

Snap-on® INDUSTRIAL BRANDS

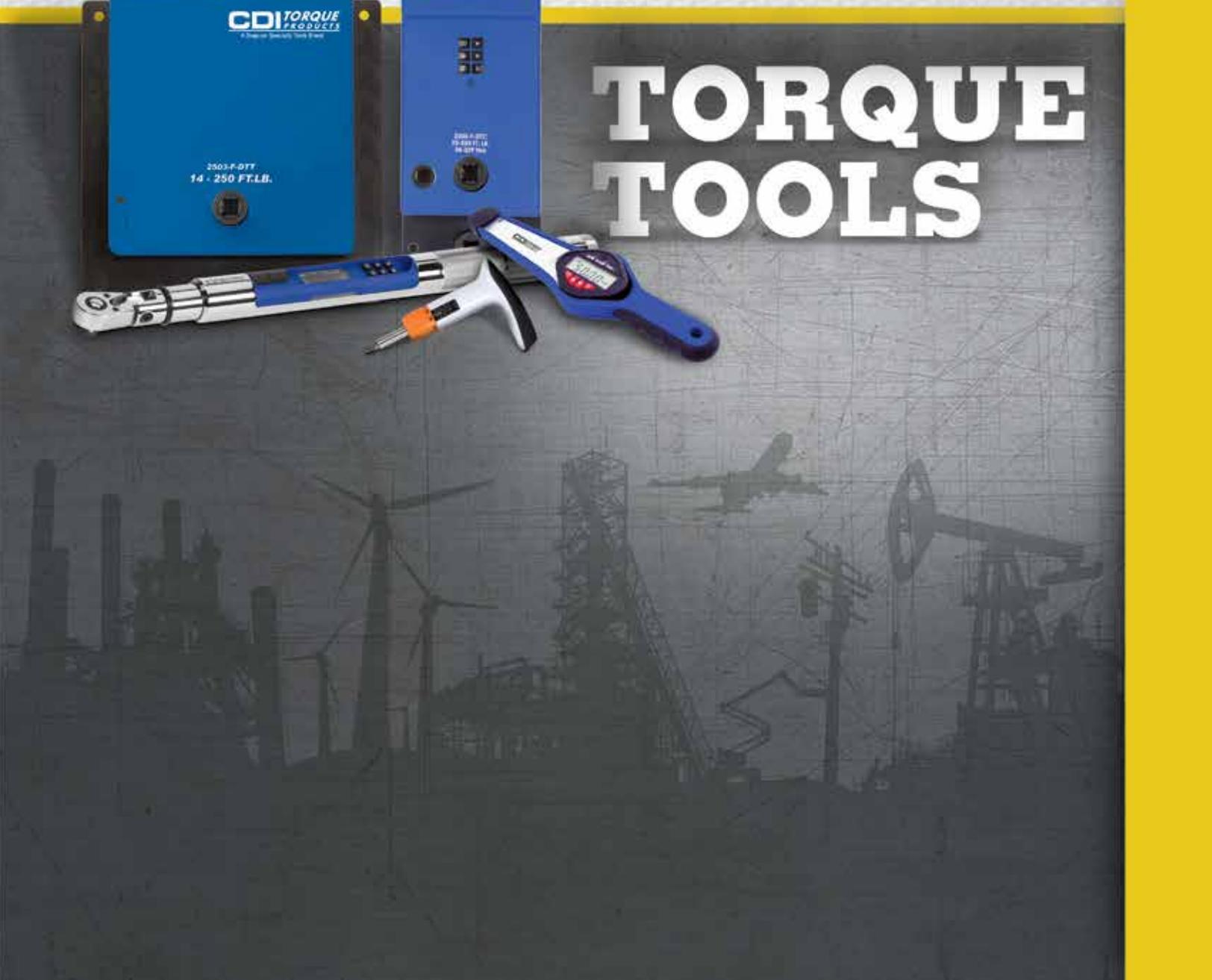
WILLIAMS®



CDITORQUE
PRODUCTS®



TORQUE TOOLS



TORQUE TOOLS

WE ARE THE WORLD'S LARGEST SUPPLIER OF INDUSTRIAL QUALITY TORQUE TOOLS, AND A RESPECTED LEADER IN PRECISION TORQUE, FORCE AND TENSION CALIBRATION SYSTEMS.

CDI IS ISO9001 CERTIFIED AND A PIONEER IN DEVELOPMENT OF THE MOST ADVANCED DIGITAL TORQUE MEASURING INSTRUMENTS IN THE INDUSTRY.



COMPUTORQ SG-STEEL GRIP ELECTRONIC TORQUE WRENCH P.14



DIGITAL TORQUE CHECKER P.13



TORQCONTROL ADJUSTABLE TORQUE TOOL P.19

WE CONTINUE TO INNOVATE TO DELIVER SAFETY AND PRODUCTIVITY TO OUR CUSTOMERS

QUICK REFERENCE

Snap-on INDUSTRIAL BRANDS



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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.



Multitest Digital Monitor with Soft Touch Keys.

Snap-on Industrial Brands offers factory torque training at our manufacturing facility in the City of the Industry, California. We also offer the same top tier training on-site at your location. Training includes a certificate of completion for each student. All of our training is full immersion hands-on training, not just reading from an instruction manual. Contact your representative for details.





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. ($\pm 0.5\%$)	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 Range From 5 - 50 in. ozs. ($\pm 0.5\%$)
2000-5-02	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



4 in 1 Transducer Kit with Mounting Adapter.

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



Snap-on Industrial Brands offers factory torque training at our manufacturing facility in the City of the Industry, California. We also offer the same top tier training on-site at your location. Training includes a certificate of completion for each student. All of our training is full immersion hands-on training, not just reading from an instruction manual. Contact your representative for details.





Dual Mode Function Manual and Automatic

**CDI TORQUE
PRODUCTS**

MULTITEST MOTORIZED SYSTEMS

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.)

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
- 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.

MODEL 2800-1 INCLUDES:

Product Code	Description
2000-810-01	MULTITEST Digital Monitor
2000-800-02	Motorized Loader with roller cabinet
2000-550-02	Extension Arm for Long Torque Wrench, Reach up to 80"

MODEL 2800-3 INCLUDES:

Product Code	Description
2800-1	Base System (see system for details)
2000-400-02	4-in-1 Transducer Kit, 4 in. lbs. to 250 ft. lbs.
2000-500-02	Bracket for 4-in-1 Transducer Adapter Kit
2000-12-02	Transducer Range from 60 - 600 ft. lbs.
2000-14-02	Transducer Range from 200 - 2000 ft. lbs.
2000-SW	Software
2000-50-1	Cable from MULTITEST to PC



Snap-on Industrial Brands offers factory torque training at our manufacturing facility in the City of Industry, California. We also offer the same top tier training on-site at your location. Training includes a certificate of completion for each student. All of our training is full immersion hands-on training, not just reading from an instruction manual. Contact your representative for details.



SURETEST CALIBRATION SYSTEMS

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

The SURETEST Model 5000-2 is a midrange torque system with a range of 5 in. ozs. to 2000 ft. lbs.

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.



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



Easy, quick change transducers.

SURETEST CALIBRATION SYSTEMS INCLUDE:

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





**CDI TORQUE
PRODUCTS**

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.



