

WRENCH MODEL NUMBER:

WRENCH SERIAL NUMBER:

For Warranty Claims, Contact CDI Torque Products
at (626) 965-0668.

LIMITED WARRANTY

The CDI Computorq 3 Electronic Torque Wrench is backed by a one year warranty. This warranty covers manufacturer defects and workmanship. The warranty excludes misuse, abuse and normal wear and tear. Exclusion is not allowed in some states and may not apply. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state.



Please Recycle

IMPORTANT ENVIRONMENTAL NOTES:

1. This equipment may contain hazardous materials which can be harmful to the environment.
 2. Do not dispose of this equipment as municipal waste. Return it to the distributor or a designated collection center.
- Thank you for caring about our environment!

CDI TORQUE PRODUCTS

A Snap-on Specialty Tools Brand

19220 SAN JOSE AVENUE • CITY OF INDUSTRY, CA 91748 • USA
(626) 965-0668

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Form 20-1800-CDI
6/2010 Rev. N/C

Made in USA with US and Global Components

COMPUTORQ 3 ELECTRONIC TORQUE WRENCH



CDI TORQUE PRODUCTS

SAFETY MESSAGES



WARNING - Risk of flying particles

Over-torquing can cause breakage. Force against flex stops on flex head can cause head breakage. An out of calibration angle wrench can cause part or tool breakage. Broken hand tools, sockets or accessories can cause injury. Excess force can cause crow foot or flare nut wrench slippage.



READ THIS MANUAL COMPLETELY BEFORE USING THE CDI COMPUTORQ 3 WRENCH

- To insure accuracy, work must not move in angle mode.
- For personal safety and to avoid wrench damage, follow good professional tool and fastener installation practices.
- Periodic recalibration is necessary to maintain tool accuracy.



USERS AND BYSTANDERS SHOULD ALWAYS WEAR EYE PROTECTION

- Be sure all components, including adapters, extensions, drivers and sockets are rated to match or exceed the torque being applied with tool.
- Observe all equipment, system and manufacturer's warnings, cautions and procedures when using this wrench.
- Always use the correct size socket for the fastener being torqued.
- Do not use damaged sockets, showing signs of wear or cracks.
- Always replace damaged fasteners before applying torque.



WARNING - To avoid damaging Computorq 3 Wrench

- Never operate wrench when powered OFF. Always power wrench ON prior to applying torque.
- Do not press ON/ZERO key while torque is being applied.
- Never use this wrench to loosen fasteners.

SAFETY MESSAGES

- Never use extensions, such as a pipe, on the handle of the wrench.
- Always make sure the ratchet Forward/Reverse Switch is fully engaged in the correct position.
- Always verify that the wrench capacity matches or exceeds each application before proceeding.
- Always verify the calibration of the wrench if you know or suspect its capacity has been exceeded.
- Never force the head of flex head drives against stops.
- Always pull - do not push - on the wrench handle and adjust your stance to prevent a possible fall while applying torque.



WARNING - Electrical Shock Hazard

- Electrical shock can cause injury.
- Plastic handle is not insulated.
- Do not use on live electrical circuits.

MAINTENANCE / SERVICE

1. **IMPORTANT** - Service, repair and calibration are to be performed by CDI Torque Products only. Calibration by the user is recorded in the wrench and voids factory certification.
2. The torque wrench's internal mechanism is permanently lubricated during assembly. **Do not attempt to lubricate the internal mechanism.**
3. To safely clean the torque wrench, wipe with a damp cloth. **NEVER use solvents, thinners, or engine cleaners of any kind. NEVER immerse the torque wrench in liquids of any kind.**
4. Store torque wrench in protective tube at its lowest torque setting. **Do not force handle below lowest setting.**

INTRODUCTION

The Computorq 3 Electronic Torque Wrench digitally displays fastener torque specification settings, torque readings and peak hold measurements.

DISPLAY - The wrench features a custom LCD display, use keypad to select torque units, readout in ft.lb., in.lb., Nm, and kg.cm. Display also includes a 10 segment bar graph.

SETTING - Determine torque specification for fastener. Next, use the UP or DOWN arrow keys to scroll to the desired target torque value. NOTE: The target torque value is adjustable between 10% and 100% of full scale. The scrolling display rolls over at both ends for quick and convenient adjustment of setting.

TRACKING - While torque is applied, the display switches from preset value to actual applied value with a 0.20 second update rate.

AUDIBLE TONES AND LED'S - When the applied torque value equals -10% of the target torque value, a YELLOW LED illuminates. When the target torque value is reached, the wrench outputs a 0.50 (1/2) second audible tone and the GREEN LED illuminates. At +10% of target torque the RED LED illuminates.

PEAK HOLD - When torque is released the display holds and flashes the peak torque reading for 10 seconds or until next torque is applied.

OVERLOAD - If the wrench is used beyond 100% of full scale the audible tone will pulse rapidly to warn the operator to stop. At 125% of full scale the display will lock and read “- - -”.

