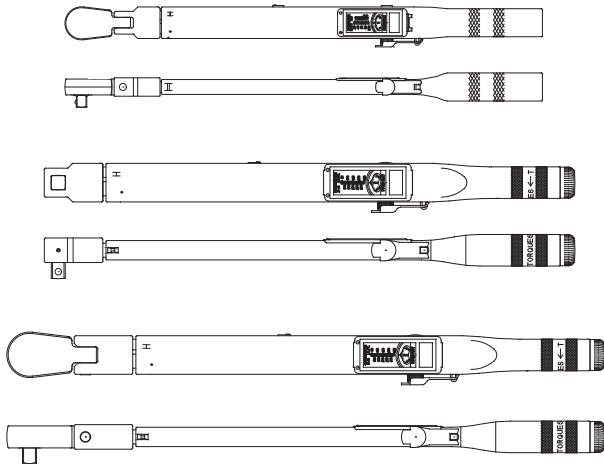


Split Beam Type Torque Wrench

User Manual



Accurate within **4%** of the setting from 20% of full scale to full scale

Specifications

| Drive | Stock No. | Range | Torque | Increments | Length | Weight |
|-----------------------------|------------|-----------------|------------|------------|--------|--------|
| Flex ratchet models | | | | | | |
| 3/8" | C2FR600H* | 100-600 lb. in. | 10 lb. in. | 17-5/8" | 1 lb | 8 oz |
| 3/8" | C2FR100F* | 20-100 lb. ft. | 2 lb. ft. | 17-5/8" | 1 lb | 8 oz |
| 1/2" | C3FR250F* | 40-250 lb. ft. | 5 lb. ft. | 22-1/8" | 3 lbs | 6 oz |
| Metric reading | | | | | | |
| 3/8" | C2FR14M* | 2.2-14 kg•m | 0.2 kg•m | 17-5/8" | 1 lb | 8 oz |
| 1/2" | C3FR34M* | 5-34 kg•m | 1 kg•m | 22-1/8" | 3 lbs | 6 oz |
| Newton meter reading | | | | | | |
| 3/8" | C2FR68N* | 14-68 N•m | 2 N•m | 17-5/8" | 1 lb | 8 oz |
| 3/8" | C2FR130N* | 25-135 N•m | 5 N•m | 17-5/8" | 1 lb | 8 oz |
| 1/2" | C3FR350N* | 60-350 N•m | 5 N•m | 22-1/8" | 3 lbs | 6 oz |
| Fixed ratchet models | | | | | | |
| 3/8" | C2R100F* | 20-100 lb. ft. | 2 lb. ft. | 17-5/8" | 1 lb | 8 oz |
| 3/8" | C2R100FB** | 16-100 lb. ft. | 2 lb. ft. | 17-1/8" | 1 lb | 8 oz |
| 1/2" | C3R250F* | 40-250 lb. ft. | 5 lb. ft. | 22-1/8" | 3 lbs | 6 oz |
| 1/2" | C3R250FB** | 40-250 lb. ft. | 5 lb. ft. | 22-1/8" | 3 lbs | 6 oz |
| Fixed head models | | | | | | |
| 1/2" | C3F250F | 50-250 lb. ft. | 5 lb. ft. | 18-1/2" | 2 lbs | 11 oz |
| Metric reading | | | | | | |
| 1/2" | C3F34M | 7-34 kg•m | 1 kg•m | 18-1/2" | 2 lbs | 11 oz |

* Non-Reversible Ratchet

** Black Oxide Finish

Safety warnings and cautions

CAUTION: Torque Wrenches
Overtorquing can cause breakage. Do not exceed rated torque.

Wear safety goggles. (Users and bystanders)
Wrench can break while breaking fasteners loose. Do not use a torque wrench to break fasteners loose. Using force against flex stops on flex head torque wrenches can cause head breakage. Do not force head of flex head torque wrenches against stops. A torque wrench that is out of calibration can cause part or tool breakage.

Calibrate periodically to maintain accuracy. *Broken tools and parts can cause injury*

CAUTION: Torque Wrenches
A wrench that is slipping can cause accidents.
On detachable wrenches, make sure the spring-loaded locking pins that secure sections of the wrench are fully engaged in their locking pin holes.

Make sure that the socket is properly seated on the nut or bolt. Always pull (do not push) on the wrench handle and adjust your stance accordingly.

* *Slipping wrench can cause injury*

WARNING: Ratchets
Ratchet mechanism may slip or break if dirty. Mismatched or partially worn parts can cause ratchet to slip or break.