4 in 1 Transducer Kit with Mounting Adapter.

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.



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.



TEST/CALIBRATION ACCESSORIES

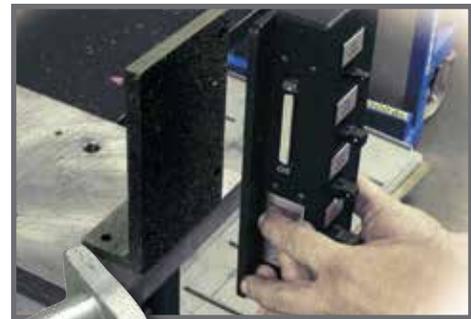
CDI's **calibration equipment** is expressly designed to calibrate the complete line of CDI Torque Transducers. All weight trays, arms and brackets supplied by CDI Torque Products are built with precision accuracy to meet the demanding needs of the calibration professional. All calibration wheels and 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
2000-0154-18	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)

SOCKET ADAPTERS FEMALE X FEMALE

Product Code	Opening	x	Opening
260-27	¼" hex	x	¼" sq
342-40	¼" sq	x	¼" sq
342-41-1	¼" sq	x	⅜" sq
342-41-2	⅜" sq	x	⅜" sq
65-26-2	½" sq	x	⅜" sq
65-26-3	½" sq	x	½" sq
65-78-1	½" sq	x	¾" sq
65-78-2	¾" sq	x	¾" sq
75-25-1	1" sq	x	¾" sq
75-20	1" sq	x	1" sq



WARNING



Turns any ordinary ratchet wrench.....



...into a highly accurate digital torque tool.

CDI TORQUE PRODUCTS

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
- Optional 220 Volt charger available
- 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)

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
201-0-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	60 - 600 ft. lb.	3/4"
15005-F-MT	150 - 1500 ft. lb.	1"

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

Optional Accessories:

Product Code	Description
2000-50-1	Download Cable Rs-232 to Pin Serial Point
1800-5027	220 VAC (50-60 Hz) Charger





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 tester, carrying case and AC/DC power supply.



DIGITAL TORQUE TESTER™ (DTT)

Product Code	Female Drive	Range English	Range cNm, Nm	Range, kgcm
1001-O-DTT	1/4"	10 - 100 in.oz.	7.06 - 70.6 cNm	.720 - 7.20 cmkg
8001-O-DTT*	1/4"	20 - 800 in.oz.	14.1 - 565 cNm	1.44 - 57.6 cmkg
501-I-DTT	1/4"	5 - 50 in.lb.	56 - 565 cNm	5.76 - 57.60 cmkg
1001-I-DTT	1/4"	10 - 100 in.lb.	113 - 1113 cNm	11.5 - 115 cmkg
2502-I-DTT	3/8"	25 - 250 in.lb.	2.82 - 28.25 Nm	28.80 - 288.0 cmkg
4002-I-DTT	3/8"	40 - 400 in.lb.	4.52 - 45.2 Nm	46 - 460 cmkg
10002-I-DTT	3/8"	100 - 1000 in.lb.	11.3 - 113 Nm	115 - 1152 cmkg
2503-F-DTT	1/2"***	25 - 250 ft.lb.	33.8 - 338 Nm	3.45 - 34.5 kgm
6004-F-DTT	3/4"	60 - 600 ft.lb.	81.3 - 813 Nm	8.30 - 83 kgm

- Accuracy: ± 0.50% 10% to 100% CW & CCW of indicated test value @ 25° C
- *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.
- ** Includes 1/2" - 3/8" Reducer

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	3/4" to 1-1/4" adapter



Table Mounting Bracket



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.

TORQUE COMPARATOR

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



CDI TORQUE PRODUCTS

ETT™ ELECTRONIC TORQUE TESTER



The **ETT (Electronic Torque Tester)** is CDI's portable torque tester. Unlike a torque calibration system, which can be used to generate a torque wrench certification, the ETT is a portable, battery powered stand-alone torque tester. It can also be used on AC power. Its primary use is to check the accuracy of dial and click type torque wrenches and torque screwdrivers to maintain their accuracy in between calibrations. With the addition of a joint rate simulator, ETT can also check stall and clutch type pneumatic and electronic torque tools. It should not be used with any impact or pulse type tools. There are eight models with torque ranges from 10 inch ounces up to 600 foot pounds.

Features

- Integral transducer and sturdy housing allow mounting in virtually any position
- Unique neck design allows the operator to see the LCD display when testing long torque wrenches
- Accuracy: ± 0.5% of indicated value, cw & ccw, from 10% to 100% of full scale + 1 increment or least significant digit
- Four modes of operation: peak mode, power tool mode, first peak mode and track mode
- Dual scale (English/Nm or English/cNm, dNm)
- Auto/manual display reset
- Reads bi-directionally (cw and ccw)
- Rechargeable NiCad batteries
- Designed to be a sturdy low cost tester, ETT can be placed on the wall in the factory, on a portable cart or on a bench allowing operators to test torque wrenches or power tools without having to leave their station

ELECTRONIC TORQUE TESTERS (ETT)

Product Code	Torque Range SAE	Torque Range Newton Meter	Drive Size
1001-0-ETT	10 - 100 in. oz.	7.0 - 70.6 cNm	1/4"
4001-0-ETT	40 - 400 in. oz.	28 - 280 cNm	1/4"
501-I-ETT	5 - 50 in. lb.	5.6 - 56 dNm	1/4"
1001-I-ETT	10 - 100 in. lb.	11.3 - 113 dNm	1/4"
2502-I-ETT	25 - 250 in. lb.	28 - 280 dNm	3/8"
10002-I-ETT	100 - 1000 in. lb.	113 - 1130 dNm	3/8"
2503-F-ETT	25 - 250 ft. lb.	34 - 339 Nm	1/2"
6004-F-ETT	60 - 600 ft. lb.	81 - 813 Nm	3/4"

- Use joint simulator with Power Tools
- Power adapter cord included - Part #P115-30
- Bench bracket available - Part #343-25
- Socket adapter included with tester (female to female) suited for size of square drive of ETT



JOINT RATE SIMULATORS

Product Code	Description
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	3/4" drive, 1000 in. lb. Capacity Joint Rate Simulator



CDI TORQUE PRODUCTS

DIGITAL TORQUE CHECKER

Perfect for checking mechanical and digital torque wrenches regularly before use. Simple operation and affordable, to allow convenient mounting close to each departments where torque wrenches are used frequently



Product Code	Square Drive	English Capacity	Nm. Capacity	Weight
2503-F-DTC	1/2"	25-250ftlbs	34-339 Nm	4.9 lbs
3325-0320-01			12V Charger	

- Integral transducer and sturdy housing allow mounting in virtually any position
- Unique neck design allows the operator to see the LCD display when testing long torque wrenches
- Accuracy: ± 0.5% of indicated value, cw & ccw, from 10% to 100% of full scale + 1 increment or least significant digit
- Four modes of operation: peak mode, power tool mode, first peak mode and track mode
- Dual scale (English/Nm or English/cNm, dNm)
- Auto/manual display reset
- Reads bi-directionally (cw and ccw)
- Rechargeable NiCad batteries
- Designed to be a sturdy low cost tester, ETT can be placed on the wall in the factory, on a portable cart or on a bench allowing operators to test torque wrenches or power tools without having to leave their station





COMPUTORQ SG-STEEL GRIP ELECTRONIC TORQUE WRENCH

TORQUE IN LESS TIME, WITH MORE ACCURACY AND CONTROL

This new line of Electronic Torque Wrenches from CDI Torque Products is truly revolutionary. They unite torque and angle in a single mode to provide the most accurate and fastest way to tighten fasteners in a sequence. In addition to the LED indicator lights, an audible beep and handle vibration alert you when target torque is achieved.

