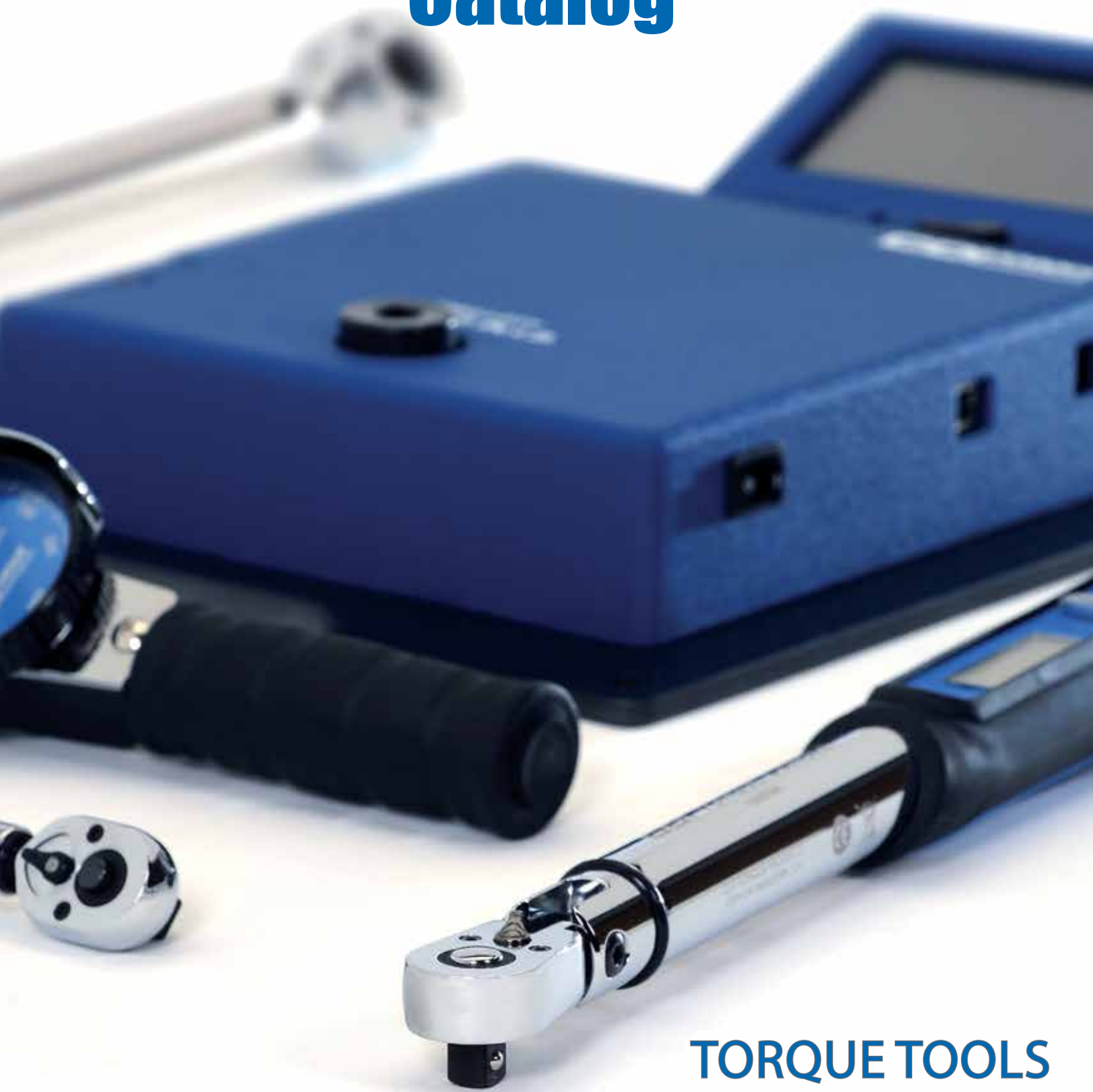


CDI ***TORQUE*** ***PRODUCTS***[®]

Catalog



TORQUE TOOLS



MULTITEST CALIBRATION SYSTEMS

The MULTITEST Torque, Force and Tension Calibration System is the most sophisticated system available in the industry. This system will test and calibrate most types of torque wrenches, torque screwdrivers, torque multipliers, cable tensiometers, tension and compression gauges and non-impact power tools such as nutrunners and electric screwdrivers.

The Multitest Calibration System can be ordered several ways. Each system begins with the same three basic components: the Multitest Digital Monitor, the Roller Cabinet and the 2000 ft. lb. Mechanical Loader. We offer three different systems, the "Premier", the "Supreme" and the "Basic". These systems and their components are described in detail on the next few pages.

In addition, you may order any component separately to build your own "custom" system.

Features

- Automatic sensor recognition with "smart" transducers
- Range: 5 in. oz. to 2000 ft. lb. torque (bi-directional)
- Accuracy: $\pm 0.25\%$ of indicated value, cw & ccw, from 10% to 100% of full scale, (except 2000-4-02*)
- Built-in, low profile serial printer
- Date and time stamp for stored values
- Statistical analysis performed on stored data
- Stores up to 3000 torque values
- Programmable manual or automatic options for clear, store and print functions
- 110 or 220 Volts selectable. Foreign plugs are included
- Recall and review of stored torque values
- Track, peak, first peak, power tool modes
- RS232C port, analog output
- Eight torque measurement units:
in. oz., in. lb., ft. lb., Nm, dNm, cNm, mkg and cmkg
- Six force units: ounce, pound, newton, deciNewton, kilopound (kilogram) and gram
- Automatic lock-up for transducer protection
- All transducers supplied with certification
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



Made in U.S.A.



Multitest Digital Monitor with Soft Touch Keys.





MULTITEST PREMIER CALIBRATION SYSTEM

CDI's All Inclusive Calibration System Model 2000-1

Features

- Our most comprehensive calibration system for torque and force
- Calibrate torque wrenches up to 2000 ft. lbs.
- Check the accuracy and calibrate cable tensiometers, tension and compression gauges
- Includes the easy-to-use 4-in-1 transducer kit
- Eleven single transducers ranging from 5 in. oz. up to 2000 ft. lbs.
- Includes torque screwdriver testing kit
- Automatic safety feature locks system to prevent overloading and possible damage to transducers
- Displays eight units of torque and six units of force
- Also includes a calibration stand and all necessary calibration wheels, arms, weights and trays
- Downloading software included

MODEL 2000-1 INCLUDES:

Product Code	Description	Product Code	Description
2000-610-02	MULTITEST Monitor	2000-550-02	Extension Arm Kit for Long Torque Wrenches
2000-600-02	Mechanical Loader 2000 ft. lb. capacity	2000-750-02	Torque Screwdriver Testing Kit
2000-100-02	Roller Cabinet	2000-320-0	No. 1 Weight Set
2000-400-02	4 in 1 Transducer Kit, 4 in. lbs. to 250 ft. lbs.	2500-50-0	2-1/2" Calibration Wheel
2000-500-02	4 In 1 Transducer Adapter Kit	2000-151-0	5" Calibration Wheel
2000-4-02*	Transducer Range From 5 - 50 in. ozs. (*± 0.5%)	2000-152-0	10" Butterfly Wheel
2000-5-02A	Transducer Range From 15 - 200 in. ozs.	2000-154-0	40" Calibration Arm
2000-6-02	Transducer Range From 4 - 50 in. lbs.	390-2-2	4 oz. Weight Hanger
2000-65-02	Transducer Range From 15 - 150 in. lbs.	2000-301	8 oz. Weight Hanger
2000-7-02	Transducer Range From 30 - 400 in. lbs.	2000-304-0	7.5 lb. Weight Hanger
2000-8-02	Transducer Range From 80 - 1000 in. lbs.	2000-302-0	15 lb. Weight Hanger
2000-10-02	Transducer Range From 10 - 125 ft. lbs.	2000-303-0	50 lb. Weight Hanger
2000-11-02	Transducer Range From 20 - 250 ft. lbs.	2000-250-02	Calibration Stand Kit
2000-12-02	Transducer Range From 60 - 600 ft. lbs.	2000-260-0	Tension Meter
2000-13-02	Transducer Range From 100 - 1000 ft. lbs.	2000-261-0	Force Gauge
2000-14-02	Transducer Range From 200 - 2000 ft. lbs.	2000-262-0	Compression Gauge
900-0-1KIT	Joint Rate Simulator 50 in. lbs. capacity	2000-263-02	Force Arm Kit
900-2-01KIT	Joint Rate Simulator 400 in. lbs. capacity	2000-SW	PC Software
900-3-01KIT	Joint Rate Simulator 1000 in. lbs. capacity	2000-50-1	Cable from MULTITEST to PC



4 in 1 Transducer Kit with Mounting Adapter





MULTITEST SUPREME CALIBRATION SYSTEM

CDI's Torque-Only System Model 2000-2. Listed below are all of the components to CDI's "Supreme" MULTITEST Torque Calibration System. This is our mid-range system for torque, which has a range from 15 in. ozs. to 2000 ft. lbs. Designed for the user who requires precision accuracy and reliability in a torque calibration system. This set includes an extension arm for long torque wrenches and 3 joint rate simulators for testing power tools. (Not for use with impact and pulse tools.) PC compatible software and cables are also included.

MODEL 2000-2 INCLUDES:

Product Code	Description
2000-610-02	Multitest Digital Monitor
2000-600-02	Mechanical Loader Max 2000 ft.lb.
2000-100-02	Roller / Storage Cabinet 45"W x 24"D x 33"H
2000-400-02	4 in 1 Transducer Kit-Range 4 in. lb. to 250 ft. lb.
2000-500-02	4 in 1 Transducer Adapter Kit
2000-4-02	Transducer Kit-Range 5-50 in. oz.
2000-5-02A	Transducer Kit-Range 15-200 in. oz.
2000-12-02	Transducer Kit-Range 60-600 ft. lb.
2000-13-02	Transducer Kit-Range 100-1000 ft. lb.
2000-14-02	Transducer Kit-Range 200-2000 ft. lb.
2000-550-02	Extension Arm for Long Torque Wrench, Reach up to 80"
900-0-1KIT	1/4" drive, 50 in. lb. Capacity Joint Rate Simulator
900-2-01KIT	3/8" drive, 400 in. lb. Capacity Joint Rate Simulator
900-3-01KIT	3/8" drive, 1000 in. lb. Capacity Joint Rate Simulator
2000-SW	Wedglink Software
2000-50-1	Cable from MULTITEST or SURETEST to PC



MULTITEST BASIC CALIBRATION SYSTEM

Listed below are all of the components to CDI's "Basic" MULTITEST Calibration System Model 2000-3. The system includes the 4 in 1 transducer, which is capable of calibrating torque tools from 4 in. lbs. through 250 ft. lbs. Also included is the 2000 ft. lb. loader and the MULTITEST monitor.

MODEL 2000-3 INCLUDES:

Product Code	Description
2000-610-02	Multitest Digital Monitor
2000-600-02	Mechanical Loader Max 2000 ft.lb.
2000-100-02	Roller / Storage Cabinet 45"W x 24"D x 33"H
2000-400-02	4 in 1 Transducer Kit-Range 4 in. lb. to 250 ft. lb.
2000-500-02	4 in 1 Transducer Adapter Kit



4 in 1 Transducer Kit with Mounting Adapter.





CDI TORQUE
PRODUCTS

**MULTITEST MOTORIZED SYSTEM
MODEL 2800-1**

CDI has taken torque calibration to a higher level. Increase your productivity with the 2000 ft. lb. fully automatic motorized loader. Designed for the high volume calibration laboratory that requires a high-speed, automatic torque calibration system. In the automatic mode, the MULTITEST Motorized System Model 2800-1 will cycle, test and calibrate most torque wrenches. With our optional kits, you can calibrate torque screwdrivers, cable tensiometers, tension and compression gauges utilizing the manual mode, (hand crank only).

The MULTITEST Motorized System consists of the Monitor, Motorized Loader, Roller Cabinet and Extension Arm. Please order the transducers separately based on your individual needs. (Not for use with impact and pulse tools.)

