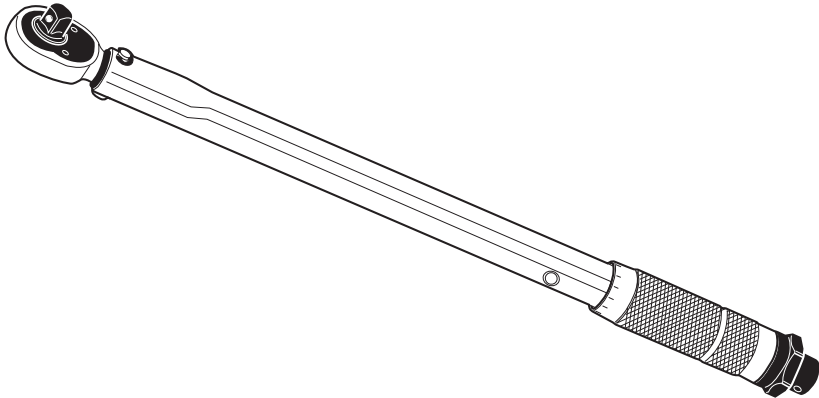


TEKTON®

Model #
24350

TORQUE WRENCH OPERATOR'S MANUAL

STORE THIS MANUAL IN A SAFE
PLACE FOR FUTURE REFERENCE



NEED HELP?

888-648-3371
support@tekton.com



Please read and understand entire manual, including all safety information, before using torque wrench. This tool is a precision measuring instrument. Handle with care and store properly. Do not attempt to increase leverage of this wrench with any other device. Failure to follow all instructions could result in damage to torque wrench, property damage, or injury.

- At low torque settings, pull wrench slowly to observe click.
- Wrench is shipped ready to use, calibrated and tested to an accuracy of $\pm 4\%$. To maintain this accuracy, it is **important that wrench is stored at lowest torque setting, 50 ft.-lb (67.8 Nm)**. This setting relieves extra tension on the internal spring, eliminating fatigue that can adversely affect accuracy.

SETTING TORQUE READING

This is a dual-range torque wrench marked with foot pounds (ft.-lb.) and Newton meters (Nm) on opposite sides of handle.

The torque scale is marked on the handle body with more precise subdivisions on the knurled handle (Fig. A). In these instructions the handle body scale will be referred to as the "main scale" and the knurled handle scale will be referred to as the "micrometer scale".



Tighten/adjust lock nut and knurled handle by hand only.

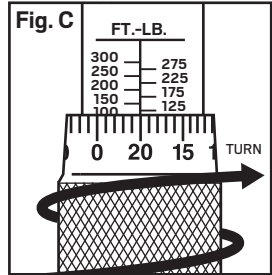
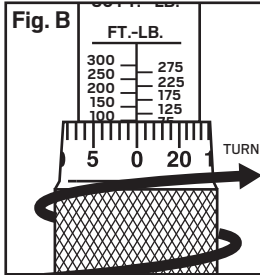
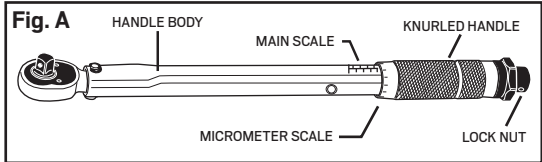
Foot Pounds (Example reading: 120 ft.-lb.)

1. Locate lock nut on the end of handle. Unlock knurled handle by turning lock nut counterclockwise.
2. **COARSE SCALE ADJUSTMENT (Fig. B):** Using ft.-lb. scale, turn knurled handle until its top edge is even with the horizontal "100" mark on main scale and the "0" mark on micrometer scale is centered on vertical line of main scale.
3. **FINE SCALE ADJUSTMENT (Fig. C):** The micrometer scale divides the main scale markings into 25 divisions. Every micrometer scale marking equals 1 ft.-lb., also known as the minimum increment. To increase torque from 100 to 120, turn micrometer handle clockwise until "20" mark is centered on vertical line of main scale. 100 ft.-lb. (main scale) + 20 ft.-lb. (micrometer scale) = 120 ft.-lb.
4. Lock torque setting by turning lock nut clockwise until snug. Wrench is now set to measure 120 ft.-lb. of torque and ready to use.