Do not immerse sealed ratchet in fluids.
Do not replace worn parts individually, use entire contents of the service kit.

Ratchets that slip or break can cause injury.

Introduction

CAUTION: Do not use a torque wrench to break tight fasteners loose. This can damage the tool and result in inaccurate settings.

Precision Instruments Split-beam series torque wrenches are precision measurement tools, designed to torque in the clockwise direction and guaranteed accurate within 4% of the setting from 20% of full scale to full scale.

An innovative "split beam" torque measuring mechanism provides consistent accuracy throughout the torque setting range. Because no coil spring is used, there is no need to "work-in" a Split-beam series torque wrench before using it the first time during a work period. Nor is it necessary to adjust to the lowest torque setting after use.

In use, the wrench clicks and provides a few degrees of free movement when the desired torque is reached. When pressure on the wrench is completely released, the wrench automatically resets for the next application.

- Setting torque on adjustable wrenches is fast and easy because there is no spring tension on the set knob.
- Torque setting is lockable on adjustable wrenches for repetitive applications.
- Hand-hold position on pre-set wrenches is less critical than with other click-type torque wrenches.
- The wrench length is designed to provide the leverage required for maximum torque applications. The length also provides the needed reach for those-hard-to-get-at places.
- Adjustable models have a convenient conversion scale located just above the scale window.
- The torque wrenches are chrome plated for appearance and easy cleanup, and knurled handles help to provide a slip resistant grip.

Instructions

Setting the torque wrench

For adjustable models with set knob:
Pull back on the lock lever to unlock the set knob. With the set knob turned to the lowest value, turn the knob clockwise to the desired value indicated at the set mark, located at the top center of the scale window. If the value is exceeded, back off and approach the proper setting from the low side. Close the lock lever to lock the set knob at the torque setting.

Torquing fasteners

Apply torque to fasteners by pulling the wrench smoothly. When the torque setting is reached, a click will be heard as the wrench releases. When you completely release the pressure, the wrench automatically resets for the next torque application.

Calibration

Periodic calibration is necessary with normal use. This helps assure accurate readings and properly applied torque. For additional information, check with your Precision Instruments representative.

Ratchet maintenance

Ratchet service kits are available for maintaining the wrenches at optimum operating efficiency. Check with your Precision Instruments representative for the proper service kit.

Torque wrench head styles

Split-beam series torque wrenches are manufactured in three different head styles: flex ratchet (FR-models), fixed ratchet (R-models) and fixed head (F-models). Preset models (CP) are available in a fixed ratchet and fixed head style.

Flex ratchet models provide a smooth ratcheting action for efficiency and reduced operator fatigue. They flex 15° up and down for additional knuckle clearance and the ability to work around obstructions.

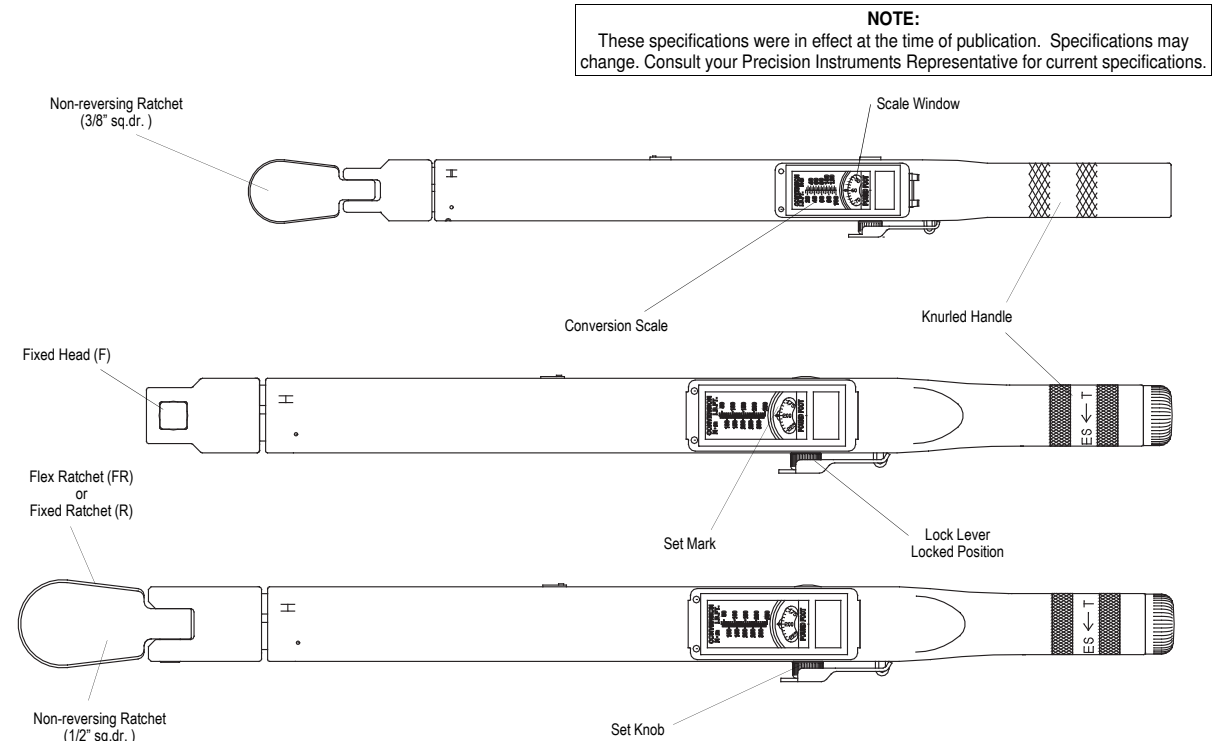
Fixed ratchet models have the same ratcheting action as the flex ratchet head torque wrenches. They differ in the pin that secures the ratchet head to the torque body. The pin on fixed ratchet models eliminates up and down movement and secures the head rigidly in line with the torque body.

