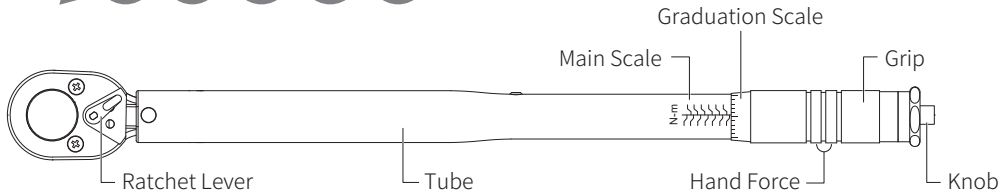
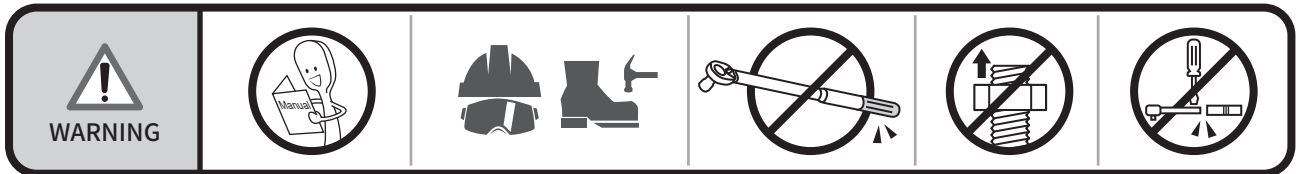


Adjustable Torque Wrench OPERATION MANUAL

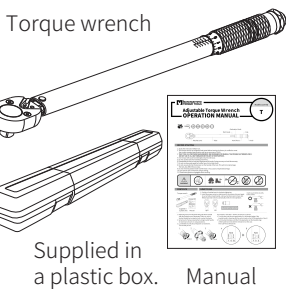


BEFORE STARTING

1. Study this instruction before use.
2. This torque wrench as calibrated and tested before leaving the factory is certified to meet the current standard specification and has an accuracy of $\pm 4\%$.
3. **THIS TOOL IS A PRECISION MEASUREMENT AND DESIGNED FOR MANUAL TIGHTENING FASTENERS ONLY. DO NOT USE IT AS A NUT BREAKER OR FOR ANY OTHER PURPOSE.**
4. Over torque will cause tool damage and personal injury.
5. Do not use this tool near rotating machinery.
6. Disassemble this tool or make any adjustments will result of losing accuracy and void the warranty.
7. Do not continuously apply force after hear click or feel shock.
8. Do not use any format of extension on the handle of the tool. This will not only damage the tool, also affect the accuracy.
9. Do not immerse grease inside ratchet head. It may cause unexpected damage.
10. Use special care at minimum torque setting.
11. Please wear gloves and goggles when working.

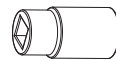
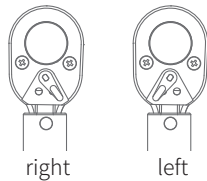


CONTENTS



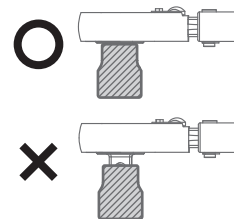
HOW TO USE

1. Position of ratchet lever for clockwise tightening.
2. Install the proper socket or attachment to the square drive and apply to nut or bolt and pull handle until you feel shock and or hear click. Release pull and wrench automatically resets for next operation.

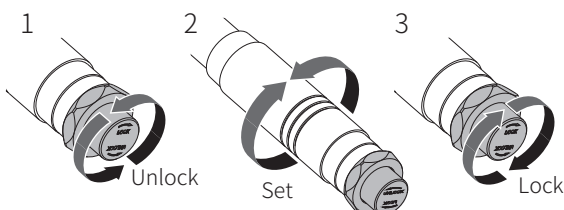


Choose quality socket

Insert square drive securely to the socket.

