



RTB Series

4Q241210.RTWD81

**OPERATION AND MAINTENANCE
MANUAL
BATTERY-POWERED TORQUE WRENCHES**



RTB Battery Series Manual

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Operation and Maintenance Manual for
Battery-Powered Torque Wrenches Version 7: September 2026

GENERAL

1. The RTB Series Battery-Powered Torque Wrenches are engineered for the installation and removal of threaded fasteners, ensuring precise high torque during bolt assembly and optimal torque during bolt disassembly.
2. Featuring a brushless motor, these wrenches require minimal maintenance.
3. Equipped with a trigger and a 'Safe to Start' button, they guarantee that both hands are securely positioned away from the workpiece and reaction bar. The 'Safe to Start' can only be released once the reaction bar is properly seated and torque is applied.
4. The combination of battery power and an efficient motor delivers excellent fastening performance with each charge.
5. Without the constraints of a power cable or hose, this tool enhances safety, convenience, and versatility.
6. It provides a clear indication of successful fastener application.
7. An intuitive touch trigger activates a high-powered LED light, illuminating the work area during application.
8. Roark Tools is not liable for any modifications made by customers to the tools or for applications for which prior consultation was not provided.

WARNING

IMPORTANT SAFETY INFORMATION: PLEASE READ THIS MANUAL PRIOR TO OPERATING THE TOOL. IT IS THE EMPLOYER'S RESPONSIBILITY TO ENSURE THAT THIS MANUAL IS DELIVERED TO THE OPERATOR. FAILURE TO FOLLOW THE WARNINGS BELOW MAY RESULT IN INJURY.

The RTB tools are equipped with alloy components, which may pose a risk in specific explosive environments.

Roark Tools RTB Series Torque Wrenches are rotary-driven power tools designed for installing and removing threaded fasteners, which require accurate high torque during bolt installation and breakout. The RTB Series uses a high-efficiency brushless DC motor, with a high-speed smart chip and a color LCD display.

MOTOR Output:

Power Supply: 36 V

Power Free Speed: 13,000 rpm

Battery Capacity: 5 Ah to 8 Ah

* Only use lithium batteries approved by Roark Tools.

** Roark Tools is not responsible for customer modification of tools for applications on which Roark Tools was not consulted prior to modification, or for the use of custom parts or equipment add-ons.

*** The RTB tools contain alloy components which may cause a hazard in certain explosive environments.

TORQUE SPECIFICATIONS

1. For all specifications, including but not limited to pre-torque, bolt size, angle, final torque, and lubrication, consult the equipment assembly manual supplied by the manufacturer, or contact the manufacturer, for all values and procedures for your application.
2. Reach out to a professional fastener manufacturer for guidance on the appropriate torque and angle required for your specific application.
3. Roark Tools, its distributors, and resellers are not responsible for torque values and procedures.

NOTICE:

The use of parts other than genuine Roark Tools replacement parts may result in safety hazards, decreased tool performance, increased maintenance cost, and will invalidate all warranties.

Repairs should be made only by authorized personnel. Consult your nearest Roark Tools Authorized Service Center. Refer all communications to the nearest Roark Tools Office or Distributor.



Using non-genuine Roark Tools replacement parts can lead to safety hazards, reduced tool performance, increased maintenance, and may void warranties. Repairs should only be done by authorized personnel. Contact your nearest Authorized Service Center for assistance and direct all communications to the nearest office or distributor.

LIMITATION OF LIABILITY:

INTENDED USE. The Roark Tools RTB Series Torque Wrench is intended solely for tightening and loosening threaded industrial fasteners by trained, qualified personnel, in accordance with this manual. Any other use is considered improper.

USER RESPONSIBILITY. The owner and employer are responsible for ensuring that all operators have read and understood this manual, are properly trained, and use appropriate personal protective equipment. The user is solely responsible for determining the correct torque values, bolt-tightening sequences, and suitability of the tool for each application.

TORQUE VALUES. All torque charts and figures in this manual are provided as a guide only. The user must verify required torque with the fastener manufacturer, joint designer, or a qualified engineer. Roark Tools accepts no responsibility for joint failure resulting from incorrect torque selection.

EXCLUSIONS. Roark Tools shall not be liable for any injury, loss, or damage arising from: misuse, abuse, or negligence; failure to follow the instructions and warnings in this manual; unauthorized modification, repair, or disassembly; use of non-genuine parts, batteries, chargers, or accessories; use outside the rated specifications; or use by untrained personnel.

LIMITATION OF LIABILITY. To the maximum extent permitted by law, Roark Tools shall not be liable for any indirect, incidental, special, or consequential damages, including loss of production, downtime, or profits. Roark Tools' total liability shall not exceed the purchase price of the tool.

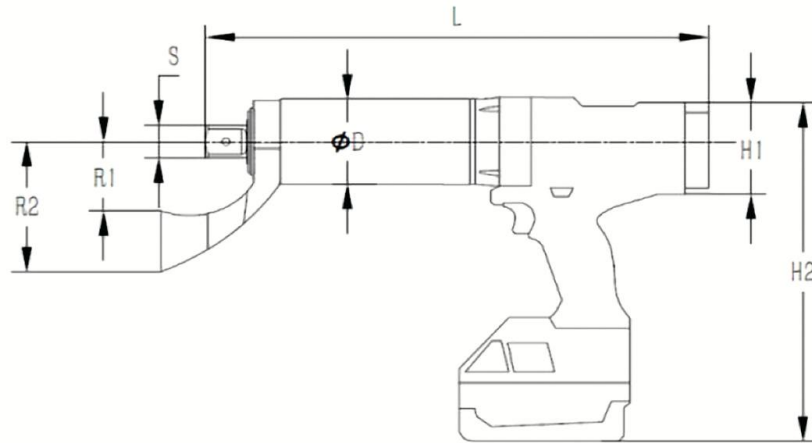
WARRANTY. Warranty coverage is limited to the terms of the Roark Tools written warranty supplied at the time of sale. Except as expressly stated therein, Roark Tools disclaims all other warranties, express or implied, including merchantability and fitness for a particular purpose.

DISTRIBUTORS AND RESELLERS. No distributor, reseller, or representative is authorized to modify these terms or make any warranty on behalf of Roark Tools.

CHANGES. Roark Tools reserves the right to change specifications and this manual without notice.