Fixed head torque wrenches do not have flex or ratcheting features. The square drive is fixed. This model is ideal for many assembly line operations.

If Your Torque Wrench Needs Repair

1. Send it to an authorized Precision Instruments Service Center, or give it to your Precision Sales representative. Do not attempt to repair it yourself.
2. If the warranty is no longer in effect, your Precision Instruments Customer Service Representative will contact you with repair charges for your approval before being repaired.
3. A series of testers are available from Precision Sales for checking the accuracy of your Torque Wrench. See your Precision Sales representative for more information.

Split-Beam Series torque wrenches are designed to measure torque in the clockwise direction only.



NOTE:
These specifications were in effect at the time of publication. Specifications may change. Consult your Precision Instruments Representative for current specifications.

Precision Instruments, Inc. Sales (toll free): 866-TWRENCH
 1846 Miner Street (866-897-3624)
 P.O. Box 1367
 Des Plaines, IL. 60017 Fax: 847-824-7629

E-mail us at: sales@torqwrench.com

Visit us at: www.torqwrench.com

TORQUE PRODUCTS FULL WARRANTY

PRECISION INSTRUMENTS WARRANTS THAT PRECISION TORQUE PRODUCTS ARE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS. Precision Instruments will repair or replace these tools which fail to give satisfactory service due to defective workmanship or materials.

This warranty for Precision Instruments torque products is for ONE YEAR from the date of the original purchase. Repair or replacement shall be at the election and expense of Precision Instruments. Except where unreasonable, the product must be returned to Precision Instruments prepaid for warranty service. Precision Instruments does not provide any warranty for any product, or its calibration, subjected to abnormal use. Abnormal use includes misuse, modification, unreasonable use, neglect, lack of maintenance, lack of periodic calibration, or use after the tool is significantly worn.

PRECISION INSTRUMENTS SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL COSTS OR DAMAGES INCURRED BY THE PURCHASER OR OTHER including, without limitations, lost profits, revenues, anticipated sales, business opportunities, goodwill, or interruption of business and any other injury of damage. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty is your exclusive remedy and is in place of all other rights and remedies. You may have other rights which vary from state to state or country.

Precision Instruments, Inc.
 Warranty Information
 P. O. Box 1306
 Des Plaines, IL 60017

Rev 01/03

GENERAL TORQUE SPECIFICATION CHART FOR I.F.I.* METRIC FASTENERS (when SAE10 oil is used as a lubricant)**

| | | | | | | | |
|----------------------------------|----------------------|-----|-----|-----|------|------|------|
| Minimum Tensile *** Strength Mpa | 400 | 420 | 520 | 830 | 900 | 1040 | 1220 |
| Proof Load MPa | 225 | 310 | 380 | 600 | 650 | 830 | 970 |
| Property Class | 4.6 | 4.8 | 5.8 | 8.8 | 9.8 | 10.9 | 12.9 |
| Bolt Diameter | Torque: Newton Metre | | | | | | |
| metric | inch | | | | | | |
| 5mm | 0.197 | 2.9 | 4 | 5 | - | 8 | 11 |
| 6mm | 0.236 | 5 | 7 | 8 | - | 14 | 18 |
| 7mm | 0.276 | 8 | 11 | 14 | - | 24 | 30 |
| 8mm | 0.315 | 12 | 16 | 20 | - | 34 | 44 |
| 10mm | 0.394 | 23 | 32 | 40 | - | 70 | 85 |
| 12mm | 0.472 | 40 | 56 | 70 | - | 120 | 150 |
| 14mm | 0.551 | 65 | 90 | 110 | - | 190 | 240 |
| 16mm | 0.63 | 100 | 140 | 170 | 270 | 290 | 380 |
| 20mm | 0.787 | 200 | - | 330 | 520 | - | 740 |
| 24mm | 0.945 | 340 | - | 580 | 920 | 1260 | 1480 |
| 30mm | 1.181 | 680 | - | - | 1820 | - | 2520 |

