

# **ELECTRONIC TORQUE WRENCH**

**OPERATIONS MANUAL** 



**WARNINGS** 

**FEATURES** 

**WARRANTY** 

# **NEED HELP?**

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Don't forget to register your product!

# **WARNINGS**

- Read and understand this manual completely before using the electronic torque wrench
- DO NOT use the wrench or apply torque to the wrench while turned off. Always turn the wrench on so that applied torque is measured
- DO NOT press any keys on the keypad while torque is being applied
- DO NOT Apply torque to the end of the handle. Firmly grip the center of the handle and apply even pressure until specified torque is reached.
- DO NOT over torque! Check owner's manual and manufacturer's specification for required torque for specific application.
- DO NOT over torque or apply excessive torque to the tool. This can result in damage to the tool and property.
- Always use the correct size and specification of sockets and accessories for the application
- Make sure the torque wrench capacity matches or exceeds the require torque for the application.
- If max capacity has been exceeded the calibration can be affected. Verify calibration and/or take torque wrench to be calibrated.
- Make sure to observe all cautions and warnings or all equipment or apparatus involved when using the torque wrench.
- Make sure reverse lever is fully engaged before using in opposite direction.
- DO NOT use torque wrench to break free tightened or stuck bolts, lug nuts or fasteners.
- Periodic calibration is necessary to maintain accuracy. Consult local calibration services.
- Always wear safety goggles

#### **BATTERY WARNING:**

Torque wrenches require 2x AA batteries to power on. (Batteries are not included with product)

**WARNING:** Use only AA batteries. Using the wrong batteries may result in battery leakage and / or damage to the wrench. Do not mix alkaline and heady-duty batteries. Follow instructions carefully.

- 1. Screw off end cap of handle.
- 2. Follow instructions for installing 2x AA batteries.

Install batteries in the correct direction as marked on the tool.

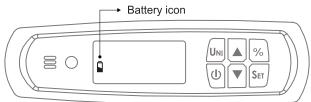
Take batteries out if wrench will not be used for a long period of time.

Replace dead batteries immediately. Do not let sit inside of tool.

3. Screw handle end cap back on. Hand tighten.

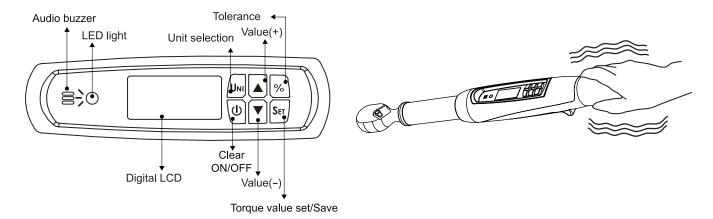
#### LOW BATTERY WARNING:

- 1. When battery capacity has 30% left, the battery icon will flash on the display. Electronic torque wrench is still workable but must replace the battery very soon.
- 2. When battery capacity has only 10% left, ONLY the battery icon will display. Electronic torque wrench is no longer workable. Must replace batteries immediately.



# **ELECTRONIC TORQUE WRENCH ALERT FEATURES**

When the specified torque is reached a solid red LED will show, a buzzer will sound, and the handle will vibrate. **DO NOT** apply torque beyond this point or risk damage to the wrench and property. The "Specified Torque Alert" tone indicates when the Specified Torque has been reached. As the Specified Torque approaches a rapid beeping tone indicates the Target Torque is getting close.



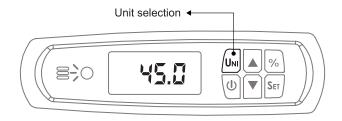
Power On: Press (1) for 3 Seconds

NOTE: Do NOT ever apply torque while powering on the tool.

**Power Off:** Press (b) for 5 seconds. Or display will automatically shut off after 90 seconds without any torque being applied and the display indicates "0".

## **SWITCH UNITS OF MEASURE:**

- 1. Press UNI to select the torque measurement units desired.
- 2. 5 Torque Units can be selected from: N-m, lb-ft, lb-in, kgf-m, kgf-cm

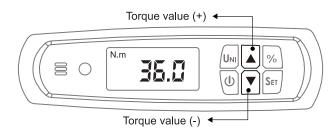


#### **SETTING SPECIFIED OR MAXIMUM TORQUE:**

- 1. Make sure no torque is being applied and turn on the wrench. Press  $\boxed{\textbf{0}}$  for 3 seconds.
- 2. Select the desired unit of measurement. Press **UNI** and scroll through options until the desired unit of measurement is displayed.
- 3. Without applying torque, press **S**ET to enter the Specified Torque setting mode.



4. Change the Specified Torque value by pressing  $\blacktriangle$  or  $\blacktriangledown$ .



5. When the Specified Torque value is displayed, press **S**ET to set the value.



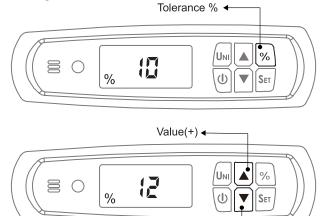


6. Press (1) each time before taking a new torque measurement.

**NOTE:** To exit Specified Torque set up without saving press ①. If the torque wrench is idle for 6 seconds during set up, it will automatically exit without saving.

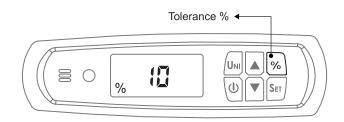
## SETTING THE "SPECIFIED TORQUE ALERT" TOLERANCE:

- 1. Without applying torque, press % to enter tolerance percentage setting mode.
- 2. Press ▲ or ▼ to change the Specified Torque Alert tolerance percentage.