- Automatic sensor recognition with "smart" transducers
- Range: 5 in. oz. to 2000 ft. lb. torque (bi-directional)
- Accuracy: $\pm 0.25\%$ of indicated value, CW & CCW, from 10% to 100% of full scale
- Dual mode function (manual & automatic)
- Automatic speed control
- Built-in, low profile serial printer
- Date and time stamp for stored values
- Statistical analysis performed on stored data
- Emergency stop button
- Programmable manual or automatic options for clear, store and print functions
- Recall and review of stored torque values
- Track, peak, first peak, power tool modes
- RS232C port, analog output
- Eight torque measurement units: in. oz., in. lb., ft. lb., Nm, dNm, cNm, mkg and cmkg
- Six force units: ounce, pound, newton, deciNewton, kilopound and gram
- Automatic lock-up for transducer protection
- All transducers are individually serialized with matching certificate of calibration traceable to N.I.S.T.



Dual Mode Function Manual and Automatic



SURETEST PREMIER CALIBRATION SYSTEM

The SURETEST Model 5000-1 is a laboratory grade instrument which captures torque measurements with a user friendly interface. It features a large LCD graphical display. It may be used with a single transducer or can be used as the principal component of a Torque Calibration System.

The SURETEST features versatile data acquisition capabilities including measurement storage, retrieval, statistical analysis and automatic downloading to an external printer/ computer. The SURETEST stores, recalls and downloads up to 3000 torque readings. The system provides readings with an accuracy of $\pm .25\%$ of indicated value and features multiple languages: English, Spanish, French, Japanese and German.

The SURETEST Torque Calibration System may be ordered in three different combinations. The "Premier", the "Supreme" and the "Basic" systems are described on these pages. In addition, you may order any component separately to build your own "custom" system.

Features

- Large LCD graphical display
- Five built-in languages
- Date and time stamp
- Dual RS-232 ports, analog output
- SPC built-in
- Automatic downloading
- Accuracy: $\pm 0.25\%$ of indicated value, CW & CCW, from 10% to 100% of full scale
- Transducers available from 5 in. ozs. to 2000 ft. lbs. of torque
- All transducers are "smart" (plug and play)
- Readout in eight different engineering units
- Stores and recalls 5000 torque values (date & time)
- Fully automatic voltage input adaptation (100 - 240 VAC input)
- Data is saved when SURETEST is turned off
- All transducers are individually serialized with matching certificate of calibration traceable to N.I.S.T.

MODEL 5000-1

INCLUDES:

Product Code	Description	Product Code	Description
5000-ST	Suretest Monitor w/Cable and Case	2000-320-0	Weight Set #1
2000-600-02	Mechanical Loader Max 2000 ft.lb.	2500-50-0	2½" Calibration Wheel
2000-100-02	Roller / Storage Cabinet 45"W x 24"D x 33" H	2000-151-0	5" Calibration Wheel
2000-400-02	4 in 1 Transducer Kit-Range 4 in. lb. to 250 ft. lb.	2000-152-0	10" Butterfly Calibration Wheel
2000-500-02	4 in 1 Transducer Adapter Kit	2000-154-0	40" Calibration Arm
2000-4-02	Transducer Kit-Range 5-50 in. oz.	390-2-2	4 oz. Hanger Calibration Weight Tray
2000-5-02A	Transducer Kit-Range 15-200 in. oz.	2000-301	8 oz. Hanger Calibration Weight Tray
2000-12-02	Transducer Kit-Range 60-600 ft. lb.	2000-304-0	7.5 lb. Calibration Weight Tray
2000-13-02	Transducer Kit-Range 100-1000 ft. lb.	2000-302-0	15 lb. Calibration Weight Tray
2000-14-02	Transducer Kit-Range 200-2000 ft. lb.	2000-303-0	50 lb. Calibration Weight Tray
2000-550-02	Extension Arm for Long Torque Wrench, Reach up to 80"	2000-250-02	Calibration Stand Kit
900-0-1KIT	¼" drive, 50 in. lb. Capacity Joint Rate Simulator	2000-SW	Wedglink Software
900-2-01KIT	⅜" drive, 400 in. lb. Capacity Joint Rate Simulator	2000-50-1	Cable from MULTITEST or SURETEST to PC
900-3-01KIT	⅝" drive, 1000 in. lb. Capacity Joint Rate Simulator		
2000-750-02	Torque Screwdriver Testing Kit for 2000-600-02 Loader		



Set-up is quick and easy utilizing soft touch keys.



Easy, quick change transducers.





CDI TORQUE PRODUCTS

SURETEST SUPREME CALIBRATION SYSTEM

CDI's Mid-Range Torque System Model 5000-2. Listed below are all of the components to CDI's "Supreme" SURETEST Torque Calibration System. This mid-range torque system has a range from 5 in. ozs. to 2000 ft. lbs. Choose SURETEST for unsurpassed accuracy and reliability in a torque calibration system. Also includes an extension arm for long torque wrenches and 3 joint rate simulators for testing power tools. (Not for use with impact and pulse tools.) PC compatible software and cables are included.

**MODEL 5000-2
INCLUDES:**

Product Code	Description
5000-ST	Suretest Monitor w/Cable and Case
2000-600-02	Mechanical Loader Max 2000 ft.lb.
2000-100-02	Roller / Storage Cabinet 45"W x 24" D x 33" H
2000-400-02	4 in 1 Transducer Kit-Range 4 in. lb. to 250 ft. lb.
2000-500-02	4 in 1 Transducer Adapter Kit
2000-4-02	Transducer Kit-Range 5-50 in. oz.
2000-5-02A	Transducer Kit-Range 15-200 in. oz.
2000-12-02	Transducer Kit-Range 60-600 ft. lb.
2000-13-02	Transducer Kit-Range 100-1000 ft. lb.
2000-14-02	Transducer Kit-Range 200-2000 ft. lb.
2000-550-02	Extension Arm for Long Torque Wrench, Reach up to 80"
900-0-1KIT	1/4" drive, 50 in. lb. Capacity Joint Rate Simulator
900-2-01KIT	3/8" drive, 400 in. lb. Capacity Joint Rate Simulator
900-3-01KIT	3/8" drive, 1000 in. lb. Capacity Joint Rate Simulator
2000-SW	Wedgelink Software
2000-50-1	Cable from MULTITEST or SURETEST to PC



Set-up is quick and easy utilizing soft touch keys



4 in 1 Transducer Slides Easily into Adapter Kit



Telescoping Arm extends to accommodate 600 ft. lbs. wrenches



Quick Release Pins make changing transducers a snap



SURETEST™ BASIC CALIBRATION SYSTEM

The SURETEST Model 5000-3 is a laboratory grade instrument which captures torque measurements with a user friendly interface. It features a large LCD graphical display. It may be used with a single transducer or can be used as the principal component of a Torque Calibration System.

The SURETEST features versatile data acquisition capabilities including measurement storage, retrieval, statistical analysis and automatic downloading to an external printer/computer. The SURETEST stores, recalls and downloads up to 3000 torque readings. The system provides readings with an accuracy of +/- .25% of indicated value and features multiple languages: English, Spanish, French, Japanese and German.

Features

- Large LCD graphical display
- Five built-in languages
- Date and time stamp
- Dual RS-232 ports, analog output
- SPC built-in
- Automatic downloading
- Accuracy is +/- 0.25% of indicated value, CW & CCW, from 10% to 100% of full scale
- Transducers available from 5 in. ozs. to 2000 ft. lbs. of torque
- All transducers are "Smart" (Plug and Play)
- Readout in eight different engineering units
- Stores and recalls 3000 torque values (Date & Time)
- Fully automatic voltage input adaptation (100 - 240 VAC input)
- Data is saved when SURETEST is turned off
- All transducers supplied with certification
- All transducers are individually serialized with matching certificate of calibration traceable to N.I.S.T.

MODEL 5000-3 INCLUDES:

Product Code	Description
5000-ST	Suretest Monitor w/Cable and Case
600TL-2	Mechanical Loader 600 ft. lb.
2000-400-02	4 in 1 Transducer Kit-Range 4 in. lb. to 250 ft. lb.
2000-500-02	4 in 1 Transducer Adapter Kit
2000-12-02	Transducer Kit-Range 60-600 ft. lb.

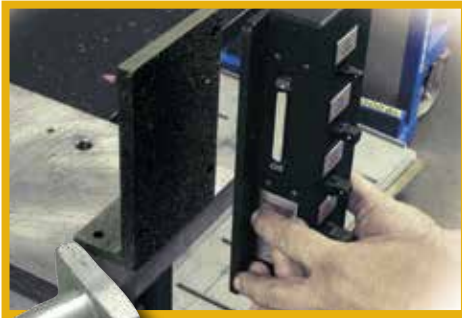


4 in 1 Transducer Kit with Mounting Adapter.

CUSTOM CALIBRATION SYSTEMS

Don't see the exact system you're looking for? Please call customer service to request a quotation on a custom calibration system. We will provide assistance designing a testing system to fit your application and specifications.





CDI TORQUE PRODUCTS

TEST/CALIBRATION ACCESSORIES

CDI's calibration equipment is expressly designed to calibrate the complete line of CDI Torque Transducers. All weight trays, arms and brackets supplied by CDI Torque Products are built with precision accuracy to meet the demanding needs of the calibration professional. All calibration wheels and arms are certified as to length, and supplied with a certificate of accuracy, which is traceable to N.I.S.T. (National Institute of Standards and Technology). Weights, trays and hangers are weight certified and are also supplied with a certificate of accuracy traceable to N.I.S.T. Mass Classification is Class F. Mating adapters are available to facilitate the use of the various components. Written procedures are available upon request for calibrating any of CDI's manufactured torque products.

TEST/CALIBRATION ACCESSORIES

Product Code	Description
2000-750-02	Torque Screwdriver Testing Kit for 2000-600-02 Loader
2000-750-06	Torque Screwdriver Testing Kit for 600TL Loader
2000-320-0	Weight Set #1 - For all Transducers
2000-321-0	Weight Set #2 - For 200 in. oz. to 600 ft. lbs.
2000-322-0	Weight Set #3 - For 600 ft. lb. to 2000 ft. lbs.
390-2-2	4 oz. Hanger Calibration Weight Tray
2000-301	8 oz. Hanger Calibration Weight Tray
2000-302-0	15 lb. Calibration Weight Tray
2000-303-0	50 lb. Calibration Weight Tray
2000-304-0	7.5 lb. Calibration Weight Tray
2000-250-02	Calibration Stand Kit
2500-50-0	2½" Calibration Wheel
2000-151-0	5" Calibration Wheel
2000-152-0	10" Butterfly Calibration Wheel
2000-154-0	40" Calibration Arm
2000-152-3	½" x ¾" Calibration Arm Adapter
2000-226-3	¾" x ½" Sq. Drive Reducer
2000-226-2	1" x ¾" Calibration Arm Adapter
2000-154-8	1 ¼" x ¾" Calibration Arm Adapter
S/2000-221-0	1 ¼" x ¾" Adapter for 40" Arm
342-35	Transducer Mounting Bracket up to 1000 in. lb. (TB342/1)
342-36	Transducer Mounting Bracket 125-600 ft. lb. (TB342/2)
2000-150-03	Transducer Bracket, 1000-2000 ft.lb.
343-25	Transducer Mounting Bracket 4 in 1 ETT (TB343)



DIGITAL TORQUE TESTER™ (DTT)

TEST THE HEALTH OF YOUR TORQUE WRENCHES - ANYWHERE WITH THE DIGITAL TORQUE TESTER.

Utilizing the testing protocol and standards developed by the American Society of Mechanical Engineers (ASME)

The Digital Torque Tester™ (DTT) is designed to be an affordable torque tester that can be mounted on a wall or used in a bench-top vise to allow the operator to conveniently test torque wrenches and torque screwdrivers. It features an easy to use touch pad screen to capture peak torque values during a test in real time, and download stored torque data to a PC. All DTT torque testers are sold in a kit with the complete tester, hard carrying case, a socket driver reducer adapter and AC/DC power supply.