ZERO - Wrench will automatically perform self calibration check and re-zero when powered ON. When powered ON, the wrench can be re-zeroed at any time by depressing the ON/ZERO key.

SETUP MEMORY - When powered ON, the wrench returns to the last unit and torque setting selected.

BATTERY - The Computorq 3 uses two (2) standard replaceable “CR123” lithium cells which provide more than 80 hours of continuous operation. The current battery level can be determined by viewing the battery indicator icon in the upper left corner of the LCD display. A flashing ‘bAtt” display means the wrench is no longer accurate and the battery must be replaced before continuing usage of wrench.

POWER ON - Depress and hold the ON/ZERO key until display illuminates.

POWER OFF - Depress the ON/ZERO key and hold for 5 seconds.

AUTO POWER OFF - Auto power OFF will occur after 2 minutes of nonusage to conserve battery power.



The yellow LED illuminates when the applied torque value equals -10% of the target torque value.

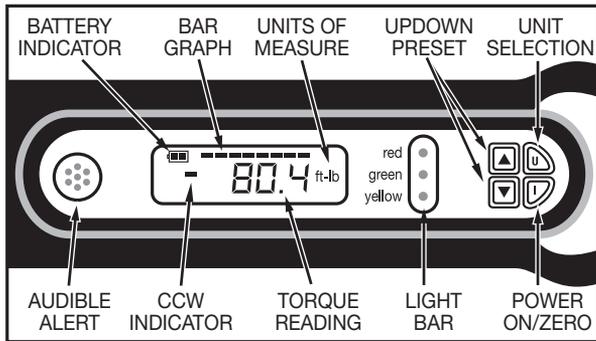


The green LED illuminates when the target torque value is reached and the wrench outputs a 0,50 (1/2) second audible tone.



The red LED illuminates at +10% of target torque, indicating fastener was overtorqued. Rapid “alarm” buzzer sounds.

OPERATOR INSTRUCTION



SET-UP:

1. To power wrench ON, depress the ON/ZERO key - the wrench will self-test and display the last unit and torque setting selected.
2. Select the desired units by depressing the UNITS key. Each time the UNITS key is depressed, a different unit of measure is displayed - (ft.lb., in.lb., Nm, or kg.cm.)
3. Pre-select desired torque value by depressing and holding the UP (▲) or DOWN (▼) key. The scrolling display rolls over at both ends for quick and convenient adjustment of setting.
4. Tool set-up is complete, wrench is ready for use.

IMPORTANT: Proper hand position when grasping wrench is necessary to ensure highest wrench accuracy. Position hand so that it is centered on the gripped portion of handle. **AVOID GRASPING WRENCH ABOVE OR BELOW GRIPPED PORTION OF HANDLE.**

USAGE:

1. Begin torquing fastener using a pulling motion.
2. The display will track the applied torque.
3. Stop application of torque when half-second audible tone is heard and GREEN LED illuminates, If RED LED illuminates, preset torque value has been exceeded. When this occurs the operator must loosen fastener and repeat torque application. NOTE: LED will illuminate when 90% of desired preset value has been achieved.
4. On release the PEAK (highest torque value applied)* will be displayed, flashing for 10 seconds or until torque is reapplied.

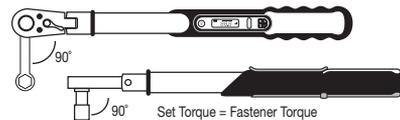
*The PEAK torque reading will tell you if excess torque has been applied. This feature can be used to improve your wrenching technique for best accuracy.

USE OF ADAPTERS, EXTENSIONS AND UNIVERSALS

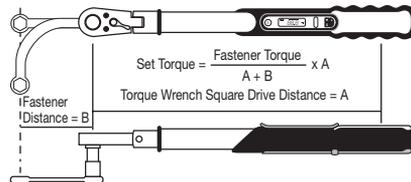
Anytime an adapter, extension or universal is used with a torque wrench in such a way that the fastener distance is different than the torque wrench square drive distance, an adjustment to the set torque is required to get proper fastener torque.



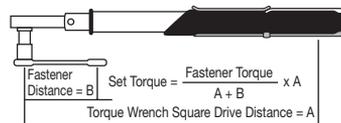
Fastener torque equals torque wrench square drive torque. Wrench setting is equal to desired fastener torque.



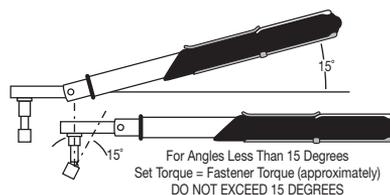
Fastener torque equals torque wrench square drive torque. Wrench setting is equal to desired fastener torque.



Fastener torque is greater than torque wrench square drive torque. Calculated setting will be lower than desired fastener torque.



Fastener torque is less than torque wrench square drive torque. Calculated setting will be higher than desired fastener torque.



When using a universal or wobble extension, do not exceed more than 15 degrees & offset from perpendicular

drive. Do not use long extensions with the flex-drive.

