# WARNING TORQUE WRENCH SAFETY

Any piece of equipment can be dangerous if not operated properly. <u>YOU</u> are responsible for the safe operation of this equipment. The operator must carefully read and follow any warnings, safety signs and instructions provided with or located on the equipment. Do not remove, defeat, deface or render inoperable any of the safety devices or warnings on this equipment, <u>IF</u> any safety devices or warnings have been removed, defeated, defaced or rendered inoperable, **DO NOT USE THIS EQUIPMENT!!!** 

**WARNING:** This product can expose you to chemicals including lead and chromium from steel products, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="https://www.P65warnings.ca.gov">www.P65warnings.ca.gov</a>

Always wear eye protection whenever using this equipment!

Always return the torque wrench to its lowest setting after use!

## **EXTENSIONS & ADAPTERS**

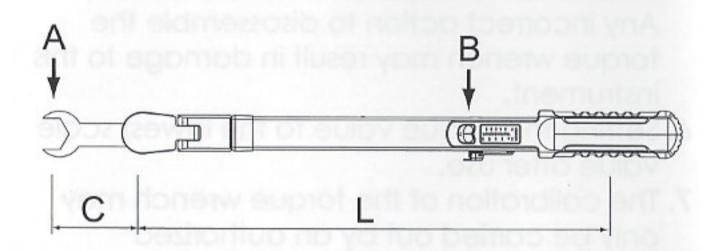
When using an extension or adapter (increasing the effective length of the torque wrench) the output torque value will change. To calculate the new torque output of the wrench use the following formula:

$$A = \frac{L + C}{L} \times B$$

A = Torque exerted @ end of adapter
L = Distance between square drive
and hand position

