

Part #s 31483, 31484, 31485

# MICROMETER TORQUE WRENCH

## INSTRUCTIONS



The **MICROMETER TORQUE WRENCHES** rely on a proven straightforward design to provide many years of service. It features rugged all metal construction for maximum durability. Easy to use with a range that is ideal for most average automotive applications.

## CONTENTS

- (1) Torque Wrench
- (1) Heavy Duty Blow Molded Storage Case

## SPECIFICATIONS

	Torque Range	Torque Increments	Accuracy	Drive
#31483 1/2" Micrometer Torque Wrench	10-150 ft-lb 1.4-20.7 m-kgs	1 ft-lb	6%	1/2"
#31484 3/8" Micrometer Torque Wrench	5-80 ft-lb 0.7-11.2 m-kgs	0.5 ft-lb	6%	3/8"
#31485 1/4" Micrometer Torque Wrench	20-200 in-lb 23-230 cm-kgs	1 in-lb	6%	1/4"

## SAFETY INFORMATION

The following explanations are displayed in this manual, on the labeling, and on all other information provided with this product:

### **DANGER**

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **CAUTION**

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### **NOTICE**

NOTICE is used to address practices not related to personal injury.

# SAFETY INFORMATION



## **⚠ READ INSTRUCTIONS**

Thoroughly read and understand these product instructions before using this Torque Wrench.

- Keep these product instructions for future reference.



## **⚠ WARNING INJURY HAZARDS!**

- This tool creates high amounts of leverage while in operation. Wear ANSI approved eye protection and heavy duty work gloves at all times while operating.
- Over-torquing can cause part and or fastener failure.
- Read and understand all vehicle manufacturer's torquing instructions for the vehicle or object on which the fastener is being torqued. Failure to do so could cause damage or personal injury.



## **⚠ CAUTION INJURY HAZARDS!**

- Do not use for loosening and installing fasteners. Use only for tightening a fastener to the recommended torque.
- Do not extend handle by use of a pipe or other means. Doing so may cause damage or personal injury.
- Inspect before every use, if tool appears damaged do not use.
- All sockets, extensions or accessory tools used in conjunction with this torque wrench must be rated to handle the intended torque setting.

# SETTING THE TORQUE VALUE

- Unlock by turning the black Knurled Knob at the end of the Torque Wrench Handle approx. 1/4 turn (FIG. 1) in a Counter-Clockwise direction.

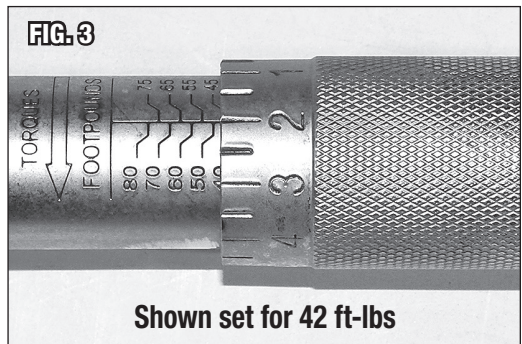
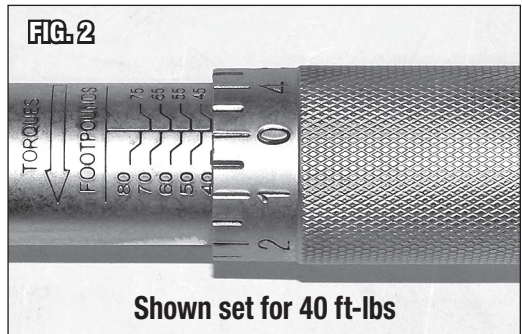
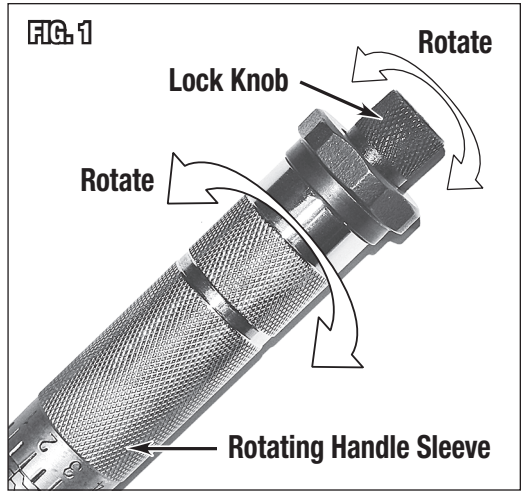
## **⚠ NOTICE**

**Do not excessively loosen the black Knurled Knob or the Torque Wrench factory calibration will be destroyed.**

- To select the desired torque, turn the Rotating Handle Sleeve until the "0" aligns with a major graduation on the stationary segment of the Handle (FIG 2), then continue turning the Handle Sleeve until the desired minor graduation on it is aligned with the stationary handle segment center line (FIG 3).
- Lock the torque setting by turning the black Knurled Knob at the end of the Torque Wrench Handle (FIG. 1) in a Clockwise direction until it stops.
- The Torque Wrench is now ready for use.