DIGITAL TORQUE TESTER™ (DTT)

Product Code	Female Drive	Range English	Range, Nm	Range, kgcm
1001-O-DTT	1/4"	10 - 100 in.oz.	.07 - .706	.72 - 7.20
501-I-DTT	1/4"	5 - 50 in.lb.	.56 - 5.65	5.76 - 57.60
8001-O-DTT*	1/4"	20 - 800 in.oz.	.001 - .056 cNm	.014 - .56 dNm
2502-I-DTT	3/8"	25 - 250 in.lb.	2.82 - 28.25	23.80 - 288.0
4002-I-DTT	3/8"	40 - 400 in.lb.	4.52 - 45.2	46.08 - 460.8
10002-I-DTT	3/8"	100 - 1000 in.lb.	12 - 112	115 - 1152
2503-F-DTT	1/2"	25 - 250 ft.lb.	33 - 338.96	1.93 - 34.56 kgm
6004-F-DTT	3/4"	60 - 600 ft.lb.	81.35 - 813.5	8.30 - 82.95 kgm

- Accuracy: ± 0.50% 10% to 100% CW & CCW of indicated test value @ 25° C (Except 2503-F-DTT)
- *Accuracy: ± 1% CW & CCW from 2-1/2% to 100% of full scale. New for Torque Screwdriver.
- Units of Measure: Nm, kgcm, ft.lb., in.lb., in.oz., kgm, cNm
- Operation Modes: TRACK, PEAK, FIRST PEAK
- Operating Temperature: 10 to 32° C (50 to 90° F)
- Storage Temperature: -20 to 50° C (-2 to 122° F)
- Humidity: 85% Relative Humidity @ 21° C (70° F)
- Power Supply: Included 9-volt A/C D/C adapter. 6 AA batteries included.
- Data Storage/Recall: Memory Capacity – 500 Records (Complete Check Mode Only.)
- Dimensions: W - 10" x H - 16" x D - 2.5"
- Weight: (Tester Only) - 10.7 lbs., (with Carrying Case) - 17.4 lbs.



DTT OPTIONAL ACCESSORIES

Product Code	Description
2344-0050-03	Table Mounting Bracket for DTT Series Testers
2344-0051-02	Male SQ Adapter 3/8" x 3/8"
2344-0051-11	1/4" to 1/4" adapter
2344-0051-13	1/2" to 1/2" adapter
2344-0051-16	3/8" to 1/2" adapter
2344-0051-19	Male Square Adp 3/4" x 1-1/4"



CDI TORQUE PRODUCTS

DIGITAL TORQUE TESTER™ (DTT) QUICK CHECK MODE



Features

- Integral Transducer and sturdy housing allow mounting in virtually any position
- Integral Transducer: Full bridge strain gage, 350 ohm, 1500uE, 3mV/V F.S, 3.75 excitation.
- Units of Torque: Nm, kgcm, ft.lb., in.lb., in-oz.
- Audible (tone) and LED light-bar Present Alerts
- Torque Accuracy: $\pm 0.5\% \pm 1$ count CW and CCW from 10 to 100% of full scale at 25° C
- LCD Touch Screen: 4.7 in. color graphics display
- Screen resolution: 480 X 272 pixels
- Display Accuracy: 4 digits, 9999 cycle counts
- Six "AA" Alkaline cells for battery power included
- Track, Peak and First Peak modes of operation
- Operating Temperature: 40 to 110° F (5 to 42° C)
- Storage Temperature: 0 to 122° F (-20 to 50° C)
- Humidity up to 85% non-condensing
- EU/CE-DE, ES, FR, IT, NL, PT, UK and Japanese language manual
- Certificate of N.I.S.T. traceability from 10% to 100% of full scale
- Includes storage case, AC adapter and USB cable

DIGITAL TORQUE TESTER™ (DTT) AUDIT MODE

The Audit mode is an ASME emulation which tests the wrench at 20%, 60% and 100% of full scale. This provides a complete diagnostic analysis of the wrench. Testing validates the linearity of the wrench.



Select Audit (ASME emulation)



Select Wrench Type



Example shows testing a 250 ft.lb. wrench at 20% of full scale. Yellow indicates low reading.



Example shows testing a 250 ft.lb. wrench at 60% of full scale. Yellow indicates low reading.



Example shows testing a 250 ft.lb. wrench at 100% of full scale. Red indicates high reading.





MULTITORQ TORQUE & DATA COLLECTION SYSTEMS

The MULTITORQ portable electronic torque meter displays torque readings from sensors that attach between sockets and driver. MULTITORQ is a highly versatile torque analyzer/data acquisition system that can be used with sockets, extensions, universal joints, ratcheting drivers or any combination of these. Sensors are sold separately, available in 8 ranges from 2-20 in. ozs. to 150-1500 ft. lb. Accuracy $\pm 1\%$ of reading ($\pm 2\%$ reading for 20 in. oz., and 10 in. lb.) 10-100% of sensor range.

The torque analyzer features a wide angle viewing LCD display with selectable readouts; ft. lb., in. lb., in. oz., Nm, dNm, mkg, and cmkg units. Torque target settings are entered via a push button membrane keyboard. High and low torque limits are adjustable to give an audible and visual alarm. The user selects Track mode to display torque values as they are applied, or Peak mode to display the highest torque value applied.

Features

- 4 digit w/ alpha & numerical function flags
- 4 digit, 8000 counts display capacity
- Accuracy: $\pm 1\%$ of indicated value, cw & ccw, from 10% to 100% of full scale, 201-O-MT and 101-I-MT are $\pm 2\%$
- Soft touch keys: hi/lo alarm, zero tare, set-up, units, store/recall/clear, send, statistics, enter
- Units of measurement: ft. lb., in. lb., in. oz., Nm, dNm, mkg and cmkg
- Storage: -20 to 50 degrees C (-2 to 122 degrees F)
- Humidity: up to 90%, non-condensing
- Dimensions: 3" wide, 2.5" high (3" with belt clip), 6" deep
- Weight: 1 pound
- Charge life (full charge to shutoff): 20 hours continuous
- Battery chargers: 120 VAC or 220 VAC (50-60Hz)
- Output: 9VDC, 200mA
- Data storage/recall: 3500 measurements
- Serial output port: RS-232 (true), 300-19.2k baud, and mitutoyo (statistical protocol)
- Rechargeable Ni-Cad batteries
- Reads bi-directionally (cw and ccw)



Turns any ordinary ratchet wrench.....



...into a highly accurate digital torque tool.

MULTITORQ TORQUE & DATA COLLECTION SYSTEMS

Standard Set Includes:

Product Code	Description
1600-MT	MULTITORQ Unit includes: power pack/charger (P115-30) and case (1600-50)

Sensors: (sold separately)

Product Code	Torque Range	Drive
201-O-MT	2 - 20 in. oz.	1/4"
101-I-MT	1 - 10 in. lb.	1/4"
501-I-MT	5 - 50 in. lb.	1/4"
2001-I-MT	20 - 200 in. lb.	1/4"
1002-F-MT	10 - 100 ft. lb.	3/8"
2503-F-MT	25 - 250 ft. lb.	1/2"
6004-F-MT	0 - 600 ft. lb.	3/4"
15005-F-MT	150 - 1500 ft. lb.	1"

Optional Accessories:

Product Code	Description
1600-10	Interface Cable: RS-232 to serial printer
1600-20	Interface Cable: RS-232 to P.C.

Certificate of accuracy traceable to N.I.S.T. supplied with each transducer.
All components ordered separately.



CDI TORQUE
PRODUCTS

**COMPUTORQ ASG - ADVANCED STEEL GRIP
ELECTRONIC TORQUE WRENCH**

The Computorq ASG Electronic Torque Wrenches are truly revolutionary, supplying torque in less time with more control and accuracy. Available in a wider range of sizes for every industry, including, 1/4", 3/8", 1/2" and 3/4" models. They unite torque and angle in a single mode to provide the most accurate and fastest way to achieve torque while applying the right angle tightening sequence. In addition to the LED indicator lights, an audible beep and handle vibration alert you when target torque is achieved. The rugged all-steel construction is designed to stand-up to even the toughest work conditions with an easy-to-use software solution and highly programmable features.

Features

- Rugged all-steel body is designed to stand-up to industrial use
- Fully programmable for reliable, repeatable torque application
- Torque and Angle combo modes (patent pending)
- Calculates calibration factor automatically
- Backlit LCD screen, LED indicator lights, audible beep and handle vibration signal when torque is within range
- Time based calibration-needed indicator (patent pending)
- 50 memory presets, sequence programming and job mode
- High storage capacity for 1,500 readings
- USB downloadable, time stamped data trail for quality control
- Industry-leading 2 year warranty

**COMPUTORQ ASG -ADVANCED STEEL GRIP
ELECTRONIC TORQUE WRENCHES**

Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Length		Wt.
					In. (mm)	Lbs. (kgs)	
2401CASG	1/4"	1-20	12-240	1.4-27.2	12.5-317.5		1.80
1002CASG	3/8"	5-100	60-1200	6.8-135.6	18.9 - 480		3.10
2503CASG	1/2"	12.5-250	150-3000	16.9-339	26.7-678.2		4.50
6004CASG	3/4"	30-600	360-7200	40.7-813.50	48.6-1234.44		10.48



WILLIAMS

TORQUE COMPARATOR

Large dual scale. Perfect when a quick check of your wrench is required before usage. Compact design allows for mounting on any flat surface in either horizontal or vertical position. Torque Comparator is calibrated on torque testers which are certified using test bars and "F" weights traceable to NIST. +/- 2% accuracy from 20% of full scale to full scale. Calibration Compliance Certificate.

Product Code	Square Drive	English Capacity	Inc.	Nm, Capacity	Inc.
1753-TC	1/2"	175 ft. lbs.	5 ft. lbs.	230 Nm	10 Nm
6004-TC	3/4"	600 ft. lbs.	5 ft. lbs.	800 Nm	20 Nm





COMPUTORQ 3 ELECTRONIC TORQUE WRENCHES

The COMPUTORQ 3 Electronic Torque Wrench is a simple to use digital readout wrench that displays real time torque values in any of four torque units, ft.lbs., in.lbs., Nm, kg.cm. Simply set the desired torque value and apply force until the green LED illuminates. Great for light industrial, automotive, motorcycle, watercraft and aircraft applications.

Features

- Sleek new design
- 15-degree flex ratcheting head
- Push button socket release head
- Large, easy to read digital display
- Long battery life, uses 2 each CR123 lithium batteries
- Ergonomically designed molded non-slip rubber grip
- Torques in both clockwise and counterclockwise directions
- Battery saving auto-shutoff after two minutes
- COMPUTORQ 3 remembers last unit and torque setting selected
- Audible tone sounds when set torque value is reached, if the set torque value is exceeded, an alarm tone will sound.
- 3 color LED light bar
 - YELLOW LED indicates approaching desired torque setting
 - GREEN LED indicates desired torque value is reached
 - RED LED indicates fastener was overtorqued, loosen and retighten.
- When desired torque value is reached, display will hold value and flash for ten seconds.
- COMPUTORQ 3 will operate in any of four torque units, foot pounds (ft. lbs.), inch pounds (in. lbs.), newton meter (Nm) or kilogram centimeter (kg. cm.).
- ACCURACY:
 - ±2% CW of readings from 20% to 100% of full scale
 - ±3% CCW of readings from 20% to 100% of full scale
- N.I.S.T. traceable certificate of calibration included



STANDARD MODELS

Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Kg. Cm.	Length		Wt.	
						In. (mm)	Lbs. (kgs)		
2401CB	¼"	2.0 - 20.0	24 - 240	2.71 - 27.10	27.6 - 276	15 (381)	2.0 (.91)		
1002CF3	⅜"	10.0 - 100.0	120 - 1200	13.6 - 135.6	138 - 1382	17 (432)	2.2 (1.0)		
2503CF3	½"	25 - 250	300 - 3000	33.8 - 338	345 - 3456	27 (686)	3.5 (1.59)		

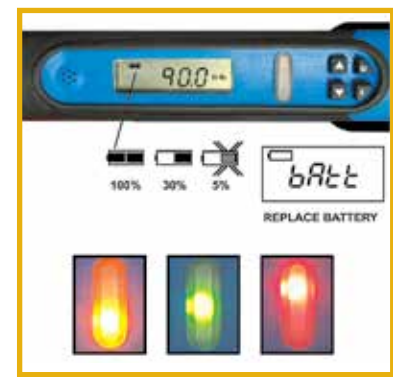


HIGH ACCURACY MODELS

Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Kg. Cm.	Length		Wt.	
						In. (mm)	Lbs. (kgs)		
2401C3HA*	¼"	2.0 - 20.0	24 - 240	2.71 - 27.10	27.6 - 276	15 (381)	2.0 (.91)		
1002CF3HA*	⅜"	10.0 - 100.0	120 - 1200	13.6 - 135.6	138 - 1382	17 (432)	2.2 (1.0)		
2503CF3HA*	½"	25 - 250	300 - 3000	33.8 - 338	345 - 3456	27 (686)	3.5 (1.59)		

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.