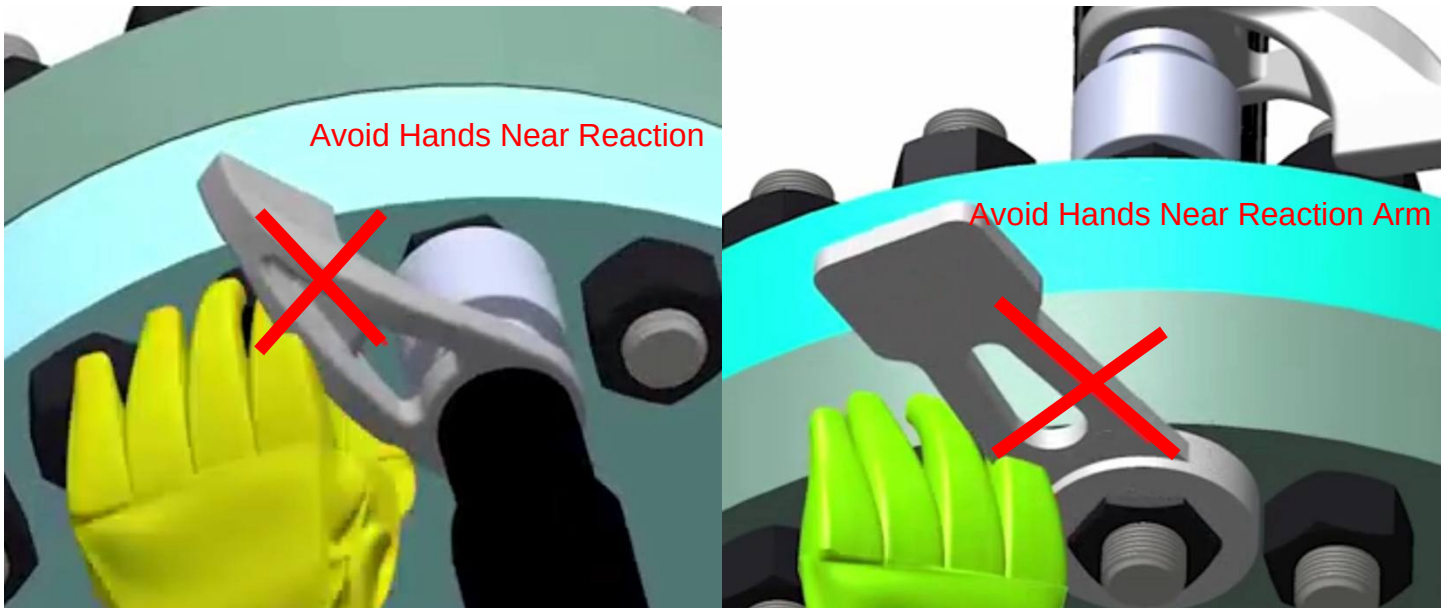
VENUE. Any and all claims against Roark Tools LLC must be brought in the Eastern District of New York.

RTB MODELS AND SPECIFICATIONS



Model	Min Torque	Max Torque	Drive Size	D	L	H1	H2	R1	R2	Weight (Lbs)	Max Speed rpm
	(ft-lbs)	(ft-lbs)		Inches							
RTB-04	75	370	3/4"	2.36	10.63	3	9.65	2.09	4.02	9.46	26
RTB-10	130	1100	1"	2.99	12.48	3	9.65	2.60	5.31	11.44	8
RTB-15	190	1550	1"	2.99	12.48	3	9.65	2.60	5.31	12.10	6
RTB-23	350	2300	1"	3.29	13.39	3	9.65	3.07	5.71	16.5	3.5
RTB-30	480	3000	1"	3.74	13.78	3	9.65	3.07	5.71	20.9	3.2
RTB-40	625	3700	1-1/2"	4.06	13.98	3	9.65	3.07	5.71	22	2.5
RTB-45	800	4425	1-1/2"	4.33	15.75	3	9.65	3.54	6.10	26.4	1.8
RTB-60	1400	5900	1-1/2"	4.53	16.34	3	9.65	3.54	6.10	30.8	1.5

Model	Min Torque	Max Torque	Drive Size	D	L	H1	H2	R1	R2	Weight (kg)	Max Speed rpm
	(N.m)	(N.m)		mm							
RTB-B2E-04	100	500	3/4"	60	270	76	245	53	102	4.3	26
RTB-B2E-10	180	1500	1"	76	317	76	245	66	135	5.2	8
RTB-B2E-15	250	2100	1"	76	317	76	245	66	135	5.5	6
RTB-B2E-23	480	3100	1"	86	340	76	245	78	145	7.5	3.5
RTB-B2E-30	650	4000	1"	95	350	76	245	78	145	9.5	3.2
RTB-B2E-40	850	5000	1-1/2"	103	355	76	245	78	145	10	2.5
RTB-B2E-45	1100	6000	1-1/2"	110	400	76	245	90	155	12	1.8
RTB-B2E-60	1900	8000	1-1/2"	115	415	76	245	90	155	14	1.5
RTB-B2E-80	2500	10800	1-1/2"	120	430	76	245	90	155	16	1.3

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY**USING THE TOOL**

1. Keep hands, loose clothing, and long hair away from the reaction arm/bar and work area during operation.
2. The tool generates strong reaction forces; ensure proper mechanical support and correct positioning to control these forces.
3. Avoid tilting the tool off the bolt axis and do not use the air inlet as a stop.
4. Use only recommended accessories.
5. Only use impact sockets rated for the appropriate torque; do not use hand (chrome) sockets.
6. Ensure sockets and accessories fit correctly to prevent tilting.
7. The tool is not insulated against electric shock.
8. Operators must read and understand the operating instructions before use.

Depending on your work environment, local health and safety regulations may mandate wearing protective gear (safety shoes, hard hats, gloves, coveralls, etc.). Non-compliance can lead to injury if external forces affect equipment. Ear protection is required when operating this tool.

SAFETY INFORMATION

OPERATIONAL SAFETY

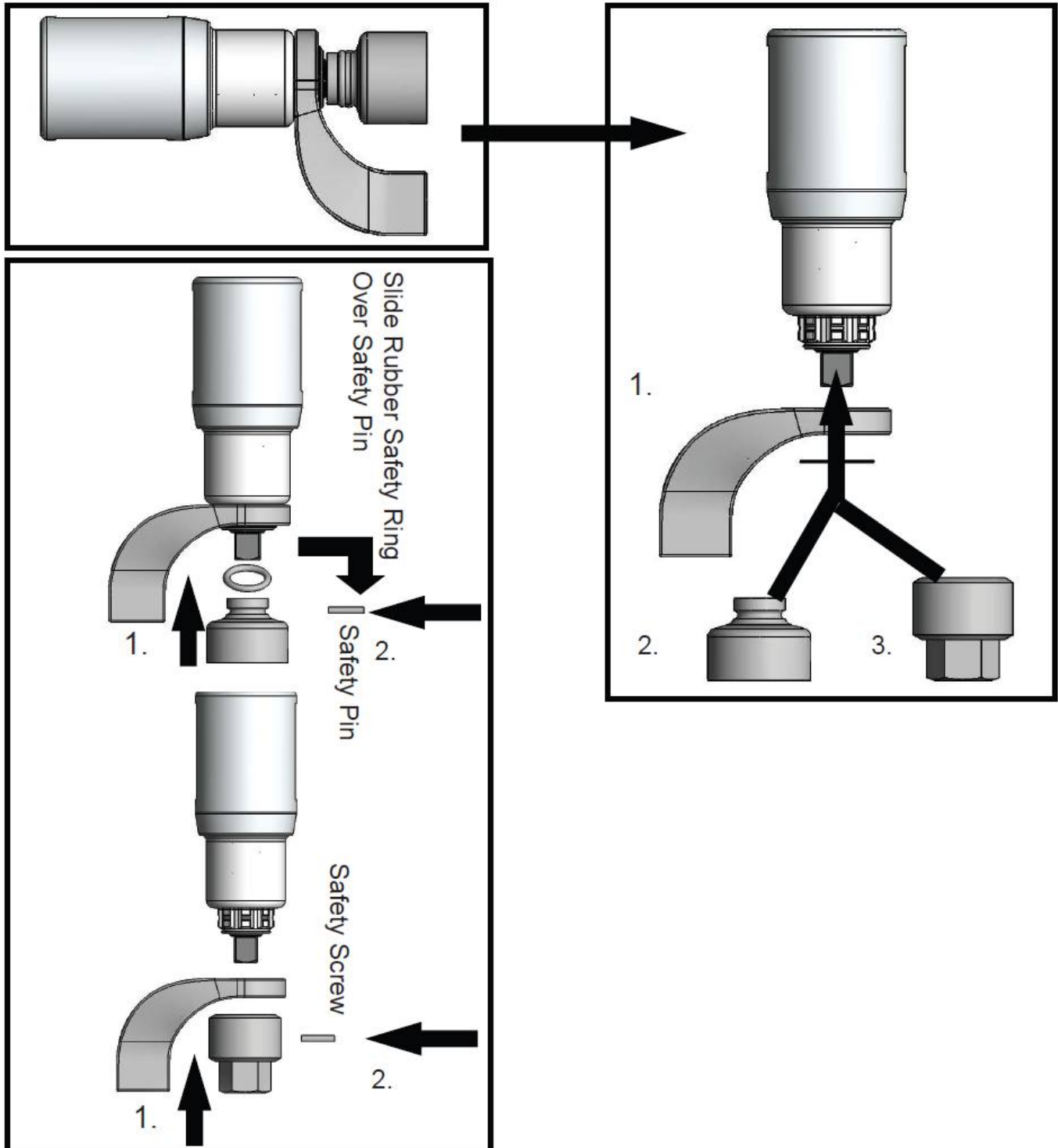
1. **Inspect and maintain tools in accordance with applicable standards.**
2. **Do not remove or disregard damaged labels.**
3. **Utilize only recommended lubricants; avoid the use of flammable liquids.**
4. **Clean parts with suitable solvents in a well-ventilated area.**
5. **Ensure the work environment is clean, adequately ventilated, and well-lit.**