B = Wrench scale reading

C = Length of adapter or extension

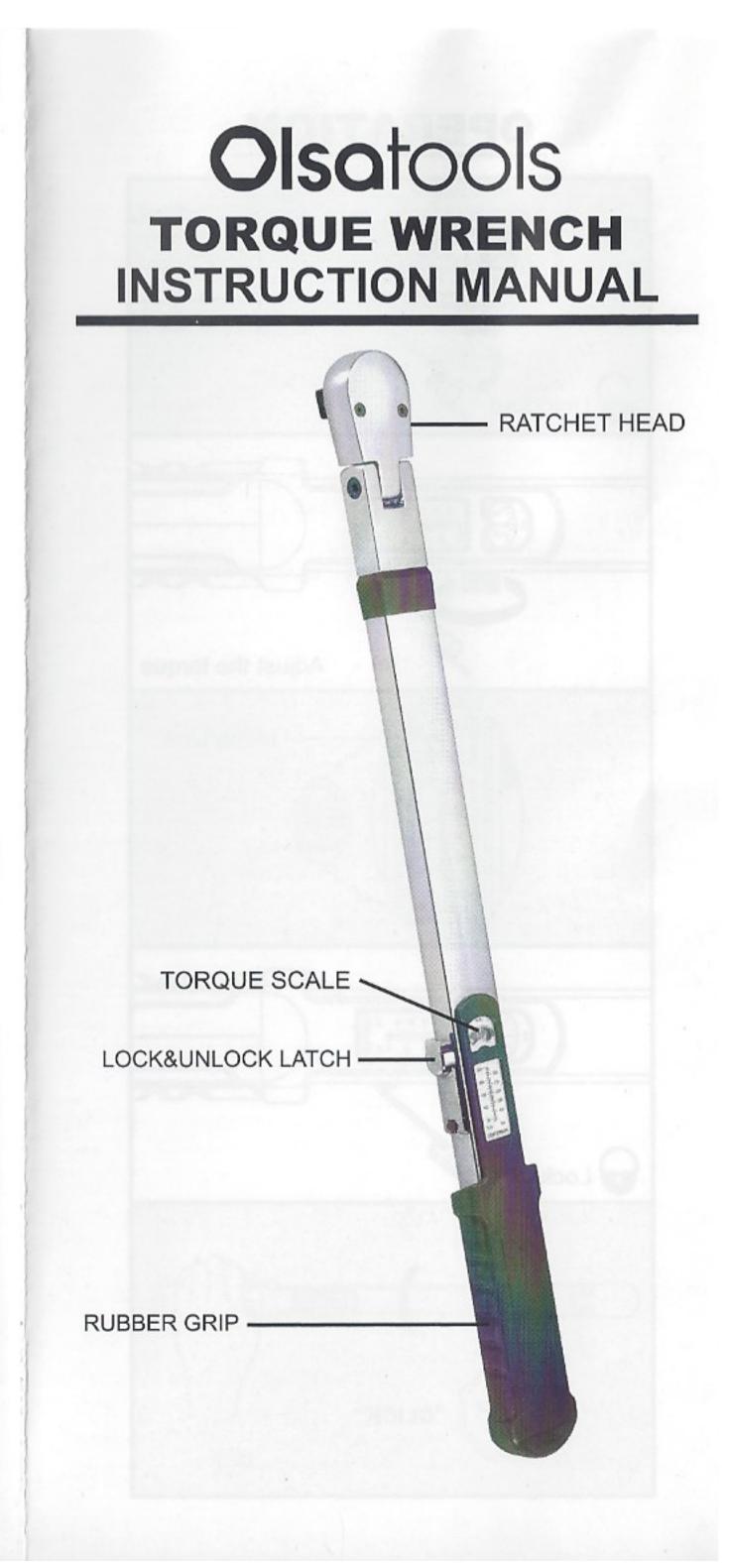


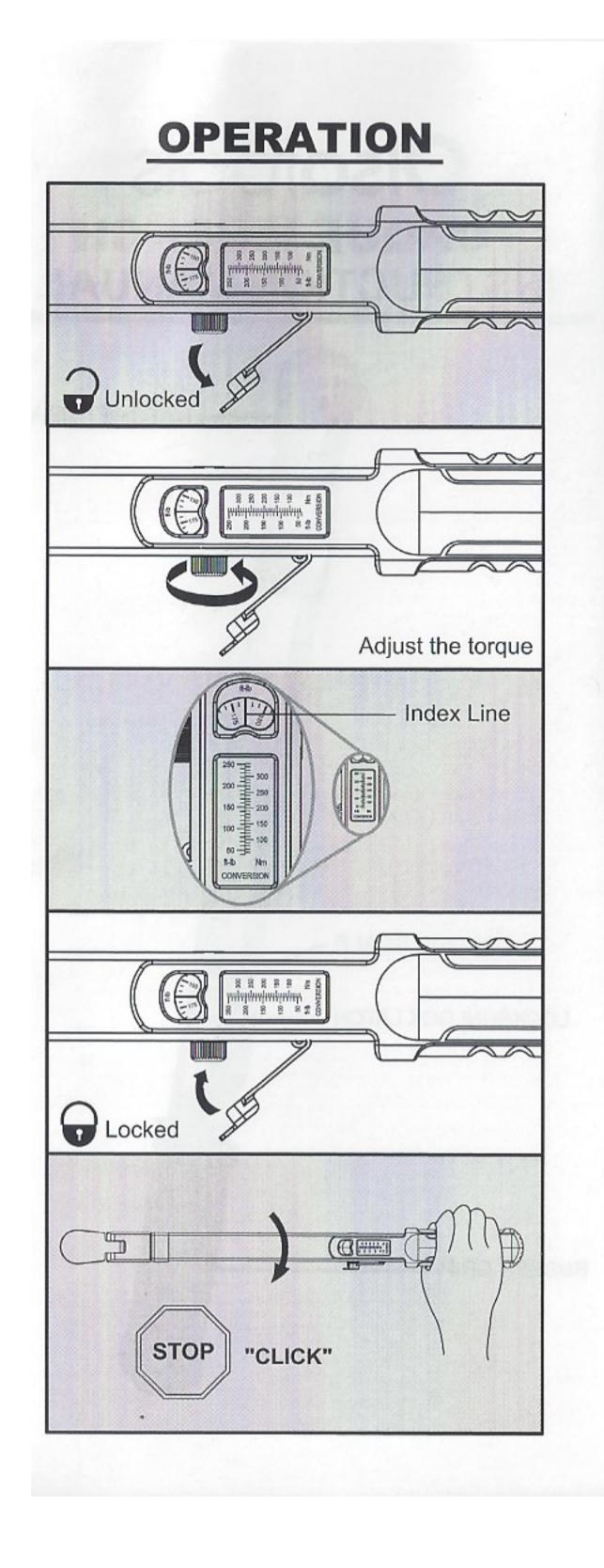
A number of variables including the length of the adapter or extension, length of the wrench and variations in hand position on the wrench will affect the accuracy of the above calculation.

