




# 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.



|                                      |     |
|--------------------------------------|-----|
| Calibration Systems                  | 88  |
| Torque Testers                       | 95  |
| Electronic Torque Wrenches           | 98  |
| T-Handle/Torqcontrol                 | 103 |
| Torque Screwdrivers                  | 104 |
| Mechanical Torque Wrenches           | 106 |
| Split Beam Torque Wrenches           | 112 |
| Interchangeable Head Torque Wrenches | 113 |
| Torque Heads                         | 114 |
| Multipliers                          | 120 |
| Torque Facts                         | 122 |

## 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 CALIBRATION SYSTEMS INCLUDE:

| CDI #       | Description                                 | (mechanical)<br>2000-1 | (mechanical)<br>2000-2 | (mechanical)<br>2000-3 | (motorized)<br>2800-1 | (motorized)<br>2800-3 |
|-------------|---------------------------------------------|------------------------|------------------------|------------------------|-----------------------|-----------------------|
| Various     | Digital Monitor                             | X                      | X                      | X                      | X                     | X                     |
| 2000-600-02 | Mechanical Loader Max 2000 ft.lbs.          | X                      | X                      | X                      | X                     | X                     |
| 2000-100-02 | Roller/Storage Cabinet                      | X                      | X                      | X                      | X                     | X                     |
| 2000-400-02 | 4 in 1 Transducer 4 in. lb. to 250 ft. lbs. | X                      | X                      | X                      |                       |                       |
| 2000-500-02 | 4 in 1 Transducer Adapter Kit               | X                      | X                      | X                      |                       |                       |
| 2000-4-02   | Transducer Range from 5-50 in. ozs.         | X                      | X                      |                        |                       |                       |
| 2000-5-02   | Transducer Kit-Range 15-200 in. ozs.        | X                      | X                      |                        |                       |                       |
| 2000-6-02   | Transducer Kit-Range 4-50 in. lbs.          | X                      |                        |                        |                       |                       |
| 2000-65-02  | Transducer Kit-Range 15-150 in. lbs.        | X                      |                        |                        |                       |                       |
| 2000-7-02   | Transducer Kit-Range 30-400 in. lbs.        | X                      |                        |                        |                       |                       |
| 2000-8-02   | Transducer Kit-Range 80-1000 in. lbs.       | X                      |                        |                        |                       |                       |
| 2000-10-02  | Transducer Kit-Range 10-125 ft. lbs.        | X                      |                        |                        |                       |                       |
| 2000-11-02  | Transducer Kit-Range 20-250 ft. lbs.        | X                      |                        |                        |                       |                       |
| 2000-12-02  | Transducer Kit-Range 60-600 ft. lbs.        | X                      |                        |                        |                       | X                     |
| 2000-13-02  | Transducer Kit-Range 100-1000 ft. lbs.      | X                      | X                      |                        |                       |                       |
| 2000-14-02  | Transducer Kit-Range 200-2000 ft. lbs.      | X                      | X                      |                        |                       | X                     |
| 900-0-1KIT  | 1/4", 50 in. lb. Joint Rate Simulator       | X                      | X                      |                        |                       |                       |
| 900-2-01KIT | 3/8", 400 in. lb. Joint Rate Simulator      | X                      | X                      |                        |                       |                       |
| 900-3-01KIT | 3/8", 1000 in. lb. Joint Rate Simulator     | X                      | X                      |                        |                       |                       |
| 2000-550-02 | Extension Arm Reach up to 80"               | X                      | X                      |                        | X                     | X                     |
| 2000-750-02 | Torque Screwdriver Testing Kit              | X                      |                        |                        |                       |                       |
| 2000-320-0  | Weight Set #1                               | X                      |                        |                        |                       |                       |
| 2500-50-0   | 2 1/2" Calibration Wheel                    | X                      |                        |                        |                       |                       |
| 2000-151-0  | 5" Calibration Wheel                        | X                      |                        |                        |                       |                       |
| 2000-152-0  | 10" Butterfly Calibration Wheel             | X                      |                        |                        |                       |                       |
| 2000-154-0  | 40" Calibration Arm                         | X                      |                        |                        |                       |                       |
| 390-2-2     | 4 oz. Calibration Weight Tray               | X                      |                        |                        |                       |                       |
| 2000-301    | 8 oz. Calibration Weight Tray               | X                      |                        |                        |                       |                       |
| 2000-304-0  | 7.5 lb. Calibration Weight Tray             | X                      |                        |                        |                       |                       |
| 2000-302-0  | 15 lb. Calibration Weight Tray              | X                      |                        |                        |                       |                       |
| 2000-303-0  | 50 lb. Calibration Weight Tray              | X                      |                        |                        |                       |                       |
| 2000-250-02 | Calibration Stand Kit                       | X                      |                        |                        |                       |                       |
| 2000-260-0  | Force (Tensiometer) Testing Kit             | X                      |                        |                        |                       |                       |
| 2000-261-0  | Force (Tension) Gage Kit                    | X                      |                        |                        |                       |                       |
| 2000-262-0  | Force (Compression) Gage Kit                | X                      |                        |                        |                       |                       |
| 2000-263-02 | Force Arm Kit-Small and Large Arms          | X                      |                        |                        |                       |                       |
| 2000-SW     | Wedglink Software                           | X                      | X                      |                        |                       | X                     |
| 2000-50-1   | Cable from Multitest to PC                  | X                      | X                      |                        |                       | X                     |



**CDI** TORQUE  
PRODUCTS®

## 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                        |
| 2000-5-02    | 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           | 2000-50-3    | PC Cables Multitest/Suretest               |

TORQUE TOOLS

CALIBRATION SYSTEMS



4 in 1 Transducer Kit with Mounting Adapter



Multitest Digital Monitor with Soft Touch Keys.