PERSONAL SAFETY

1. **Verify that gloves do not obstruct throttle mechanisms.**
2. **Always wear appropriate eye and hearing protection when using tools.**
3. **Utilize the correct Personal Protective Equipment (PPE) for each task.**
4. **Avoid inhaling exhaust fumes; ensure adequate ventilation in work areas.**
5. **Maintain a safe distance from others and remain vigilant for hidden hazards.**
6. **Keep hands, clothing, and hair away from areas where tools operate.**
7. **Cease tool usage if experiencing discomfort or pain; seek medical attention.**
8. **Maintain a stable stance and remain alert to sudden changes during operation.**
9. **DO NOT USE THE TOOL IF TIRED OR UNDER THE INFLUENCE OF MEDICATION, DRUGS, OR ALCOHOL.**
10. **Never utilize damaged tools or alter safety devices; use tools only as intended.**

PUTTING THE TOOL INTO SERVICE

1. Confirm that the reaction arm is correctly attached and securely fastened to the splined section of the torque tool.
2. Choose the appropriate square drive size and the corresponding bolt/nut AF size impact socket or hex-drive socket for your application.
3. Attach the impact socket to the tool's square drive using a safety pin, and ensure that a safety o-ring is securely positioned on the socket.
4. Refer to the illustration below for further details:

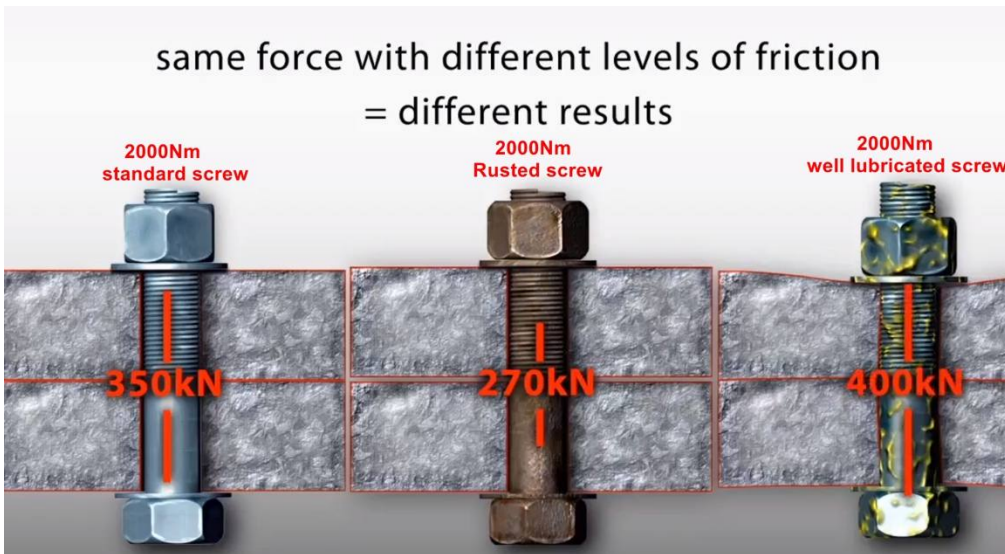


TORQUE METHOD

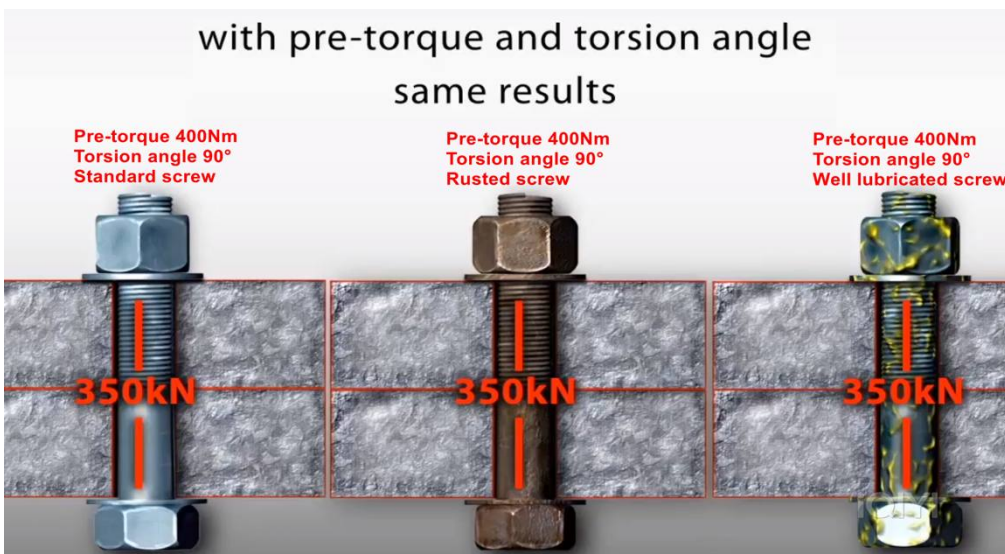
What is the torque-angle tightening method?

The torque-angle tightening method enhances bolting quality, often meeting OEM specifications. It involves initially tightening the joint to bring plates into contact, followed by a defined angle of rotation to complete the process.