## STANDARD

We calibrate each torque wrench at the factory using torque standards according to DIN ISO 6789 & ASME B107.300-2010, and certifies it meets the accuracy requirements of specifications DIN ISO 6789 and ASME B107.300-2010.

CONVERT FROM	то	MULTIPLY BY
ozf-in	lbf-in	0.0625
lbf-in	ozf-in	16
lbf-in	kgf-cm	1.1519
lbf-in	lbf-ft	0.083333
lbf-in	kgf-m	0.011519
lbf-in	N-m	0.1130
lbf-in	dN-m	1.130
lbf-ft	N-m	1.356
lbf-ft	kgf-m	0.1382
lbf-ft	lbf-in	12
N-m	dN-m	10
N-m	kgf-cm	10.20
N-m	kgf-m	0.10197
N-m	lbf-in	8.8507
N-m	lbf-ft	0.73756
dN-m	lbf-in	0.885
dN-m	N-m	0.100
kgf-cm	lbf-in	0.8681
kgf-cm	N-m	0.09807
kgf-m	lbf-ft	7.233
kgf-m	N-m	9.807







#### CARE AND MAINTENANCE

- The torque wrench is a precision instrument, and should be stored with care. Don't throw it around, use hammer with it, or use it as lever bar.
- The torque wrench is lubricated for life and should not be oiled. The only exception is the ratchet head which may be lubricated as needed for smooth operation.
- 3. The torque wrench is precision measuring instrument. Calibration must be done regularly to ensure accuracy and it's the owner's responsibility. Suggested calibration period is at least every 12 months or even shorter depending on situation.
- Always store the torque wrench in the box after use to stay away from dirt and humidity.
- 5. Never disassemble the torque wrench by yourself. For any need to disassemble the torque wrench or repair it, please look for assistance from qualified service station. Any incorrect action to disassemble the torque wrench may result in damage to this instrument.
- Setting the torque value to the lowest scale value after use.
- The calibration of the torque wrench may only be carried out by an authorized laboratory or workshop.

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## IMPORTANT SAFETY RULES TO FOLLOW

#### **APPLICATION:**

Bolt and nut tightening on cars, trucks, and other mechanical equipment requiring uniform degree of tightness.

#### **USE HINTS:**

Consult manufacturers specification for proper torque tension. Always work on clean threads - rust and dirt will influence your reading. If threads are lubricated, reduce torque applied by 10%. For example - if you wish to pull 100 ft. pounds, apply 90 ft. pounds.

Never tighten a fastener completely with a different wrench before using the torque wrench. Snug the fastener in place, then use the torque wrench in the final tightening stages.

If the person receiving this handout will not be the user of the equipment, forward these instructions to the operator. **IF** there is any doubt as to the operation or safety of the equipment,

DO NOT USE!!! CALL A TOOL SHED IMMEDIATELY!!!

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN INJURY OR DEATH