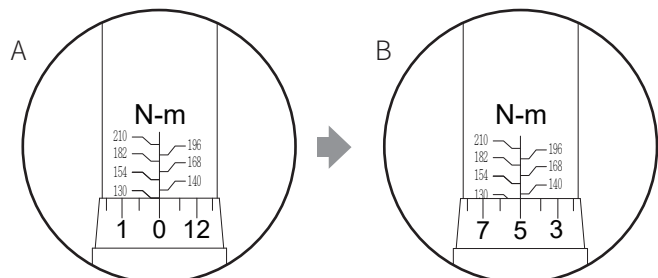


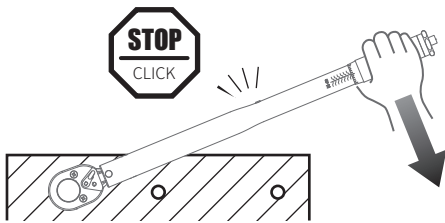
1. Balancing wrench in left hand with graduations visible with the marked arrow Elementary Scale up, unlock knurled handle by turning lock nut counter-clockwise.
2. Set amount of torque required by turning knurled handle to read exact amount on case graduations.
3. Lock handle securely by turning lock nut clockwise. Tool is ready to use.



For example : ITEM NO. T-210N to set torque to 135 Nm.

1. Turn knurled until the zero graduation on the beveled edge of the knurled handle is lined up with the vertical mark on the 130 Nm graduation. (See A)
2. Turn knurled clockwise until the 5 Nm graduation on the beveled edge of the handle is in line with the vertical line on the case. Then $130+5=135$ Nm (See B)



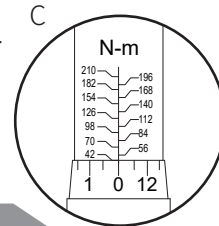


Do not continuously apply force after hear click or feel shock.

Your torque wrench was calibrated and tested before leaving the factory and is guaranteed to meet or exceed ISO 6789 and have an accuracy of $\pm 4\%$. Because your torque wrench is a precision measuring instrument, it should be serviced only where skilled personnel and special tools and equipment are available.

MAINTENANCE AND STORAGE

1. Please return torque value to just below lowest reading when not in use. Do not turn below lowest reading. (See B)
2. If this tool has not been used for a period of time, it shall be preloaded several times at its maximum torque setting. This will allow internal lubricant to recoat.
3. Clean this tool by wiping with a clean cloth after operation and storage in a dry environment. Do not dip any type of liquid in this tool. This may damage the internal of this tool.
4. This tool should be recalibrated a period of 12 months, or 5,000 cycles, whichever occurs first. To contact with local vendor, an authorized repair center for supporting.



TORQUE CONVERSION FACTORS

| Units to be converted | Corresponding unit | | | | | | | | |
|-----------------------|--------------------|-------|--------|---------|---------|---------|--------|-----------------|---------------|
| | =mN·m | =cN·m | =N·m | =ozf·in | =lbf·in | =lbf·ft | =gf·cm | =kgf·cm (kp·cm) | =kgf·m (kp·m) |
| 1 mN·m | 1 | 0.1 | 0.001 | 0.142 | 0.009 | 0.0007 | 10.2 | 0.01 | 0.0001 |
| 1 cN·m | 10 | 1 | 0.01 | 1.416 | 0.088 | 0.007 | 102 | 0.102 | 0.001 |
| 1 N·m | 1000 | 100 | 1 | 141.6 | 8.851 | 0.738 | 10197 | 10.2 | 0.102 |
| 1 ozf·in | 7.062 | 0.706 | 0.007 | 1 | 0.0625 | 0.005 | 72 | 0.072 | 0.0007 |
| 1 lbf·in | 113 | 11.3 | 0.113 | 16 | 1 | 0.083 | 1152.1 | 1.152 | 0.0115 |
| 1 lbf·ft | 1356 | 135.6 | 1.356 | 192 | 12 | 1 | 13826 | 13.83 | 0.138 |
| 1 gf·cm | 0.098 | 0.01 | 0.0001 | 0.014 | 0.0009 | 0.00007 | 1 | 0.001 | 0.00001 |
| 1 kgf·cm(kp·cm) | 98.07 | 9.807 | 0.098 | 13.89 | 0.868 | 0.072 | 1000 | 1 | 0.01 |
| 1 kgf·m(kp·m) | 9807 | 980.7 | 9.807 | 1389 | 86.8 | 7.233 | 100000 | 100 | 1 |