*** Megapascal
 ** Note: Use only when manufacturers specifications are not available, these values are for stiff metal-to-metal joints and are based on 90% of proof load. DO NOT USE for gaskets joints or joints of soft materials.
 * I.F.I. = Industrial fasteners Institute.

CONVERSION OF VARIOUS UNITS OF TORQUE

| Convert | | | Convert | | |
|---------|--------|----------|---------|--------|----------|
| From | To | Multiply | From | To | Multiply |
| lb.in. | oz.in. | 16 | oz.in. | lb.in. | .0625 |
| lb.in. | lb.ft. | .08333 | lb.ft. | lb.in. | 12 |
| lb.in. | kg.cm. | 1.1519 | kg.cm. | lb.in. | .8681 |
| lb.in. | kg.m. | .011519 | kg.m. | lb.in. | 86.81 |
| lb.in. | N•m | .133 | N•m | lb.in. | 8.85 |
| lb.in. | dN•m | 1.13 | dN•m | lb.in. | .885 |
| lb.ft. | kg.m. | .1382 | kg.m. | lb.ft. | 7.236 |
| lb.ft. | N•m | 1.356 | N•m | lb.ft. | .7376 |
| N•m | dN•m | 10 | dN•m | N•m | .10 |
| N•m | kg.cm. | 10.2 | kg.cm. | N•m | .09807 |
| N•m | kg.m. | .102 | kg.m. | N•m | 9.807 |

GENERAL TORQUE SPECIFICATION CHART FOR I.S.O. METERIC FASTENERS*** (when SAE 10 oil is used as a lubricant)**

| | | | | | | | | | | | |
|--------------------------|---------------|--|------------|------------|------------|------------|------------|------------|------------|------------|--|
| Minimum Tensile Strength | kg/mm2 P.S.I. | 40 | | 50 | | 60 | | 80 | 100 | 120 | |
| Proof Load | kg/mm2 P.S.I. | 56900 | 29.1 | 28.2 | 36.4 | 33.9 | 43.7 | 47.5 | 58.2 | 79.2 | |
| | | 32150 | 41390 | 40110 | 51770 | 48220 | 62160 | 67560 | 82780 | 112650 | |
| Property Class | | 4.6 | 4.8 | 5.6 | 5.8 | 6.6 | 6.8 | 6.9 | 8.8 | 10.9 | |
| Bolt Diameter | | Figures are KILOGRAM METER except those that are bolded which are KILOGRAM CENTEMETER | | | | | | | | | |
| Metric | Inch | | | | | | | | | | |
| 6 mm | 0.236 | 49 | 63 | 61 | 79 | 74 | 95 | 103 | 126 | 172 | |
| 8 mm | 0.315 | 119 | 153 | 148 | 191 | 178 | 230 | 250 | 306 | 417 | |
| 10 mm | 0.394 | 235 | 303 | 294 | 379 | 353 | 455 | 495 | 606 | 82 | |
| 12 mm | 0.472 | 411 | 529 | 427 | 662 | 616 | 7.9 | 8.6 | 10.5 | 14 | |
| 14 mm | 0.551 | 654 | 8.4 | 8.2 | 10.5 | 10 | 12 | 13 | 17 | 23 | |
| 16 mm | 0.63 | 10 | 13 | 12 | 16 | 15 | 20 | 21 | 26 | 36 | |
| 18 mm | 0.709 | 14 | 18 | 17 | 23 | 21 | 27 | 30 | 36 | 49 | |
| 22 mm | 0.866 | 27 | 35 | 34 | 44 | 41 | 52 | 57 | 70 | 95 | |

*** NOTE: Use only when manufacturers specifications are not available, these values are for stiff metal-to-metal joints and are based on 90% of proof load. DO NOT USE for gasket joints or joints of soft materials
 ** I.S.O.= International Standardization Organization.