Newton Meters (Example reading: 145 Nm)

Setting desired torque on the Nm scale uses the same procedure described above for ft.-lb. scale. The micrometer scale divides the main scale markings into 25 divisions. Every micrometer scale marking equals 1.35 Nm, also known as the minimum increment.

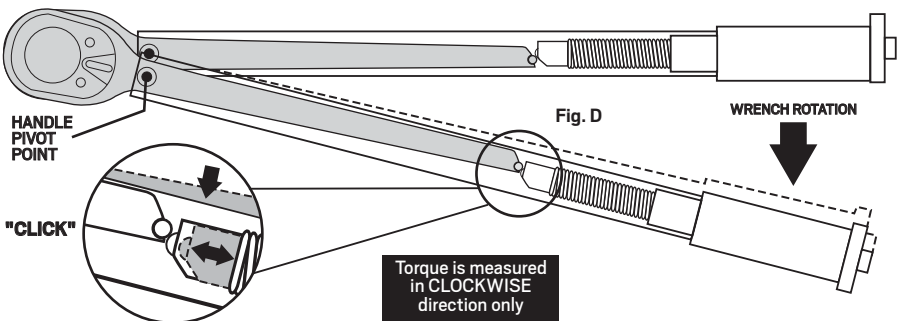
To set a torque value of 145 Nm, turn knurled micrometer handle until top is aligned with "135.6" mark on main scale and the "0" mark on micrometer scale is centered on vertical line of main scale. To increase torque from 135.6 to 145, turn micrometer handle clockwise until the "7" mark is centered on vertical line of main scale. $145 \text{ Nm} - 135.6 \text{ Nm} = 9.4 \text{ Nm}$. $9.4 \text{ Nm} / 1.35 \text{ Nm} = 7$ micrometer scale markings. Wrench is now set to measure 145 Nm of torque and ready to use.



WRENCH OPERATION

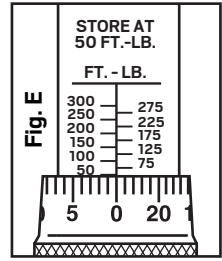
Fig. D illustrates the basic operation of the torque wrench. For accurate operation, grasp the knurled handle only and apply pulling force. When the desired torque setting is reached, the roller bearing and roller pin will roll over each other, causing a click you can hear and feel. NOTE: At low torque settings, click can be subtle. Use wrench in a quiet environment.

1. Install proper socket/attachment to square drive. Place socket on nut/bolt to be tightened.
2. Operate torque wrench the same as a standard socket wrench to tighten nut/bolt. As nut/bolt becomes snug, slow operation to a smooth, steady pull. Operating wrench too quickly or with too much force may cause you to miss the exact torque setting. At the instant the wrench clicks, torque setting has been reached. Stop pulling wrench and release pressure on handle. Do not continue to pull after torque setting is reached. Doing so will overtighten the nut/bolt and could damage wrench. Once pressure is released from the handle, wrench will automatically reset for next operation. NOTE: At low torque settings, use extra care to release wrench at the proper point after it clicks.
3. Wrench does not measure torque below 50 ft.-lb./67.8 Nm.
4. Do not use wrench to break free stuck fasteners.



MAINTENANCE AND STORAGE

1. If wrench has not been used for a long period of time, operate it several times at a low torque setting. This will allow internal lubricant to recoat moving parts.
2. When wrench is not in use, keep adjustment at lowest torque setting, 50 ft.-lb./ 67.8 Nm (Fig. E). Do not turn handle below lowest torque setting.
3. This wrench is a precision measuring instrument. Take care to operate wrench correctly. Store in a clean, dry environment.
4. Clean wrench by wiping with a clean, dry, lint-free cloth. Do not immerse in any type of liquid or cleaner. This may damage the internal components of the wrench.