Snap this code with your smartphone to watch the video!



### 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 5 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 55" W x 24" D x 38" 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. (*± 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      | Wedgelink Software                                     |
| 2000-50-3    | PC Cables Multitest/Suretest                           |



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 55" W x 24" D x 38" 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 this code with your smartphone to watch the video!

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.



## 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                                          |
| 2000-50-3    | PC Cables Multitest/Suretest                      |



Dual Mode Function Manual and Automatic



Snap this code with your smartphone to watch the video!

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.

TORQUE TOOLS

CALIBRATION SYSTEMS

**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 55" W x 24" D x 38" 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      | Wedglink Software                    | x              | x              |
| 900-2-01KIT  | 3/8" drive, 400 in. lb. Capacity Joint Rate Simulator  | x              | x              | 2000-50-3    | PC Cables Multitest/Suretest         | x              | x              |
| 900-3-01KIT  | 3/8" drive, 1000 in. lb. Capacity Joint Rate Simulator | 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.

#### MODEL 5000-3 INCLUDES:

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



4 in 1 Transducer Kit with Mounting Adapter.

TORQUE TOOLS

CALIBRATION SYSTEMS

### 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.



Snap this code with your smartphone to watch the video!

**TEST/CALIBRATION ACCESSORIES**

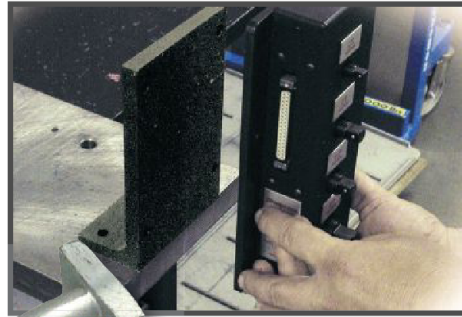
CDI's **calibration equipment** is expressly designed to calibrate the complete line of CDI Torque Transducers. All weight trays, arms and brackets supplied by CDI Torque Products are built with precision accuracy to meet the demanding needs of the calibration professional. All calibration wheels and 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 ⅜" Male & Female Reducer Adapter                    |
| 2000-226-3   | ¾" x ½" Male & Female Reducer Adapter                    |
| 2000-226-2   | 1" x ¾" Male & Female Reducer Adapter                    |
| 2000-0154-18 | 1 ¼" x ¾" Male & Female Reducer Adapter                  |
| S/2000-221-0 | 1 ¼" x ¾" Flange Adapter for 40" Arm                     |
| 2000 Calkit  | Complete Calibration Kit up to 2000 ft.lbs.              |
| 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   |



TORQUE TOOLS

CALIBRATION ACCESSORIES



## CDI TORQUE PRODUCTS

### MULTITORQ TORQUE & DATA COLLECTION SYSTEMS



Turns any ordinary ratchet wrench.....



...into a highly accurate digital torque tool.

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-O-MT     | 2 - 20 in. oz.     | 1/4"  |
| 101-I-MT     | 1 - 10 in. lb.     | 1/4"  |
| 501-I-MT     | 5 - 50 in. lb.     | 1/4"  |
| 2001-I-MT    | 20 - 200 in. lb.   | 1/4"  |
| 1002-F-MT    | 10 - 100 ft. lb.   | 3/8"  |
| 2503-F-MT    | 25 - 250 ft. lb.   | 1/2"  |
| 6004-F-MT    | 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 9 Pin Serial Point |
| 1800-5027    | 220 VAC (50-60 Hz) Charger                  |



TORQUE TOOLS

TESTER



## 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 with the optional table bracket 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: 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  
 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



Snap this code with your smartphone to watch the video!

TORQUE TOOLS

TESTERS

## 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" Male x Male Square Adapter       |
| 2344-0051-13 | 1/2" to 1/2" Male x Male Square Adapter       |
| 2344-0051-16 | 3/8" to 1/2" Male x Male Square Adapter       |
| 2344-0051-19 | 3/4" to 1-1/4" Male x Male Square 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-OETT    | 10 - 100 in. oz.   | 7.0 - 70.6 cNm            | ¼"         |
| 4001-OETT    | 40 - 400 in. oz.   | 28 - 280 cNm              | ¼"         |
| 501-I-ETT    | 5 - 50 in. lb.     | 5.6 - 56 dNm              | ¼"         |
| 1001-I-ETT   | 10 - 100 in. lb.   | 11.3 - 113 dNm            | ¼"         |
| 2502-I-ETT   | 25 - 250 in. lb.   | 28 - 280 dNm              | ¾"         |
| 10002-I-ETT  | 100 - 1000 in. lb. | 113 - 1130 dNm            | ¾"         |
| 2503-F-ETT   | 25 - 250 ft. lb.   | 34 - 339 Nm               | ½"         |
| 6004-F-ETT   | 60 - 600 ft. lb.   | 81 - 813 Nm               | ¾"         |

- 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



TORQUE TOOLS

TESTER



## 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   | ½"                  | 25-250ftlbs      | 34-339 Nm    | 4.9 lbs |
| 1003-F-DTC   | 1/2"                | 5-100FT LBS      | -            | 4.9 LBS |
| DTS82-69     | A/C Adaptor         |                  |              |         |
| 3325-0440-01 | Bench Mount Bracket |                  |              |         |



#### Features

- Simple operation enables any torque wrench user to quickly check wrench accuracy
- Uses 3 AA batteries (Included), LCD displays battery life indicator
- Large backlit LCD screen
- Audio beep on overtorque (125% of full scale)
- 3/8" Adapter included
- Accuracy +/- 1%
- Push Button Mode Select: First peak, Peak Hold, Tracking
- Units: Ft-Lb, In-Lb, Nm
- Includes Certificate of Calibration
- Compact design for mounting on any flat surface in horizontal or vertical position
- CE Approved
- Overall dimensions are: 4 ¾ x 13 ½ x 2 ¾



Snap this code with your smartphone to watch the video!