THREADED FASTENER TENSION GUIDE (Figures Represent Pounds of Clamping Force)

| | | | | | | | | | | | | | | | | | |
|------------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|
| Stress Area | 0.0091 | 0.0141 | 0.0175 | 0.0318 | 0.0524 | 0.0775 | 0.1063 | 0.1419 | 0.1819 | 0.226 | 0.3344 | 0.4617 | 0.6057 | 0.7632 | 0.9691 | 1.4052 | 1.8993 |
| Outside Diameter | No.6 | No.8 | No.10 | 1/4" | 5/16" | 3/8" | 7/16" | 1/2" | 9/16" | 5/8" | 3/4" | 7/8" | 1" | 1-1/8" | 1-1/4" | 1-1/2" | 1-3/4" |
| Threads Per Inch | 32 | 32 | 24 | 20 | 18 | 16 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 7 | 6 | 5 |
| Torque: | 5 lb.in. | 205 | 157 | | | | | | | | | | | | | | |
| | 10 lb.in. | 410 | 316 | 315 | | | | | | | | | | | | | |
| | 20 lb.in. | 820 | 632 | 630 | 337 | | | | | | | | | | | | |
| | 40 lb.in. | | 1264 | 1264 | 674 | 541 | | | | | | | | | | | |
| | 80 lb.in. | | | | 1348 | 1082 | 987 | | | | | | | | | | |
| | 10 lb.ft. | | | | 2043 | 1625 | 1482 | 1224 | | | | | | | | | |
| | 20 lb.ft. | | | | 4092 | 3250 | 2964 | 2143 | | | | | | | | | |
| | 40 lb.ft. | | | | | 6503 | 5928 | 4896 | 4286 | 3899 | | | | | | | |
| | 80 lb.ft. | | | | | | 11857 | 9796 | 8572 | 7799 | 7065 | | | | | | |
| | 100 lb.ft. | | | | | | | 12245 | 10716 | 9749 | 8832 | 7915 | | | | | |
| | 125 lb.ft. | | | | | | | | 13395 | 12186 | 11049 | 9894 | | | | | |
| | 150 lb.ft. | | | | | | | | 16091 | 14623 | 13261 | 11872 | | | | | |
| | 175 lb.ft. | | | | | | | | | 17061 | 15462 | 13851 | 12117 | | | | |
| | 200 lb.ft. | | | | | | | | | 19498 | 17664 | 15830 | 13836 | 12113 | | | |
| | 250 lb.ft. | | | | | | | | | 24373 | 22100 | 19788 | 17296 | 15142 | 11985 | | |
| | 300 lb.ft. | | | | | | | | | | 26523 | 23745 | 20776 | 18170 | 14382 | 13247 | |
| | 400 lb.ft. | | | | | | | | | | | 31660 | 27700 | 24227 | 19176 | 17663 | |
| | 500 lb.ft. | | | | | | | | | | | | 39576 | 34592 | 30284 | 23971 | 22079 |
| | 750 lb.ft. | | | | | | | | | | | | | 51941 | 45426 | 35956 | 33118 |
| | | | | | | | | | | | | | | | 29631 | 22678 | |

In some cases it may be desirable to know the total clamping force obtained for a given torque. Values are approximate. SAE 30 engine oil was used as lubricant. Use of high stress lube may increase value 20% or more. Highest values for a given size may only be obtained with heat treated bolts having minimum tensile strengths of 150,000 P.S.I. or more.

* Stress area is calculated as the area of the circle whose diameter is the mean between the root and pitch diameters. This closely approximates the actual stress condition. Maximum theoretical clamping force cannot be obtained from threaded fasteners. Additional stresses to the fastener are caused by the torsional forces of tightening.

Caution

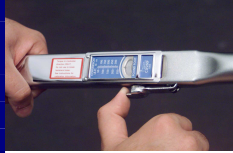
Always use manufacturers specifications when available. These specifications are approximate and may not be appropriate for some applications. No liability is assumed for errors which may result from the use of any of these specifications.