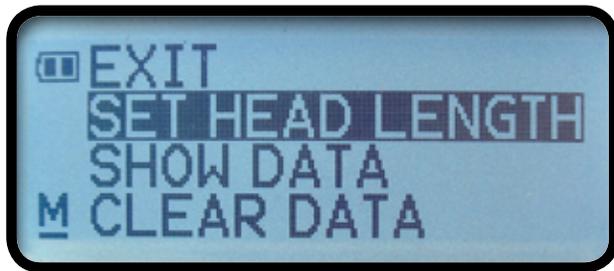
CDI COMPUTORQ SG Industrial Electronic Torque Wrenches provide instant data on the exact torque actually applied—something mechanical wrenches can't do. The patent-pending Torque and Angle combo mode provides the most accurate and fastest way to achieve torque plus angle in a single motion. Control torque accuracy to +/- 2% clockwise, +/- 3% counterclockwise. Control angle accuracy to +/- 1% of reading and +/- 1 degree.

The rugged, all-steel body is designed to stand up to industrial use and each wrench is backed by a 1 year warranty. N.I.S.T. traceable certificate of calibration included.



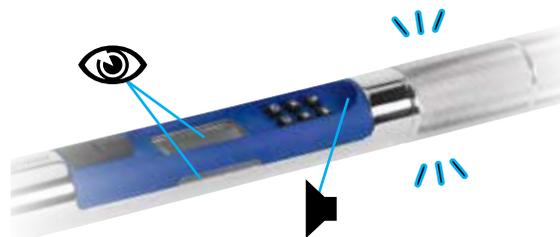
LED INDICATOR LIGHTS

Dual side LED indicator lights with configurable settings provide operational guidance.



DID YOU KNOW?

These Industrial Torque Wrenches are ideal for any working condition thanks to audible, tactile and visual indicators that verify when torque is within the target range.



MULTI-SENSORY INDICATORS

The easy-to-read LCD screen, LED indicator lights, audible beep and handle vibration work together to signal when torque is within the targeted range.



COMPUTORQ SG-STEEL GRIP ELECTRONIC TORQUE WRENCH

CONVENIENCE & CONTROL

COMPUTORQ SG TORQUE WRENCHES are fully programmable for reliable, consistent, and repeatable torque application. Every model features a large, backlit LCD screen for better visibility in a variety of working conditions and a high capacity memory for storage of 1,500 readings.



CONVENIENT DATA DOWNLOAD

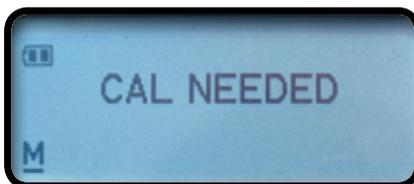
USB plug and play technology allows data download without additional software. Simply connect the included USB cord to the wrench and a PC to drag and drop data for an audit proof trail and process control.

DATE/TIME	MIN TARGET TORQUE	MAX TARGET	PEAK TORQUE	MIN TARGET	MAX TARGET	PEAK ANGLE	TORQUE UNITS	TORQUE STATUS	ANGLE STATUS	MODE COUNT
1/1/2013 16:38	20	30	20.3	0	0	0	FT-LB	OK	OK	3
1/1/2013 16:38	20	30	20.55	0	0	0	FT-LB	OK	OK	2



FULLY PROGRAMMABLE

50 memory presets with a batch count up to 99. Presets can be locked to prevent inadvertent changes or tampering.



CALIBRATION DUE INDICATOR

Using a patent-pending* time based calibration technology, the wrench alerts you when calibration is needed.



RELIABLE DATA TRAIL

Time stamped data trail for quality control, job auditing, and torque verification.



SEQUENCE PROGRAMMING

Allows you to program different torque applications in sequence and lock in job mode to ensure the operator follows sequence without error.

Product Code	2401CASG	1002CASG	2503CASG	6004CASG
Square Drive	1/4"	3/8"	1/2"	3/4"
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head	Sealed Fixed Head
Torque Range, in lb	12-240	60-1200	150-3000	360-7200
Torque Range, ft lb	1-20	5-100	12.5-250	30-600
Torque Range, Nm	1.4-27.2	6.8-135.6	16.9-339	40.7-813.5
Torque Accuracy	+/- 2% Clockwise; +/- 3% Counterclock-wise			
Angle Range	0-360 Degrees	0-360 degrees	0-360 degrees	0-360 Degrees
Storage Capacity	1,500 Readings	1,500 Readings	1,500 Readings	1,500 Readings
Number of Presets	50	50	50	50
All Steel Body	Yes	Yes	Yes	Yes
Batteries Included	3 x AAA Lithium	3 x AA Lithium	3 x AA Lithium	3 x AA Lithium
Storage Case Included	Yes	Yes	Yes	Yes
Ratchet Service Kit	0514-0029-01RK	0514-0030-01RK	0514-0031-01RK	9610-0112RK
Head Depth (A)	3/4" (19.3 mm)	1-1/32" (26.19 mm)	1-3/10" (33.02 mm)	2-4/5" (71.12 mm)
Head Width (B)	15/16" (23.8 mm)	1-7/10" (43.18 mm)	1-1/2" (63.5 mm)	2-3/5" (66.04 mm)
Warranty	1-Year	1-Year	1-Year	1-Year

All models comply with ISO®-6789-2003 and ASME® B107.300-2010 (B107.28) Standards for Electronic Torque Instruments

*U.S. and Foreign Patents Pending



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 In. (mm)	Wt. Lbs. (kgs)
2401CI3	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

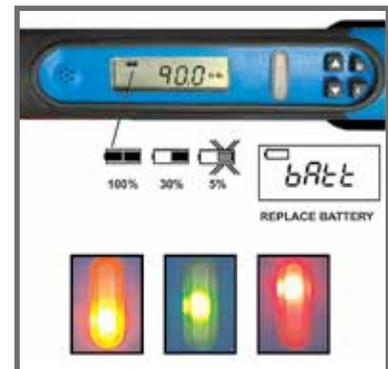
Product Code	Drive	Ft. Lb.	In. Lb.	Nm	Kg. Cm.	Length In. (mm)	Wt. Lbs. (kgs)
2401CI3HA*	¼"	2.0 - 20.0	24 - 240	2.71 - 27.10	27.6 - 276	15 (381)	2.0 (.91)
1002CF3HA*	⅜"	10.0 - 100.0	120 - 1200	13.6 - 135.6	138 - 1382	17 (432)	2.2 (1.0)
2503CF3HA*	½"	25 - 250	300 - 3000	33.8 - 338	345 - 3456	27 (686)	3.5 (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!**



**HIGH ACCURACY
MODELS AVAILABLE**



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 In. (mm)	Wt. 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 In. (mm)	Wt. Lbs. (kgs)
6004TAA	3/4"	120 - 600	1440 - 7200	156 - 780	0-360°	49 (1244.6)	14 (6.35)





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: $\pm 2\%$ CW & $\pm 3\%$ CCW - of indicated value 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 In. (mm)	Wt. 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.

