

# EZ-1 Torque Wrench - TW-3

Instructions (READ THE INSTRUCTIONS FULLY BEFORE USING TORQUE WRENCH)

### Warning

- 1 The EZ-1 is a highly accurate torque wrench for torques ranging from 5 to 25 Nm (3.7 to 18.4 ft-lbs, or 44 to 221 in-lbs). If the application torque value needed is greater than 20 Nm, this torque wrench will not work for that application. Do NOT apply torques over 25 Nm as this will damage the wrench beyond repair. This torque wrench is not designed to work on cranks.
- 2 Do NOT over tighten the part (beyond its torque specification), as it may damage the part and may cause serious injury.
- 3 Do NOT over tighten the torque wrench beyond the specified torque. Tightening the torque wrench after hearing the CLICK indicating the desired torque has been reached will damage the wrench beyond repair.
- 4 Do NOT use the torque wrench to loosen bolts or parts as this may damage the torque wrench.

### Important notes

- 1 Store the torque wrench at its lowest torque setting, i.e. 5 Nm
- 2 The torque wrench is calibrated at the factory and cannot be calibrated by the user. We cannot re-calibrate the unit for you.
- 3 Do not lubricate the torque wrench.
- 5 Do not allow the torque wrench to become wet or soak it in any type of liquid.

### Determining torque values:

Refer to the manufacturer's instructions for the part or component you are installing for correct torque value specifications.

The torque wrench units are in Nm. The specified torque value provided by the manufacture of the part/component must be converted into Nm. Refer to the formulas and tables below for torque conversion methods.

### How to convert to Nm:

- 1) in-lbs to Nm →  $XXX \text{ in-lbs} / 8.8507 = YYY \text{ Nm}$
- 2) ft-lbs to Nm →  $XXX \text{ ft-lbs} \times 1.3556 = YYY \text{ Nm}$
- 3) in-lbs to ft-lbs →  $XXX \text{ in-lbs} / 12 = YYY \text{ ft-lbs}$
- 4) ft-lbs to in-lbs →  $XXX \text{ ft-lbs} \times 12 = YYY \text{ in-lbs}$
- 5) Nm to in-lbs →  $XXX \text{ Nm} \times 8.8507 = YYY \text{ in-lbs}$
- 6) Nm to ft-lbs →  $XXX \text{ Nm} / 1.3556 = YYY \text{ ft-lbs}$

Table 1 - Conversion Equations

	To:		
From:	Nm	in-lb	ft-lb
Nm	N/A	x 8.8507	/ 1.3556
in-lb	/ 8.8507	N/A	/ 12
ft-lb	x 1.3556	x 12	N/A

Table 2

Nm	in-lbs	ft-lbs
5	44.25	3.69
6	53.10	4.43
7	61.95	5.16
8	70.81	5.90
9	79.66	6.64
10	88.51	7.38
11	97.36	8.11
12	106.21	8.85
13	115.06	9.59
14	123.91	10.33
15	132.76	11.07
16	141.61	11.80
17	150.46	12.54
18	159.31	13.28
19	168.16	14.02
20	177.01	14.75
21	185.86	15.49
22	194.72	16.23
23	203.57	16.97
24	212.42	17.70
25	221.27	18.44

Table 3

ft-lbs	in-lbs	Nm
3	36	4.07
4	48	5.42
5	60	6.78
6	72	8.13
7	84	9.49
8	96	10.84
9	108	12.20
10	120	13.56
11	132	14.91
12	144	16.27
13	156	17.62
14	168	18.98
15	180	20.33
16	192	21.69
17	204	23.05
18	216	24.40
19	228	25.76

Table 4a

in-lbs	ft-lbs	Nm
40	3.33	4.52
45	3.75	5.08
50	4.17	5.65
55	4.58	6.21
60	5.00	6.78
65	5.42	7.34
70	5.83	7.91
75	6.25	8.47
80	6.67	9.04
85	7.08	9.60
90	7.50	10.17
95	7.92	10.73
100	8.33	11.30
105	8.75	11.86
110	9.17	12.43
115	9.58	12.99
120	10.00	13.56
125	10.42	14.12
130	10.83	14.69