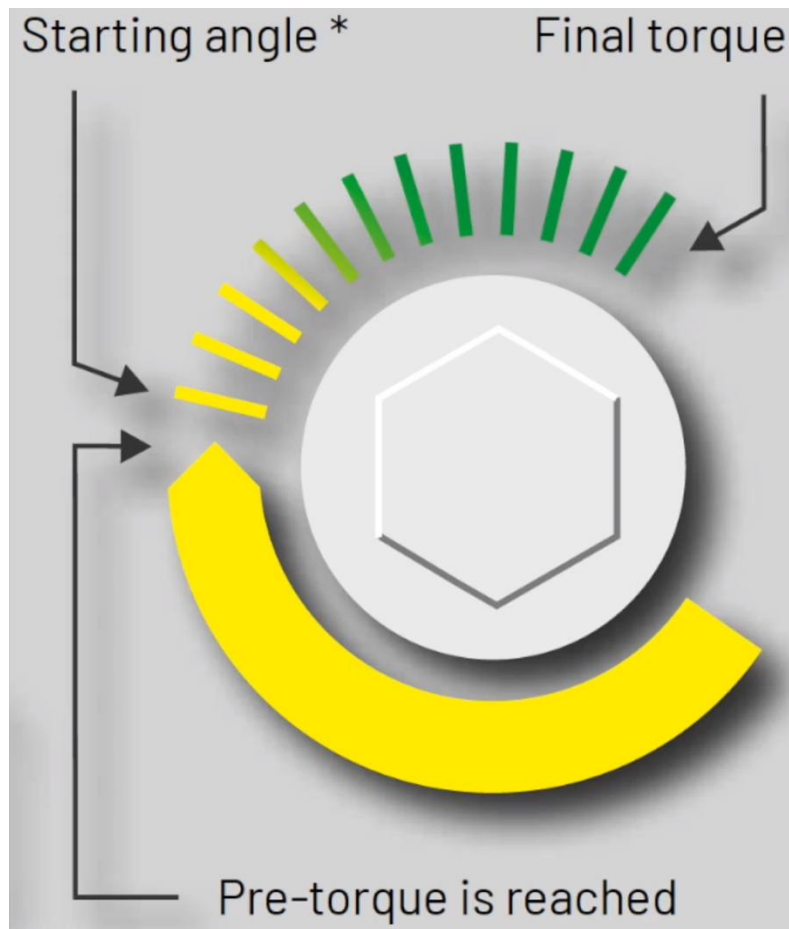
#1 This method shows that the same force can yield different results due to varying friction levels.



#2 Torque-angle bolting method achieves the same results with pre-tightening and angle.



#3 Selecting Torque and Angle



The torque-angle bolting method is particularly suited for applications that demand a high degree of precision.

How to Select the Appropriate Torque and Angle:

1. Refer to the Handbook:

Typically, the equipment assembly manual specifies the bolt size, as well as the recommended pre-torque and angle of rotation. For instance, a specification might read: M36, 500 Nm plus 100 degrees.

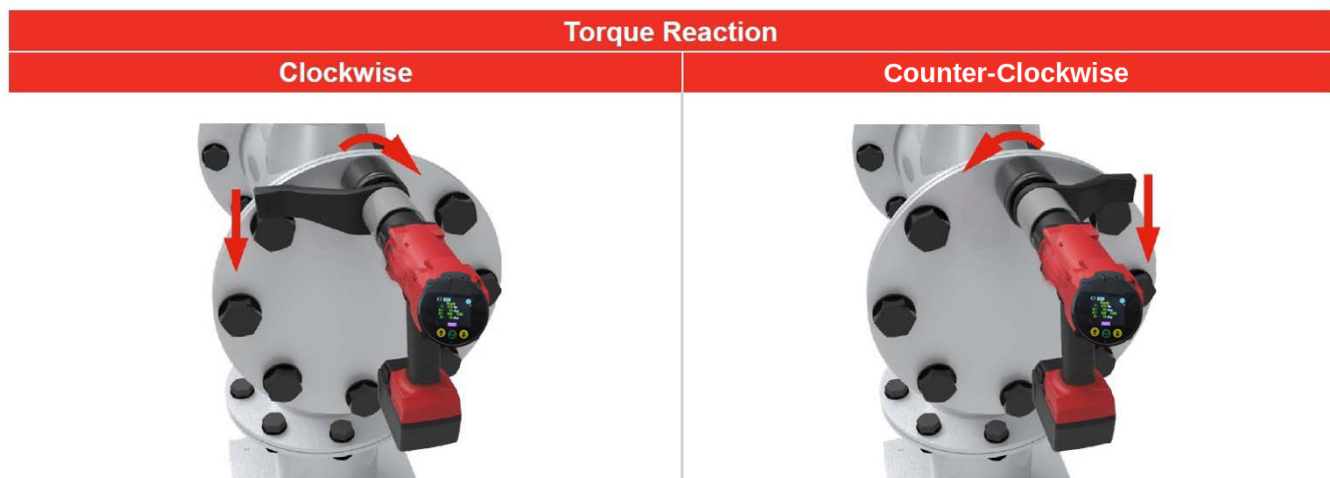
2. Consult an Expert:

Reach out to a professional fastener manufacturer for guidance on the appropriate torque and angle required for your specific application.

OPERATING PROCEDURES

Step 1: Power On the Tool

Assemble the battery and press the trigger; you will observe the initial activation as shown below.



WARNING: ALWAYS KEEP HANDS CLEAR OF THE REACTION BAR WHEN THE TOOL IS IN USE OR SERIOUS INJURY MAY RESULT.



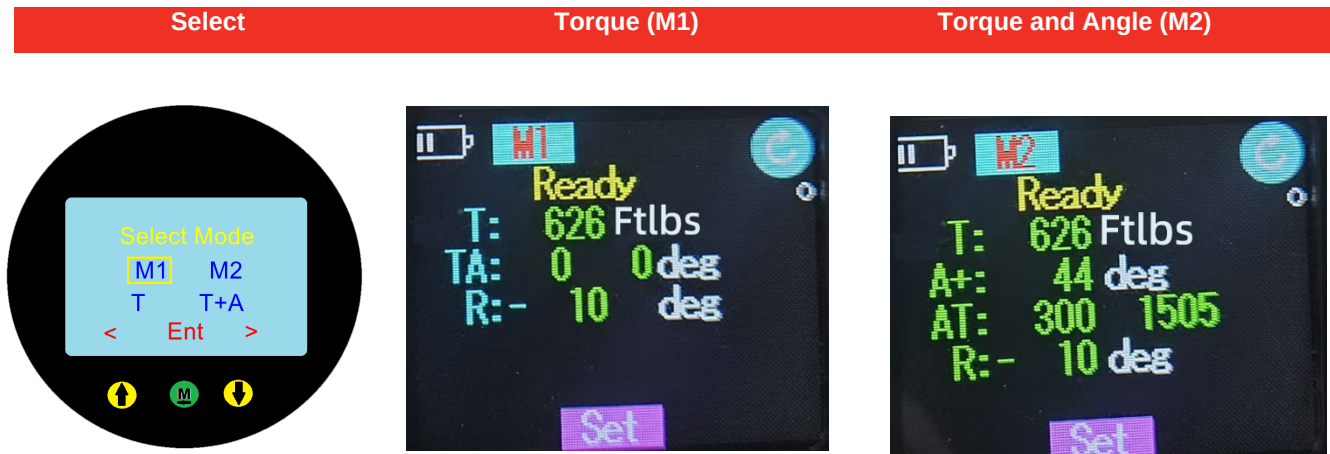
Step 2: Select Direction

Press the "Clockwise/Counter-Clockwise switch" to switch between "M1/M2" and "MAXLOOSEN."