## 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.

TORQUE TOOLS

ELECTRONIC WRENCH



### LED INDICATOR LIGHTS

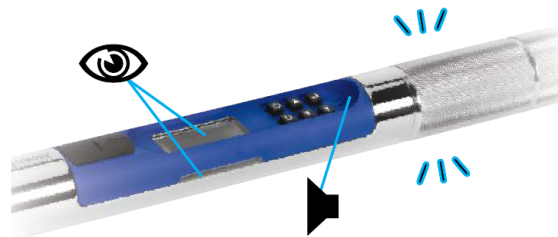
Dual side LED indicator lights with configurable settings provide operational guidance.



Snap this code with your smartphone to watch the video!

### 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

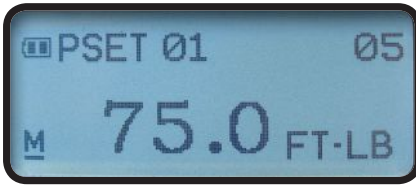
**COMPUTORQ SG TORQUE WRENCHES** are fully programmable for reliable, consistent, and repeatable torque application. Every model features a large, backlit LCD screen for better visibility in a variety of working conditions and a high capacity memory for storage of 1,500 readings.



#### CONVENIENT DATA DOWNLOAD

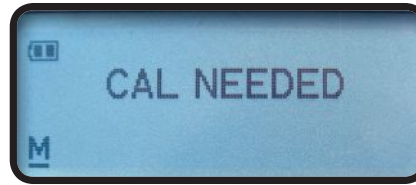
USB plug and play technology allows data download without additional software. Simply connect the included USB cord to the wrench and a PC to drag and drop data for an audit proof trail and process control.

| 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<br>16:38 | 20                | 30         | 20.3        | 0          | 0          | 0          | FT-LB        | OK            | OK           | 3          |
| 1/1/2013<br>16:38 | 20                | 30         | 20.55       | 0          | 0          | 0          | FT-LB        | OK            | OK           | 2          |



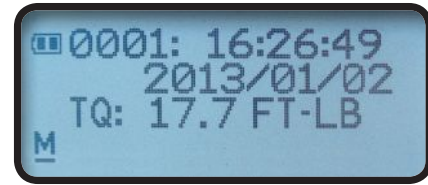
#### FULLY PROGRAMMABLE

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.

TORQUE TOOLS

ELECTRONIC WRENCH

| 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;<br>+/- 3% Counterclock-wise | +/- 2% Clockwise;<br>+/- 3% Counterclock-wise | +/- 2% Clockwise;<br>+/- 3% Counterclock-wise | +/- 2% Clockwise;<br>+/- 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 Alkaline                              | 3 x AA Alkaline                               | 3 x AA Alkaline                               | 3 x AA Alkaline                               |
| 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

**HIGH ACCURACY  
MODELS AVAILABLE**



TORQUE TOOLS

ELECTRONIC WRENCHES

### STANDARD MODELS

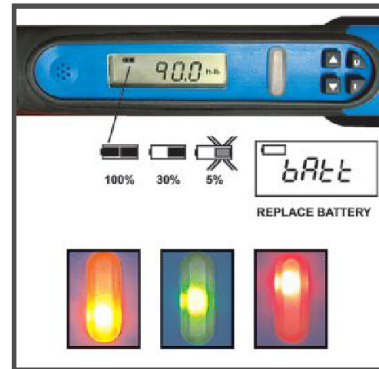
| Product Code | Drive | Ft. Lb.      | In. Lb.    | Nm           | Kg. Cm.    | Length<br>In. (mm) | Wt.<br>Lbs. (kgs) |
|--------------|-------|--------------|------------|--------------|------------|--------------------|-------------------|
| 2401C13      | 1/4"  | 2.0 - 20.0   | 24 - 240   | 2.71 - 27.10 | 27.6 - 276 | 15 (381)           | 2.0 (.91)         |
| 1002CF3      | 3/8"  | 10.0 - 100.0 | 120 - 1200 | 13.6 - 135.6 | 138 - 1382 | 17 (432)           | 2.2 (1.0)         |
| 2503CF3      | 1/2"  | 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<br>In. (mm) | Wt.<br>Lbs. (kgs) |
|--------------|-------|--------------|------------|--------------|------------|--------------------|-------------------|
| 2401C13HA*   | 1/4"  | 2.0 - 20.0   | 24 - 240   | 2.71 - 27.10 | 27.6 - 276 | 15 (381)           | 2.0 (.91)         |
| 1002CF3HA*   | 3/8"  | 10.0 - 100.0 | 120 - 1200 | 13.6 - 135.6 | 138 - 1382 | 17 (432)           | 2.2 (1.0)         |
| 2503CF3HA*   | 1/2"  | 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.