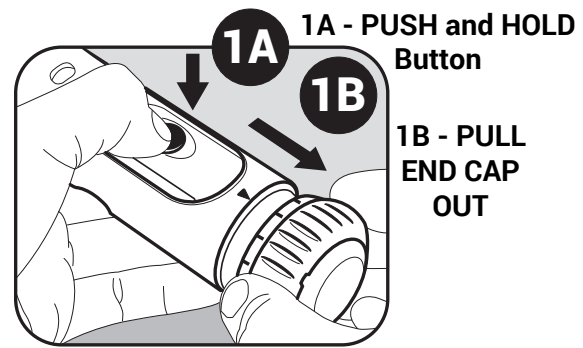
Table 4b

in-lbs	ft-lbs	Nm
135	11.25	15.25
140	11.67	15.82
145	12.08	16.38
150	12.50	16.95
155	12.92	17.51
160	13.33	18.08
165	13.75	18.64
170	14.17	19.21
175	14.58	19.77
180	15.00	20.34
185	15.42	20.90
190	15.83	21.47
195	16.25	22.03
200	16.67	22.60
205	17.08	23.16
210	17.50	23.73
215	17.92	24.29
220	18.33	24.86
225	18.75	25.42

# Setting the Torque Wrench

## Step 1: Unlock Setting End Cap

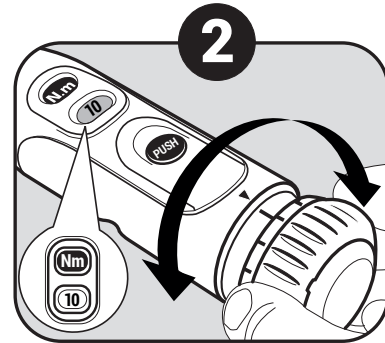
- Press and hold the button on the handle labeled 'PUSH' and pull the end cap out
- See Figures 1A and 1B.
- Once end cap is pulled out, the "PUSH" button can be released.



## Step 2: Set Torque Value

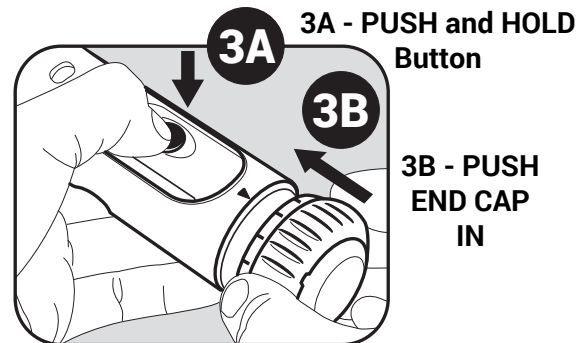
- Turn the end cap to the desired torque value - the torque value in Nm will be displayed in the small window
- Do NOT turn end cap past or below maximum/minimum values
- DO NOT adjust the Torque Value beyond the 'STOP' value

\*\*\*\* There is a 1/2 step between torque values settings - however the value displayed will show as blank. For instance if you want torque value of 5.1 Nm - you would set the value between 5.0 Nm and 5.2 Nm.



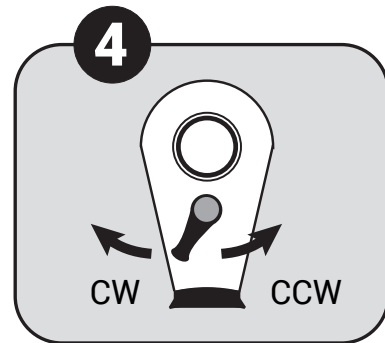
## Step 3: Lock Setting End Cap

- Press and hold the 'PUSH' button on the handle and push in the end cap
- See Figures 3A and B
- Once end cap is pushed in, the "PUSH" button can be released.



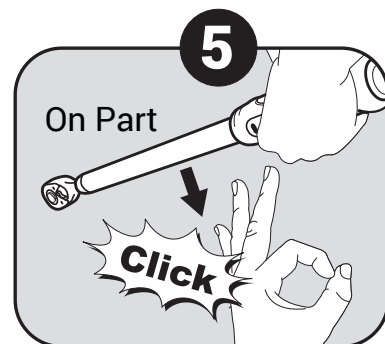
## Step 4: Set Torque Wrench Direction (CW or CCW)

- Toggle the direction switch
- The LEFT position (as shown) sets the torque fastener in CW (clockwise) direction
- The RIGHT position sets torque fastener in CCW (counter clockwise) direction



## Step 5: Torque Fastener

- Before using the torque wrench - verify that the Nm setting on the torque wrench is correct so that the correct torque will be applied to the fastener.
- Check again - that the correct torque specification has been set!
- Place the torque wrench on fastener
- Slowly torque the fastener until a click is heard
- Do NOT apply force quickly to the torque wrench



## How to properly tighten part

- It is important to apply only a slow smooth force (without jerking) to the torque wrench when tightening.
- Applying a fast, jerking force may over tighten the fastener and damage both the part and the torque wrench.
- Apply force to the handle of the torque wrench until a CLICK is heard, then IMMEDIATELY STOP applying force.
- Once a CLICK is heard, stop applying the force; the part is now set to the desired torque.
- Do NOT over tighten the part with the torque wrench.
- Continuing to tighten the torque wrench after hearing a CLICK may damage the wrench beyond repair.