Step 3: Select M1 or M2

Set data only under the "M1/M2" interface. Hold [DOWN ▼] for 3 to 5 seconds to select M1 or M2.

OPERATING PROCEDURES



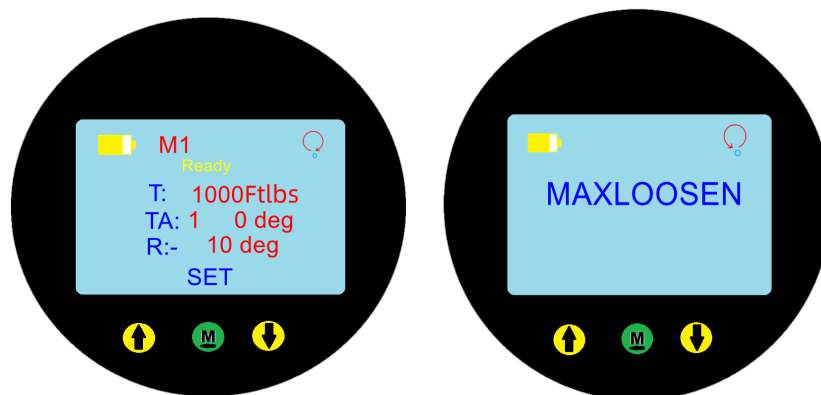
M1: Torque Method

1. Set required torque using [UP ▲] and [DOWN ▼] keys
2. Specify number of rotations; the tool stops automatically when this number is reached, or is unlimited if not set.

M2: Torque + Angle Method

1. Select mode using [UP ▲] and [DOWN ▼] keys; press [M] to enter.
2. Set required torque using [UP ▲] and [DOWN ▼] keys
3. Set the forward push angle. The tool first tightens to the set torque, then turns the additional angle for precise bolt tightening.

M1: Torque Method



Clockwise

Counter-Clockwise

T	Torque set
TA	Rotation/degree set
R	Reverse angle

OPERATING PROCEDURES

Step 1: Set Torque

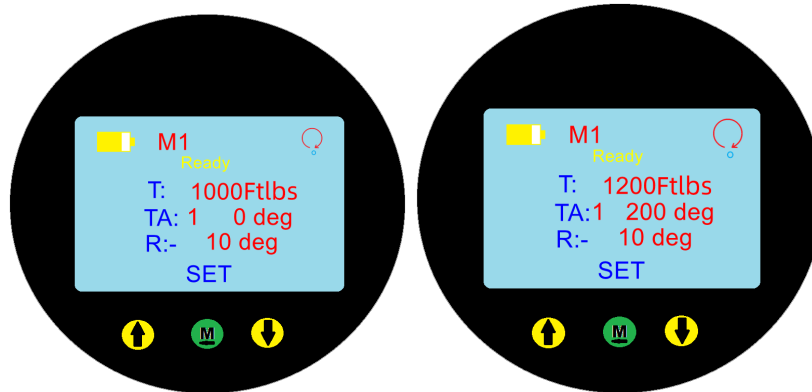
To adjust the working torque, switch to the tightening interface and press the [**M**] key to make the torque value **T** flash. Use [**UP ▲**] or [**DOWN ▼**] to set the desired torque and press [**M**] again to save.

Step 2: Set Number of Turns

To set the number of turns (e.g., stop after 2 turns), set **TA** to 0–720; the tool will stop after 720°. If no limit is needed, keep **TA** at 0.

Step 3: Set Reverse Angle

R indicates the reverse angle after tightening; it defaults to 10° but can be adjusted for easier tool removal.

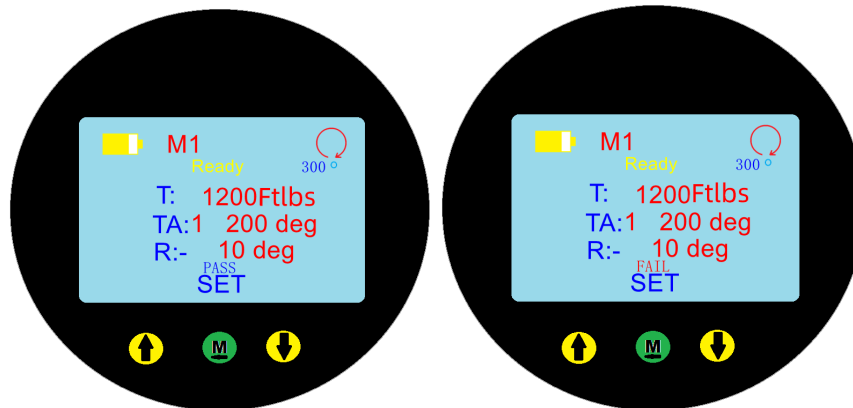


Step 4: Start the Tool

Once the settings are finalized, activate the start-stop switch to begin the wrench's operation. Throughout the working process, the torque and forward rotation angle will be shown in real time.

Step 5: Check the Result

When the specified torque is achieved and tightening is finished, "**PASS**" will appear on the display. Conversely, if the set torque is not met or if the tightening process is halted, "**FAIL**" will be indicated.

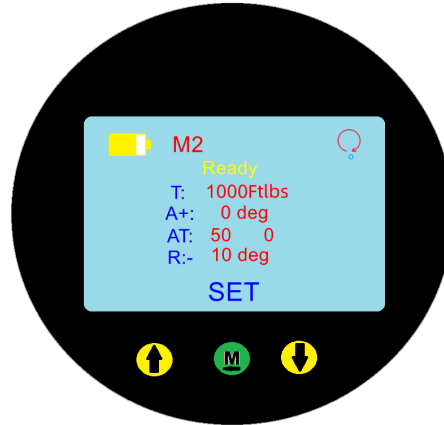


OPERATING PROCEDURES

M2: Torque + Angle Method

Step 1: Enter M2 Mode

To access **M2** mode, select it and press the [**M**] key to enter. The display will appear as follows:



T	Torque set
A+	Forward push angle
AT	Final torque range
R	Reverse angle

Step 2: Set Torque

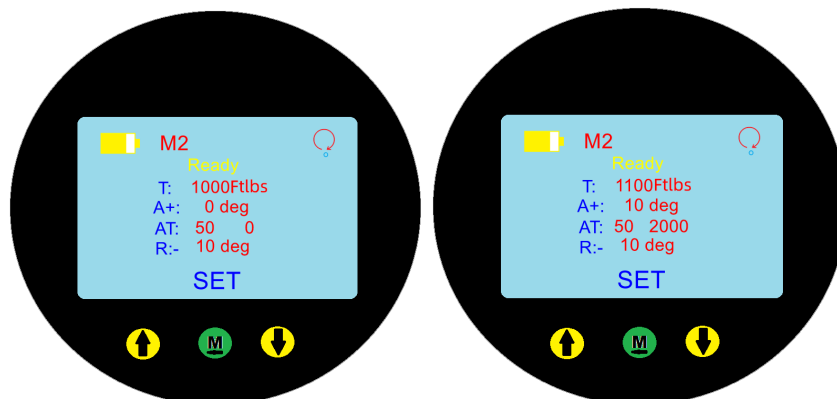
Adjust the working torque and switch to the tightening interface. Press the [**M**] key again, and the torque value **T** will begin to flash. At this point, you can use the [**UP ▲**] or [**DOWN ▼**] keys to modify the required working torque. Press the [**M**] key once more to save your changes, completing the torque setting.

