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**IST-1WA SERIES  
DIGITAL TORQUE WRENCH  
OPERATION MANUAL**



### Attention

- ◆ Don't use the wrench as a hammer.
- ◆ Don't use the wrench in water.
- ◆ Over-torque (105% max. torque range) could cause damage or lose accuracy. If  $ErH$  is appeared, that means this wrench has ever been applied more than 110% torque of maximum range.
- ◆ The accuracy of the readout is guaranteed from 20% to 100% of maximum range.

### Maintenance

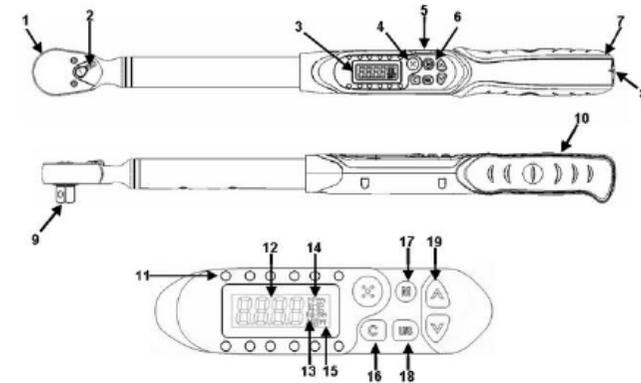
- 1 Do not shake violently or drop wrench.
- 2 Do not leave this wrench in any place exposed to excessive heat, humidity, dust, sand or direct sunlight.
- 3 Do not use organic solvents, such as alcohol or paint thinner when cleaning the wrench.
- 4 When the wrench is not used for an extended period of time, remove the battery, apply antirust oil on the exposed metal part, put the wrench in box for storing.

### Description

#### 1 Function features :

- ◆ Clockwise and anticlockwise operation.
- ◆ Set the desired torque first. After reaching the desired torque, set the angle and turn the wrench at this angle to apply extra torque.
- ◆ Unit: N.m, in.lb, ft.lb, kg.cm.
- ◆ Peak and track working mode.
- ◆ Target torque value or angle value can be set, with audible and visible alarm: 8 green LED light on and buzzer sounds when target torque value or angle value is approached. 4 red LED light on and buzzer sounds when target torque value or angle value is reached.
- ◆ Power off automatically in 5 minutes without any operations.
- ◆ Non-slip grip handle.
- ◆ With record if the wrench fell in the water.
- ◆ With overload record (once the torque reaches 110% of the maximum range).
- ◆ With certificate of inspection.

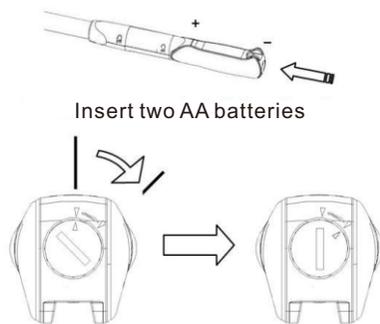
#### 2 Structure:



- 1 Reversible ratchet head 2 Direction lever 3 LCD readout 4 Buzzer  
 5 Communication port 6 Buttons 7 Battery compartment 8 Battery cover  
 9 Ratchet drive 10 Anti-slip handle 11 LED indicator 12 Torque/Angle value  
 13 Pre-setting number 14 Units 15 P(Peak Hold)/T(Track) mode  
 16 Power On/Clear button 17 Pre-setting number selection button  
 18 Unit/Setting button 19 Up/Down button

## Operation

### 1 Inserting the batteries:



Insert two AA batteries

Open the battery cover    Close the battery cover

### 2 Turn on and initialize:

- ◆ To power on the digital torque-angle wrench, please keep the ratchet head force free, and then press **C** to power it on.
- ◆ During power on, a zero-reset for torque will be proceeds, the LCD will display **0000**.
- ◆ After zero-reset, a preset target will show on LCD.

### 3 Auto power off:

- ◆ The wrench will auto power off after about 2 minutes idle for power saving. Press **C** to power on the wrench again.
- ◆ Press and hold **C** to power off wrench manually.

### 4 Zero reset:

- ◆ Better Zero-reset improves the measuring accuracy. To get higher accuracy, please do Zero-reset carefully before each measuring.
- ◆ After power on, **C** is for zero reset. Usually press it to zero reset the digital torque-angle wrench before using the wrench. In torque mode, if an external force is applied to the torque wrench during zero-reset, an initial torque offset error will occur. And an unstable force applied during zero-reset will cause an error, please do zero-reset again.

### ◆ Angle Zero-Reset:

1. Put torque-angle wrench still horizontally on a table or workbench before Angle Zero-Reset.
2. In Angle mode, press **C** shows **Zero?**, press **C** again immediately starts Angle Zero-Reset, otherwise it will start torque Zero-Reset.
3. In case of successful Angle Zero-Reset, the value will be kept and saved, and recalled in next power on.

### 5 Reset the wrench:

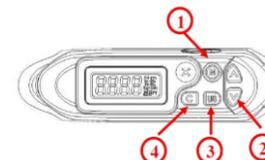
- ◆ If the wrench does not function normally, please go through the reset process to reset the wrench. To reset the wrench, loosen the battery cap then tighten it to re-start. After reset, remember to press **C** to power it up again.

### 6 Low battery indicator:

- ◆ If the battery serial voltage is in low, the wrench will display a battery symbol. Please replace batteries immediately .



### 7 Set target torque/angle:



- ① Pre-setting No.
- ② Up/Down Buttons
- ③ Unit Selection/Setting
- ④ Power On/Clear

- ◆ Pre-setting no. Press **PS** can set pre-setting no. The maximum capacity for "Pre-setting No." is 9 settings, from 1 to 9.
- ◆ Unit selection. Press **US** to choose unit: N.m、in.lb、ft.lb、kg.cm.
- ◆ Set target value. Press **▲ ▼** can increase or decrease the set torque value and angle value.
- ◆ Peak hold /Track mode selection.

In the initial interface, long press **US** then appearing the following picture.



Press up and down button to select peak or track mode. Peak mode means after used the wrench the screen will display and hold the peak value. Track mode means the screen will display current value.



After selected, press **[US]** until back to the initial interface.



**8** Track mode operation

- ◆ After pressing **[C]** to start, set the target torque value then apply torque. When 80% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently. 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.

**9** Peak hold mode operation:

- ◆ After pressing **[C]** to start, set the target torque value then apply torque. When 80% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently. 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.

**10** Angle mode operation:

- ◆ In Angle mode, press **[C]** shows **270°**, press **[C]** again immediately starts Angle Zero-Reset, otherwise it will start torque Zero-Reset.
- ◆ When entering angle mode, press “up” or “down” button to adjust preset torque and angle, apply up to preset torque and turn. When releasing force the wrench in angle mode, the display will show the corresponding torque with flashing. Pressing “M” button to record current angle is possible.

- ◆ When 80% of the target torque is reached, the green LED will begin to flash and the alarm tone will beep intermittently. 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.

**11** Upload record data

- ◆ Turn off power and then connect the accessory cable between the PC and wrench.
- ◆ Launch the upload program. If the wrench is well connected and powered on, the software will connect the wrench automatically.
- ◆ If the “Auto Upload” checkbox of the software is enabled, the records stored in wrench will upload immediately. Please be noted, the records stored in wrench will not upload to PC again once it has been uploaded.
- ◆ The uploaded data is shown on the screen and saved in database, user can do simple query and export the result to Microsoft Excel file.