CDI TORQUE PRODUCTS 2503MFRMH

CDI 2503MFRMH 1/2 Inch Drive Adjustable Click Torque Wrench User Manual

Model: 2503MFRMH

Introduction

The CDI 2503MFRMH is a 1/2 inch drive micrometer adjustable click torque wrench designed for precise torque applications. This robust tool features a metal handle with light knurling for a secure grip and a dual scale for measurements in both foot-pounds (ft-lb) and Newton meters (Nm). It is engineered for industrial strength and professional use, providing reliable and accurate torque application.

Key features include:

- Dual scale: English range 30-250 ft-lb, Newton meter range 47-332 Nm.
- Accuracy: ±4% CW, ±6% CCW of indicated value from 20% to 100% of full scale.
- Positive lock with a spring-loaded pull-down lock ring for secure settings.
- Easy-to-read laser-marked scales for quick and accurate adjustments.
- Quick-release button for efficient socket retention and removal.
- Constructed from alloy steel with a polished finish for durability.

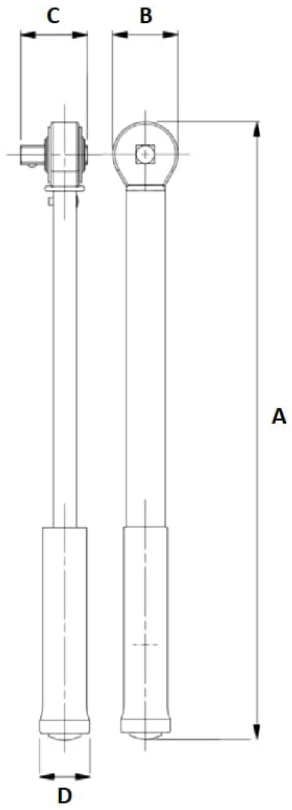
Setup

Upon receiving your CDI torque wrench, inspect the tool and its included blow-molded case for any signs of damage. Each wrench is individually serialized and comes with a certificate of calibration traceable to N.I.S.T., ensuring initial accuracy. Store the wrench in its protective case when not in use to maintain its condition and calibration.

CDI TORQUE PRODUCTS®

MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

Product Code	Drive Size	English Range	Incr.	Nm Range	Incr.	A In.	B In.	C In.	D In.	Wt. Lbs.
501MRMH	¼"	10-50 in. lb.	0.5	1.4 - 5.4 Nm	0.5	10.15	1.06	0.93	1.06	0.85
1501MRMH	¼"	20-150 in.lb.	05	2.8-15.3 Nm	0.12	10.15	1.06	0.93	1.06	0.90
1502MRMH	⅜"	20-150 in. lb.	1	2.8 - 15.3 Nm	.12	10.15	1.06	0.93	1.06	0.90
2002MRMH	⅜"	30-200 in. lb.	1	4.0 - 22.0 Nm	.12	10.15	1.06	0.93	1.06	0.85
2502MRMH	⅜"	30-250 in. lb.	1	4.0 - 27.7 Nm	.12	11.25	1.06	0.93	1.06	0.95
7502MRMH	⅜"	100-750 in. lb.	5	14.1 - 81.9 Nm	.6	16.00	1.43	1.20	1.40	2.50
10002MRMH	⅜"	150-1000 in. lb.	5	19.8 - 110.2 Nm	.6	16.00	1.43	1.20	1.40	2.50
25003MRMH	½"	300-2500 in. lb.	10	39.6 - 276.9 Nm	1.2	18.00	1.70	1.40	1.40	3.20
752MFRMH	⅜"	5-75 ft. lb.	0.5	10.2 - 98.3 Nm	.7	16.00	1.43	1.20	1.40	2.50
1002MFRMH	⅜"	10-100 ft. lb.	0.5	16.9 - 132.2 Nm	.7	16.00	1.43	1.20	1.40	2.55
1503MFMH	½"	20-150 ft lb.	1	34 - 197 Nm	1.4	19.00	1.70	1.40	1.40	3.15
1503MFRMH	½"	20-150 ft. lb.	1	34 - 194 Nm	1.4	19.00	1.70	1.40	1.40	3.15
2503MFRMH	½"	30-250 ft. lb.	1	47 - 332 Nm	1.4	24.40	1.70	1.40	1.40	3.15
4004MFRMH	¾"	80-400 ft. lb.	5	85 - 491 Nm	3.4	34.25	2.50	2.10	1.40	10.30
4504MFRMH	¾"	75-450 ft. lb.	5	119 - 593 Nm	3.40	34.25	2.50	2.10	1.40	10.30
5004MFMH	¾"	100-500 ft lb.	5	169 - 779 Nm	6.8	42.00	2.5	2	1.15	11.85
6004MFRMH	¾"	100-500 ft. lb.	5	169 - 779 Nm	6.8	42.00	2.50	2.00	1.15	11.85
10005MFRMH*	1"	200-1000 ft. lb.	5	305 - 1322 Nm	6.8	70.00	3.00	3.00	1.50	25.10
20005MFMHSS**	1"	300-2000 ft. lb.	10	N/A	N/A	108.50	3.15	4.25	1.65	48.75
20005MFMH	1"	300-2000 ft. lb.	10	474-2643	14	108.50	3.15	4.25	1.65	48.75