PRODUCTION TORQUE GUIDE

| Fastener | Type | Minimum Tensile Strength | Material | Body size of Outside Diameter | | | | | | | | | | | | | | | | | | | | | | |
|----------|----------------------------|---|-------------------------------|-------------------------------|---------------|-------------|------------|------|-----|-----|-----|------|------|------|-----|------|---|-----|-----|-----|-------|-------|-------|-------|------|-----|
| | | | | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 1/4 | 5/16 | 3/8 | 7/16 | 1/2 | 9/16 | 5/8 | 3/4 | 7/8 | 1 | 1-1/8 | 1-1/4 | 1-3/8 | 1-1/2 | | |
| | | | | | S.A.E 2 Steel | 74000 P.S.I | Low Carbon | | | | | | | | | 6 | 12 | 20 | 32 | 47 | 69 | 96 | 155 | 206 | 310 | 480 |
| | S.A.E. 5 Steel | 120000 P.S.I | Medium Carbon Heat Treat | | | | | | | | | 10 | 19 | 33 | 54 | 78 | 114 | 154 | 257 | 382 | 587 | 794 | 1105 | 1500 | 1775 | |
| | S.A.E. 7 Steel | 133000 P.S.I. | Medium Carbon Alloy | | | | | | | | | 13 | 25 | 44 | 71 | 110 | 154 | 215 | 360 | 570 | 840 | 1325 | 1825 | 2500 | 3000 | |
| | S.A.E. 8 Steel | 150000 P.S.I. | Medium Carbon Alloy | | | | | | | | | 14 | 29 | 47 | 78 | 119 | 169 | 230 | 380 | 600 | 900 | 1430 | 1975 | 2650 | 3200 | |
| | Socket Head Cap Screw | 160000 P.S.I. | High Carbon Quenched Tempered | | | | | | | | | 16 | 33 | 54 | 84 | 125 | 180 | 250 | 400 | 640 | 970 | 1520 | 2130 | 2850 | 3450 | |
| | Socket Set Screw | 212000 P.S.I. | High Carbon Quenched Tempered | | | | | | | | | | | | | | | | | | | | | | | |
| | Machine Screw Stainless | | 18-8 | 2.6* | 4* | 5.5* | 8* | 10* | 20* | 23* | 75* | 132* | 20 | 31 | 43 | 58 | 95 | 130 | 194 | 260 | 400 | 500 | | | 725 | |
| | Machine Screw Stainless | | 316 | 2.7* | 4* | 5.7* | 8* | 10* | 22* | 25* | 80* | 140* | 22 | 34 | 46 | 60 | 100 | 135 | 210 | 280 | 425 | 515 | | | 750 | |
| | Machine Screw Yellow Brass | 60000 P.S.I. | CU 63 ZN 37 | 2* | 3.3* | 4.4* | 6.4* | 8* | 16* | 20* | 65* | 110* | 17 | 27 | 37 | 49 | 78 | 104 | 160 | 215 | 325 | 400 | | | 595 | |
| | Silicone Bronze Type "B" | 70000 P.S.I. | CU 96 ZNI-5 Min. | 2.3* | 3.7* | 4.9* | 7.2* | 10* | 19* | 22* | 70* | 125* | 20 | 30 | 41 | 53 | 88 | 117 | 180 | 250 | 365 | 450 | | | 655 | |
| | Machine Screw Aluminum | 55000 P.S.I. | CU 3.8-4.9 1.2-1.8 MN 3-9 | 1.4* | 2.1* | 2.9* | 4.3* | 5.4* | 12* | 15* | 46* | 82* | 13 | 20 | 27 | 36 | 62 | 83 | 128 | 170 | 255 | 315 | | | 460 | |
| | Machine Screw Monel | 82000 P.S.I. | NI 67 CU 30 FE 1.4 | 2.5* | 4* | 5.5* | 8* | 11* | 21* | 27* | 87* | 155* | 23 | 36 | 50 | 67 | 115 | 155 | 235 | 315 | 475 | 585 | | | 850 | |
| | Sems Heat Treated Steel | 120000 P.S.I. | 1018 1022 | 4* | 5* | 7* | 11* | 15* | 27* | 37* | 90* | 200* | 330* | | | | | | | | | | | | | |
| | Studs | Use SAE 2.5 and 8 values when grade is known, with nut of sufficient strength. | | | | | | | | | | | | | | | All figures are POUND FEET except those marked with an ASTERISK (*) which are POUND INCHES. These values are for lubricated fasteners. | | | | | | | | | |
| | Tapping Screw | Set up joint as it will be in production use 70% of over-torque failure as production specifications. | | | | | | | | | | | | | | | | | | | | | | | | |



**Setting the
Precision Instruments
C-Line Click-Type
Torque Wrench**



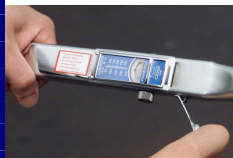
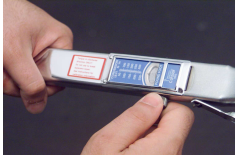
Hold the wrench by the ratchet end in your left hand