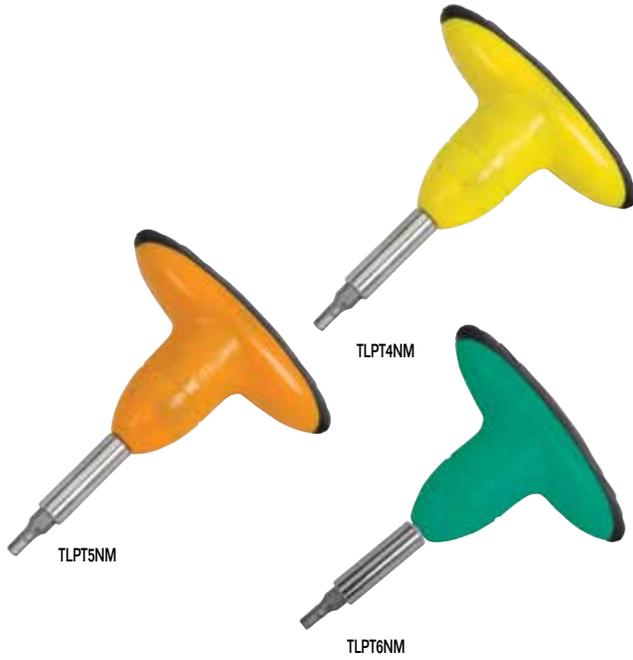


The red LED illuminates 4% beyond target torque, indicating fastener was overtorqued. Rapid "alarm" buzzer sounds.



CDI TORQUE
PRODUCTS®

TORQUE LIMITING T-HANDLE - PRE-SET



Product Code	Nm	Pre Set Value		Bit
		Ft. Lb.	In. Lb.	
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

CDI TORQUE
PRODUCTS®

TORQCONTROL ADJUSTABLE TORQUE TOOL

ACCURATE, FAST, EASY AND ERROR-PROOF

Applying just the right amount of torque in low-torque applications can be tricky at times. The new patent-pending TorqControl Torque Tool is an adjustable, torque limiting tool that applies torque in a range between 2 Newton Meters (Nm) and 8 Nm, indexing at every tenth Newton Meter.



Product Code	Nm Range	Included Bits
TLA28NM	2.0-8.0	4 mm, 5 mm, 6 mm, T25, 4" Long 4mm, 4" Long T25 Bits

Features

- Perfect for applying torque to bicycle components
- Magnetic tip holds, and allows for easy bit changes
- Standard 1/4" hex tip can utilize any standard hex bits
- Ergonomic L-shaped handle with rubberized cap for better grip
- Includes Certification of Accuracy
- TorqControl provides easy adjustability

TORQUE TOOLS

SCREWDRIVERS

Snap-on® INDUSTRIAL BRANDS



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 Inches	Wt. 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



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
- 4 models available
- 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	Product Code	Torque Range	W X L Length	Wt. Oz.
Un-Set	Factory Pre-Set			
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



WARNING



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

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
- Three models available
- Simple, easy to use design
- Ruggedly built for years of reliable service
- Operates bi-directionally
- 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



FIXED-SETTING TORQUE SCREWDRIVERS

Torque Screwdrivers were specially developed for changing cutting tools on automatic cutting machines in order to ensure consistent, accurate cutting.

Product Code*	Description	Replacement Bits	
		Torx Plus	Torx
BE-6990-IP10	2.0 Nm	BE-6990-IP10-KL	BE-6990TX-T10KL
BE-6990-IP15	3.0 Nm	BE-6990-IP15-KL	BE-6990TX-T15KL
BE-6990-IP6	.6 Nm	BE-6990-IP6-KL	BE-6990TX-T6-KL
BE-6990-IP7	.9 Nm	BE-6990-IP7-KL	BE-6990TX-T7-KL
BE-6990-IP8	1.2 Nm	BE-6990-IP8-KL	BE-6990TX-T8-KL
BE-6990-IP9	1.4 Nm	BE-6990-IP9-KL	BE-6990TX-T9-KL

* Includes one Torx & one Torx Plus Bit



Features

- Designed for correct tightening of precision fasteners on CNC machines
- The three component ergonomically designed handle provides comfort and maximum grip even with oily hands.
- Torque screwdrivers, fixed setting
- Accuracy +/- 10 %
- Over torque limiting clutch, with a click sound



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 ASME standards, 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.



DIAL TORQUE WRENCHES - DUAL SCALE

Product Code	Drive Size	English Range	Incr.	Nm Range	Incr.	A In.	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
752LDIN	3/8"	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

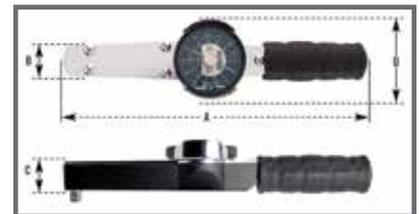
* NOTE: 6004LDFN and 10005LDFN include 1 Extension handle.

** 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.



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 - 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 ASME standards, ISO 6789 bi-directionally from 20% to 100% of scale. All wrenches supplied with a N.I.S.T. traceable certificate of calibration.

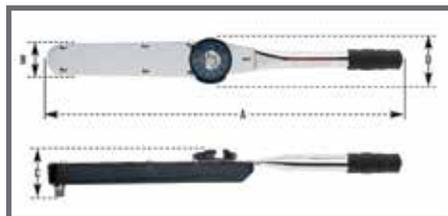
Features

- 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.



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



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

*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 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 ASME standards, ISO 6789 bi-directionally from 20% to 100% of scale. All wrenches supplied with a N.I.S.T. traceable certificate of calibration.

- 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.



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.





COMFORT GRIP MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

Comfort-Grip Handle Dual Scale

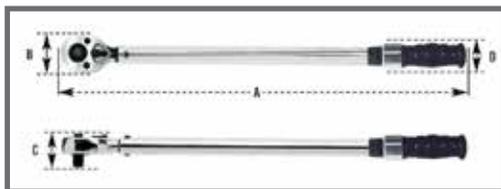
Features

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





MICROMETER ADJUSTABLE NEWTON METER TORQUE WRENCHES - SINGLE SCALE

Metal Handle Single 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.

Features

- Single 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.



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.





MICROMETER ADJUSTABLE 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.

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.



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	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.



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 7/16	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



CDI WSC-400CA and WSC-600CA Split beam Torque Wrenches accept Williams Heavy Duty Tubular Wrenches that fit the 24TH handle. The length of the wrench heads matches the effective length of the ratchet head and extender that come with the torque wrench, creating the same effective length. Removing the ratchet head and extender from the torque wrench and inserting the desired Heavy Duty Tubular wrench of choice (fitting 24TH handle) creates an expanded use interchangeable head system. The complete assortment of Tubular Handle Wrenches is found in CAT3 pages 204 and 205.



FLEX-HEAD MICROMETER ADJUSTABLE TORQUE WRENCH

Flex-Head English Single Scale

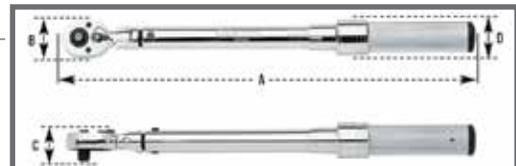
Features

- 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 standards, ISO 6789 standards
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.