*HIGH ACCURACY 1% Clockwise direction only. It couldn't be easier to use!



COMPUTORQ 3 Display and 3 Color LED Light Bar



CDI TORQUE PRODUCTS

TORQUE & ANGLE™ ELECTRONIC TORQUE WRENCHES

The CDI Torque and Angle Electronic Wrench incorporates 21st Century Technology in a simple to use digital wrench. Specifically designed to meet the needs of the torque professional where torque plus angle is required. It features three units of torque, ft.lbs. In.lbs. and Nm as well as the angle mode.

The Torque and Angle wrench allows the technician to apply a specific torque load, followed by the angle specification, all in one convenient wrench. It features a three LED light bar and audible buzzer. As the angle mode is a separate function, the wrench can also be used as a stand alone digital torque wrench.

Features

- Accuracy is +/- 2% CW, +/- 3% CCW of indicated value
- Gyro chip senses 360° of movement, and is accurate to within +/- 3.8°
- No maintenance, just change batteries at 80 hours
- VERY easy to set up and use quickly
- Almost impossible to over torque
- Digital torque measurement and digital angle measurement in one convenient package
- Ergonomic non-slip cushion grip
- 15% Flex Ratchet head
- Long battery life, uses two CR123 lithium batteries
- Convenient, push button socket release ratchet head
- 3 step LED visual signal system:
 - Yellow Light = approaching target torque
 - Green Light = target torque reached
 - Red Light = over torque indicator
- N.I.S.T. traceable certificate of calibration included

TORQUE & ANGLE™ ELECTRONIC TORQUE WRENCHES

Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Angle	Length	Wt.
						In. (mm)	Lbs. (kgs)
1002TAA-CDI	3/8"	10 - 100	120 - 1200	12.6 - 135.6	0-360°	17 (432)	2.2 (1.0)
2503TAA-CDI	1/2"	25 - 250	300 - 3000	33.8 - 338	0-360°	27 (686)	3.5 (1.59)

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale.



CDI TORQUE PRODUCTS

HEAVY-DUTY TORQUE & ANGLE™ TORQUE WRENCH

LEADING THE WAY IN HEAVY-DUTY TORQUE AND ANGLE APPLICATIONS WITH INNOVATIVE SOLUTIONS THAT MAKE A DIFFERENCE IN DOING THE JOB RIGHT.

The CDI 600 ft.lb. Heavy-Duty Torque & Angle™ Torque Wrench eliminates the need for angle gauges and protractors, providing the most accurate and efficient way to achieve torque plus angle tightening sequences now specified by many manufacturers. The digital readout displays a torque setting then with a push of a button, switches to the angle mode. Angle readout not affected by ratcheting. Angle calculation based on the same gyroscopic technology that maintains helicopters at level flight.

- Torque Accuracy: (2% CW & 3% CCW FROM 20 – 100% F.S.) (4% CW & 6% CCW FROM 10 – 19% F.S.)
- Angle Accuracy: ± 3.8% of indicated value
- Angular Display Resolution: 1°

Features

- Torque Units: ft.lb., in.lbs., Nm
- Audible (tone) Preset Alerts
- Display Resolution: 0.1 ft.lb., 0.1 Nm, 1 in.lb.
- Comfortable non-slip grip handle
- Sealed Ratchet Head
- 4 "AA" Alkaline Batteries Included
- Low Battery Indicator and Auto Shutoff after two minutes idle
- Operating Temperature: 40 - 110° F. (5 - 42° C)
- Storage Temperature: 0 - 122° F (-20 - 50° C)
- Humidity up to 90% non-condensing
- EU/CE-DE, ES, FR, IT, NL, PT, UK and Japanese language manual
- Certificate of N.I.S.T. traceability for 20% to 100% of full scale
- Includes storage case

HEAVY-DUTY TORQUE & ANGLE™ TORQUE WRENCH

Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Angle	Length	Wt.
						In. (mm)	Lbs. (kgs)
6004TAA	3/4"	120 - 600	1440 - 7200	156 - 780	0-360°	49 (1244.6)	14 (6.35)





TORQUE SCREWDRIVERS - MICRO-ADJUSTABLE

Adjustable models offer versatility for applications that require more than one torque value. These torque screwdrivers are particularly suited for the electronics industry and for instrument assembly work. A simple, cam-over design prevents over-tightening and possible damage to components.

Torque settings are easily and accurately changed with a unique adjusting knob and easy-to-read window scale. Adjusting the screwdriver is simple. Just pull out the adjusting knob to unlock, turn to the desired setting, then push the knob in until it clicks!

Positive locking knob makes accidental setting changes impossible. Automatic lock in counterclockwise direction makes fastener removal a snap. The Micro-Adjustable series includes six models with torque settings ranging from 20 in. ozs. to 40 in. lbs.

Features

- 6 models available
- Positive locking pull down adjustment knob
- Trilobular comfort grip
- Universal 1/4" hex bit holder with strong rare earth magnet
- Cam-over torque limiting clutch
- Slip resistant finish
- Easy-to-read window scale
- Light weight
- Automatic lock in CCW direction for disassembly
- Accuracy: ± 6% of indicated value, CW, from 20% to 100% of full scale
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.
- Meets or exceeds ASME B107.14 - 2004



TORQUE SCREWDRIVERS - MICRO-ADJUSTABLE

Product Code	Torque Range	Increments	W x L		Wt.
			Inches	Oz.	
61SM	20 - 100 in. ozs.	1 in. oz.	1.1 x 5.5	6.8	
151SM	3 - 15 in. lbs.	.2 in. lbs.	1.1 x 6.25	8.0	
401SM	5 - 40 in. lbs.	.5 in. lbs.	1.2 x 6.75	10.8	
61NSM	10 - 80 cNm	1 cNm	1.1 x 5.5	6.8	
151NSM	40 - 200 cNm	2 cNm	1.1 x 6.25	8.0	
401NSM	50 - 450 cNm	5 cNm	1.2 x 6.75	10.8	



CDI TORQUE PRODUCTS®

TORQUE SCREWDRIVERS - SINGLE SETTING

The tamper resistant design of the Single Setting series is particularly suited for high-volume use in assembly operations. A simple, cam-over design prevents over-tightening and possible damage to components.

Torque screwdrivers may be ordered factory pre-set at an additional charge or they may be easily set by the operator with any quality torque calibration system. The end cap removes for easy access to the 1/8" hex adjustment screw. A hex adjustment key is included with each driver.

The Single Setting series includes four models with available torque settings from 6 in. ozs. up to 40 in.lbs. When precision and repeatability are a must, the choice is simple - CDI Torque Screwdrivers.

Features

- Factory Pre-Set models are set at the factory to the customer's specified torque setting and are furnished with a Certificate of Calibration
- Please specify desired torque setting when order is placed
- Trilobular comfort grip
- Universal 1/4" hex bit holder with strong rare earth magnet
- Cam-over torque limiting clutch
- Rugged, light weight aluminum body, automatic lock in CCW direction
- Accuracy: ± 6% of indicated value, CW, from 20% to 100% of full scale
- Meets or exceeds ASME B107.14 - 2004

TORQUE SCREWDRIVERS - SINGLE SETTING

Product Code Un-Set	Product Code Factory Pre-Set	Torque Range	W X L Length	Wt. Oz.
21SP	21SP-SET	6-32 in.ozs	1.1 x 4.5	5.3
61SP	61SP-SET	10 - 100 in.ozs.	1.1 x 5.6	7.0
151SP	151SP-SET	1.5 - 15 in. lbs	1.1 x 5.6	7.0
401SP	401SP-SET	4 - 40 in. lbs.	1.2 x 6.3	9.6

CDI TORQUE PRODUCTS®

TORKY - SINGLE SETTING WRENCHES

CDI's TORKY is a right angle pre-set torque wrench. Torky is designed for production torque applications that require higher values than a torque screwdriver can deliver. The comfortable design eases the strain of repeated uses. Torque value may be ordered factory pre-set at an additional charge or it may be easily set by the operator with any quality torque calibration system. When the proper torque value is reached, a momentary release or "break" can be felt. Available in three drive styles to fit most needs.

Features

- Factory Pre-Set models are set at the factory to the customer's specified torque setting and are furnished with a Certificate of Calibration
- Please specify desired torque setting when order is placed
- Simple, easy to use design, operates bi-directionally
- Ruggedly built for years of reliable service
- Accuracy: ± 6% of indicated value, CW, from 20% to 100% of full scale

TORKY - SINGLE SETTING WRENCHES

Product Code Un-Set	Product Code Factory Pre-Set	Drive	Torque Range	W X L Length	Wt. Oz.
1501TPA-1	1501TPA-1-SET	1/4" Female Hex	20-170 in.lbs.	1 x 5.25	8.3
1501TP-1	1501TP-1-SET	1/4" Male Square	20-170 in.lbs.	1 x 5.25	8.3
1502TP-1	1502TP-1-SET	3/8" Male Square	20-170 in.lbs.	1 x 5.25	8.3



Prevents premature wear of carbide inserts and damage to cutter head due to improper clamp load.





TORQUE LIMITING T-HANDLE - PRE-SET

Product Code	Nm	Ft. Lb.	Pre Set Value	
			In. Lb.	Bit
TLPT4NM	4.0	2.9	35.4	4 mm
TLPT5NM	5.0	3.7	44.3	4 mm
TLPT6NM	6.0	4.4	53.1	4 mm

Features

- Torque Limiting Technology to Prevent Over-Tightening
- Magnetic Shank to Interchange Bits as Needed
- Rounded T-Handle Grip for Added Comfort
- Hi-Vis Color for Easy Identification
- Shaft accepts 1/4" hex shank bits, a 4 mm bit is included in each driver



TORQCONTROL - TORQUE TOOL

TorqControl's is perfect for torque in sporting goods such as bicycles and golf as well as machine tool carbide bits and other applications where fast, convenient and accurate torque applications are needed. Minimizes the changes of over-torque.

Features

Product Code	Nm
TLA28NM	2-8Nm

- 1/4" Hex Magnetic Bit Shank with 6 bits
- 6 Hex Bits: 4mm (1"/2.54cm), 5mm (1"/2.54cm), 6mm (1"/2.54cm), T25 (1"/2.54cm), 6mm (4"/10.16cm), T25 (4"/10.16cm)
- Turn knob to desired torque setting between 2.0 and 8.0 Nm
- Torque Limiting Function Prevents Over-Tightening
- Ergonomic Positive Grip L-Handle Design





CDI TORQUE PRODUCTS

ELECTRONIC DIAL TORQUE WRENCH

The new Electronic Dial (ED) torque wrench features solid-state electronics for accurate torque application and measurement. ED's design provides easy set-up and usage. There is no need to look directly at the digital readout as the wrench features 3 indicating lights and an audible buzzer.

The ED wrench has unsurpassed reliability and durability -- 21st century technology in a simple, easy to read digital torque wrench.