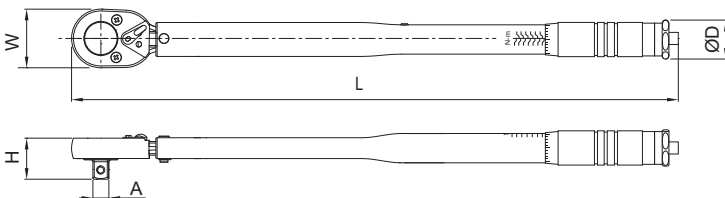
Conversion-formula :

Units to be converted \times Factor = Corresponding unit

Example : Convert 5 lbf · ft into cN · m

Solution : $5 \times 135,6 = 678 \text{ cN} \cdot \text{m}$

SPECIFICATION



Accuracy : $\pm 4\%$

Metric # Matt finish

| ITEM NO. | A | Range | 最小 | W | H | L | ØD | KG |
|----------|------|------------|--------|------|------|------|------|------|
| T-25N | 1/4" | 5-25 Nm | 0.1 Nm | 28.7 | 20.3 | 280 | 29.0 | 0.56 |
| | 3/8" | | | | 23.6 | | | |
| T-110N | 3/8" | 20-110 Nm | 0.5 Nm | 36.5 | 27.8 | 360 | 29.0 | 0.84 |
| T-210N | 1/2" | 42-210 Nm | 1 Nm | 46.6 | 33.2 | 470 | 30.6 | 1.34 |
| T-350N | 1/2" | 70-350 Nm | 1 Nm | 47.7 | 37.1 | 630 | 38.6 | 2.38 |
| T-450N | 3/4" | 65-450 Nm | 1 Nm | 71.6 | 51.5 | 850 | 38.6 | 3.68 |
| T-700N | 3/4" | 140-700 Nm | 2.5 Nm | 71.6 | 51.5 | 1078 | 42.6 | 5.70 |
| T-980N | 3/4" | 140-980 Nm | 3.5 Nm | 71.6 | 51.5 | 1222 | 42.6 | 6.00 |
| | 1" | | | | 57.0 | | | |

SAE # Shiny finish

| ITEM NO. | A | Range | 最小 | W | H | L | ØD | KG |
|----------|------|---------------|-----------|------|------|------|------|------|
| T-200i | 1/4" | 20-200 in.lb | 1 in.lb | 28.7 | 20.3 | 280 | 29.0 | 0.56 |
| | 3/8" | | | | 23.6 | | | |
| T-80F | 3/8" | 15-80 ft.lb | 0.5 ft.lb | 36.5 | 27.8 | 360 | 29.0 | 0.84 |
| T-150F | 1/2" | 30-150 ft.lb | 1 ft.lb | 46.6 | 33.2 | 470 | 30.6 | 1.34 |
| T-250F | 1/2" | 50-250 ft.lb | 1 ft.lb | 47.7 | 37.1 | 630 | 38.6 | 2.38 |
| T-300F | 3/4" | 50-300 ft.lb | 2.5 ft.lb | 71.6 | 51.5 | 850 | 38.6 | 3.68 |
| T-600F | 3/4" | 100-600 ft.lb | 1 ft.lb | 71.6 | 51.5 | 1078 | 42.6 | 5.70 |
| T-700F | 3/4" | 100-700 ft.lb | 2.5 ft.lb | 71.6 | 51.5 | 1222 | 42.6 | 6.00 |
| | 1" | | | | 57.0 | | | |

Unit : mm

Edition 02

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