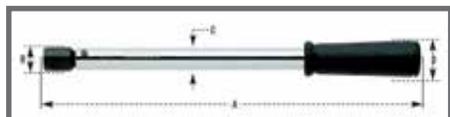
FLEX-HEAD MICROMETER ADJUSTABLE TORQUE WRENCH

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





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



CDI TORQUE PRODUCTS

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

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 ft.lb.
100NMIMH	J	20 - 100	0.5	14.8 - 73.8 ft.lb.
200NMIMH	Y	40 - 200	2	29.5 - 147.5 ft.lb.
350NMIMH	X	70 - 350	2	44.3 - 250.8 ft.lb.
800NMIMH*	Z	150 - 800	5	110.6 - 590 ft.lb.

INTERCHANGEABLE HEAD TORQUE WRENCHES - SINGLE SCALE

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



CDI TORQUE PRODUCTS

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 interchangeable heads
- Audible click and feel impulse torque control mechanism
- Tamper proof torque setting for production line use
- Accuracy: $\pm 4\%$ 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 Un-Set	Product Code Factory Pre-Set	English Range	Nm Range	Shank Size	A In.	B In.	C In.	D In.	Wt. 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



TORQUE TOOLS

HEADS

Snap-on INDUSTRIAL BRANDS



RATCHETING SQUARE DRIVE HEADS - SAE

Square Drive (Inches)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.	X (0.735")	Max Torque Ft. Lbs.	Z (0.990")	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
1/4	TCQJD8A-72	60								
3/8	TCQJD12A-80	60	TCQYD12A-80	100						
1/2	TCQJD16A	60	TCQYD16A	240	TCQXD16A	240				
3/4					TCQXD24A	240	TCQZD24B	480	TCQZD24BDP	480
1					TCQXD32A	240	TCQZD32B	480	TCQZD32BDP	480



Z Shank Dual Pins



TCQJD16A

FIXED SQUARE DRIVE HEADS - SAE

Square Drive (Inches)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.	X (0.735")	Max Torque Ft. Lbs.	Z (0.990")	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
1/4	TCQJSD8A	60								
3/8	TCQJSD12A	60	TCQYSD12A	100						
1/2	TCQJSD16A	60	TCQYSD16A	240	TCQXSD16A	240				
3/4					TCQXSD24A	240	TCQZSD24A	480	TCQZSD24ADP	480
1					TCQXSD32A	240	TCQZSD32A	480		



TCQJSD8A

OPEN END HEADS - SAE

Square Drive (Inches)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.	X (0.735")	Max Torque Ft. Lbs.	Z (0.990")	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
1/4	TCQJO8A	5								
9/32	TCQJO9A	7								
5/16	TCQJO10A	9								
3/8	TCQJO12A	18								
7/16	TCQJO14A	26								
1/2	TCQJO16A	34								
9/16	TCQJO18A	58	TCQYO18A	58						
5/8	TCQJO20A	60	TCQYO20A	70						
11/16	TCQJO22A	60	TCQYO22A	99						
3/4	TCQJO24A	60	TCQYO24A	125	TCQXO24A	125				
13/16	TCQJO26A	60	TCQYO26A	160	TCQXO26A	164				
7/8	TCQJO28A	60	TCQYO28A	160	TCQXO28A	193				
15/16	TCQJO30A	60	TCQYO30A	160	TCQXO30A	200				
1	TCQJO32A	60	TCQYO32A	160	TCQXO32A	240	TCQZO32A	298	TCQZO32ADP	298
1 1/16	TCQJO34A	60	TCQYO34A	160	TCQXO34A	240	TCQZO34A	321	TCQZO34ADP	321
1 1/8	TCQJO36A	60	TCQYO36A	160	TCQXO36A	240	TCQZO36A	367	TCQZO36ADP	367
1 3/16			TCQYO38A	160	TCQXO38A	240	TCQZO38A	433	TCQZO38ADP	433
1 1/4	TCQJO40A	60	TCQYO40A	160	TCQXO40A	240	TCQZO40A	480	TCQZO40ADP	480
1 5/16			TCQYO42A	160	TCQXO42A	240	TCQZO42A	480	TCQZO42ADP	480
1 3/8	TCQJO44A	60	TCQYO44A	160	TCQXO44A	240	TCQZO44A	480	TCQZO44ADP	480
1 7/16			TCQYO46A	160	TCQXO46A	240	TCQZO46A	480	TCQZO46ADP	480
1 1/2	TCQJO48A	60	TCQYO48A	160	TCQXO48A	240	TCQZO48A	480	TCQZO48ADP	480
1 9/16			TCQYO50A	160	TCQXO50A	240	TCQZO50A	480	TCQZO50ADP	480
1 5/8	TCQJO52A	60	TCQYO52A	160	TCQXO52A	240	TCQZO52A	480	TCQZO52ADP	480
1 11/16					TCQXO54A	240	TCQZO54A	480	TCQZO54ADP	480
1 3/4			TCQYO56A	160	TCQXO56A	240	TCQZO56A	480	TCQZO56ADP	480
1 13/16					TCQXO58A	240	TCQZO58A	480	TCQZO58ADP	480
1 7/8			TCQYO60A	160	TCQXO60A	240	TCQZO60A	480	TCQZO60ADP	480
2					TCQXO64A	240	TCQZO64A	480	TCQZO64ADP	480
2 1/16							TCQZO66A	480	TCQZO66ADP	480
2 1/8							TCQZO68A	480	TCQZO68ADP	480
2 1/4			TCQY072	160			TCQZO72A	480	TCQZO72ADP	480
2 3/8									TCQZO76ADP	480
2 1/2			TCQY080	160			TCQZO80A	480	TCQZO80ADP	480
2 3/4							TCQZO88A	480		
3							TCQZO96A	480		



TCQJO16A



TCQZO36ADP

Center of fastener to retaining pin:

TCQJ Series - 2.50"

TCQY Series - 3.00"

TCQX Series - 4.50"

TCQZ Series - 5.75"