Features

- 4 units of measure...ft lb, in lb, Nm, kg.cm.
- Accuracy: ± 1% of indicated value CW & CCW, from 20% to 100% of full scale
- 3 step LED visual signal system
 YELLOW LIGHT = approaching target torque
 GREEN LIGHT = target torque reached
 RED LIGHT = over torque indicator
- Audible tone when desired torque is reached
- Alarm tone sounds if wrench is overtorqued
- Ergonomically designed wrench body
- Display can be turned 180 degrees to allow left hand usage
- Battery cover designed to be aviation FOD proof
- Holds "peak" torque reading for 10 seconds
- Constructed of special Capron® material for long life and durability
- Resistant to the majority of chemicals used in industrial environments
- Wrench can be hung on tool board
- Bar graph displays orientation of torque application (left or right hand)
- Uses standard 9 volt alkaline battery
- N.I.S.T. traceable certificate of calibration included
- Meets or exceeds ASME B107.28 – 2005

ELECTRONIC DIAL TORQUE WRENCH

Product Code	Drive	In. Lb.	Ft. Lb.	Nm	Kg. Cm.	Length		Wt.	
						In. (mm)	Lbs. (kgs)		
501ED-CDI	1/4"	5 - 50	.42 - 4.17	.56 - 5.65	57 - 57.61	11.5 (292)	1.25 (.57)		
2502ED-CDI	3/8"	25 - 250	2.08 - 20.83	2.82 - 28.25	28 - 280.03	14.5 (368)	1.51 (.68)		
6002ED-CDI	3/8"	60 - 600	5 - 50	6.79 - 67.79	69 - 691.27	14.5 (368)	1.51 (.68)		



CDI "ED": Easy to change dial orientation.



The yellow LED illuminates within 10% of target torque.



The green LED illuminates within 4% of target torque. Continuous buzzer sounds when target is reached.



The red LED illuminates 4% beyond target torque, indicating fastener was overtorqued. Rapid "alarm" buzzer sounds.



DIAL TORQUE WRENCHES - SINGLE SCALE

Dial Torque Wrenches are designed for the automotive, nuclear and industrial markets in addition to military installations throughout the world. This series features sturdy torsion beam design for dependable long life and accuracy. The small frame model offers working ranges from 3 in. lbs. to 50 ft. lbs. in 1/4" and 3/8" drives. The large frame model continues from 100 ft. lbs. through 2,000 ft. lbs. with 1/2", 3/4" and 1" drives. Accuracy of both series of ± 3% meets or exceeds B107.14 - 2004, ISO 6789 bi-directionally from 20% to 100% of scale. All wrenches supplied with a N.I.S.T. traceable certificate of calibration.

Features

- Sturdy body construction insures maximum durability
- Easy to read laser marked single scale
- Large easy to read dial is shock resistant and protected by a tough metal guard
- Memory needle retains highest torque reading applied
- Calibrated in both CW and CCW direction
- Accuracy: ± 3% of indicated value, CW & CCW, from 20% to 100% of full scale
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



T-TYPE DIAL WRENCHES must be operated by two persons or a torque multiplier. The handle is over 10 ft. long.

DIAL TORQUE WRENCHES - SINGLE SCALE

Product Code	Drive Size (In.)	English Range	Incr.	A In.	B In.	C In.	D In.	WT. Lbs.
Memory Needle Models								
301LDINSS	1/4"	0-30 in.lb.	.5 in.lb.	11.5	1.1	1.2	2.75	1.1
751LDINSS	1/4"	0-75 in.lb.	1 in.lb.	11.5	1.1	1.2	2.75	1.1
752LDINSS	3/8"	0-75 in.lb.	1 in.lb.	11.5	1.1	1.2	2.75	1.1
3002LDINSS	3/8"	0-300 in.lb.	5 in.lb.	11.5	1.1	1.2	2.75	1.1
6002LDINSS	3/8"	0-600 in.lb.	10 in.lb.	15	1.5	1.2	2.75	1.6
502LDFNSS	3/8"	0-50 ft.lbs.	1 ft.lb.	15	1.5	1.2	2.75	1.6
1003LDFNSS	1/2"	0-100 ft. lb.	2 ft. lb	21.75	2.25	1.50	2.75	3.70
1753LDFNSS	1/2"	0-175 ft. lb.	5 ft. lb.	21.75	2.25	1.50	2.75	3.70
2503LDFNSS	1/2"	0-250 ft. lb.	5 ft. lb	21.75	2.25	1.50	2.75	3.70
3504LDFNSS	3/4"	0-350 ft. lb.	10 ft. lb.	28.00	2.25	1.50	2.75	5.75
6004LDFNSS*	3/4"	0-600 ft. lb.	10 ft. lb.	47.00	2.50	1.50	2.75	10.10
10005LDFNSS*	1"	0-1000 ft. lb.	20 ft. lb.	74.00	2.50	3.50	3.00	30.00
Electric Signaling Models								
6004LDFESS**	3/4"	0-600 ft. lb.	10 ft. lb.	47.00	2.50	1.50	2.75	10.10
10005LDFESS**	1"	0-1000 ft. lb.	20 ft. lb.	74.00	2.50	3.50	3.00	30.00
20005LDFESS***	1"	0-2000 ft. lb.	40 ft. lb.	122.00	3.50	6.50	3.50	47.00

*NOTE: 6004LDFNSS and 10005LDFNSS include 1 extension handle.

**NOTE: 6004LDFESS and 10005LDFESS include 1 extension handle, indicating light and buzzer.

***NOTE: 20005LDFESS is a "T" style wrench with 1" drive female head that can be used with a torque multiplier. Includes 5 piece handle assembly, indicating light and buzzer.





DIAL TORQUE WRENCHES NEWTON METER - SINGLE SCALE



DIAL TORQUE WRENCHES NEWTON METER - SINGLE SCALE

Product Code	Drive Size (In.)	Nm Range	Incr.	A In.	B In.	C In.	D In.	Wt. Lbs.
Memory Needle Models								
1.81NLDNSS	¼"	0-1.8 Nm	.05 Nm	11.5	1.1	1.2	2.75	1.1
3.51NLDNSS	¼"	0-3.5 Nm	.1 Nm	11.5	1.1	1.2	2.75	1.1
91NLDNSS	¼"	0-9 Nm	.2 Nm	11.5	1.1	1.2	2.75	1.1
92NLDNSS	⅜"	0-9 Nm	.2 Nm	11.5	1.1	1.2	2.75	1.1
182NLDNSS	⅜"	0-18 Nm	.5 Nm	11.5	1.1	1.2	2.75	1.1
302NLDNSS	⅜"	0-30 Nm	.5 Nm	11.5	1.1	1.2	2.75	1.1
352NLDNSS	⅜"	0-35 Nm	1 Nm	11.5	1.1	1.2	2.75	1.1
702NLDNSS	⅜"	0-70 Nm	2 Nm	15	1.5	1.2	2.75	1.6
1403NLDNSS	½"	0-140 Nm	2.5 Nm	21.75	2.25	1.50	2.75	3.70
2403NLDNSS	½"	0-240 Nm	5 Nm	21.75	2.25	1.50	2.75	3.70
3503NLDNSS	½"	0-350 Nm	10 Nm	21.75	2.25	1.50	2.75	3.70
4804NLDNSS	¾"	0-480 Nm	10 Nm	28.00	2.25	1.50	2.75	5.75
8004NLDNSS*	¾"	0-800 Nm	20 Nm	47.00	2.50	1.50	2.75	10.10
14005NLDNSS*	1"	0-1400 Nm	25 Nm	74.00	2.50	3.50	3.00	30.00

*NOTE: 8004NLDNSS and 14005NLDNSS include 1 Extension handle.





DIAL TORQUE WRENCHES - DUAL SCALE

Dial Torque Wrenches are designed for the automotive, nuclear and industrial markets in addition to military installations throughout the world. This series features sturdy torsion beam design for dependable long life and accuracy. The small frame model offers working ranges from 3 in. lbs. to 50 ft. lbs. in 1/4" and 3/8" drives. The large frame model continues from 100 ft. lbs. through 2,000 ft. lbs. with 1/2", 3/4" and 1" drives. Accuracy of both series of ± 3% meets or exceeds B107.14 - 2004, ISO 6789 bi-directionally from 20% to 100% of scale. All wrenches supplied with a N.I.S.T. traceable certificate of calibration.

Features

- Sturdy body construction insures durability
- Easy to read laser marked dual scale
- Large easy to read dial is shock resistant and protected by a tough metal guard
- Memory needle retains highest torque reading applied
- Calibrated in both CW and CCW direction
- Accuracy: ± 3% of indicated value, CW & CCW, from 20% to 100% of full scale
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



20005LDFE "T" type Dial Wrench must be operated by two persons or a torque multiplier. The handle is over 10 ft. long.

DIAL TORQUE WRENCHES - DUAL SCALE

Product Code	Drive Size	English Range	English Incr.	Nm Range	A Incr.	B In.	C In.	D In.	Wt. Lbs.	
Memory Needle Models										
301LDIN	1/4"	0-30 in. lb.	.5 in. lb.	0-3.5 Nm	.1 Nm	11.5	1.1	1.2	2.75	1.1
751LDIN	1/4"	0-75 in. lb.	1 in. lb.	0-9 Nm	.2 Nm	11.5	1.1	1.2	2.75	1.1
1502LDIN	3/8"	0-150 in. lb.	2 in. lb.	0-18 Nm	.5 Nm	11.5	1.1	1.2	2.75	1.1
2502LDIN	3/8"	0-250 in. lb.	5 in. lb.	0-30 Nm	.5 Nm	11.5	1.1	1.2	2.75	1.1
3002LDIN	3/8"	0-300 in. lb.	5 in. lb.	0-35 Nm	1 Nm	11.5	1.1	1.2	2.75	1.1
6002LDIN	3/8"	0-600 in. lb.	10 in. lb.	0-70 Nm	2 Nm	15	1.5	1.2	2.75	1.6
502LDFN	3/8"	0-50 ft. lb.	1 ft. lb.	0-70 Nm	2 Nm	15	1.5	1.2	2.75	1.6
1003LDFN	1/2"	0-100 ft. lb.	2 ft. lb.	0-140 Nm	2.5 Nm	21.75	2.25	1.50	2.75	3.70
1753LDFN	1/2"	0-175 ft. lb.	5 ft. lb.	0-240 Nm	5 Nm	21.75	2.25	1.50	2.75	3.70
2503LDFN	1/2"	0-250 ft. lb.	5 ft. lb.	0-350 Nm	10 Nm	21.75	2.25	1.50	2.75	3.70
3504LDFN	3/4"	0-350 ft. lb.	10 ft. lb.	0-480 Nm	10 Nm	28.00	2.25	1.50	2.75	5.75
6004LDFN*	3/4"	0-600 ft. lb.	10 ft. lb.	0-800 Nm	20 Nm	47.00	2.50	1.50	2.75	10.10
10005LDFN*	1"	0-1000 ft. lb.	20 ft. lb.	0-1400 Nm	25 Nm	74.00	2.50	3.50	3.00	30.00
Electric Signaling Models										
6004LDFE**	3/4"	0-600 ft. lb.	10 ft. lb.	0-800 Nm	20 Nm	47.00	2.50	1.50	2.75	10.10
10005LDFE**	1"	0-1000 ft. lb.	20 ft. lb.	0-1400 Nm	25 Nm	74.00	2.50	3.50	3.00	30.00
20005LDFE***	1"	0-2000 ft. lb.	40 ft. lb.	0-2800 Nm	50 Nm	122.00	3.50	6.50	3.50	47.00

*NOTE: 6004LDFN and 10005LDFN include 1 Extension handle.

**NOTE: 6004LDFE and 10005LDFE include 1 Extension handle, indicating light and buzzer.

***NOTE: 20005LDFE is a "T" style wrench with 1" drive female head that can be use with a torque multiplier. Includes 5 piece handle assembly, indicating light and buzzer.





