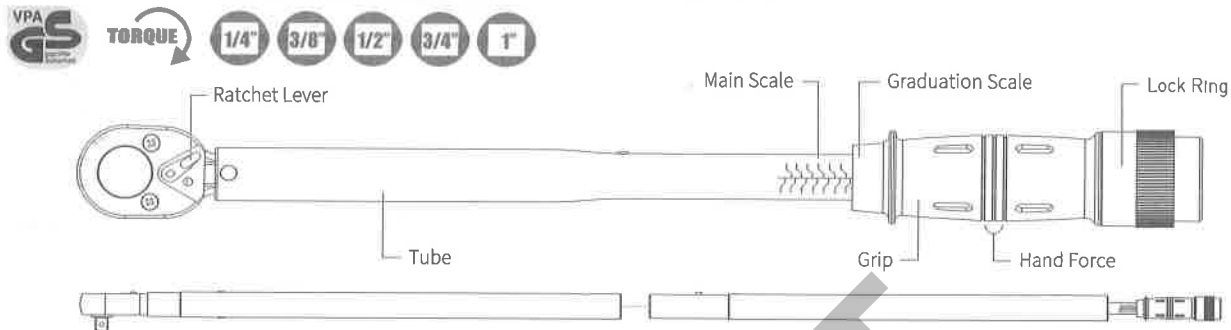


# Adjustable Torque Wrench OPERATION MANUAL

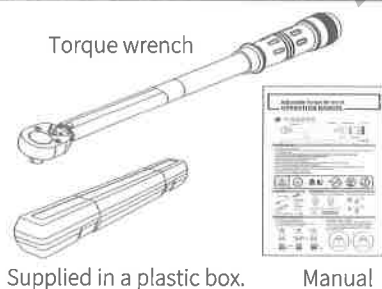


## BEFORE STARTING

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



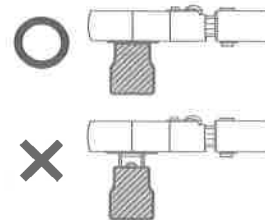
Supplied in a plastic box.

Manual

## HOW TO USE

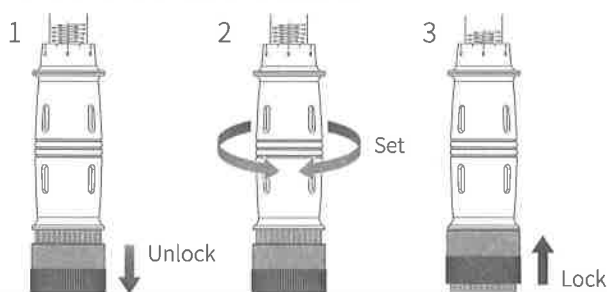
Position of ratchet lever for clockwise tightening.

Insert square drive securely to the socket.

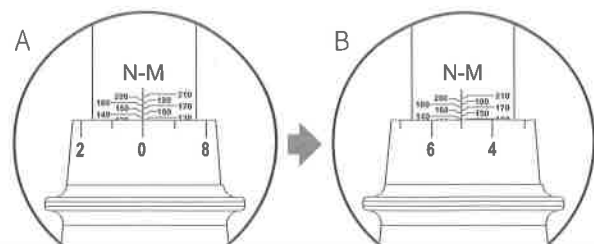


## HOW TO SET TORQUE VALUE

1. Push down the lock ring to unlocked.
2. Turn the adjustable handle Clockwise or Anti-clockwise (Right or left) to set the desired torque.
3. Pull upper the lock ring to set finished.



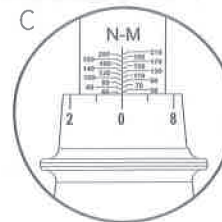
For example : To set torque to 135 Nm.  
Firstly push down and hold the lock ring and turn the handle clockwise until the upper edge to 130 Nm (see A) and the reading "5" on the long tube must align with the center link of scale perpendicularly so as to acquire  $130+5=135$  Nm. (see B)





## MAINTENANCE AND STORAGE

1. Please return torque value to just below lowest reading when not in use. Do not turn below lowest reading. (see C)
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.

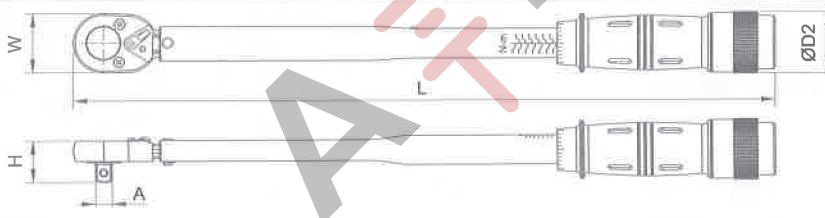


## TORQUE CONVERSION FACTORS

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	0.0688	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	135.6	13.56	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 × Factor = Corresponding unit  
Example : Convert 5 lbf·ft into cN·m  
Solution : 5 × 135.6 = 678 cN·m

## SPECIFICATION



### Metric

Ø A	Range	Scale	W	H	B	L	ØD	KG
1/4"	6-30 Nm	0.2 Nm	28.2	20.3	9.0	295	35.0	0.74
3/8"				23.6	12.4			
3/8"	20-110 Nm	0.5 Nm	36.3	27.7	12.6	380	35.0	0.96
1/2"	40-210 Nm	1 Nm	46.7	33.3	15.2	535	40.0	1.70
1/2"	70-350 Nm	1 Nm	47.5	37.3	16.8	650	47.0	2.54

### SAE

Ø A	Range	Scale	W	H	B	L	ØD	KG
1/4"	40-250 in.lb	1 in.lb	28.2	20.3	9.0	295	35.0	0.74
3/8"				23.6	12.4			
3/8"	15-80 ft.lb	0.5 ft.lb	36.3	27.7	12.6	380	35.0	0.96
1/2"	30-150 ft.lb	1 ft.lb	46.7	33.3	15.2	535	40.0	1.70
1/2"	50-250 ft.lb	1 ft.lb	47.5	37.3	16.8	650	47.0	2.54