Value(-) ◆

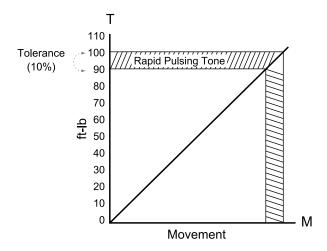
3. When the desired percentage value is reached, press % to save the value.



**NOTE:** To exit Specified Torque Alert mode without saving press  $\boxed{\underline{\textbf{U}}}$ . If the torque wrench is idle for 6 seconds during set up, it will automatically exit without saving.

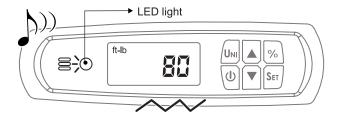
#### IN USE EXAMPLE:

Specified Torque is set to 100 ft-lbs, and the Specified Torque Alert tolerance is set at 10%. The Specified Torque Alert tone will occur at 90 ft-lbs. You will hear a rapid pulsing tone to indicate the torque value is getting close to the Specified Torque.



#### **REACHING SPECIFIED TORQUE:**

When the applied torque reaches the Specified Torque, the red LED remains on, the buzzer sounds constant, and the handle will vibrate. The display will show the peak maximum applied torque for 15 seconds and then returns to "0".



## **OPERATION:**

1. This Electronic Torque Wrench is designed so that when force is properly applied to the handgrip, an audible signal, a solid red LED light and vibration in the handle will indicate that the Target Torque has been attained.

**WARNING: DO NOT apply pressure beyond this point.** The audible signal, solid red LED light and vibration in the handle are the indicators that the specified torque has been reached. Over torquing beyond these signals could cause damage to fasteners and/or to the torque wrench.

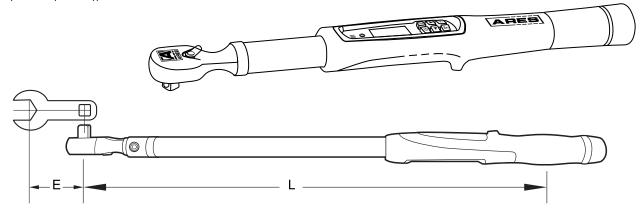
- 2. To properly apply torque, attach socket securely on torque wrench drive end and position socket perfectly straight on fastener without any skewing or angle. Firmly grip the center of handle and apply a steadily increasing of force in the proper "tightening" direction.
- 3. Turn wrench with a constant, even force applied to the handle. As resistance increases apply pressure more carefully. To ensure accuracy, the fastener must be in motion when the torque measurement is made, and the Specified Torque is reached. At that point stop applying pressure immediately.

**WARNING:** Any deviation from the directed use will result in an undesired amount of torque applied. **DO NOT USE** universal joints or universal sockets due to the uncertainty of the associated error. If you need angular access, use a flex head torque wrench (also available from ARES Tool).

#### **USING TORQUE EXTENSIONS:**

When necessary to use a torque extension that changes the lever length of the torque wrench, the torque being applied will multiply. To calculate the adjustment, use the following formula:

- TW Torque Wrench Specified Torque Setting
- TE Torque applied by the extension to the fastener
- L Length of the torque Wrench from Handle position to center of Drive end
- E Length of the Extension from center of square drive hole to center of wrench end.
- $TW = (TE \times L) / (L + E)$
- $TE = (TW \times (L + E)) / L$



## **OTHER SCREENS DETAILS:**

## **FFF**

If "FFF" is displayed on the screen, this is a prompt to enter a code that is required to recalibrate the torque wrench. It appears when a specific combination of buttons is pushed. Calibration can ONLY be done by a trained professional. To exit this screen press 0

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When the applied torque exceeds the wrenches full-scale capacity then the red LED light will remain on and the buzzer will sound continuously. The LCD will display "----". You will need to verify the calibration of the wrench if the maximum capacity has been exceeded. Recalibration is recommended.



The (scale icon) indicates that the torque wrench is in tracking mode. To switch between trace and peak modes press the following button combinations.

TRACE – to switch to Trace Mode press the **(U**) and **▼** together.

PEAK – to switch to back Peak Mode press the same combination of buttons and the wrench returns to default setting in Peak Mode.

# CERTIFICATION

This torque wrench was calibrated prior to shipment from the factory within tolerance limits of +/-2% Clockwise, +/-3% Counterclockwise accuracy from 20% to 100% of full scale.

## **WARRANTY**

## You are backed by the ARES Tool Performance Assurance!

**ARES TOOL** warrants this product (excluding carrying cases and storage accessories and the product categories set forth below) to the original purchaser for its useful life (not to exceed one year for products with electrical or electronic components) against defects and deficiencies in material and workmanship.

This **1 YEAR WARRANTY** does not cover products which in ARES Tool's judgement have been subject to negligence, misuse, abuse, accident, improper storage, alteration, improper repair, disassembly and/or reassembly. Normal wear and tear are also excluded. Deficient products will be replaced or repaired.

Please call or email at (206) 453-6776 / ares@arestool.com for more details or to receive support.

This warranty excludes blades, bits, bit sockets, carrying cases, pouches, torque products, punches, dies, bulbs, fuses, batteries, and other consumables which must be replaced under normal use and service. These warranties set forth herein are the sole warranties applicable to Products and is in lieu of all other warranties, whether expressed, implied or statutory.

The implied warranties of merchantability and fitness for a particular purpose are specifically excluded. Customer's sole and exclusive remedy for breach of this Warranty is, at the option of **ARES TOOL**, repair or replacement of the defective product.

Please visit us at WWW.ARESTOOL.COM to register your product and sign up for our ARES Tool Club

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