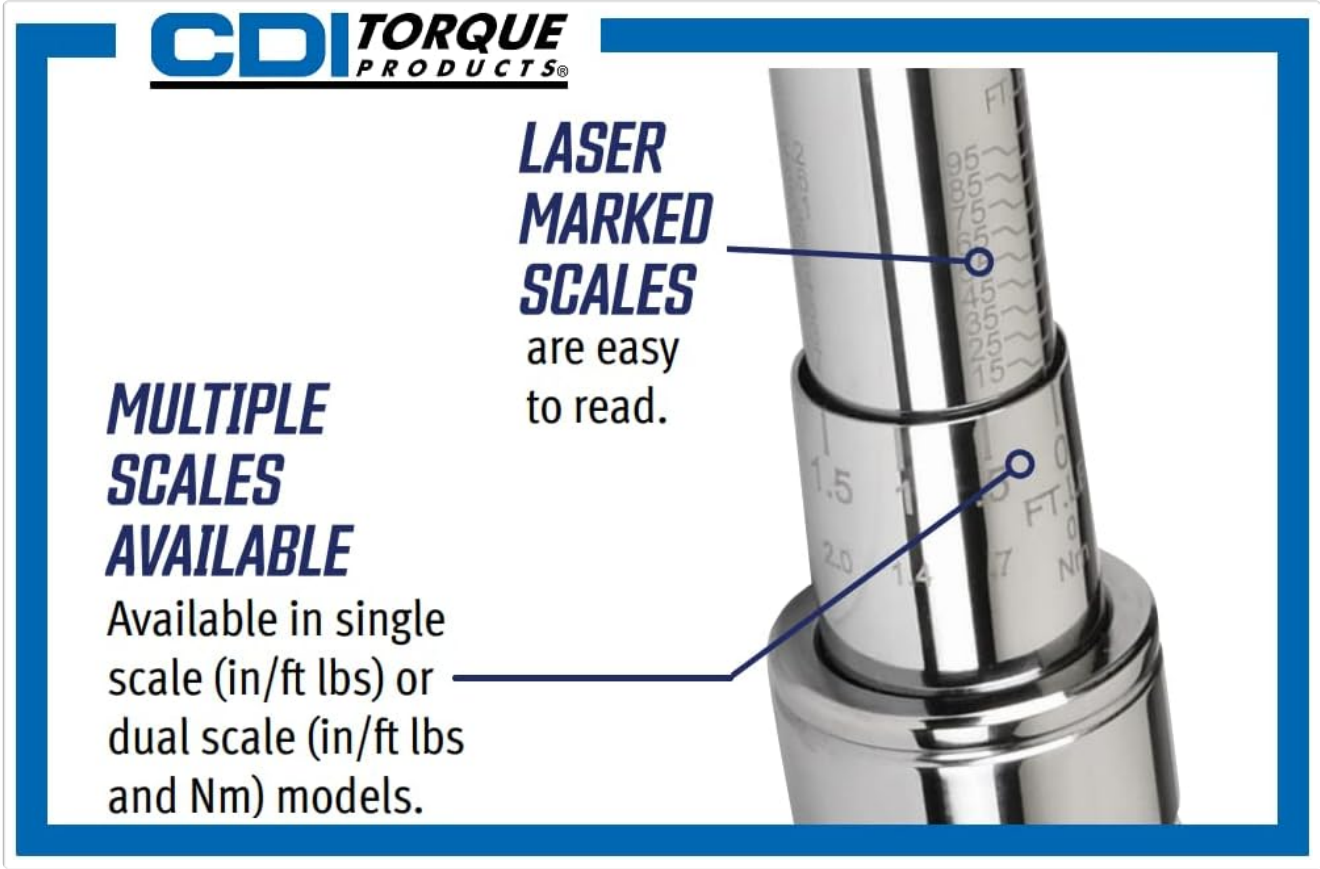


The CDI torque wrench stored securely in its blow-molded protective case.