Step 3: Set Forward Push Angle and Final Torque Range

If you want to set the forward push angle, use the [**UP ▲**] or [**DOWN ▼**] keys to adjust the desired angle **A+** accordingly. **AT** indicates the range value of the final torque in torque + angle mode. If this range is exceeded, an alarm will sound, and the machine will shut down.

Step 4: Set Reverse Angle

R denotes the reverse angle. After tightening, the tool will automatically retract to a specific angle for easier tool removal. The default setting is 10°, which can be adjusted as necessary.



For example, set T: 1100 ft-lbs, A+: 10°, AT: 50-2000, R:- 10°

OPERATING PROCEDURES

The preload is set to 1100 ft-lbs, with an additional forward push of 10°. Should the final torque value exceed 2000 ft-lbs, an alarm will activate, resulting in the machine shutting down.

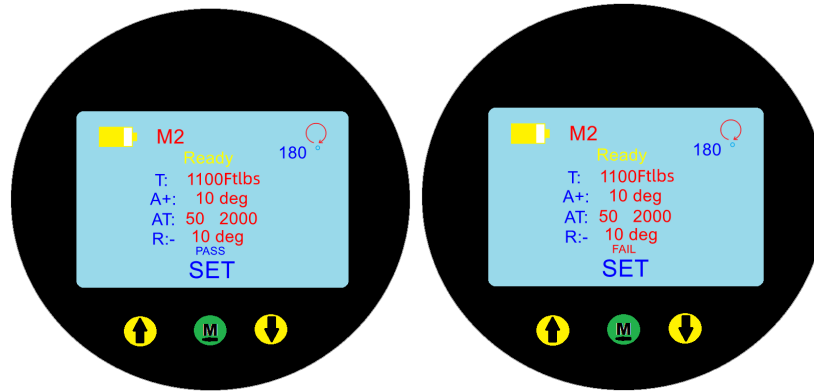
Step 5: Start the Tool

Once the settings are configured, press the start-stop switch to initiate the wrench's operation. During this process, both the torque and forward rotation angle will be displayed in real time.

Step 6: Check the Result

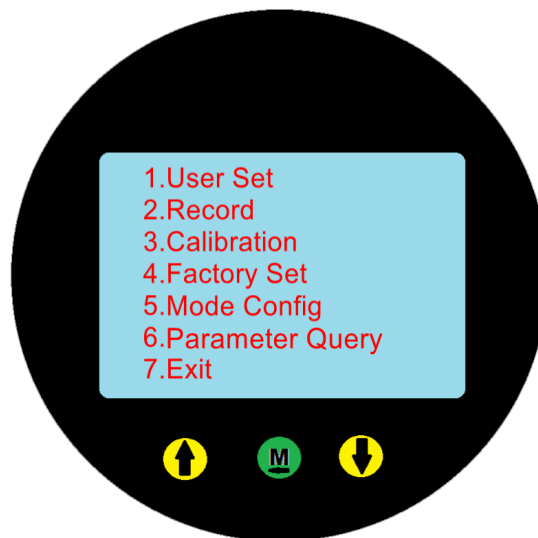
Upon reaching the designated torque and completing the tightening, "**PASS**" will appear on the display.

Conversely, if the set torque is not achieved or if the tightening process is interrupted, "**FAIL**" will be indicated.



The program is configured and can operate in either **M1** or **M2** mode.

To access the setup menu, simultaneously press the [**UP ▲**] and [**DOWN ▼**] keys on the RTB for approximately 3 to 5 seconds. The interface will then appear as follows:



PRE-TORQUE SETTINGS

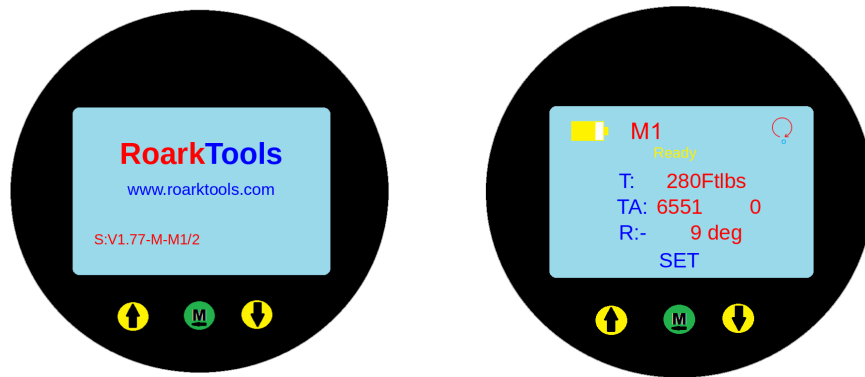
RTB SERIES: PRESET TORQUE CONFIGURATION GUIDE

How to Program and Access Common Torque Settings

Phase 1: Accessing the Setup Menu

Step 1: Power the Tool

Connect the battery pack to the base of the wrench. The color LCD display will illuminate, showing the main operating screen.

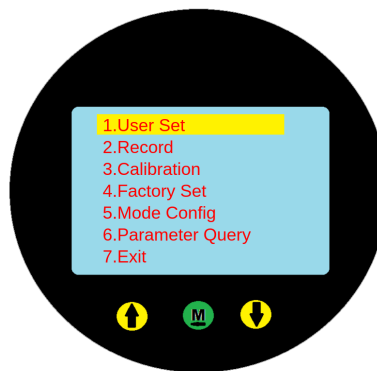


Step 2: Enter the Setup Menu

Press and hold both the [**UP ▲**] and [**DOWN ▼**] arrow keys simultaneously for approximately 3 to 5 seconds to access the setup menu.

Step 3: Open User Settings

Press the [**M**] (Mode/Select) key to enter **1. User Set**.



Phase 2: Programming Preset Values

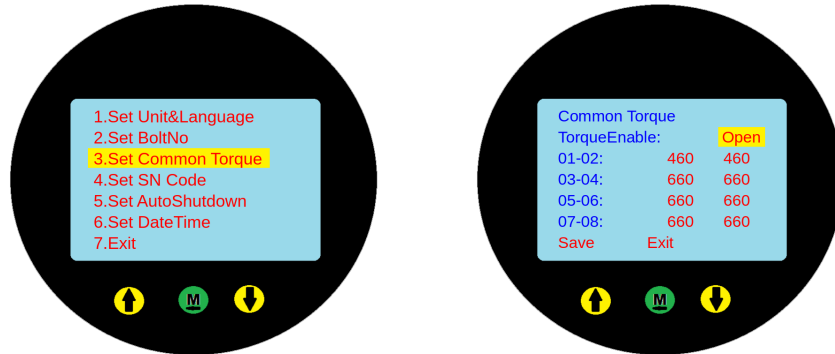
Step 4: Select "Common Torque"

Use the [**DOWN ▼**] arrow to navigate to option **3. Set Common Torque**. Press the [**M**] key to enter this sub-menu.