## **⚠ NOTICE**

**Do not rotate the Rotating Handle Sleeve beyond or below the maximum range or the Torque Wrench factory calibration will be destroyed.**



# OPERATION

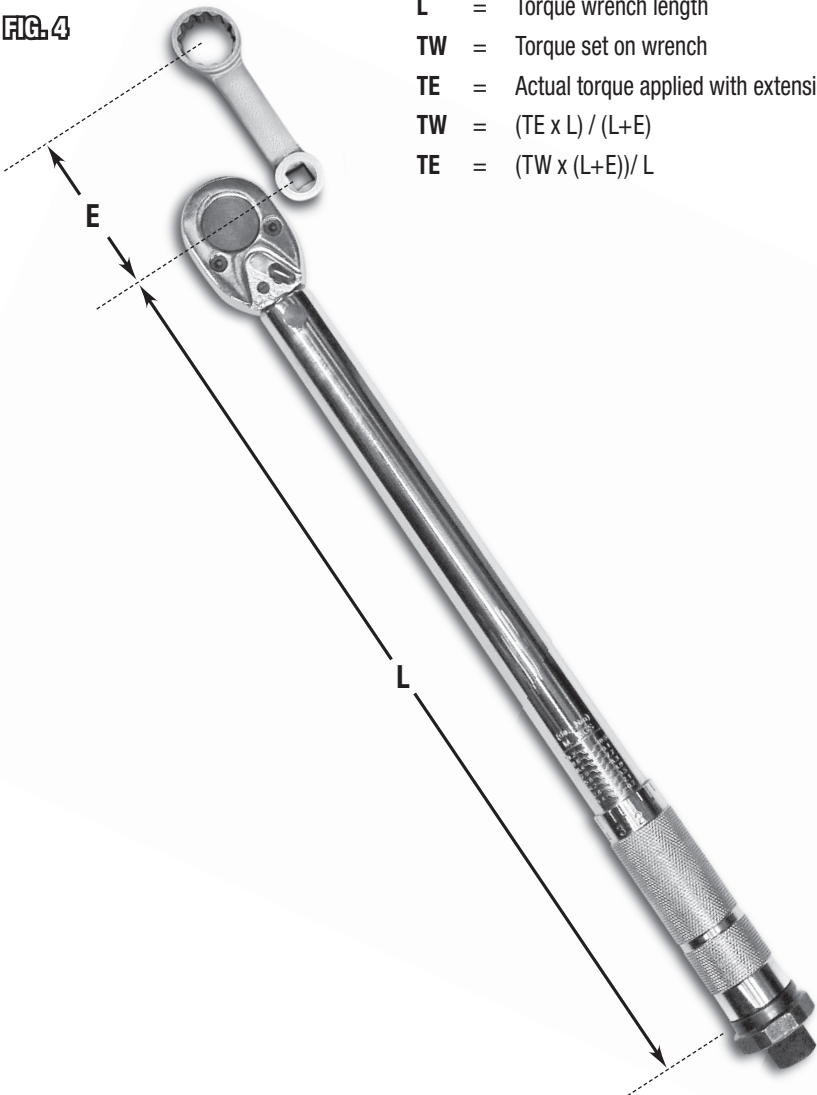
- Set torque wrench to the desired torque value (see previous section: Setting the Torque Value).
- Install appropriate socket to the square drive and place the socket securely over the fastener
- Center hand on the handle grip and apply a steady force in the tightening direction until a noticeable “click” is felt and heard. ***Immediately stop pulling once the “click” is achieved.*** The fastener is now torqued to the desired setting.
- After each use, unlock the black knurled knob and rotate handle counterclockwise until the torque wrench is at its lowest setting then re-lock the rotating handle in this position. This will release any internal tension and allow the torque wrench to maintain calibration as long as possible.
- Always bring fasteners to near final tightness with conventional tools before tightening with Torque Wrench to final torque. Never use the Torque Wrench as a general ratchet to tighten or loosen fasteners or permanent damage can occur.

# SETTING THE TORQUE WRENCH WITH TORQUE ADAPTERS

If a Torque Adapter is being used, the effective lever length will change with the addition of the adapter. Use the equations below to calculate the torque setting adjustments necessary.

**NOTE:** Socket Drive Extensions must be placed axially in line with the drive mechanism and handle of the torque wrench as shown in **FIG 4**.

**FIG.4**



- E = Adapter length
- L = Torque wrench length
- TW = Torque set on wrench
- TE = Actual torque applied with extension in place
- $TW = (TE \times L) / (L + E)$
- $TE = (TW \times (L + E)) / L$

# MAINTENANCE

- Before each use, inspect the condition of the tool for damage or corrosion that may affect operation.
- After each use, be sure to adjust the Torque Wrench to its lowest torque setting. This releases internal tension and allows the torque wrench to maintain calibration as long as possible.

## **⚠ NOTICE**

Dropping the Torque Wrench can have an adverse effect on accuracy.  
Do Not drop the Torque Wrench or allow it to fall.

- Keep the Torque Wrench stored in a clean, dry location, in the supplied case. Periodically coat with a rust preventative coating such as a light machine oil.

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**If you have any questions about the use of this product, please contact**

The Eastwood Technical Assistance Service Department: 800.544.5118 >> email: [techelp@eastwood.com](mailto:techelp@eastwood.com)

PDF version of this manual is available online >> [eastwood.com/31482manual](http://eastwood.com/31482manual)

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