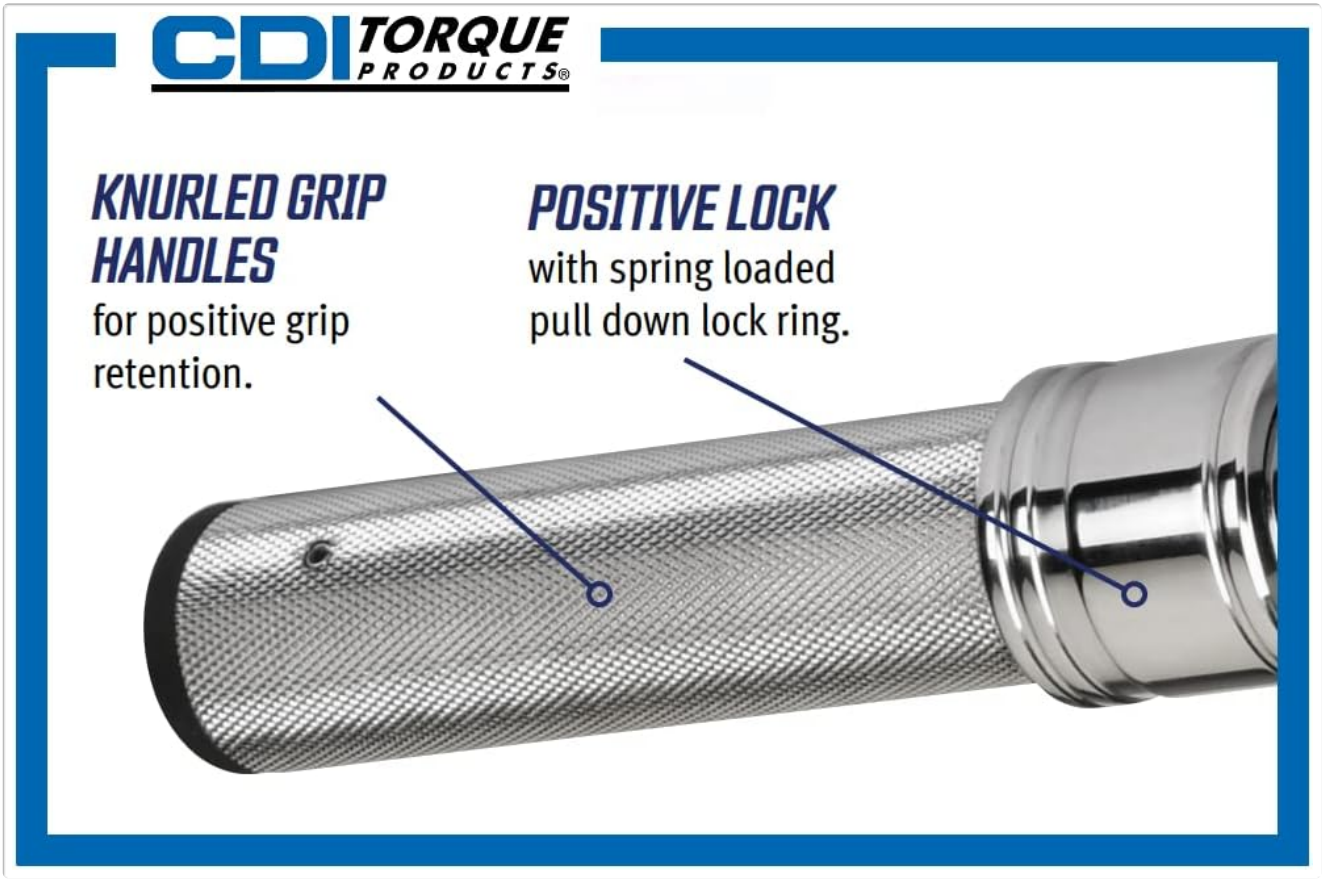
Operating Instructions

Setting the Torque Value

1. Identify the desired torque value in either ft-lb or Nm.
2. Pull down the spring-loaded lock ring located at the base of the handle.
3. While holding the lock ring down, rotate the handle to adjust the torque setting. Always approach the desired torque setting from a lower value to ensure accuracy.
4. The main shaft displays major torque values, while the micrometer scale on the handle displays minor increments. Align the desired value on the micrometer scale with the main scale.
5. Release the lock ring to secure the setting. Ensure the lock ring is fully engaged before use.