COMPUTORQ 3 Display and 3 Color LED Light Bar

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





## 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
- Red LED alerts user when over ranged
- Digital torque measurement and digital angle measurement in one convenient package
- Ergonomic non-slip cushion grip
- 15% Flex Ratchet head
- Long battery life, uses two CR123 lithium batteries
- Convenient, push button socket release ratchet head
- 3 step LED visual signal system:  
Yellow Light = approaching target torque  
Green Light = target torque reached  
Red Light = over torque indicator
- N.I.S.T. traceable certificate of calibration included

## TORQUE & ANGLE™ ELECTRONIC TORQUE WRENCHES

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

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



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

## HEAVY-DUTY TORQUE & ANGLE™ TORQUE WRENCH

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



TORQUE TOOLS

ELECTRONIC WRENCHES

**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:  $\pm 1\%$  CW &  $\pm 1\%$  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 B107.300 – 2010



TORQUE TOOLS

ELECTRONIC DIAL WRENCH

**ELECTRONIC DIAL TORQUE WRENCH**

| Product Code | Drive | In. Lb.  | Ft. Lb.      | Nm           | Kg. Cm.     | Length     |            | Wt. |  |
|--------------|-------|----------|--------------|--------------|-------------|------------|------------|-----|--|
|              |       |          |              |              |             | In. (mm)   | Lbs. (kgs) |     |  |
| 501ED-CDI    | 1/4"  | 5 - 50   | .42 - 4.17   | .56 - 5.65   | 57 - 57.61  | 11.5 (292) | 1.25 (.57) |     |  |
| 2502ED-CDI   | 3/8"  | 25 - 250 | 2.08 - 20.83 | 2.82 - 28.25 | 28 - 280.03 | 14.5 (368) | 1.51 (.68) |     |  |
| 6002ED-CDI   | 1/2"  | 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

T-HANDLE/TORQCONTROL

## 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 removing screws
- 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 B107.300 - 2010

## 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 B107.300 - 2010



## TORQUE SCREWDRIVERS - SINGLE SETTING

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





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:  $\pm 6\%$  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     |



TORQUE TOOLS



### 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



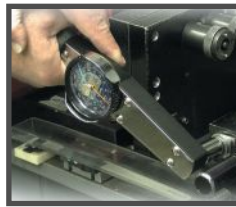
TORKYS/SCREWDRIVERS

**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: ± 4% 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.



TORQUE TOOLS

MECHANICAL WRENCHES

**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. |
|----------------------------------|------------|----------------|-------------|-----------|--------|--------|-------|-------|-------|----------|
| <b>Memory Needle Models</b>      |            |                |             |           |        |        |       |       |       |          |
| 151LDIN                          | 1/4"       | 0-15 in. lb.   | .25 in. lb. | 0-1.8 Nm  | .05 Nm | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 301LDIN                          | 1/4"       | 0-30 in. lb.   | .5 in. lb.  | 0-3.5 Nm  | .1 Nm  | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 751LDIN                          | 1/4"       | 0-75 in. lb.   | 1 in. lb.   | 0-9 Nm    | .2 Nm  | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 1502LDIN                         | 3/8"       | 0-150 in. lb.  | 2 in. lb.   | 0-18 Nm   | .5 Nm  | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 2502LDIN                         | 3/8"       | 0-250 in. lb.  | 5 in. lb.   | 0-30 Nm   | .5 Nm  | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 3002LDIN                         | 3/8"       | 0-300 in. lb.  | 5 in. lb.   | 0-35 Nm   | 1 Nm   | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 6002LDIN                         | 3/8"       | 0-600 in. lb.  | 10 in. lb.  | 0-70 Nm   | 2 Nm   | 15     | 1.5   | 1.2   | 2.75  | 1.6      |
| 502LDFN                          | 3/8"       | 0-50 ft. lb.   | 1 ft. lb.   | 0-70 Nm   | 2 Nm   | 15     | 1.5   | 1.2   | 2.75  | 1.6      |
| 1003LDFN                         | 1/2"       | 0-100 ft. lb.  | 2 ft. lb.   | 0-140 Nm  | 2.5 Nm | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 1753LDFN                         | 1/2"       | 0-175 ft. lb.  | 5 ft. lb.   | 0-240 Nm  | 5 Nm   | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 2503LDFN                         | 1/2"       | 0-250 ft. lb.  | 5 ft. lb.   | 0-350 Nm  | 10 Nm  | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 3504LDFN                         | 3/4"       | 0-350 ft. lb.  | 10 ft. lb.  | 0-480 Nm  | 10 Nm  | 28.00  | 2.25  | 1.50  | 2.75  | 5.75     |
| 6004LDFN*                        | 3/4"       | 0-600 ft. lb.  | 10 ft. lb.  | 0-800 Nm  | 20 Nm  | 47.00  | 2.50  | 1.50  | 2.75  | 10.10    |
| 10005LDFN*                       | 1"         | 0-1000 ft. lb. | 20 ft. lb.  | 0-1400 Nm | 25 Nm  | 74.00  | 2.50  | 3.50  | 3.00  | 30.00    |
| <b>Electric Signaling Models</b> |            |                |             |           |        |        |       |       |       |          |
| 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