PRE-TORQUE SETTINGS

Step 5: Open Group Settings

Press the [M] key again to open the torque groups for editing. You can program up to 8 distinct torque preset groups (01 through 08).



Step 6: Adjust Torque Values

Use the [UP ▲] and [DOWN ▼] arrow keys to increase or decrease the target torque for the highlighted group.

Important Note: All programmed values must fall within the rated torque range of your specific RTB model.

Step 7: Advance and Save

Press the [M] key to confirm the value and move to the next group.

Pro-Tip: If you require fewer than 8 preset groups, simply set the remaining unused groups to the exact same torque value as your final required group.

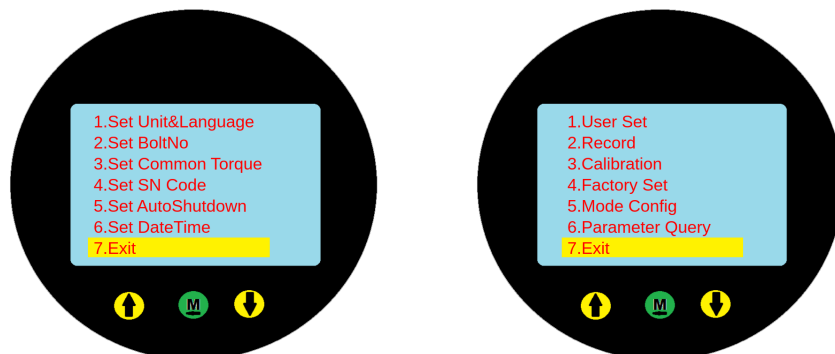
Step 8: Finalize Configuration

Continue pressing the [M] key to cycle through all 8 groups until the settings are saved and you are returned to the main menu list.

Phase 3: Exiting and Using Presets

Step 9: Exit the Menu

Use the arrow keys to navigate down to option 7. **Exit**. Press the [M] key to return to the main operating screen.



Step 10: Toggle Saved Presets During Operation

From the main operating screen, press the [M] key, then use the [UP ▲] and [DOWN ▼] arrow keys to quickly cycle through the preset torque values you just programmed in the setup menu.

NOTICE

If your RTB Series Torque Wrench shows performance decline or damage after extended use, promptly contact your local Representative or Distributor and ensure it is properly packaged for shipping.

TIGHTENING AND LOOSENING OF BOLTS OR NUTS

WARNING

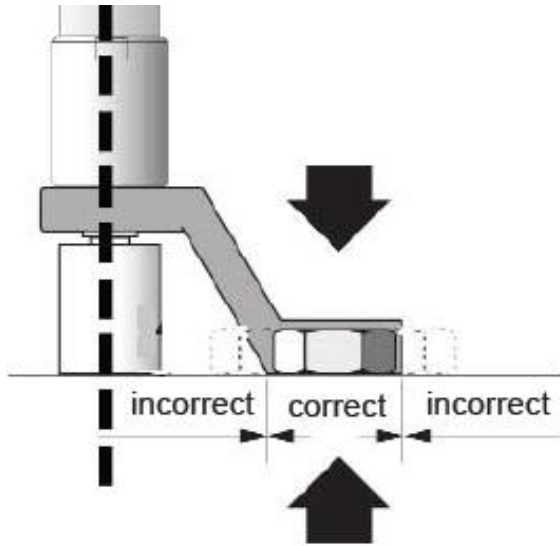


TIGHTENING AND LOOSENING OF BOLTS OR NUTS

1. Avoid non-fixed, freely rotating reaction arms and rotating impact sockets.
2. Keep loose clothing, long hair, and cables away from rotating areas; wear ear protection, safety shoes, and goggles when operating the machine.
3. Maintain a safe distance from all reaction points.
4. Ensure the impact socket or hex driver fits snugly on screws/nuts/bolts to prevent breaking due to mechanical stress, which can cause injuries.
5. Align the RTB Series Torque Wrench with the fastener axis when tightening or loosening to prevent damage.
6. When tightening and loosening fasteners, always hold/position the RTB Series Torque Wrench in line with the fastener axis to avoid damage to the application. See Figure 1 on the following page.

TIGHTENING AND LOOSENING OF BOLTS OR NUTS

Fig. 1



1. Position your RTB Series Torque Wrench directly over the fastener that needs to be tightened or loosened.
2. Make sure the reaction arm absorbs the movement in the reaction area, ensuring it is stable enough to support counter torque.
3. Hold the RTB Series Torque Wrench perpendicular to the fastener axis throughout the entire rotation process, whether tightening or loosening.
4. Set the direction switch to the tighten position. Then, press the trigger on the pistol grip to tighten the fastener. The tool will continue to rotate until the specified torque is reached, at which point the RTB Series Torque Wrench will stop and emit a beep.
5. To loosen a fastener, switch the direction to reverse. Then, press the trigger on the pistol grip to loosen the fastener.

6. The unit will keep rotating until the fastener is either removed or becomes loose enough to be taken off by hand, allowing you to proceed to the next fastener. Repeat this process for tightening or loosening each fastener as needed.
7. If the torque specifications require incremental adjustments, set the RTB Series Torque Wrench to your initial torque requirement. Tighten the fastener following the specified bolt tightening sequence, and then adjust for the subsequent settings.
8. If desired, your Representative or Distributor can provide training for your personnel on how to use this product.

CHANGING ACCESSORIES

1. Take the RTB Series Torque Wrench out of the application.
2. Detach the battery from the RTB Series Torque Wrench.
3. Replace the socket or accessory adaptor for your next project. Make sure the socket or accessory is firmly attached to the square drive using a safety pin and a safety o-ring.

BATTERY SAFETY INSTRUCTIONS

NOTICE

Note: Prior to use, please review the battery product safety data sheet.

Key Safety Guidelines for Power Tools:

1. **Avoid Wet Conditions**
Ensure power tools remain dry to prevent electric shock and damage.
2. **Disconnect Battery**
Always remove the battery prior to changing accessories or storing tools to avoid accidental activation.
3. **Child Safety**
Keep tools out of reach of children and limit use to trained individuals only.
4. **Regular Maintenance**
Inspect tools for misalignment and damage; repair any issues before use to prevent accidents.
5. **Proper Use**
Adhere to instructions and utilize tools as intended to minimize hazards.

BATTERY USE AND CARE

1. Always use the charger recommended by the manufacturer for recharging. Using a charger meant for a different type of battery pack can create a fire hazard.
2. Only operate power tools with the specified battery packs. Utilizing other battery packs may lead to potential injuries or fire risks.
3. When the battery pack is not in use, store it away from metal objects like paper clips, coins, keys, nails, screws, or any small metallic items that could bridge the terminals. Short-circuiting the terminals can cause burns or ignite a fire.
4. In extreme conditions, the battery may leak liquid; avoid contact. If contact occurs, wash the area with water. If the liquid enters your eyes, seek medical help immediately, as it can cause irritation or burns.
5. Protect battery packs from exposure to water and moisture.
6. Never place battery packs near open flames.