The laser-marked scales allow for precise and easy reading of torque settings.



The knurled grip and positive lock ring ensure secure handling and setting retention.

Attaching and Releasing Sockets

The wrench head features a quick-release button for efficient socket management.

- To attach a socket: Press the quick-release button and firmly push the socket onto the drive square until it clicks into place. Release the button.
- To release a socket: Press the quick-release button and pull the socket off the drive square.



The quick-release button facilitates easy and secure socket attachment and removal.

Applying Torque

Once the torque value is set and the socket is attached:

1. Place the socket onto the fastener.
2. Apply steady, increasing force to the handle in the desired direction (clockwise or counter-clockwise).
3. Continue applying force until an audible and tactile "click" is felt and heard. This indicates that the preset torque value has been reached.
4. Immediately cease applying force and remove the wrench from the fastener. Over-torquing can occur if force is continued after the click.



Illustration of applying force to the torque wrench until the click mechanism activates.

Maintenance

Proper maintenance ensures the longevity and accuracy of your torque wrench.

- **Storage:** After each use, always reset the torque wrench to its lowest setting (30 ft-lb for this model) to relieve tension on the internal spring. Store the wrench in its protective blow-molded case in a clean, dry environment.
- **Cleaning:** Wipe the wrench clean with a soft, dry cloth after use. Do not use harsh chemicals or solvents, as these can damage the finish or internal components.
- **Calibration:** Torque wrenches are precision instruments that require periodic calibration to maintain accuracy. It is recommended to have your wrench calibrated annually or after any significant impact or misuse. Refer to the warranty information for details on calibration services.

Troubleshooting

If you encounter issues with your torque wrench, consider the following:

- **No Audible Click:** Ensure the torque setting is above the minimum range. Verify that the lock ring is fully engaged. Apply force smoothly and steadily; a sudden jerk may prevent a clear click. If the issue persists, the wrench may require recalibration or service.
- **Inaccurate Readings:** Always set the torque from a lower value upwards. Ensure the wrench is reset to its lowest setting after each use. Avoid dropping or misusing the wrench, as this can affect calibration. Regular professional calibration is essential for maintaining accuracy.
- **Stiff Adjustment:** If the adjustment mechanism feels stiff, ensure the lock ring is fully disengaged. Clean any debris from the adjustment area. Do not force the adjustment; if it remains stiff, seek professional service.

Specifications

Feature	Specification
Model Number	2503MFRMH
Drive Size	1/2 Inch
Head Type	Fixed Square
Primary Scale Range (English)	30 - 250 ft-lb
Primary Scale Increments (English)	1 ft-lb
Secondary Scale Range (Metric)	47 - 332 Nm
Secondary Scale Increments (Metric)	1.40 Nm
Overall Length	24.4 Inches
Rotation	Clockwise (CW) / Counter-Clockwise (CCW)
Accuracy	±4% CW, ±6% CCW (20% to 100% of full scale)
Audible Click	Yes
Material	Alloy Steel
Handle Material	Metal (Knurled)
Item Weight	3.15 pounds
Included Components	Certificate of Calibration, Plastic Case for Storage



The CDI 2503MFRMH 1/2 Inch Drive Adjustable Click Torque Wrench.



Detailed specifications for various CDI Micrometer Adjustable Torque Wrenches, including the 2503MFRMH.

Warranty and Support

CDI TORQUE PRODUCTS offers a warranty for its torque products. The company will repair or replace products that fail due to defective workmanship or materials (excluding calibration) for 12 months from the date of original purchase. CDI TORQUE PRODUCTS also warrants the "initial, out of box calibration" of each new, unused torque product. Repair, replacement, or recalibration will be at the election and expense of CDI TORQUE PRODUCTS, and this constitutes your exclusive remedy in place of all other rights and remedies.

For support, service, or calibration inquiries, please refer to the contact information provided with your product or visit the official CDI Torque Products website.

© CDI TORQUE PRODUCTS. All rights reserved.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question