Use your thumb to open the lock lever



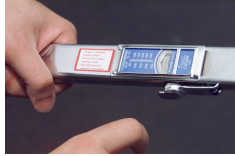
The lock lever will spring open against the handle

Use your right hand to adjust torque setting in the window

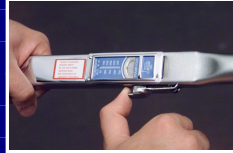


Close lock lever with right index finger

The lock lever will spring closed against the adjustment knob

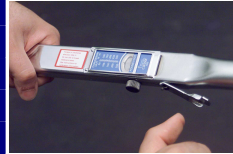


**Setting the
Precision Instruments
C-Line Click-Type
Torque Wrench**



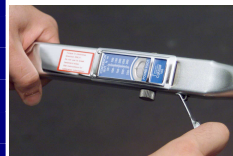
Hold the wrench by the ratchet end in your left hand

Use your thumb to open the lock lever



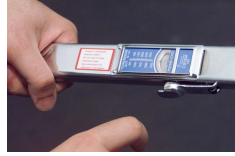
The lock lever will spring open against the handle

Use your right hand to adjust torque setting in the window

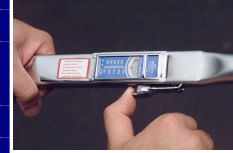


Close lock lever with right index finger

The lock lever will spring closed against the adjustment knob

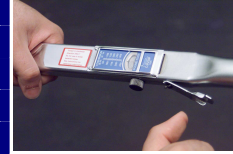


**Setting the
Precision Instruments
C-Line Click-Type
Torque Wrench**



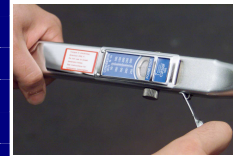
Hold the wrench by the ratchet end in your left hand

Use your thumb to open the lock lever



The lock lever will spring open against the handle

Use your right hand to adjust torque setting in the window

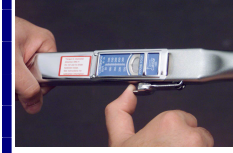


Close lock lever with right index finger

The lock lever will spring closed against the adjustment knob

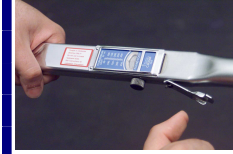
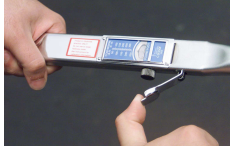


**Setting the
Precision Instruments
C-Line Click-Type
Torque Wrench**



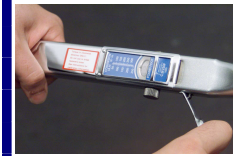
Hold the wrench by the ratchet end in your left hand

Use your thumb to open the lock lever



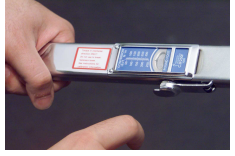
The lock lever will spring open against the handle

Use your right hand to adjust torque setting in the window



Close lock lever with right index finger

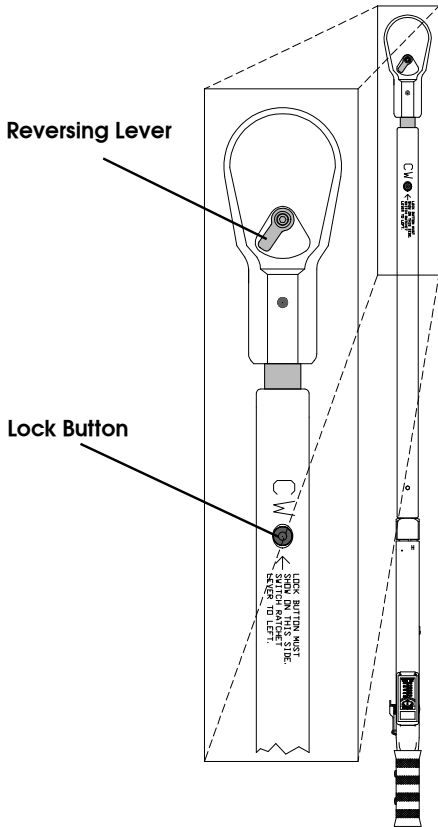
The lock lever will spring closed against the adjustment knob