COMFORT GRIP MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

Comfort-Grip Handle Dual Scale

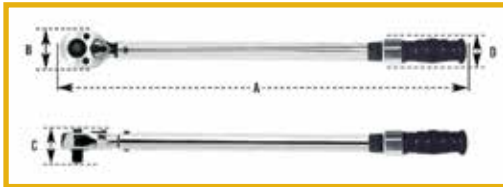
Features

- Dual scale, calibrated dual direction
- Positive lock with spring loaded pull down lock ring
- Fast, accurate and easy to set
- Easy-to-read laser marked scale
- Most feature quick release buttons which provide good socket retention as well as easy socket removal
- Ergonomic comfort-grip
- Accuracy: $\pm 3\%$ CW $\pm 5\%$ CCW of indicated value, CW, from 20% to 100% of full scale
- Meets or exceeds ASME B107.14-2004, ISO 6789 standards
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



COMFORT GRIP MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

Product Code	Drive	English	Nm		A	B	C	D
	Size	Range	Incr.	Range	Incr.	In.	In.	In.
1501MRPH	1/4"	20-150 in. lb.	1	2.8 - 15.3 Nm	.12	10.00	1.06	.93
2502MRPH	3/8"	30-250 in. lb.	1	4.0 - 27.7 Nm	.12	11.25	1.06	1.06
10002MRPH	3/8"	150-1000 in. lb.	5	19.8 - 110.2 Nm	.6	16.00	1.43	1.20
1002MFRPH	3/8"	10-100 ft. lb.	1	16.9 - 132.2 Nm	.7	16.00	1.43	1.20
1503MFRPH	1/2"	20-150 ft. lb.	1	34 - 197 Nm	1.4	19.00	1.70	1.40
2503MFRPH	1/2"	30-250 ft. lb.	1	47 - 332 Nm	1.4	24.40	1.70	1.40
6004MFRPH	3/4"	100-600 ft. lb.	5	169 - 779 Nm	6.8	42.00	2.50	2.10





METAL HANDLE CLICK TYPE TORQUE WRENCHES - DUAL SCALE

Metal Handle Dual Scale. The metal handle series offers the user a rugged, industrial strength torque wrench able to withstand the rigors of professional use. Handles are lightly knurled for a tough, non-slip grip. There are 21 models of metal handle micrometer adjustable torque wrenches available.

Features

- Dual scale, calibrated dual direction
- Positive lock with spring loaded pull down lock ring
- Fast, accurate and easy to set
- Easy-to-read laser marked scales
- Most feature quick release buttons which provide good socket retention as well as easy socket removal
- Accuracy: $\pm 3\%$ CW $\pm 4\%$ CCW of indicated value, CW, from 20% to 100% of full scale
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



METAL HANDLE CLICK TYPE TORQUE WRENCHES - DUAL SCALE

Product Code	Drive Size	English Range	Nm Range	A		B		C		D	Wt. Lbs.
				Incr.	In.	In.	In.	In.	In.		
501MRMH	1/4"	10-50 in. lb.	0.5	1.4 - 5.4 Nm	0.5	10.15	1.06	0.93	1.06	0.85	
1501MRMH	1/4"	20-150 in. lb.	05	2.8-15.3 Nm	0.12	10.15	1.06	0.93	1.06	0.90	
1502MRMH	3/8"	20-150 in. lb.	1	2.8 - 15.3 Nm	.12	10.15	1.06	0.93	1.06	0.90	
2002MRMH	3/8"	30-200 in. lb.	1	4.0 - 22.0 Nm	.12	10.15	1.06	0.93	1.06	0.85	
2502MRMH	3/8"	30-250 in. lb.	1	4.0 - 27.7 Nm	.12	11.25	1.06	0.93	1.06	0.95	
7502MRMH	3/8"	100-750 in. lb.	5	14.1 - 81.9 Nm	.6	16.00	1.43	1.20	1.40	2.50	
10002MRMH	3/8"	150-1000 in. lb.	5	19.8 - 110.2 Nm	.6	16.00	1.43	1.20	1.40	2.50	
25003MRMH	1/2"	300-2500 in. lb.	10	39.6 - 276.9 Nm	1.2	18.00	1.70	1.40	1.40	3.20	
752MFRMH	3/8"	5-75 ft. lb.	0.5	10.2 - 98.3 Nm	.7	16.00	1.43	1.20	1.40	2.50	
1002MFRMH	3/8"	10-100 ft. lb.	0.5	16.9 - 132.2 Nm	.7	16.00	1.43	1.20	1.40	2.55	
1503MFRMH	1/2"	20-150 ft. lb.	1	34 - 197 Nm	1.4	19.00	1.70	1.40	1.40	3.15	
2503MFRMH	1/2"	30-250 ft. lb.	1	47 - 332 Nm	1.4	24.40	1.70	1.40	1.40	3.15	
4004MFRMH	3/4"	80-400 ft. lb.	5	85 - 491 Nm	3.4	34.25	2.50	2.10	1.40	10.30	
4504MFRMH	3/4"	75-450 ft. lb.	5	119 - 593 Nm	3.40	34.25	2.50	2.10	1.40	10.30	
6004MFRMH	3/4"	100-600 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	

*NOTE: 10005MFRMH supplied with one extension handle and is packed in a metal box.

**NOTE: 20005MFMHSS (English scale only) supplied with two extension handles, fixed/non-ratcheting head and is packed in a sturdy cardboard box.





MICROMETER ADJUSTABLE NEWTON METER TORQUE WRENCHES - SINGLE SCALE

Single Scale

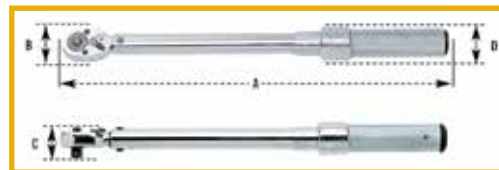


MICROMETER ADJUSTABLE NEWTON METER TORQUE WRENCHES - SINGLE SCALE

Product Code	Nm Range	Sq. Drive	Incr.	A In.	B In.	C In.	D In.	Wt. Lbs.
602NMRMHSS	10-60 Nm	3/8"	0.5	16.00	1.43	1.20	1.40	2.50
1002NMRMHSS	20-100 Nm	3/8"	0.5	16.00	1.43	1.20	1.40	2.50
2003NMRMHSS	40-200 Nm	1/2"	2	19.00	1.70	1.40	1.40	3.25
3403NMRMHSS	60-340 Nm	1/2"	2	24.40	1.70	1.40	1.40	3.40
8004NMRMHSS	150-800 Nm	3/4"	5	42.00	2.50	2.10	1.40	11.85
15005NMRMHSS*	300-1500 Nm	1"	10	70.00	3.00	3.00	1.50	25.10

*NOTE: 15005NMRMHSS supplied with one extension handle and is packed in a metal box.

NOTE: All single scale Newton Meter only.





QUICK SET SPLIT BEAM TORQUE WRENCHES

This unique "split beam" measuring element provides consistently accurate readings and rugged, trouble-free performance. Fast setting of desired torque is easily accomplished by rotating adjustment knob until required torque value is displayed in the torque window. 3/4" drive model features three-piece construction for easy disassembly and storage.

Features

- CDI Sealed Ratchet Head - is virtually maintenance free; more time working with the tool, less time on tool maintenance
- Thumb Screw Type Adjustment - is faster than cycling through a micrometer style torque wrench. Guard prevents setting from being changed accidentally. Setting is displayed in window. Conversion table to Nm displayed on handle
- Sealed Neck - keeps dust and grit away from the torque mechanism for longer tool life
- "Split Beam" Measuring Element - provides accurate, reliable readings and eliminates the heavy coil spring used in conventional click type wrenches. This yields fewer moving parts, reducing friction and wear
- Cushion Grip Handle - provides comfort plus control and resists most automotive fluids
- Designed for measuring torque in a clockwise direction only. Wrench is not reversible
- Guaranteed Accuracy: Accurate within ±4% of any clockwise setting from 20% of full scale to full scale.



QUICK SET SPLIT BEAM TORQUE WRENCHES

Product Code	Drive Size	Range	Increments	Length (in.)	Ratchet
WSC-50A	3/8"	120-600 in. lbs.	10.0 in. lbs.	17 1/8	Flex-Head
WSC-100CA	3/8"	20-100 ft. lbs.	2.0 ft. lbs.	17 1/8	Flex-Head
WSC-250CA	1/2"	40-250 ft. lbs.	5.0 ft. lbs.	21 1/16	Flex-Head
WSC-400CA	3/4"	80-400 ft. lbs.	10.0 ft. lbs.	38 1/8	Fixed-Head
WSC-600CA	3/4"	200-600 ft. lbs.	10.0 ft. lbs.	48 1/2	Fixed-Head



FLEX-HEAD MICROMETER ADJUSTABLE TORQUE WRENCH

Flex-Head English Single Scale

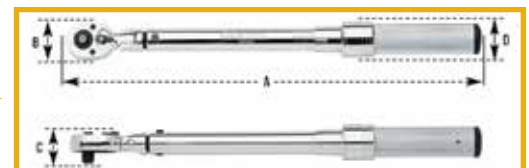
Features

- Single scale, dual direction
- Positive lock with spring loaded pull down lock ring
- Fast, accurate and easy to set
- Easy-to-read laser marked scales
- Flex Head pivots 15 degrees in both directions
- Rugged for Industrial use
- Accuracy: ± 4% CW ± 6% CCW of indicated value, CW, from 20% to 100% of full scale
- Meets or exceeds ASME B107.14-2004, ISO 6789 standards
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



FLEX-HEAD MICROMETER ADJUSTABLE TORQUE WRENCH

Product Code	Torque Range	Sq. Drive	Incr.	A In.	B In.	C In.	D In.	Wt. Lbs.
802MFRFMHSS	10-80 ft. lb.	3/8"	0.5	16.60	1.25	1.15	0.90	2.500





CDI TORQUE PRODUCTS

CDI TORQUE PACK PRESET WRENCHES

CDI's Torque Pack for the Professional Tire Installer

Features

- Covers all automotive and light truck applications
- Color coding matches common torque sticks
- Rubber Boot cover on head protects expensive wheels
- One way ratchet prevents damage to torque wrench
- Easy to read torque values printed on each wrench
- Increased productivity by reducing adjustment time

MODEL PTWS-2-CDI INCLUDES:

- 5 Preset Color Coded Torque Wrenches
65 ft. lbs., 80 ft. lbs., 100 ft. lbs., 120 ft. lbs., 140 ft. lbs.
- 1 Micrometer Adjustable Torque Wrench
50 - 250 ft. lbs.
- 6 Deep Wall Sockets
3/4", 13/16", 7/8", 17 mm, 19 mm and 21 mm
- 1 Socket Extension Bar
1/2" X 6 Inch
- 1 Color coordinated lug nut torque chart
- 1 Wall mounted blow moulded rack



CDI TORQUE PRODUCTS

TPMS-4VC INCLUDES:

CDI's TPMS for the Professional Tire Installer

Features

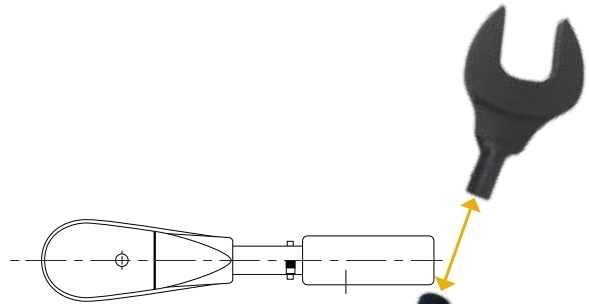
- Prevents damage to costly componets
- No guessing, DO IT RIGHT the FIRST time
- Valve core tool prevents leaks and stripping
- Specifically designed to be used as a core remover and precise installer for TPMS tire valve to eliminate risk of damaging expensive TPMS sensors
- Preset to 4 ft. lbs. to prevent over or undertorquing
- Preset torque setting also helps prevent valve core leaks that lead to low tire pressure and TPMS alerts



INTERCHANGEABLE HEAD TORQUE WRENCHES

Features

- Interchangeable heads permit ratcheting, fixed, or open end torquing capability with adjustable torque wrench bodies.
- A push of the locking pin provides quick-change action, with a wide range of head styles to choose from.
- Micrometer Type Adjustment-ensures fast, accurate settings and changes.
- *Part Number 800NMIMH has Dual Pin Release for added strength



*Note: 800NMIMH new dual pin "Z" receivers accept only dual pin interchangeable heads.