WARNING



Z Shank Dual Pins



OPEN END HEADS - METRIC



TCQJOM12A



TCQZOM36ADP

Square Drive (mm)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.	X (0.735")	Max Torque Ft. Lbs.	Z (0.990")	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
6	TCQJOM6A	5								
7	TCQJOM7A	6								
8	TCQJOM8A	10								
9	TCQJOM9A	14								
10	TCQJOM10A	22								
11	TCQJOM11A	33								
12	TCQJOM12A	36								
13	TCQJOM13A	41								
14	TCQJOM14A	55	TCQYOM14A	55						
15	TCQJOM15A	60	TCQYOM15A	74						
16	TCQJOM16A	60	TCQYOM16A	88						
17	TCQJOM17A	60	TCQYOM17A	103	TCQXOM17A	103				
18	TCQJOM18A	60	TCQYOM18A	115	TCQXOM18A	115				
19	TCQJOM19A	60	TCQYOM19A	138	TCQXOM19A	138				
20	TCQJOM20A	60	TCQYOM20A	160	TCQXOM20A	160				
21	TCQJOM21A	60	TCQYOM21A	160	TCQXOM21A	180				
22	TCQJOM22A	60	TCQYOM22A	160	TCQXOM22A	206				
23	TCQJOM23A	60	TCQYOM23A	160	TCQXOM23A	229				
24	TCQJOM24A	60	TCQYOM24A	160	TCQXOM24A	240	TCQZOM24A	248	TCQZOM24ADP	250
25	TCQJOM25A	60	TCQYOM25A	160	TCQXOM25A	240				
26	TCQJOM26A	60	TCQYOM26A	160	TCQXOM26A	240				
27	TCQJOM27A	60	TCQYOM27A	160	TCQXOM27A	240	TCQZOM27A	319	TCQZOM27ADP	319
29			TCQYOM29A	160	TCQXOM29A	240				
30			TCQYOM30A	160	TCQXOM30A	240	TCQZOM30A	413	TCQZOM30ADP	413
32			TCQYOM32A	160	TCQXOM32A	240	TCQZOM32A	480	TCQZOM32ADP	480
34			TCQYOM34A	160	TCQXOM34A	240			TCQZOM34ADP	480
36			TCQYOM36A	160	TCQXOM36A	240	TCQZOM36A	480	TCQZOM36ADP	480
38									TCQZOM38ADP	480
41					TCQXOM41A	240			TCQZOM41ADP	480
46									TCQZOM46ADP	480
50							TCQZOM50A	480	TCQZOM50ADP	480
55							TCQZOM55A	480	TCQZOM55ADP	480
60									TCQZOM60ADP	480
65									TCQZOM65ADP	480
70									TCQZOM70ADP	480



OPEN END THIN HEADS - SAE

Square Drive (Inches)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.
11/16	TCQJO22ARTH60	60		
1	TCQJO32ARTH	60		
1 1/16	TCQJO34ARTH	60		
1 1/8	TCQJO36ARTH	60		
1 3/16	TCQJO38ARTH	60		
1 1/4	TCQJO40ARTH	60		
1 3/8	TCQJO44ARTH	60		
1 1/2	TCQJO48ARTH	60		
1 9/16	TCQJO50ARTH	60		
1 5/8	TCQJO52ARTH	60	TCQYO52ARTH	160
1 3/4	TCQJO56ARTH	60	TCQYO56ARTH	160
1 7/8	TCQJO60ARTH	60	TCQYO60ARTH	160
2	TCQJO64ARTH	60	TCQYO64ARTH	160
2 1/16	TCQJO66ARTH	60		
2 1/8			TCQYO68ARTH	160
2 1/4			TCQYO72ARTH	160
2 11/16	TCQJO86ARTH	60		



TCQJO38ARTH



12-POINT BOX END 15° OFFSET HEADS - SAE

Square Drive (Inches)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.	X (0.735°)	Max Torque Ft. Lbs.	Z (0.990°)	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
1/4	TCQJX8A	18								
9/32	TCQJX9A	41								
5/16	TCQJX10A	41								
3/8	TCQJX12A	60								
7/16	TCQJX14A	60								
1/2	TCQJX16A	60	TCQYX16A	75						
9/16	TCQJX18A	60	TCQYX18A	112						
5/8	TCQJX20A	60	TCQYX20A	160	TCQXX20A	171				
11/16	TCQJX22A	60	TCQYX22A	160	TCQXX22A	200				
3/4	TCQJX24A	60	TCQYX24A	160	TCQXX24A	219				
13/16	TCQJX26A	60	TCQYX26A	160	TCQXX26A	240	TCQZX26A	275	TCQZX26ADP	275
7/8	TCQJX28A	60	TCQYX28A	160	TCQXX28A	240				
15/16	TCQJX30A	60	TCQYX30A	160	TCQXX30A	240	TCQZX30A	300		
1	TCQJX32A	60	TCQYX32A	160	TCQXX32A	240				
1 1/16	TCQJX34A	60	TCQYX34A	160	TCQXX34A	240	TCQZX34A	480	TCQZX34ADP	300
1 1/8			TCQYX36A	160	TCQXX36A	240	TCQZX36A	480	TCQZX36ADP	480
1 3/16			TCQYX38A	160	TCQXX38A	240	TCQZX38A	480	TCQZX38ADP	480
1 1/4			TCQYX40A	160	TCQXX40A	240	TCQZX40A	480	TCQZX40ADP	480
1 5/16			TCQYX42A	160	TCQXX42A	240	TCQZX42A	480	TCQZX42ADP	480
1 3/8					TCQXX44A	240	TCQZX44A	480		
1 7/16			TCQYX46A	160	TCQXX46A	240	TCQZX46A	480	TCQZX46ADP	480
1 1/2			TCQYX48A	160	TCQXX48A	240	TCQZX48A	480	TCQZX48ADP	480
1 9/16			TCQYX50A	160	TCQXX50A	240	TCQZX50A	480	TCQZX50ADP	480
1 5/8			TCQYX52A	160	TCQXX52A	240	TCQZX52A	480	TCQZX52ADP	480
1 11/16					TCQXX54A	240	TCQZX54A	480	TCQZX54ADP	480
1 3/4					TCQXX56A	240	TCQZX56A	480	TCQZX56ADP	480
1 13/16					TCQXX58A	240	TCQZX58A	480	TCQZX58ADP	480
1 7/8					TCQXX60A	240	TCQZX60A	480	TCQZX60ADP	480
2					TCQXX64A	240	TCQZX64A	480	TCQZX64ADP	480
2 1/16							TCQZX66A	480	TCQZX66ADP	480
2 1/8							TCQZX68A	480	TCQZX68ADP	480
2 3/16									TCQZX70ADP	480
2 1/4							TCQZX72A	480	TCQZX72ADP	480
2 3/8									TCQZX76ADP	480
2 1/2							TCQZX80A	480	TCQZX80ADP	480



Z Shank Dual Pins



TCQJX18A



12-POINT BOX END 0° OFFSET - SAE

Square Drive (Inches)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.
3/8	TCQJXD12A	60		
7/16	TCQJXD14A	60		
1/2	TCQJXD16A	60		
9/16	TCQJXD18A	60		
5/8			TCQYXD20A	160
11/16	TCQJXD22A	60	TCQYXD22A	160
3/4	TCQJXD24A	60	TCQYXD24A	160
7/8	TCQJXD28A	60	TCQYXD28A	160
15/16	TCQJXD30A	60	TCQYXD30A	160
1	TCQJXD32A	60		