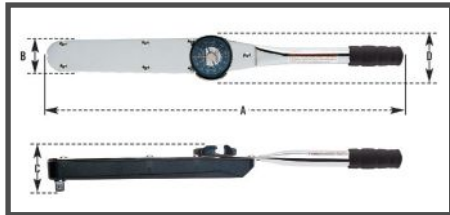
Dial Torque Wrenches are designed for the automotive, nuclear and industrial markets in addition to military installations throughout the world. This series features sturdy torsion beam design for dependable long life and accuracy. The small frame model offers working ranges from 3 in. lbs. to 50 ft. 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: ± 4% 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. |
|----------------------------------|------------------|----------------|------------|--------|-------|-------|-------|----------|
| <b>Memory Needle Models</b>      |                  |                |            |        |       |       |       |          |
| 301LDINSS                        | ¼"               | 0-30 in.lb.    | .5 in.lb.  | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 751LDINSS                        | ¼"               | 0-75 in.lb.    | 1 in.lb.   | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 752LDINSS                        | ¾"               | 0-75 in.lb.    | 1 in.lb.   | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 2502LDINSS                       | ¾"               | 0-250 in.lb.   | 5 in.lb.   | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 3002LDINSS                       | ¾"               | 0-300 in.lb.   | 5 in.lb.   | 11.5   | 1.1   | 1.2   | 2.75  | 1.1      |
| 6002LDINSS                       | ¾"               | 0-600 in.lb.   | 10 in.lb.  | 15     | 1.5   | 1.2   | 2.75  | 1.6      |
| 502LDFNSS                        | ¾"               | 0-50 ft.lbs.   | 1 ft.lb.   | 15     | 1.5   | 1.2   | 2.75  | 1.6      |
| 1003LDFNSS                       | ½"               | 0-100 ft. lb.  | 2 ft. lb   | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 1753LDFNSS                       | ½"               | 0-175 ft. lb.  | 5 ft. lb.  | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 2503LDFNSS                       | ½"               | 0-250 ft. lb.  | 5 ft. lb   | 21.75  | 2.25  | 1.50  | 2.75  | 3.70     |
| 3504LDFNSS                       | ¾"               | 0-350 ft. lb.  | 10 ft. lb. | 28.00  | 2.25  | 1.50  | 2.75  | 5.75     |
| 6004LDFNSS*                      | ¾"               | 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    |
| <b>Electric Signaling Models</b> |                  |                |            |        |       |       |       |          |
| 6004LDFESS**                     | ¾"               | 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: ± 4% 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.

TORQUE TOOLS

## 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. |
|-----------------------------|------------------|-----------|--------|-------|-------|-------|-------|----------|
| <b>Memory Needle Models</b> |                  |           |        |       |       |       |       |          |
| 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                    | ¾"               | 0-9 Nm    | .2 Nm  | 11.5  | 1.1   | 1.2   | 2.75  | 1.1      |
| 182NLDNSS                   | ¾"               | 0-18 Nm   | .5 Nm  | 11.5  | 1.1   | 1.2   | 2.75  | 1.1      |
| 302NLDNSS                   | ¾"               | 0-30 Nm   | .5 Nm  | 11.5  | 1.1   | 1.2   | 2.75  | 1.1      |
| 352NLDNSS                   | ¾"               | 0-35 Nm   | 1 Nm   | 11.5  | 1.1   | 1.2   | 2.75  | 1.1      |
| 702NLDNSS                   | ¾"               | 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.

MECHANICAL WRENCHES



**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:  $\pm 4\%$  CW  $\pm 6\%$  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.

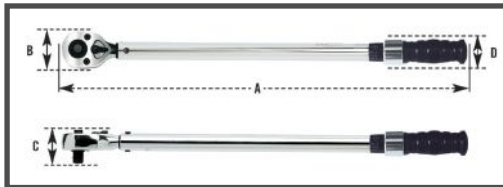


TORQUE TOOLS

**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  |

MECHANICAL WRENCHES

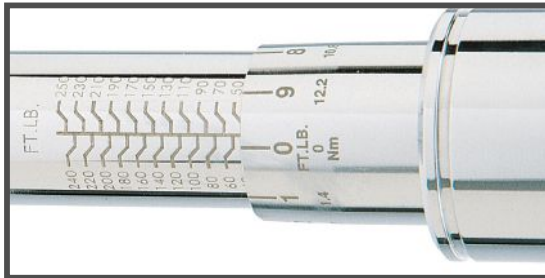


## MICROMETER ADJUSTABLE NEWTON METER TORQUE WRENCHES - SINGLE SCALE

**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:  $\pm 4\%$  CW  $\pm 6\%$  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.

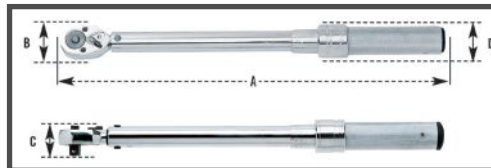


## MICROMETER ADJUSTABLE NEWTON METER TORQUE WRENCHES - SINGLE SCALE

| Product Code  | Nm Range    | Sq. Drive       | Incr. | A In. | B In. | C In. | D In. | Wt. Lbs. |
|---------------|-------------|-----------------|-------|-------|-------|-------|-------|----------|
| 602NMRMHSS    | 10-60 Nm    | $\frac{3}{8}$ " | 0.5   | 16.00 | 1.43  | 1.20  | 1.40  | 2.50     |
| 1002NMRMHSS   | 20-100 Nm   | $\frac{3}{8}$ " | 0.5   | 16.00 | 1.43  | 1.20  | 1.40  | 2.50     |
| 2003NMRMHSS   | 40-200 Nm   | $\frac{1}{2}$ " | 2     | 19.00 | 1.70  | 1.40  | 1.40  | 3.25     |
| 3403NMRMHSS   | 60-340 Nm   | $\frac{1}{2}$ " | 2     | 24.40 | 1.70  | 1.40  | 1.40  | 3.40     |
| 8004NMRMHSS   | 150-800 Nm  | $\frac{3}{4}$ " | 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.





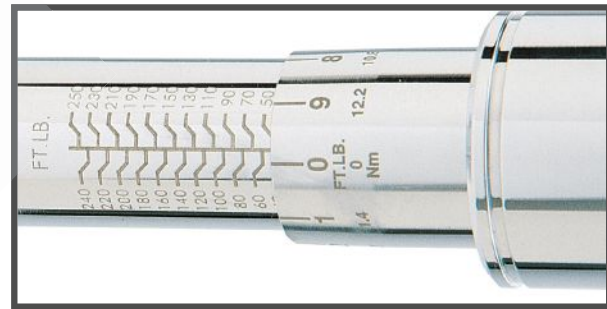


## MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

**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: ± 4% CW ± 6% 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.



