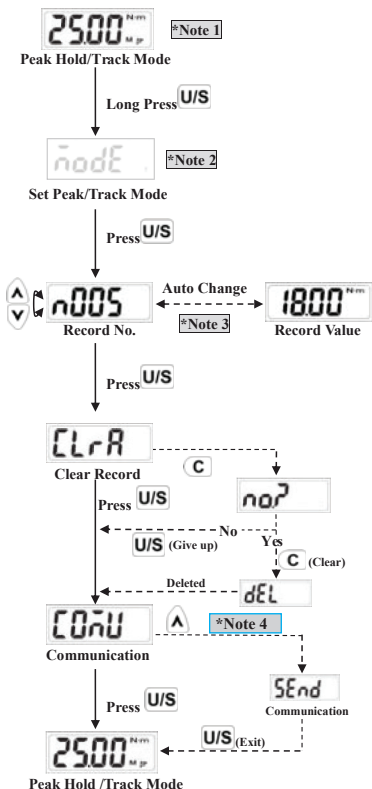
## PEAK MODE OPERATION



### NOTE:

1. If **Err** appears, that means this wrench has had more than 110% of torque applied.
2. If **Full** appears, that means this wrench'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.
3. When 80% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently.
4. When the target torque is reached, the alarm will change to a steady tone and the green LED will stop flashing and stay on. The LED will also illuminate.

## PEAK HOLD MODE RECORDED VALUE REVIEW



### NOTE:

1. The "Peak Hold" mode recorded value review also can be operated from "Track" mode.
2. If you operate in the "Peak Hold" mode, the display will show **nonE** and please go to the next step.
3. If the record is empty, it will show **nonE**.
4. Communication mode is also for calibration of torque wrench. Please contact your local dealer for more information.



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