TCQJXD24A



WARNING

CDI TORQUE
PRODUCTS

12-POINT BOX END 0° OFFSET - METRIC



Z Shank Dual Pins



TCQJM14A

Square Drive (mm)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.	X (0.735°)	Max Torque Ft. Lbs.	Z (0.990°)	Max Torque Ft. Lbs.	Z Dual Pins	Max Torque Ft. Lbs.
6	TCQJM6A	15								
7	TCQJM7A	20								
8	TCQJM8A	22								
9	TCQJM9A	30								
10	TCQJM10A	53								
11	TCQJM11A	59								
12	TCQJM12A	60								
13	TCQJM13A	60	TCQYM13A	75						
14	TCQJM14A	60	TCQYM14A	117						
15	TCQJM15A	60	TCQYM15A	148						
16	TCQJM16A	60	TCQYM16A	160	TCQXM16A	183				
17	TCQJM17A	60	TCQYM17A	160	TCQXM17A	197				
18	TCQJM18A	60	TCQYM18A	160	TCQXM18A	224				
19	TCQJM19A	60	TCQYM19A	160	TCQXM19A	238				
20	TCQJM20A	60	TCQYM20A	160	TCQXM20A	240				
21	TCQJM21A	60	TCQYM21A	160	TCQXM21A	240				
22	TCQJM22A	60	TCQYM22A	160	TCQXM22A	240				
23	TCQJM23A	60	TCQYM23A	160	TCQXM23A	240				
24	TCQJM24A	60	TCQYM24A	160	TCQXM24A	240	TCQZXM24A	375	TCQZXM24ADP	375
25	TCQJM25A	60	TCQYM25A	160	TCQXM25A	240	TCQZXM25A	413		
26	TCQJM26A	60	TCQYM26A	160	TCQXM26A	240	TCQZXM26A	448		
27	TCQJM27A	60	TCQYM27A	160	TCQXM27A	240	TCQZXM27A	480	TCQZXM27ADP	480
29			TCQYM29A	160	TCQXM29A	240	TCQZXM29A	480		
30			TCQYM30A	160	TCQXM30A	240	TCQZXM30A	480	TCQZXM30ADP	480
32			TCQYM32A	160	TCQXM32A	240	TCQZXM32A	480	TCQZXM32ADP	480
34			TCQYM34A	160	TCQXM34A	240	TCQZXM34A	480	TCQZXM34ADP	480
36			TCQYM36A	160	TCQXM36A	240	TCQZXM36A	480	TCQZXM36ADP	480
41									TCQZXM41ADP	480
46									TCQZXM46ADP	480
50									TCQZXM50ADP	480
55									TCQZXM55ADP	480
60									TCQZXM60ADP	480

12 POINT RATCHET WRENCH HEADS - METRIC

Square Drive (mm)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.
16	TCQJBOERM16	60		
18	TCQJBOERM18	60	TCQYBOERM18	160
22	TCQJBOERM22A	60		
24			TCQYBOERM24	160



TCQJBOERM18



12 POINT RATCHET WRENCH HEADS - SAE

Square Drive (Inches)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.
3/8	TCQJBOER12	60		
7/16	TCQJBOER14	60		
1/2	TCQJBOER16	60		
9/16	TCQJBOER18	60	TCQYBOER18	112
5/8	TCQJBOER20	60	TCQYBOER20	160
11/16			TCQYBOER22	160
3/4	TCQJBOER24	60	TCQYBOER24	160



TCQJBOER14



12-POINT BOX END 10° OFFSET - SAE

Square Drive (Inches)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.	X (0.735°)	Max Torque Ft. Lbs.
1/2	TCQJXB16A	60				
9/16	TCQJXB18A	60				
5/8	TCQJXB20A	60	TCQYXB20A	79		
11/16	TCQJXB22A	60				
3/4	TCQJXB24A	60	TCQYXB24A	160		
7/8			TCQYXB28A	133		
15/16			TCQYXB30A	160		
1			TCQYXB32A	160		
1 1/8			TCQYXB36A	160		
1 3/8					TCQXXB44A	240
1 1/2					TCQXXB48A	240



TCQJXB18A

12-POINT BOX END 10° OFFSET - METRIC

Square Drive (mm)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.
11mm	TCQJXBM11A	59		
12mm	TCQJXBM12A	60		
13mm	TCQJXBM13A	60		
14mm	TCQJXBM14A	60		
16mm	TCQJXBM16A	60		
18mm	TCQJXBM18A	60	TCQYXBM18A	160
19mm	TCQJXBM19	60		
24mm			TCQYXBM24A	160
28mm			TCQYXBM28A	160



TCQJXBM11A

6-POINT BOX END 10° OFFSET - METRIC

Square Drive (mm)	Y (0.560°)	Max Torque Ft. Lbs.
18	TCQYSBXM18A	160
24	TCQYSBXM24A	160



TCQYSBXM18A

12 POINT FLARE NUT HEADS - SAE

Square Drive (Inches)	J (0.425°)	Max Torque Ft. Lbs.	Y (0.560°)	Max Torque Ft. Lbs.
9/16	TCQJRX18A	60	TCQYRX18A	67
5/8	TCQJRX20A	60	TCQYRX20A	79
11/16	TCQJRX22A	60	TCQYRX22A	92
3/4	TCQJRX24A	60	TCQYRX24A	104
13/16	TCQJRX26A	60	TCQYRX26A	117
7/8	TCQJRX28A	60	TCQYRX28A	133
15/16	TCQJRX30A	60	TCQYRX30A	146
1	TCQJRX32A	60	TCQYRX32A	158
1 1/16	TCQJRX34A	60	TCQYRX34A	160
1 1/8			TCQYRX36A	160
1 3/16			TCQYRX38A	160
1 1/4			TCQYRX40A	160
1 3/8			TCQYRX44A	160
1 1/2			TCQYRX48A	160
1 5/8			TCQYRX52A	160



TCQJRX22A



CDI TORQUE
PRODUCTS

6 POINT FLARE NUT HEADS - METRIC



TCQJRXSM11A

Square Drive (mm)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.
8	TCQJRXSM8A	17		
9	TCQJRXSM9A	25		
10	TCQJRXSM10A	33		
11	TCQJRXSM11A	42		
12	TCQJRXSM12A	50		
13	TCQJRXSM13A	58		
14	TCQJRXSM14A	60		
15	TCQJRXSM15A	60	TCOYRXSM15A	71
16	TCQJRXSM16A	60	TCOYRXSM16A	75
17	TCQJRXSM17A	60	TCOYRXSM17A	83
18	TCQJRXSM18A	60	TCOYRXSM18A	94
19	TCQJRXSM19A	60	TCOYRXSM19A	104
20	TCQJRXSM20A	60	TCOYRXSM20A	113
21			TCOYRXSM21A	113

6 POINT FLARE NUT HEADS - SAE



TCQJRXS8A

Square Drive (Inches)	J (0.425")	Max Torque Ft. Lbs.	Y (0.560")	Max Torque Ft. Lbs.
1/4	TCQJRXS8A	6		
5/16	TCQJRXS10A	17		
3/8	TCQJRXS12A	29		
7/16	TCQJRXS14A	42		
1/2	TCQJRXS16A	54		
9/16	TCQJRXS18A	60	TCOYRXS18A	74
5/8	TCQJRXS20A	60	TCOYRXS20A	74
11/16	TCQJRXS22A	60	TCOYRXS22A	92
3/4	TCQJRXS24A	60	TCOYRXS24A	104
13/16	TCQJRXS26A	60	TCOYRXS26A	117
7/8	TCQJRXS28A	60	TCOYRXS28A	133
15/16	TCQJRXS30A	60	TCOYRXS30A	146
1	TCQJRXS32A	60	TCOYRXS32A	158
1 1/8			TCOYRXS36A	160



RATCHETING FLARE NUT HEAD



TCRTWH40J

Square Drive (Inches)	J (0.425")	Y (0.560")	X (0.735")
9/16	TCRTWH36J		
5/8	TCRTWH40J		
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	

ADAPTORS



TCQZD32A-1

TCQZ-X

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





TORQUE MULTIPLIERS WITH HANDLES

Features

- Provides the operator with nut-turning power that requires only a fraction of the force required when using conventional tools.
- Input and output rotation is in the same direction.
- Reaction bar rotation is opposite to input direction and must rest securely against a rigid object to withstand the generated reaction force.
- By removing 4 screws, heads may be easily disassembled for inspection, cleaning and lubrication.