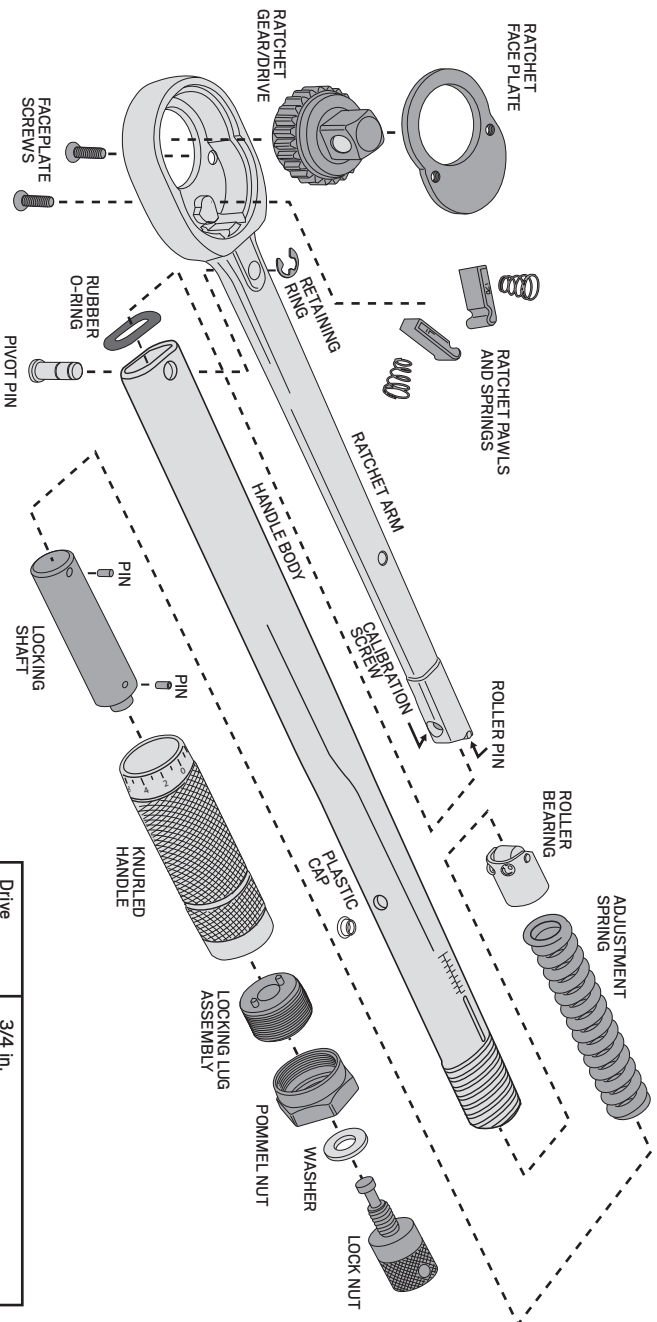


TORQUE UNIT CONVERSION TABLE

FOOT POUNDS (ft.-lb.)	INCH POUNDS (in.-lb.)	NEWTON METERS (Nm)	NEWTON METERS (Nm)	FOOT POUNDS (ft.-lb.)	INCH POUNDS (in.-lb.)	INCH POUNDS (in.-lb.)	FOOT POUNDS (ft.-lb.)	NEWTON METERS (Nm)
5	60	6.78	50	36.87	442.53	25	2.08	2.82
10	120	13.55	60	44.25	531.04	50	4.17	5.65
15	180	20.33	70	51.63	619.55	75	6.25	8.47
20	240	27.11	80	59.00	708.06	100	8.34	11.29
25	300	33.89	90	66.38	796.56	125	10.41	14.12
30	360	40.67	100	73.75	885.07	150	12.50	16.94
35	420	47.45	110	81.13	973.58	175	14.58	19.77
40	480	54.23	120	88.50	1062.09	200	16.67	22.59
45	540	61.01	130	95.88	1150.59	225	18.75	25.42
50	600	67.79	140	103.25	1239.10	250	20.83	28.24
55	660	74.56	150	110.63	1327.61	275	22.91	31.07
60	720	81.34	160	118.01	1416.12	300	25.00	33.89
65	780	88.12	170	125.38	1504.62	325	27.08	36.72
70	840	94.90	180	132.76	1593.13	350	29.17	39.54
75	900	101.68	190	140.13	1681.64	375	31.25	42.37
80	960	108.46	200	147.51	1770.15	400	33.33	45.19
85	1020	115.24	210	154.88	1858.65	425	35.41	48.01
90	1080	122.02	220	162.26	1947.16	450	37.50	50.84
95	1140	128.80	230	169.64	2035.67	475	39.58	53.66
100	1200	135.58	240	177.01	2124.17	500	41.67	56.49
105	1260	142.36	250	184.39	2212.68	525	43.75	59.31
110	1320	149.13	260	191.76	2301.19	550	45.83	62.14
115	1380	155.91	270	199.14	2389.70	575	47.91	64.96
120	1440	162.69	280	206.51	2478.21	600	50.00	67.79
125	1500	169.47	290	213.89	2566.71	625	52.08	70.61
130	1560	176.25	300	221.26	2655.22	650	54.16	73.44
135	1620	183.03	310	228.64	2743.73	675	56.25	76.26
140	1680	189.81	320	236.02	2832.23	700	58.33	79.09
145	1740	196.59	330	243.39	2920.74	725	60.41	81.91
150	1800	203.37	340	250.77	3009.25	750	62.50	84.73