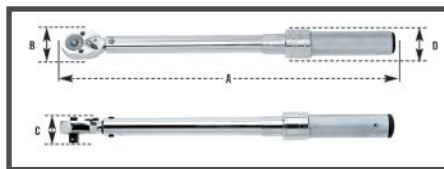
TORQUE TOOLS

## MICROMETER ADJUSTABLE TORQUE WRENCHES - DUAL SCALE

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

\*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.



MECHANICAL WRENCHES



## 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  $\pm 4\%$  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    |
|--------------|------------|------------------|---------------|--------------|------------|
| 502TQFR      | 3/8"       | 120-600 in. lbs. | 10.0 in. lbs. | 17 7/8       | Flex-Head  |
| 1002TQFR     | 3/8"       | 20-100 ft. lbs.  | 2.0 ft. lbs.  | 17 7/8       | Flex-Head  |
| 2503TQFR     | 1/2"       | 40-250 ft. lbs.  | 5.0 ft. lbs.  | 21 1/16      | Flex-Head  |
| 4004TQR      | 3/4"       | 130-400 ft. lbs. | 10.0 ft. lbs. | 38 1/8       | Fixed-Head |
| 6004TQR      | 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 rather 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 on pages 228 and 229.



## 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:  $\pm 4\%$  CW  $\pm 6\%$  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 & 600T-I 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
- Accuracy: ± 4% of indicated value, in direction of torque indicator, from 20% to 100% of full scale

### INTERCHANGEABLE HEAD TORQUE WRENCHES - DUAL SCALE

| Product Code | Shank Size | Nm Range  | Incr. | English Range | OAL In. |
|--------------|------------|-----------|-------|---------------|---------|
| 50NMIMH      | J          | 10 - 50   | 0.5   | 9.2 - 35      | 17      |
| 100NMIMH     | J          | 20 - 100  | 0.5   | 16.5 - 71.9   | 20      |
| 200NMIMH     | Y          | 40 - 200  | 2     | 37 - 140      | 22 ½    |
| 350NMIMH     | X          | 70 - 350  | 2     | 59 - 251      | 24 ½    |
| 800NMIMH*    | Z          | 150 - 800 | 5     | 129 - 572     | 48      |

### INTERCHANGEABLE HEAD TORQUE WRENCHES - SINGLE SCALE

| Product Code | Shank Size | English Range | Incr. | OAL In. |
|--------------|------------|---------------|-------|---------|
| 75MFIMHSS    | J          | 5 - 75        | 0.5   | 15.8    |
| 150MFIMHSS   | Y          | 20 - 150      | 1     | 17.3    |
| 250MFIMHSS   | Y          | 30 - 250      | 1     | 22.7    |



## 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: ± 4% of indicated value, in direction of torque indicator, from 20% to 100% of full scale
- Meets or exceeds ASME B107.300-2010
- Extra length is added to the front of the 300T-I-48IXL wrench. This allows lower force to be applied by operator to achieve the same torque range as the 300T-I.

### 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      |
| 300T-I-48IXL        |                              | 100 - 300 ft. lb. | 135 - 406 | X          | 48    | 1.12  | 1     | 1.4   | 6.29     |
| 600T-I              | 600T-I-SET                   | 120 - 600 ft. lb. | 162 - 814 | Z          | 55    | 1.5   | 1.25  | 1.25  | 10.45    |



TORQUE TOOLS

MECHANICAL WRENCHES

**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                 |



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                 |            |                     |            |                     | TCQXO68    | 240                 | 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"



TORQUE TOOLS

HEADS





## 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                | TCQJOM30   | 60                  | 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                | TCQJOM36A  | 60                  | TCQYOM36A  | 160                 | TCQXOM36A  | 240                 | TCQZOM36A  | 480                 | TCQZOM36ADP | 480                 |
| 38                |            |                     |            |                     |            |                     |            |                     | TCQZOM38ADP | 480                 |
| 41                |            |                     | TCQYOM41   | 160                 | 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                 |

TORQUE TOOLS

HEADS



## 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                 |            |                     | 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                 |