TORQUE MULTIPLIERS WITH HANDLES

Product Code	Max Output Ft. Lbs.	Multiplication Ratio*	Approx. Ft. Lbs. Rq'd for Max Output	Input Female Sq.	Output Male Sq.	Head Thickness Inc. Tang	Head Diam.	Oal. Lgth. Inc. Reaction Bar
TM-750LW	1000	3.6 to 1	275	½	¾	3 ½	3 ½	22 ½
TM-1000	2000	3.6 to 1	550	¾	1	4 ¾	3 17/32	24
TM-1500	4000	3.9 to 1	1150	1	1 ½	6 ⅛	5 3/16	28 7/8
TM-2000	8000	4.6 to 1	1915	1	1 ½	6 ¼	6 ½	31
TM-2500	12000	5.4 to 1	2200	1	2 ½	7 ¼	7 ¼	30

* Multipliers are mechanical devices which have frictional losses. A 10% factor was included in the multiplication ratio. For higher accuracy of multiplication ratio, output of unit should be checked on torque tester.



TORQUE MULTIPLIERS WITH PLANETARY-GEAR MECHANISM

Features

- Designed where high torques are necessary for fastening or breaking out stubborn fasteners.
- Allows operator safe and easy means of producing torque for job requirements.
- Precision planetary gear multiplies the operator's input from standard torque wrenches.
- Can also multiply the torque from air-driven (non-impact) wrenches.

TORQUE MULTIPLIERS WITH PLANETARY-GEAR MECHANISM

Product Code	Max Output Ft. Lbs.	Input Cap	Gear Ratio	Torque Ratio	Input Female Sq.	Output Sq. Size	Overall Length	Head Height Sq. to Top	Head Dia.
TM-290	750	227	4:1	3:3:1	½	¾	8 ½	3 ¼	2 13/16
TM-391	1200	200	6:3:1	6:0:1	½	¾	19 39/64	4	3 15/16
TM-392	2200	162	15:0:1	13:6:1	½	1	19 39/64	5 ¾	4 1/16
TM-393	3200	173	20:25:1	18:5:1	½	1	19 39/64	6 ½	4 1/16





PLATE REACTION TORQUE MULTIPLIERS

Features

- Input torque holding ratchet - holds multiplier in place during torquing.
- Needle bearing construction for high efficiency.
- Standard reaction plate meets most job applications.
- Shearable output squares - to protect tool during overload.

PLATE REACTION TORQUE MULTIPLIERS

Product Code	Max Output Ft. Lbs.	Input Cap	Gear Ratio	Torque Ratio	Input Female Sq.	Output Sq. Size	Overall Length	Head Height Sq. to Top	Head Dia.
TM-394	5000	189	29:25:1	26.5:1	½	1 ½	14 29/32	8 ¾	5 5/8
TM-395	8000	154	60:1	52:0:1	½	1 ½	15 13/64	10 ¾	5 13/16
TM-492	2200	162	15:1	13:6:1	½	1	14	5 ½	4 7/8
TM-493	3200	173	20:25:1	18.5:1	½	1	14	6 3/16	4 7/8



REPLACEMENT SQUARE DRIVES FOR TORQUE MULTIPLIERS

Replacement square drives for planetary-gear and plate reaction torque multipliers.

REPLACEMENT SQUARE DRIVES FOR TORQUE MULTIPLIERS

Product Code	Description
TM-391RSD	Repl. Sq Drive For TM-391
TM-392RSD	Repl. Sq Drive For TM-392 and TM-492
TM-393RSD	Repl. Sq Drive For TM-393 and TM-493
TM-394RSD	Repl. Sq Drive For TM-394
TM-395RSD	Repl. Sq Drive For TM-395





TORQUE 101

Need help educating your department or shop staff on why applying the correct torque is critical to proper assembly or maintenance operations? CDI's **Torque Wrench 101** is the perfect simple and quick-read reference "textbook" to train staff on what torque is, why it's important, torque wrench applications, proper torque wrench selection, and much more. It's a 4-page laminated reference card, item #T101CDIUSER, and available from your Snap-on Industrial Brands representative.



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



WARRANTIES

Safety

Hand tools are generally designed to perform one function — do not use them improperly. Screwdrivers are not chisels, adjustables are not hammers and pliers are not intended to replace wrenches. Each of our product groups contains specific safety tips for proper tool usage. Additionally, wear appropriate clothing for the job, and always wear safety glasses. A special note on safety ... use of hand sockets (chrome finish) with power drive (impact) equipment is a misuse of the tool and can result in serious injury.

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Wms.®	SUPERRATCHET®
ATI® TOOLS	SUPERRENCH®
Bahco®	SUPERTORQUE®
SIOUX™ TOOLS	SUPER-WMS®
CDI Torque Products®	PHILLIPS®
SUPERECTOR®	TORX®
SUPERADJUSTABLE®	POZIDRIV®
SUPERBLACK®	ROBERTSON®
SUPERCOMBO®	

Limited Warranty:

Snap-on Industrial Brands warrants that its' products shall be free from defects in workmanship and materials for the usable life of the product. This warranty is limited to products purchased from authorized Snap-on Industrial Brands distributors. Snap-on Industrial Brands, at its sole option, will repair, replace or grant a credit for product that does not comply with this warranty. The product must be returned to the Snap-on Industrial Brands distributor from whom the product was purchased for warranty service. If the distributor is unavailable, the product should be returned to Snap-on Industrial Brands, 6969 Jamesson Rd, Midland, GA 31820, freight prepaid. Include a contact name, phone number and a return address; please do not supply a post office box. Snap-on Industrial Brands, does not provide any warranty for: 1) consumable products, 2) products subjected to abnormal use, 3) normal wear and tear of products. Consumable products are goods reasonably expected to be used up or damaged during use. Abnormal use includes misuse, modification, neglect or lack of maintenance.

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.

Toolbox Warranties:

All toolboxes sold under the Williams brand will be warranted for a period of one (1) year from the date of purchase against defects in materials and workmanship. Any part(s) which are determined by Snap-on Industrial Brands to be defective in material or workmanship, will be, at Snap-on Industrial Brands discretion, repaired, replaced, or granted a credit. Any toolboxes that are to be returned, must be done through Snap-on Industrial Brands current Return Goods Policy, be sent back freight prepaid, and accompanied with a dated copy of the purchase order.

Ratchets:

Ratchets purchased new will be replaced with new ratchets. All broken ratchets must be returned to Snap-on Industrial Brands, 6969 Jamesson Rd, Midland, GA 31820 with a Returned Goods Authorization number (RGA #), freight pre-paid, in order to receive credit. Field destroyed ratchets will not be eligible for credit.

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SNAP-ON INDUSTRIAL BRANDS AND ITS AFFILIATED COMPANIES SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL COSTS OR DAMAGES INCURRED BY THE PURCHASER OR OTHERS.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state or country.

Snap-on Industrial Brands
Warranty Information Center
6969 Jamesson Road
Midland, GA 31820

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