155	1860	210.15	350	258.14	3097.76	775	64.58	87.56
160	1920	216.93	360	265.52	3186.26	800	66.67	90.38
165	1980	223.70	370	272.89	3274.77	825	68.75	93.21
170	2040	230.48	380	280.27	3363.28	850	70.83	96.03
175	2100	237.26	390	287.64	3451.79	875	72.91	98.86
180	2160	244.04	400	295.02	3540.29	900	75.00	101.68
185	2220	250.82	410	302.40	3628.80	925	77.08	104.51
190	2280	257.60	420	309.77	3717.31	950	79.16	107.33
195	2340	264.38	430	317.15	3805.82	975	81.25	110.16
200	2400	271.16	440	324.52	3894.32	1000	83.33	112.98
205	2460	277.94	450	331.90	3982.83			
210	2520	284.72						
215	2580	291.50						
220	2640	298.27						
225	2700	305.05						
230	2760	311.83						
235	2820	318.61						
240	2880	325.39						
245	2940	332.17						
250	3000	338.95						
255	3060	345.73						
260	3120	352.51						
265	3180	359.29						
270	3240	366.07						
275	3300	372.84						
280	3360	379.62						
285	3420	386.40						
290	3480	393.18						
295	3540	399.96						
300	3600	406.74						
305	3660	413.52						

CONVERSIONS		
1 ft.-lb. =	1 in.-lb. =	1 Nm =
0.138 m-kg	0.0833 ft.-lb.	0.7375 ft.-lb.
12.0 in.-lb.	0.1129 Nm	8.8507 in.-lb.
1.355 Nm	0.0115 m-kg	0.1019 m-kg
13.82 cm-kg	1.1521 cm-kg	10.19 cm-kg

NOTE: Exploded view diagram provided for illustration purposes only. Do not disassemble any part of torque wrench. There are no user serviceable parts on or inside wrench. Parts shown and assembly may differ slightly based on model.



Drive	3/4 in.
Ratchet	24 Tooth
Length	26.3 in.
Dual Range	50 - 300 ft.-lb. / 67.8 - 406.7 Nm
Increment	1 ft.-lb. / 1.35 Nm
Accuracy	+/- 4%

TEKTON®
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 Made in Taiwan

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