

CERTIFICATION

This torque wrench, as calibrated at the factory, is certified to meet the accuracy in specifications; ASMEB107.14-2004, GGG-W-686, Type 2, Class A Style 1, 2 and ISO 6789. Additionally, all wrenches are calibrated on a torque standard traceable to the National Institute of Standards Technology (N.I.S.T.).

CONVERSION TABLE

To convert from	To	Multiply by
lb.in.	oz.in	16
lb.in.	lb.ft.	.08333
lb.in.	kg.cm.	1.1519
lb.in.	kg.m.	.011519
lb.in.	N.m.	.113
lb.in.	dN.m.	1.13
lb.ft.	kg.m.	.1382
lb.ft.	N.m.	1.356
N.m.	dN.m.	10
N.m.	kg.cm.	10.2
N.m.	kg.m.	.102
oz.in.	lb.in.	.0625
lb.ft.	lb.in.	12
kg.cm.	lb.in.	.8681
kg.m.	lb.in.	86.81
N.m.	lb.in.	8.85
dN.m.	lb.in.	.885
kg.m.	lb.ft.	7.236
N.m.	lb.ft.	.7376
dN.m.	N.m.	.10
kg.cm.	N.m.	.09807
kg.m.	N.m.	9.807

For Your Records

Model# _____

Serial# _____



LIMITED WARRANTY

Until one year from the date of purchase, we will repair any defect in material or workmanship free of charge. Improper use of these products, including but not limited to the application of excessive force, will affect performance and may result in injury. The warranty does not apply to wrenches which do not function properly or within specified accuracy because of wear, improper or unreasonable use, damage not resulting from defect or malfunction, or which have been altered.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For repair or calibration send wrench, postage prepaid, to:

Angle Repair
175 Angle Drive
Beckley, WV 25801
304-253-5729

OR

Team Torque, Inc.
1231 Park Ave.
Bismark, ND 58504
888-682-8675



ATD-2501 ATD-2504 ATD-2505 Owner's Manual

Join the professionals with your
NEW adjustable metal handle
micrometer torque wrench!

The choice of professionals throughout
the world for accuracy, durability
and calibration reliability.



Made in USA
US & Foreign Parts



WARNING
WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

SAFETY MESSAGES



WARNING



Read operation manual completely before using torque instrument and store for future reference.



Wear safety goggles - both user and bystanders.



- An out of calibration torque wrench can cause part or tool breakage.
- Periodic re-calibration is necessary to maintain accuracy.
- Do not exceed rated torque as overtorquing can cause wrench or part failure.
- Do not use torque instrument to break fasteners loose.



- Do not use cheater extension on the handle to apply torque.
- Broken or slipping tools can cause injury.



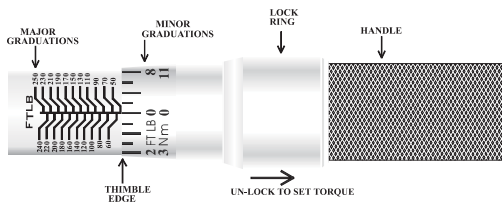
CAUTION - RATCHET HEAD

Ratchet mechanism may slip or break if dirty, mismatched or worn parts are used, or direction lever is not fully engaged. Ratchets that slip or break can cause injury.

MAINTENANCE / SERVICE

1. The torque wrench's internal mechanism is permanently lubricated during assembly. **Do not attempt to lubricate the internal mechanism.**
2. Clean torque wrench by wiping. **Do not immerse.**
3. Store torque wrench in protective case at its lowest torque setting. **Do not force handle below lowest setting.**

ADJUSTMENTS OF TORQUE SETTINGS



- To unlock the handle hold tube and pull lock ring back allowing handle to turn CW or CCW.
- Set wrench to desired torque as follows:
EXAMPLE - 64 ft. lbs.
 1. Keep slight rearward pull on lock-ring during all adjustments.
 2. Line up thimble edge with the "60" graduation cross line and zero with vertical line. Wrench is now set at 60 ft. lbs. (See figure I)
 3. Turn handle and thimble graduation to "4" on vertical line. Wrench is now set at 64 ft. lbs. (See figure II)

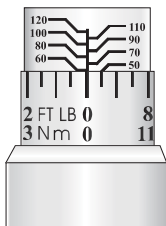


Figure I

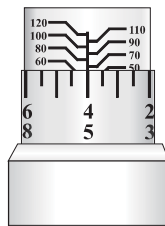
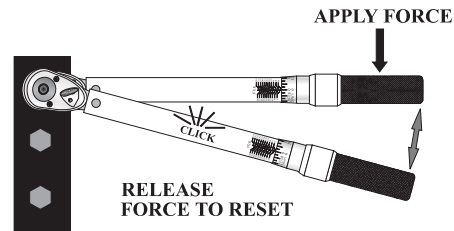


Figure II

4. Lock handle by releasing back pressure on lock-ring until it clicks and handle doesn't turn.
5. To torque fastener, keep hand centered on the grip handle. Apply a slow, steady force in the desired direction until a click/impulse is heard or felt. Stop pulling and allow wrench to reset.



USE OF 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:

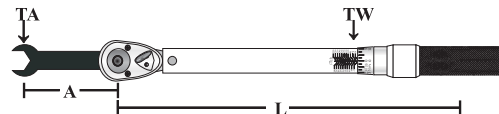
$$TW = \frac{TA \times L}{L + A}$$

TW = Wrench scale reading

TA = Torque exerted @ end of adapter

L = Distance between square drive and hand position

A = 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.