



JETCO Advanced Torque Tools  
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## Safety Warnings Read Prior To Use!

The operator and bystanders should always wear safety glasses when using this torque wrench.

Periodic recalibration of this torque wrench is required to ensure accuracy.

Out of calibration torque wrenches may cause damage to the part or the torque wrench.

Do not use cheater bars to apply force to the handle.

Do not exceed the maximum range of the torque wrench.

Apply torque in a safe manner that will not result in injury or fall if the fastener or wrench should slip or break. Pulling on the wrench, as opposed to pushing, may help avoid injury if breakage should occur.

Never use the wrench to balance your weight while applying torque. Your feet should be firmly placed on the ground so if the wrench should slip or break you will not fall.

Never "bounce" on the wrench to apply force to the handle.

### Caution-Ratchet

Ratchets may slip or break, causing injury, if parts are worn, dirty, mismatched, or if the direction lever is not fully engaged.

## Operation



1. Bezel
2. Memory needle
3. Pointer needle
4. Reset knob
5. Outer scale
6. Inner scale

### Prior to Use

It is recommended to cycle the wrench to full scale, three times, in the direction to be used, and then set the zero. Dial torque wrenches should be zeroed prior to use. Set zero to proper needle used.

### To Set Zero

If you are not using the memory needle feature, rotate the bezel (1) until the pointer needle (3) points to the zero on the scale to be used. If you are using the memory needle feature set the zero as described under memory needle clockwise or counterclockwise operation.

### Pointer needle Operation

Apply torque until the pointer needle (3) reaches the desired torque value. When the torque is removed the pointer needle will return to zero (always reset the zero between torque cycles).

# Operation continued

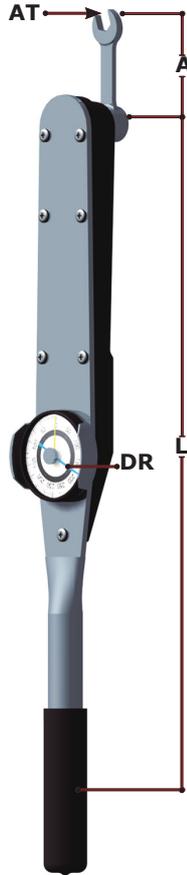
## Memory needle clockwise operation

1. Rotate the bezel (1) in the counter clockwise direction until the memory needle (2) hits the pointer needle (3). Continue to rotate the bezel until the memory needle points to zero on the scale to be used.
2. Apply torque in the clockwise direction. The pointer needle will push the memory needle as torque is applied.
3. When the memory needle reaches the desired value, stop applying torque. The pointer needle will return to zero and the memory needle will stay at the maximum torque applied.
4. After reading the torque value, reset the memory needle by rotating the reset knob (4), in the counterclockwise direction, until the memory needle touches the pointer needle.
5. Make sure the memory needle is pointing to zero, by rotating the bezel in the counterclockwise direction, before starting another torque cycle.

## Memory needle counter-clockwise operation

1. Rotate the bezel (1) in the clockwise direction until the memory needle (2) hits the pointer needle (3). Continue to rotate the bezel until the memory needle points to zero on the scale to be used.
2. Apply torque in the counter-clockwise direction. The pointer needle will push the memory needle as torque is applied.
3. When the memory needle reached the desired value, stop applying torque. The pointer needle will return to zero and the memory needle will stay at the maximum torque applied.
4. After reading the torque value, reset the memory needle by rotating the reset knob (4), in the clockwise direction, until the memory needle touches the pointer needle.
5. Make sure the memory needle is pointing to zero, by rotating the bezel in the clockwise direction, before starting another torque cycle.

# Use of Adapters



When using an extension adapter, like what is shown, the actual torque applied (AT) will be greater than the reading shown on the dial (DR). Use this formula to determine the actual torque applied:

$$AT = DR(L + A) / L$$

**AT=Actual Torque**  
**DR=Dial Reading**  
**A=Length of Extension**  
**L=Length from hand position to center of square drive**

The extension should only be used in-line with the wrench (as opposed to being at an angle), or the above equation does not apply.

# Torque Conversion Table

FROM	TO	MULTIPLY BY
lb.in.	oz.in.	16
lb.in.	lb.ft.	0.08333
lb.in.	kg.cm	1.1519
lb.in.	Kg.m	0.01159
lb.in.	N.m	0.113
lb.in.	dN.m	1.13
lb.ft.	kg.m	0.1382
lb.ft.	N.m	1.356
N.M	dN.m	10
N.m	kg.cm	10.2
N.m	kg.m	0.102
oz.in.	lb.in.	0.0625
lb.ft.	lb.in.	12
kg.cm.	lb.in.	0.8681
kg.m	lb.in.	86.81
N.m	lb.in.	8.85
dN.m	lb.in.	0.885
kg.m	lb.ft.	7.236
N.m	lb.ft.	0.7376
dN.m	N.m	0.10
kg.cm	N.m	0.09807
kg.m	N.m	9.807

## Certification:

This product, when shipped from the factory, met the accuracy specifications as prescribed in ANSI B107.14M-1994, and was calibrated with equipment that was calibrated with standards traceable to NIST (National Institute of Standards and Technology).