TORQUE TOOLS

HEADS



**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                  |            |                     |





## 12-POINT BOX END 15° OFFSET - METRIC



| 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                 | TCQXM6A    | 15                  |            |                     |            |                     |            |                     |             |                     |
| 7                 | TCQXM7A    | 20                  |            |                     |            |                     |            |                     |             |                     |
| 8                 | TCQXM8A    | 22                  |            |                     |            |                     |            |                     |             |                     |
| 9                 | TCQXM9A    | 30                  |            |                     |            |                     |            |                     |             |                     |
| 10                | TCQXM10A   | 53                  |            |                     |            |                     |            |                     |             |                     |
| 11                | TCQXM11A   | 59                  |            |                     |            |                     |            |                     |             |                     |
| 12                | TCQXM12A   | 60                  |            |                     |            |                     |            |                     |             |                     |
| 13                | TCQXM13A   | 60                  | TCQYXM13A  | 75                  |            |                     |            |                     |             |                     |
| 14                | TCQXM14A   | 60                  | TCQYXM14A  | 117                 |            |                     |            |                     |             |                     |
| 15                | TCQXM15A   | 60                  | TCQYXM15A  | 148                 |            |                     |            |                     |             |                     |
| 16                | TCQXM16A   | 60                  | TCQYXM16A  | 160                 | TCQXXM16A  | 183                 |            |                     |             |                     |
| 17                | TCQXM17A   | 60                  | TCQYXM17A  | 160                 | TCQXXM17A  | 197                 |            |                     |             |                     |
| 18                | TCQXM18A   | 60                  | TCQYXM18A  | 160                 | TCQXXM18A  | 224                 |            |                     |             |                     |
| 19                | TCQXM19A   | 60                  | TCQYXM19A  | 160                 | TCQXXM19A  | 238                 |            |                     |             |                     |
| 20                | TCQXM20A   | 60                  | TCQYXM20A  | 160                 | TCQXXM20A  | 240                 |            |                     |             |                     |
| 21                | TCQXM21A   | 60                  | TCQYXM21A  | 160                 | TCQXXM21A  | 240                 |            |                     |             |                     |
| 22                | TCQXM22A   | 60                  | TCQYXM22A  | 160                 | TCQXXM22A  | 240                 |            |                     |             |                     |
| 23                | TCQXM23A   | 60                  | TCQYXM23A  | 160                 | TCQXXM23A  | 240                 |            |                     |             |                     |
| 24                | TCQXM24A   | 60                  | TCQYXM24A  | 160                 | TCQXXM24A  | 240                 | TCQZXM24A  | 375                 | TCQZXM24ADP | 375                 |
| 25                | TCQXM25A   | 60                  | TCQYXM25A  | 160                 | TCQXXM25A  | 240                 | TCQZXM25A  | 413                 |             |                     |
| 26                | TCQXM26A   | 60                  | TCQYXM26A  | 160                 | TCQXXM26A  | 240                 | TCQZXM26A  | 448                 |             |                     |
| 27                | TCQXM27A   | 60                  | TCQYXM27A  | 160                 | TCQXXM27A  | 240                 | TCQZXM27A  | 480                 | TCQZXM27ADP | 480                 |
| 29                |            |                     | TCQYXM29A  | 160                 | TCQXXM29A  | 240                 | TCQZXM29A  | 480                 |             |                     |
| 30                |            |                     | TCQYXM30A  | 160                 | TCQXXM30A  | 240                 | TCQZXM30A  | 480                 | TCQZXM30ADP | 480                 |
| 32                |            |                     | TCQYXM32A  | 160                 | TCQXXM32A  | 240                 | TCQZXM32A  | 480                 | TCQZXM32ADP | 480                 |
| 34                |            |                     | TCQYXM34A  | 160                 | TCQXXM34A  | 240                 | TCQZXM34A  | 480                 | TCQZXM34ADP | 480                 |
| 36                |            |                     | TCQYXM36A  | 160                 | TCQXXM36A  | 240                 | TCQZXM36A  | 480                 | TCQZXM36ADP | 480                 |
| 41                |            |                     |            |                     |            |                     |            |                     | TCQZXM41ADP | 480                 |
| 46                |            |                     |            |                     |            |                     |            |                     | TCQZXM46ADP | 480                 |
| 50                |            |                     |            |                     |            |                     |            |                     | TCQZXM50ADP | 480                 |
| 55                |            |                     |            |                     |            |                     |            |                     | TCQZXM55ADP | 480                 |
| 60                |            |                     |            |                     |            |                     |            |                     | TCQZXM60ADP | 480                 |

TORQUE TOOLS

HEADS



## 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                 |



## 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                 |



**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                   | TCQXB16A   | 60                  |            |                     |            |                     |
| 9/16                  | TCQXB18A   | 60                  |            |                     |            |                     |
| 5/8                   | TCQXB20A   | 60                  | TCQYXB20A  | 79                  |            |                     |
| 11/16                 | TCQXB22A   | 60                  |            |                     |            |                     |
| 3/4                   | TCQXB24A   | 60                  | TCQYXB24A  | 160                 |            |                     |
| 7/8                   |            |                     | TCQYXB28A  | 133                 |            |                     |
| 15/16                 |            |                     | TCQYXB30A  | 160                 |            |                     |
| 1                     |            |                     | TCQYXB32A  | 160                 |            |                     |
| 1 1/8                 |            |                     | TCQYXB36A  | 160                 |            |                     |
| 1 3/8                 |            |                     |            |                     | TCQXB44A   | 240                 |
| 1 1/2                 |            |                     |            |                     | TCQXB48A   | 240                 |



TCQXB18A

**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              | TCQXBM11A  | 59                  |            |                     |
| 12mm              | TCQXBM12A  | 60                  |            |                     |
| 13mm              | TCQXBM13A  | 60                  |            |                     |
| 14mm              | TCQXBM14A  | 60                  |            |                     |
| 16mm              | TCQXBM16A  | 60                  |            |                     |
| 18mm              | TCQXBM18A  | 60                  | TCQYXBM18A | 160                 |
| 19mm              | TCQXBM19   | 60                  |            |                     |
| 24mm              |            |                     | TCQYXBM24A | 160                 |
| 28mm              |            |                     | TCQYXBM28A | 160                 |



TCQXBM11A

**12-POINT BOX END 40° BEND - METRIC**

| Square Drive (mm) | Y (0.560°) | Max Torque Ft. Lbs. |
|-------------------|------------|---------------------|
| 18                | TCQYSBM18A | 160                 |
| 24                | TCQYSBM24A | 160                 |



TCQYSBM18A

**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                 |
| 2                     |            |                     | TCQYRX64A  | 160                 |