C4D600F/C5D600F/C4D400F CW/CCW Ratchet Configuration

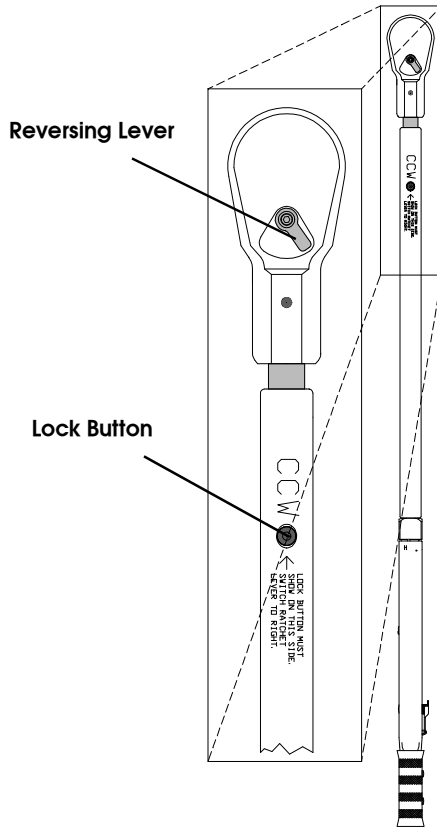
Clockwise Config.

Push Reversing Lever Left
Lock Button in "CW" Hole



Counterclockwise Config.

Push Reversing Lever Right
Lock Button in "CCW" Hole



To Change Location of Lock Button: Push Lock Button in and Rotate Ratchet Head Until Button Locks in Opposite Hole.



Hands Together Pushing at Center of Hand Grip



Hands Not Together Pushing On Torque Body
****ACCURACY RELATED****

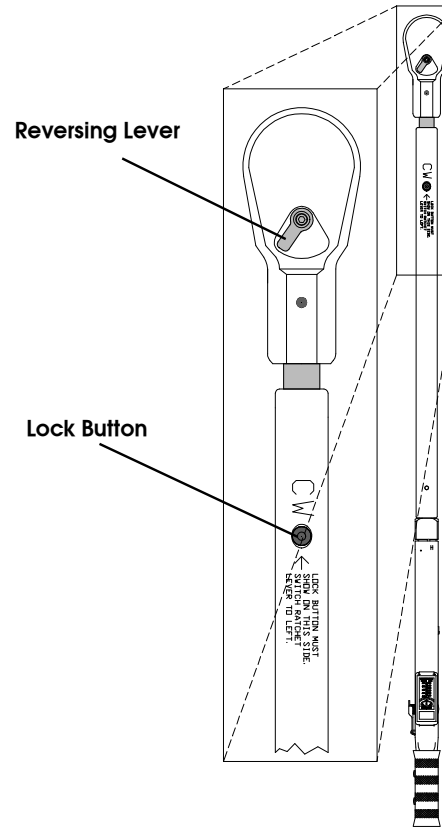


Hands Pulling Down on Hand Grip
****SAFETY RELATED****

C4D600F/C5D600F/C4D400F CW/CCW Ratchet Configuration

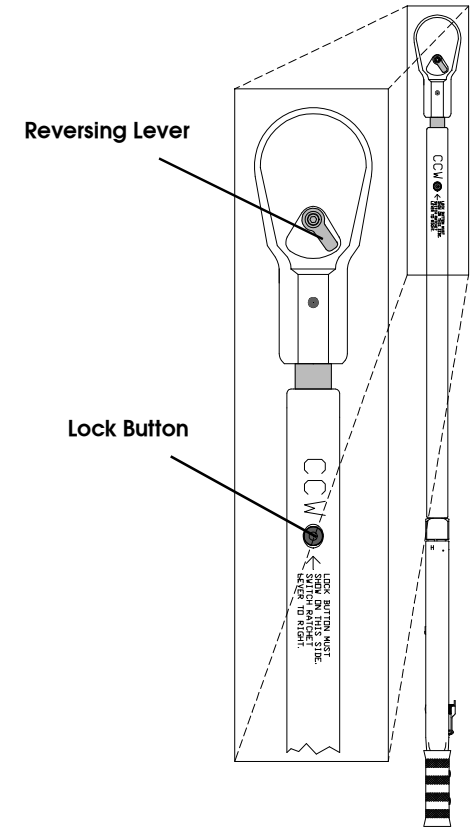
Clockwise Config.

Push Reversing Lever Left
Lock Button in "CW" Hole



Counterclockwise Config.

Push Reversing Lever Right
Lock Button in "CCW" Hole



To Change Location of Lock Button: Push Lock Button in and Rotate Ratchet Head Until Button Locks in Opposite Hole.



Hands Together Pushing at Center of Hand Grip



Hands Not Together Pushing On Torque Body
****ACCURACY RELATED****



Hands Pulling Down on Hand Grip
****SAFETY RELATED****