INTERCHANGEABLE HEAD TORQUE WRENCHES - DUAL SCALE

Product Code	Shank Size	Nm Range	Incr.	English Range
50NMIMH	J	10 - 50	0.5	7.4 - 44.2
100NMIMH	J	20 - 100	0.5	14.8 - 73.8
200NMIMH	Y	40 - 200	2	29.5 - 147.5
350NMIMH	X	70 - 350	2	44.3 - 250.8
800NMIMH*	Z	150 - 800	5	110.6 - 590

INTERCHANGEABLE HEAD TORQUE WRENCHES - SINGLE SCALE

Product Code	Shank Size	English Range	Incr.
75MFIMHSS	J	5 - 75	0.5
150MFIMHSS	Y	20 - 150	1
250MFIMHSS	Y	30 - 250	1



SINGLE SETTING TORQUE WRENCHES

Single setting torque wrenches are designed for use on production lines and other applications where a specific torque is required for repetitive operations.

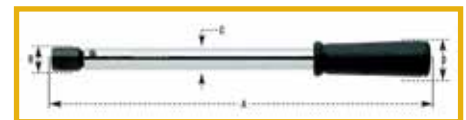
Features

- Factory Pre-Set models are set at the factory to the customer's specified torque setting, and are furnished with a Certificate of Calibration.
- Please specify desired torque setting when order is placed.
- Featuring a durable, non-slip cushion grip
- Uses universal round shank heads
- Audible click and feel impulse torque control mechanism
- Tamper proof torque setting for production line use
- Accuracy: ± 4% of indicated value, in direction of torque indicator, from 20% to 100% of full scale
- Meets or exceeds ASME B107.14-2004, ISO 6789



SINGLE SETTING TORQUE WRENCHES

Product Code	Product Code	English	Nm	Shank	A	B	C	D	Wt.
Un-Set	Factory Pre-Set	Range	Range	Size	In.	In.	In.	In.	Lbs.
5T-I	5T-I-SET	10 - 50 in. lb.	1.1 - 5.6	J	6.5	0.63	0.61	1	0.35
10T-I	10T-I-SET	50 - 250 in. lb.	5.6 - 28	J	10	0.63	0.61	1	0.55
10ST-I	10ST-I-SET	60 - 300 in. lb.	6.8 - 34	J	6.2	0.68	0.86	1.4	0.75
50T-I	50T-I-SET	15 - 75 ft. lb.	20 - 102	J	11	0.68	0.96	1.4	1.4
100T-I	100T-I-SET	30 - 150 ft. lb.	41 - 203	Y	19.5	0.94	0.96	1.4	2.3
200T-I	200T-I-SET	40 - 200 ft. lb.	54 - 271	Y	23.5	0.94	0.86	1.4	2.6
300T-I	300T-I-SET	100 - 300 ft. lb.	135 - 406	X	27.7	1.12	1	1.4	3.9
600T-I	600T-I-SET	120 - 600 ft. lb.	162 - 814	Z	55	1.5	1.25	1.25	10.45





RATCHETING SQUARE DRIVE HEADS - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
1/4	TCQJD8A-72				
3/8	TCQJD12A-80	TCQYD12A-80			
1/2	TCQJD16A	TCQYD16A	TCQXD16A		
3/4			TCQXD24A	TCQZD24B	TCQZD24BDP
1			TCQXD32A	TCQZD32B	TCQZD32BDP

FIXED SQUARE DRIVE HEADS - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
1/4	TCQJSD8A				
3/8	TCQJSD12A	TCQYSD12A			
1/2	TCQJSD16A	TCQYSD16A	TCQXSD16A		
3/4			TCQXSD24A	TCQZSD24A	TCQZSD24ADP
1			TCQXSD32A	TCQZSD32A	

OPEN END HEADS - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
1/4	TCQJO8A				
9/32	TCQJO9A				
5/16	TCQJO10A				
3/8	TCQJO12A				
7/16	TCQJO14A				
1/2	TCQJO16A				
9/16	TCQJO18A	TCQYO18A			
5/8	TCQJO20A	TCQYO20A			
11/16	TCQJO22A	TCQYO22A			
3/4	TCQJO24A	TCQYO24A	TCQXO24A		
13/16	TCQJO26A	TCQYO26A	TCQXO26A		
7/8	TCQJO28A	TCQYO28A	TCQXO28A		
15/16	TCQJO30A	TCQYO30A	TCQXO30A		
1	TCQJO32A	TCQYO32A	TCQXO32A	TCQZO32A	TCQZO32ADP
1 1/16	TCQJO34A	TCQYO34A	TCQXO34A	TCQZO34A	TCQZO34ADP
1 1/8	TCQJO36A	TCQYO36A	TCQXO36A	TCQZO36A	TCQZO36ADP
1 3/16		TCQYO38A	TCQXO38A	TCQZO38A	TCQZO38ADP
1 1/4	TCQJO40A	TCQYO40A	TCQXO40A	TCQZO40A	TCQZO40ADP
1 5/16		TCQYO42A	TCQXO42A	TCQZO42A	TCQZO42ADP
1 3/8	TCQJO44A	TCQYO44A	TCQXO44A	TCQZO44A	TCQZO44ADP
1 7/16		TCQYO46A	TCQXO46A	TCQZO46A	TCQZO46ADP
1 1/2	TCQJO48A	TCQYO48A	TCQXO48A	TCQZO48A	TCQZO48ADP
1 9/16		TCQYO50A	TCQXO50A	TCQZO50A	TCQZO50ADP
1 5/8	TCQJO52A	TCQYO52A	TCQXO52A	TCQZO52A	TCQZO52ADP
1 11/16			TCQXO54A	TCQZO54A	TCQZO54ADP
1 3/4		TCQYO56A	TCQXO56A	TCQZO56A	TCQZO56ADP
1 13/16			TCQXO58A	TCQZO58A	TCQZO58ADP
1 7/8		TCQYO60A	TCQXO60A	TCQZO60A	TCQZO60ADP
2			TCQXO64A	TCQZO64A	TCQZO64ADP
2 1/16				TCQZO66A	TCQZO66ADP
2 1/8			TCQXO68	TCQZO68A	TCQZO68ADP
2 1/4		TCQYO72		TCQZO72A	TCQZO72ADP
2 3/8					TCQZO76ADP
2 1/2		TCQYO80		TCQZO80A	TCQZO80ADP
2 3/4				TCQZO88A	
3				TCQZO96A	

Center of fastener to retaining pin:

TCQJ Series - 2.50"

TCQY Series - 3.00"

TCQX Series - 4.50"

TCQZ Series - 5.75"



Made in U.S.A.



OPEN END HEADS - METRIC

Square Drive (mm)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
6	TCQJOM6A				
7	TCQJOM7A				
8	TCQJOM8A				
9	TCQJOM9A				
10	TCQJOM10A				
11	TCQJOM11A				
12	TCQJOM12A				
13	TCQJOM13A				
14	TCQJOM14A	TCQYOM14A			
15	TCQJOM15A	TCQYOM15A			
16	TCQJOM16A	TCQYOM16A			
17	TCQJOM17A	TCQYOM17A	TCQXOM17A		
18	TCQJOM18A	TCQYOM18A	TCQXOM18A		
19	TCQJOM19A	TCQYOM19A	TCQXOM19A		
20	TCQJOM20A	TCQYOM20A	TCQXOM20A		
21	TCQJOM21A	TCQYOM21A	TCQXOM21A		
22	TCQJOM22A	TCQYOM22A	TCQXOM22A		
23	TCQJOM23A	TCQYOM23A	TCQXOM23A		
24	TCQJOM24A	TCQYOM24A	TCQXOM24A	TCQZOM24A	TCQZOM24ADP
25	TCQJOM25A	TCQYOM25A	TCQXOM25A		
26	TCQJOM26A	TCQYOM26A	TCQXOM26A		
27	TCQJOM27A	TCQYOM27A	TCQXOM27A	TCQZOM27A	TCQZOM27ADP
29		TCQYOM29A	TCQXOM29A		
30		TCQYOM30A	TCQXOM30A	TCQZOM30A	TCQZOM30ADP
32		TCQYOM32A	TCQXOM32A	TCQZOM32A	TCQZOM32ADP
34		TCQYOM34A	TCQXOM34A		TCQZOM34ADP
36		TCQYOM36A	TCQXOM36A	TCQZOM36A	TCQZOM36ADP
38					TCQZOM38ADP
41			TCQXOM41A		TCQZOM41ADP
46					TCQZOM46ADP
50				TCQZOM50A	TCQZOM50ADP
55				TCQZOM55A	TCQZOM55ADP
60					TCQZOM60ADP
65					TCQZOM65ADP
70					TCQZOM70ADP



Z Shank Dual Pins



OPEN END THIN HEADS - SAE

Square Drive (Inches)	J (0.425")	Y (0.560")
11/16	TCQJ022ARTH60	
1	TCQJ032ARTH	
1 1/16	TCQJ034ARTH	
1 1/8	TCQJ036ARTH	
1 3/16	TCQJ038ARTH	
1 1/4	TCQJ040ARTH	
1 3/8	TCQJ044ARTH	
1 1/2	TCQJ048ARTH	
1 9/16	TCQJ050ARTH	
1 5/8	TCQJ052ARTH	TCQY052ARTH
1 3/4	TCQJ056ARTH	TCQY056ARTH
1 7/8	TCQJ060ARTH	TCQY060ARTH
2	TCQJ064ARTH	TCQY064ARTH
2 1/16	TCQJ066ARTH	
2 1/8		TCQY068ARTH
2 1/4		TCQY072ARTH
2 11/16	TCQJ086ARTH	



Made in U.S.A.





12-POINT BOX END 15° OFFSET HEADS - SAE



Z Shank Dual Pins

Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
1/4	TCQJX8A				
9/32	TCQJX9A				
5/16	TCQJX10A				
3/8	TCQJX12A				
7/16	TCQJX14A				
1/2	TCQJX16A	TCQYX16A			
9/16	TCQJX18A	TCQYX18A			
5/8	TCQJX20A	TCQYX20A	TCQXX20A		
11/16	TCQJX22A	TCQYX22A	TCQXX22A		
3/4	TCQJX24A	TCQYX24A	TCQXX24A		
13/16	TCQJX26A	TCQYX26A	TCQXX26A		TCQZX26ADP
7/8	TCQJX28A	TCQYX28A	TCQXX28A		
15/16	TCQJX30A	TCQYX30A	TCQXX30A	TCQZX30A	
1	TCQJX32A	TCQYX32A	TCQXX32A		
1 1/16	TCQJX34A	TCQYX34A	TCQXX34A	TCQZX34A	TCQZX34ADP
1 1/8		TCQYX36A	TCQXX36A	TCQZX36A	TCQZX36ADP
1 3/16		TCQYX38A	TCQXX38A	TCQZX38A	TCQZX38ADP
1 1/4		TCQYX40A	TCQXX40A	TCQZX40A	TCQZX40ADP
1 5/16		TCQYX42A	TCQXX42A	TCQZX42A	TCQZX42ADP
1 3/8			TCQXX44A	TCQZX44A	
1 7/16		TCQYX46A	TCQXX46A	TCQZX46A	TCQZX46ADP
1 1/2		TCQYX48A	TCQXX48A	TCQZX48A	TCQZX48ADP
1 9/16		TCQYX50A	TCQXX50A	TCQZX50A	TCQZX50ADP
1 5/8		TCQYX52A	TCQXX52A	TCQZX52A	TCQZX52ADP
1 11/16			TCQXX54A	TCQZX54A	TCQZX54ADP
1 3/4			TCQXX56A	TCQZX56A	TCQZX56ADP
1 13/16			TCQXX58A	TCQZX58A	TCQZX58ADP
1 7/8			TCQXX60A	TCQZX60A	TCQZX60ADP
2			TCQXX64A	TCQZX64A	TCQZX64ADP
2 1/16				TCQZX66A	TCQZX66ADP
2 1/8				TCQZX68A	TCQZX68ADP
2 3/16					TCQZX70ADP
2 1/4				TCQZX72A	TCQZX72ADP
2 3/8					TCQZX76ADP
2 1/2				TCQZX80A	TCQZX80ADP