TCQJRX22A



TORQUE TOOLS

HEADS





## CDI TORQUE PRODUCTS

### 6 POINT FLARE NUT HEADS - METRIC



TCQJRSM11A

| Square Drive (mm) | J (0.425°) | Max Torque Ft. Lbs. | Y (0.560°) | Max Torque Ft. Lbs. |
|-------------------|------------|---------------------|------------|---------------------|
| 8                 | TCQJRSM8A  | 17                  |            |                     |
| 9                 | TCQJRSM9A  | 25                  |            |                     |
| 10                | TCQJRSM10A | 33                  |            |                     |
| 11                | TCQJRSM11A | 42                  |            |                     |
| 12                | TCQJRSM12A | 50                  |            |                     |
| 13                | TCQJRSM13A | 58                  |            |                     |
| 14                | TCQJRSM14A | 60                  |            |                     |
| 15                | TCQJRSM15A | 60                  | TCQYRSM15A | 71                  |
| 16                | TCQJRSM16A | 60                  | TCQYRSM16A | 75                  |
| 17                | TCQJRSM17A | 60                  | TCQYRSM17A | 83                  |
| 18                | TCQJRSM18A | 60                  | TCQYRSM18A | 94                  |
| 19                | TCQJRSM19A | 60                  | TCQYRSM19A | 104                 |
| 20                | TCQJRSM20A | 60                  | TCQYRSM20A | 113                 |
| 21                |            |                     | TCQYRSM21A | 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                  | TCQYRXS18A | 74                  |
| 5/8                   | TCQJRXS20A | 60                  | TCQYRXS20A | 74                  |
| 11/16                 | TCQJRXS22A | 60                  | TCQYRXS22A | 92                  |
| 3/4                   | TCQJRXS24A | 60                  | TCQYRXS24A | 104                 |
| 13/16                 | TCQJRXS26A | 60                  | TCQYRXS26A | 117                 |
| 7/8                   | TCQJRXS28A | 60                  | TCQYRXS28A | 133                 |
| 15/16                 | TCQJRXS30A | 60                  | TCQYRXS30A | 146                 |
| 1                     | TCQJRXS32A | 60                  | TCQYRXS32A | 158                 |
| 1 1/8                 |            |                     | TCQYRXS36A | 160                 |

TORQUE TOOLS



HEADS

### 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 |





Trust CDI's Factory Service Center for all your CDI torque product repair and calibration work. Use our convenient service website ([www.cdifactoryservice.com](http://www.cdifactoryservice.com)) to check services available, flat rate repair pricing, and to order and track your repair and calibration requests. The website enables you to order all regular paid repair and calibration services, as well as any warranty work needed.

CDI's torque tool factory and repair facility is located in City of Industry (Los Angeles), California. The factory has been ISO 9001 certified since 1998. The CDI Factory Service center repairs and calibrates with N.I.S.T. (National Institute of Standards and Technology) traceable calibration equipment, and CDI Torque Products meet or exceed ASME and ISO standards. Rely on the CDI Torque Products Factory Service Center to do the job right.

[www.cdifactoryservice.com](http://www.cdifactoryservice.com)

TORQUE TOOLS

FACTS

## 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.

**WHAT IS TORQUE?**  
Torque is rotational or turning force.  
Torque is measured in length and force:  
Length means distance from "center of drive" to "center of handle"  
Force means "pounds," "Newtons" etc.

**Length = Force = TORQUE**  
The standard torque formula used to calculate torque is "Length x Force = Torque" (L x F = T)  
Example A: 2 Ft. length as shown above x 30 lbs. (amount of force at center of handle) = 60 Ft. lbs. of torque (80 Ft. lbs.)  
Example B: 1 meter x 25 Newtons = 25 Newton Meters (25 Nm)

**WHAT IS A TORQUE WRENCH?**  
• A torque wrench is any device that applies a pre-determined amount of torque to a fastener.  
• It may be mechanical or electronic in design.  
• A torque wrench has some type of indicating device which lets the operator know when the correct torque has been achieved: "click" or "torque-break" feel, sound, lights, gauge, or some combination of these.

**QUICK FACT:** The Micrometer Click Type Wrench (Shown) is the most affordable and common torque wrench used today.

**TORQUE & ANGLE**  
Auto manufacturers and makers of other high performance equipment are increasingly specifying fasteners with a combination of torque value followed by additional tightening with "angle", or degrees of wrench turn. Manufacturers can calculate a more exact final "clamp load" for their applications, since "torque & angle" minimizes the impact of thread or under-head friction (see "What Does Torque Do?" illustration and list below). Note: The CDI "Torque & Angle" electronic wrenches easily handle these applications.  
Example: Apply 60 Ft. lbs. of torque, then apply 90 degrees of rotation.

**WHAT DOES TORQUE DO?**  
• Bolts (or threaded fasteners), are designed to create clamping force, also called "clamp load".  
• When torque is applied to a threaded fastener, it draws together the joint, squeezing pieces of material.  
• As additional torque is applied to the fastener, the joint is pulled together creating a clamp load as the fastener begins the stretching process. It's this fastener stretch that creates and maintains clamping force, like a stretched bungee cord maintaining tension.  
• The actual amount of clamp load is determined by several factors:  
– The amount of torque applied to the fastener.  
– The material and grade of the fastener.  
– The external friction on the joint = friction under the fastener head, and friction between the threads of the fastener and material it's connected to.

**WHY IS APPLYING PROPER TORQUE IMPORTANT?**  
• Safety & Performance: Applying accurate torque is critical to assembly applications, engines and precision equipment.  
• Creating a proper clamp load is the main objective when applying torque to a fastener. Engines cylinder heads, pipe coupling, wheels, all need to be "clamped" uniformly to specific torque values.  
• There are three main factors that affect the correct application of torque: (1) Condition of components, (2) Accuracy of torque instrument, (3) Properly Applied torque values.  
• Applying torque incorrectly can lead to stripped threads, premature loosening or broken fasteners that can cause catastrophic failure. Leaking joints may cause engine or equipment failures.