BATTERY TROUBLESHOOTING

If the RTB Series Torque Wrench powers off automatically, it indicates that the electronics have entered automatic protection mode upon the release of the trigger. While this feature is designed for safety, certain applications may still lead to overloading and potential damage to the tool.

Causes and Solutions:

1. **Nearly Depleted Battery:** The electronics safeguard the battery pack from total discharge damage. If one LED is blinking, the battery is almost drained. If needed, press the button to check the LEDs for the charge status. Recharge the battery pack if it is running low.
2. **Prolonged Continuous Overloading:** This can trigger the temperature cut-off. Allow the tool or battery pack to cool down. Note: A battery pack that feels excessively warm will cool down more efficiently in an "AIR COOLED" charger. Additionally, operating the tool at idling speed will help it cool more quickly.
3. **Safety Shutdown:** The tool has automatically powered off. If the current draw is excessive (for instance, if the tool suddenly stalls or experiences kickback), it will turn off. Simply switch off the tool at the trigger, then turn it back on to resume normal operation. Take care to avoid situations that might cause the tool to seize.

Note: The LED lamp will turn off automatically after a certain period. To reactivate the electronic functions, press the trigger.

BATTERY SPECIFICATIONS

Nominal Voltage – RTB	36 V		
Capacity	5 Ah	6 Ah	8 Ah
Energy	180 Wh	216 Wh	288 Wh
Chemical system	Lithium Transition Metal Oxide (Li[M]m[O]n)		
Designed for Recharge	Yes		

WARNING:

1. Use only batteries that have been approved.
2. Keep battery packs away from water and avoid exposing them to heat or flames.
3. Ensure the battery pack is fully discharged before disposal and prevent any contacts from short-circuiting.
4. Do not throw battery packs in with regular household waste; instead, follow national guidelines for proper disposal.

CHARGER SPECIFICATIONS	
Input	110 V or 220 V
Mains frequency	50-60 Hz
Output	36 VDC
Charge time	30 minutes at 2.0 Ah



Torque Chart for ASTM A193 Grade B7 Studs in Ft./Lbs. at 100% of yield						
Bolt Diameter	Nut Size	Moly Lube u=0.085	Nickel Lube u=0.110	Copper Lube u=0.100	Machine Oil u=0.160	Dry u=0.400
3/4"	1-1/4"	208	342	314	448	1,118
7/8"	1-7/16"	330	544	500	716	1,786
1"	1-5/8"	490	810	746	1,066	2,664
1-1/8"	1-13/16"	702	1,170	1,076	1,544	3,888
1-1/4"	2"	966	1,622	1,492	2,150	5,440
1-3/8"	2-3/16"	1,288	2,180	2,000	2,894	7,356
1-1/2"	2-3/8"	1,674	2,850	2,614	3,792	9,274
1-5/8"	2-9/16"	2,142	3,668	3,364	4,890	12,520
1-3/4"	2-3/4"	2,676	4,602	4,218	6,144	15,776
1-7/8"	2-15/16"	3,292	5,682	5,204	7,596	19,550
2"	3-1/8"	3,994	6,920	6,334	9,260	23,884
2-1/8"	N/A	4,790	8,324	7,618	11,150	28,816
2-1/4"	3-1/2"	5,686	9,906	9,068	13,282	34,382
2-3/8"	N/A	6,686	11,676	10,678	15,668	40,620
2-1/2"	3-7/8"	7,796	13,646	12,476	18,324	47,536
2-3/4"	4-1/4"	9,382	16,488	15,066	22,170	57,692
3"	4-5/8"	13,974	21,464	19,606	28,894	75,340
3-1/4"	5"	15,470	27,352	24,976	36,856	96,258
3-1/2"	5-3/8"	19,312	34,226	31,244	46,158	120,730
3-3/4"	5-3/4"	23,742	42,168	38,482	56,906	149,032
4"	6-1/8"	27,262	48,590	44,324	65,652	172,292
4-1/4"	6-1/2"	28,802	51,248	46,758	69,206	181,440
4-1/2"	6-7/8"	32,348	57,742	52,664	78,058	205,026

Torque Chart for ASTM A193 Grade B7 Studs in Ft./Lbs. at 70% of yield						
Bolt Diameter	Nut Size	Moly Lube u=0.085	Nickel Lube u=0.110	Copper Lube u=0.100	Machine Oil u=0.160	Dry u=0.400
3/4"	1-1/4"	145	239	219	313	782
7/8"	1-7/16"	231	380	350	501	1,250
1"	1-5/8"	343	567	522	746	1,864
1-1/8"	1-13/16"	491	819	753	1,080	2,721
1-1/4"	2"	676	1,135	1,044	1,505	3,808
1-3/8"	2-3/16"	901	1,526	1,400	2,025	5,149
1-1/2"	2-3/8"	1,171	1,995	1,829	2,654	6,491
1-5/8"	2-9/16"	1,499	2,567	2,354	3,423	8,764
1-3/4"	2-3/4"	1,873	3,221	2,952	4,300	11,043
1-7/8"	2-15/16"	2,304	3,977	3,642	5,317	13,685
2"	3-1/8"	2,795	4,844	4,433	6,482	16,718
2-1/8"	N/A	3,353	5,826	5,332	7,805	20,171
2-1/4"	3-1/2"	3,980	6,934	6,343	9,297	24,067
2-3/8"	N/A	4,680	8,173	7,474	10,367	28,434
2-1/2"	3-7/8"	5,457	9,552	8,733	12,862	33,275
2-3/4"	4-1/4"	6,567	11,541	10,546	15,519	40,384
3"	4-5/8"	9,781	15,024	13,724	20,225	52,738
3-1/4"	5"	10,829	19,146	17,483	25,799	67,380
3-1/2"	5-3/8"	13,518	23,958	21,870	32,310	84,511
3-3/4"	5-3/4"	16,619	29,517	26,937	39,834	104,322
4"	6-1/8"	19,083	34,013	32,730	45,956	120,604
4-1/4"	6-1/2"	20,161	35,873	31,026	48,444	127,008
4-1/2"	6-7/8"	22,643	40,419	36,864	54,640	143,518

u= The coefficient of friction of the lubricant

Figures are a GUIDE only; always consult the manufacturer or an engineer

VIBRATION INFORMATION (ALL TOOL SIZES)

Vibration	< 2.5 m/s ²
Tolerance	1.5 m/s ²
In accordance with EN 60745	

WARNING: The vibration emission value generated while using the power tool may vary from the declared value, depending on how the tool is utilized.

Sound Intensity Level (ALL TOOL SIZES)

LpA / KpA	dB(A)	76 / 3
LWA / KWA	dB(A)	87 / 3
In accordance with EN 60745		

WARNING: Wear ear protection when the sound level exceeds 80 dB(A).

ENVIRONMENTAL REQUIREMENTS Δ CAUTION

Only use the RTB Series Torque Wrenches when the following storage and operational conditions are satisfied.

TEMPERATURE RANGE	FAHRENHEIT	CELSIUS
Operating	5-122	-15 - 50
Charging	32-122	0 - 50
Storage	50 - 86	10 - 30
Humidity	10% - 90%	
Required Operating Conditions	Non-Explosive Atmosphere. Dry Location	