12-POINT BOX END 0° OFFSET - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")
3/8	TCQJXD12A	
7/16	TCQJXD14A	
1/2	TCQJXD16A	
9/16	TCQJXD18A	
5/8		TCQYXD20A
11/16	TCQJXD22A	TCQYXD22A
3/4	TCQJXD24A	TCQYXD24A
7/8	TCQJXD28A	TCQYXD28A
15/16	TCQJXD30A	TCQYXD30A
1	TCQJXD32A	



12-POINT BOX END 0° OFFSET - METRIC

Square Drive (mm)	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Z Dual Pins
6	TCQJXM6A				
7	TCQJXM7A				
8	TCQJXM8A				
9	TCQJXM9A				
10	TCQJXM10A				
11	TCQJXM11A				
12	TCQJXM12A				
13	TCQJXM13A	TCQYXM13A			
14	TCQJXM14A	TCQYXM14A			
15	TCQJXM15A	TCQYXM15A			
16	TCQJXM16A	TCQYXM16A	TCQXXM16A		
17	TCQJXM17A	TCQYXM17A	TCQXXM17A		
18	TCQJXM18A	TCQYXM18A	TCQXXM18A		
19	TCQJXM19A	TCQYXM19A	TCQXXM19A		
20	TCQJXM20A	TCQYXM20A	TCQXXM20A		
21	TCQJXM21A	TCQYXM21A	TCQXXM21A		
22	TCQJXM22A	TCQYXM22A	TCQXXM22A		
23	TCQJXM23A	TCQYXM23A	TCQXXM23A		
24	TCQJXM24A	TCQYXM24A	TCQXXM24A	TCQZXM24A	TCQZXM24ADP
25	TCQJXM25A	TCQYXM25A	TCQXXM25A	TCQZXM25A	
26	TCQJXM26A	TCQYXM26A	TCQXXM26A	TCQZXM26A	
27	TCQJXM27A	TCQYXM27A	TCQXXM27A	TCQZXM27A	TCQZXM27ADP
29		TCQYXM29A	TCQXXM29A	TCQZXM29A	
30		TCQYXM30A	TCQXXM30A	TCQZXM30A	TCQZXM30ADP
32		TCQYXM32A	TCQXXM32A	TCQZXM32A	TCQZXM32ADP
34		TCQYXM34A	TCQXXM34A	TCQZXM34A	TCQZXM34ADP
36		TCQYXM36A	TCQXXM36A	TCQZXM36A	TCQZXM36ADP
41					TCQZXM41ADP
46					TCQZXM46ADP
50					TCQZXM50ADP
55					TCQZXM55ADP
60					TCQZXM60ADP



Z Shank Dual Pins

12 POINT RATCHET WRENCH HEADS - METRIC

Square Drive (mm)	J (0.425")	Y (0.560")
16	TCQJBOERM16	
18	TCQJBOERM18	TCQYBOERM18
24		TCQYBOERM24



12 POINT RATCHET WRENCH HEADS - SAE

Square Drive (Inches)	J (0.425")	Y (0.560")
3/8	TCQJBOER12	
7/16	TCQJBOER14	
1/2	TCQJBOER16	
9/16	TCQJBOER18	TCQYBOER18
5/8	TCQJBOER20	TCQYBOER20
11/16		TCQYBOER22
3/4	TCQJBOER24	TCQYBOER24



CDI TORQUE PRODUCTS

12-POINT BOX END 10° OFFSET - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")
1/2	TCQJXB16A		
9/16	TCQJXB18A		
5/8	TCQJXB20A	TCQYXB20A	
11/16	TCQJXB22A		
3/4	TCQJXB24A	TCQYXB24A	
7/8		TCQYXB28A	
15/16		TCQYXB30A	
1		TCQYXB32A	
1 1/8		TCQYXB36A	
1 3/8			TCQXXB44A
1 1/2			TCQXXB48A

12-POINT BOX END 10° OFFSET - METRIC



Square Drive (mm)	J (0.425")	Y (0.560")
11mm	TCQJXBM11A	
12mm	TCQJXBM12A	
13mm	TCQJXBM13A	
14mm	TCQJXBM14A	
16mm	TCQJXBM16A	
18mm	TCQJXBM18A	TCQYXBM18A
19mm	TCQJXBM19	
24mm		TCQYXBM24A
28mm		TCQYXBM28A

6-POINT BOX END 10° OFFSET - METRIC



Square Drive (mm)	Y (0.560")
18	TCQYSBXM18
24	TCQYSBXM24

12 POINT FLARE NUT HEADS - SAE



Square Drive (Inches)	J (0.425")	Y (0.560")
9/16	TCQJRX18A	TCQYRX18A
5/8	TCQJRX20A	TCQYRX20A
11/16	TCQJRX22A	TCQYRX22A
3/4	TCQJRX24A	TCQYRX24A
13/16	TCQJRX26A	TCQYRX26A
7/8	TCQJRX28A	TCQYRX28A
15/16	TCQJRX30A	TCQYRX30A
1	TCQJRX32A	TCQYRX32A
1 1/16	TCQJRX34A	TCQYRX34A
1 1/8		TCQYRX36A
1 3/16		TCQYRX38A
1 1/4		TCQYRX40A



6 POINT FLARE NUT HEADS - METRIC

Square Drive (mm)	J (0.425")	Y (0.560")
8	TCQJRXSM8A	
9	TCQJRXSM9A	
10	TCQJRXSM10A	
11	TCQJRXSM11A	
12	TCQJRXSM12A	
13	TCQJRXSM13A	
14	TCQJRXSM14A	
15	TCQJRXSM15A	TCQYRXSM15A
16	TCQJRXSM16A	TCQYRXSM16A
17	TCQJRXSM17A	TCQYRXSM17A
18	TCQJRXSM18A	TCQYRXSM18A
19	TCQJRXSM19A	TCQYRXSM19A
20	TCQJRXSM20A	TCQYRXSM20A
21		TCQYRXSM21A



6 POINT FLARE NUT HEADS - SAE

Square Drive (Inches)	J (0.425")	Y (0.560")
1/4	TCQJRXS8A	
5/16	TCQJRXS10A	
3/8	TCQJRXS12A	
7/16	TCQJRXS14A	
1/2	TCQJRXS16A	
9/16	TCQJRXS18A	TCQYRXS18A
5/8	TCQJRXS20A	TCQYRXS20A
11/16	TCQJRXS22A	TCQYRXS22A
3/4	TCQJRXS24A	TCQYRXS24A
13/16	TCQJRXS26A	TCQYRXS26A
7/8	TCQJRXS28A	TCQYRXS28A
15/16	TCQJRXS30A	TCQYRXS30A
1	TCQJRXS32A	TCQYRXS32A
1 1/8		TCQYRXS36A

ADAPTORS

Product Code	Descriptions
TCQJ-Y	X to J
TCQXY	Y to X
TCQY-X	X to Y
TCQZ-X	Z Male to X Female
TCQZD32A-1	Z Shank 1 Drive



RATCHETING FLARE NUT HEAD

Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")
9/16	TCRTWH36J		
5/8	TCRTWH40H		
11/16	TCRTWH44J		
3/4		TCRTWH48Y	
13/16	TCRTWH52J		
7/8		TCRTWH56Y	
15/16		TCRTWH60Y	
1		TCRTWH64Y	
1 1/8		TCRTWH72Y	
1 1/4		TCRTWH80Y	
1 3/8		TCRTWH88Y	
1 1/2			TCRTWH96X
16mm	TCRTWHM16J		
1 5/8		TCRTWH104Y	
1 7/8		TCRTWH120Y	





TORQUE WRENCH SAFETY

These precautions should always be taken when using any torque wrench to avoid possible injury:

- Read instruction manual completely before using torque wrench.
- Safety glasses or goggles should be worn at all times when using any hand tool.
- Always pull, DO NOT PUSH, to apply torque and adjust your stance to prevent a fall.
- A “cheater bar” should NEVER be used on a torque wrench to apply excess leverage.
- Do not use with sockets or fasteners showing wear or cracks.
- Ratchet mechanism may slip or break if dirty, mismatched or worn parts are used.
- Make sure direction lever is fully engaged

TORQUE WRENCH USAGE

- All mechanical torque wrenches are calibrated from 20% to 100% of full scale, therefore, they should never be used below or above those limits
- To determine which torque wrench capacity is best suited for an application, many factors must be considered. However, as a recommendation, use a torque wrench in the middle 50% of the overall capacity of the tool. This will result in longer tool life, ease of use for the operator and increased accuracy from “clicker” type torque wrenches
- Always grasp handle firmly in the center of the grip
- Approach final torque slowly and evenly
- Stop pulling wrench immediately when target torque is reached
- Never use a torque wrench to break fasteners loose
- Should be cleaned and stored properly
- Should always be stored at it's lowest torque setting
- Wrenches should be re-calibrated if dropped. Should never be used in excess of it's capacity
- Torque wrenches should be “exercised” a minimum of three times at 100% of full scale before use
- The wrench selected should be calibrated in the same torque units that are specified
- Use of a “cheater bar” will result in an inaccurate reading and can possibly damage the wrench
- Torque wrenches will last longer if reasonable care is taken. Always unwind handle to the lowest setting after each use. Do not attempt to lubricate the internal torque mechanism. Clean torque wrench by wiping, do not immerse. The wrench should be sent to a qualified calibration lab once every year or every 5000 cycles for re-calibration



COMMON TORQUE ABBREVIATIONS

FOOT POUNDS – FT. LBS.
 INCH POUNDS – IN. LBS.
 INCH OUNCES – IN. OZS.
 NEWTON METER – NM
 CENTI-NEWTON METER – cNm
 METER KILOGRAM – MKG

EASY-TO-USE TORQUE CONVERSION TABLE

TO CONVERT FROM	TO	MULTIPLY BY
IN. OZ.	IN. LB.	0.0625
IN. LB.	IN. OZ.	16
IN. LB.	FT. LB.	0.08333
IN. LB.	CMKG	1.1519
IN. LB.	MKG	0.011519
IN. LB.	NM	0.113
IN. LB.	dNm	1.13
FT. LB.	IN. LB.	12
FT. LB.	MKG	0.1382
FT. LB.	NM	1.356
dNm	IN. LB.	0.885
dNm	NM	0.10
NM	dNm	10
NM	CMKG	10.2
NM	MKG	0.102
NM	IN. LB.	8.85
NM	FT. LB.	0.7376
CMKG	IN. LB.	0.8681
CMKG	NM	0.09807
MKG	IN. LB.	86.81
MKG	FT. LB.	7.236
MKG	NM	9.807

Torque Products Warranty:

Snap-on Industrial Brands warrants to the original purchaser of CDI Torque Products that the company's torque products are free from defects in workmanship and materials. Snap-on Industrial Brands will repair or replace CDI Torque Products which fail to give satisfactory service due to defective workmanship or materials (excluding calibration) for 12 months from the date of original purchase. Snap-on Industrial Brands warrants "initial, out of box calibration" of each new, unused CDI Torque Product. Repair, replacement or recalibration shall be at the election and expense of Snap-on Industrial Brands, and is your exclusive remedy in place of all other rights and remedies. Products must be returned with proof of purchase, freight prepaid, to a CDI Torque Products repair center for warranty service. Snap-on Industrial Brands will repair or replace Williams' Torque Multipliers which fail to give satisfactory service due to defective workmanship or material for 90 days from the date of original purchase. Snap-on Industrial Brands does not provide any warranty for products subjected to abnormal use. Abnormal use includes misuse, accident, modification, unreasonable use, neglect, lack of maintenance, or use after the tool is significantly worn.



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