SPECIFICATIONS

DISPLAY - 4-digit LCD, low battery indicator.

SETTING - Displayed with no torque applied.

TRACKING - Real time display with torque applied.

PEAK - Displayed value flashes for 10 seconds at torque release.

DISPLAY CAPACITY - 8,000 counts CW/CCW torque from 10% to 125% of full scale.

ACCURACY (72° F)

CW CCW

+/-2% +/-3% of reading, 20% to 100% of full scale

+/-4% +/-6% of reading, 10% to 19% of full scale

DIMENSIONS

PART NUMBER	DRIVE	LENGTH	WEIGHT
2401C13	1/4"	15 in.	2.0 lbs.
1002CF3	3/8"	17 in.	2.2 lbs.
2503CF3	1/2"	27 in.	3.5 lbs.

SEALED KEY PAD

- ⏻ **ON/ZERO** - power on - auto self check - zero
- ▲ **UP** - (+) increases torque setting
- ▼ **DOWN** - (-) decreases torque setting
- ⏻ **UNITS** - selects ft.lb., in.lb., Nm or kg.cm.

OPERATING TEMPERATURE: 40° to 110° F (5° to 42° C)

STORAGE TEMPERATURE: -1° to 122° F (-20° to 50° C)

HUMIDITY - up to 90% non-condensing

BATTERY - Two (2) "CR123" Lithium cells, over 80 hours continuous operation.

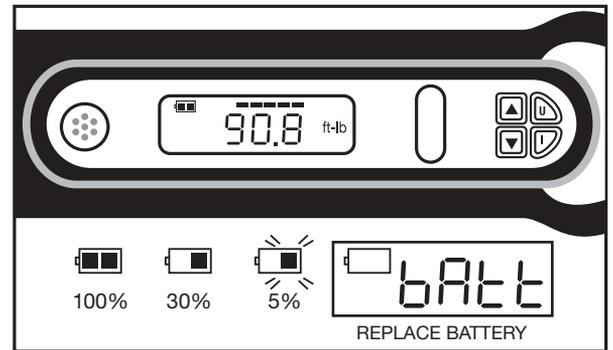
AUTO SHUT-OFF - Auto power OFF will occur after 2 minutes of non-usage to conserve battery power.

SPECIFICATIONS

MODEL	2401C13	1002CF3	2503CF3
Drive	1/4"	3/8"	1/2"
ft.lb.	2.0 - 20.0	5.0 - 100.0	25 - 250
in.lb.	24 - 240	120 - 1200	300 - 3000
Nm	2.71 - 27.10	13.6 - 135.6	33.8 - 338
kg.cm.	27.6 - 276	138 - 1382	345 - 3456

PLEASE NOTE

- CALIBRATION** - Contact CDI Torque Products for calibration services.
- EQUIPMENT REQUIRED** - Precision test bars and certified calibration weights or another torque source, accurate to 1/2% of reading.
- NOTES**
 - If the display shows "Err0" at power on, the wrench is damaged and must be returned to CDI Torque Products for repair.
 - Remove battery when stored for extended periods.
- BATTERY REPLACEMENT** - Replace with two (2) "CR123" Lithium cells only (available anywhere). To replace battery, remove cover on underside of handle (opposite display).



CERTIFICATION

This torque wrench as calibrated at the factory, is certified to meet the current ASME specification. Additionally, all wrenches are calibrated on a torque standard traceable to the National Institute of Standards and Technology (N.I.S.T.).

CONVERSION TABLE

To Convert From	To	Multiply By
in. oz.	in. lb.	0.06250
in. lb.	in. oz.	16
in. lb.	ft. lb.	0.08333
in. lb.	cmkg	1.15212
in. lb.	mkg	0.01152
in. lb.	Nm	0.11298
in. lb.	dNm	1.12984
ft. lb.	in. lb.	12
ft. lb.	mkg	0.13825
ft. lb.	Nm	1.35581
dNm	in. lb.	0.88507
dNm	Nm	0.1
Nm	dNm	10
Nm	cmkg	10.1971
Nm	mkg	0.10197
Nm	in. lb.	8.85074
Nm	ft. lb.	0.73756
cmkg	in. lb.	0.86796
cmkg	Nm	0.09806
mkg	in. lb.	86.7961
mkg	ft. lb.	7.23301
mkg	Nm	9.80665

USE OF EXTENSIONS AND ADAPTERS

When using an extension or adapter (increasing the effective length of the torque wrench) the output torque value will change. To calculate the new torque output of the wrench use the following formula:

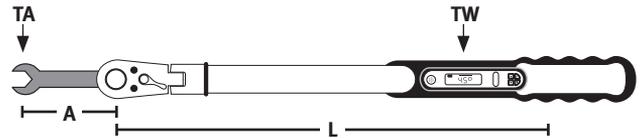
$$TW = \frac{TA \times L}{L + A}$$

TA = Torque exerted @ end of adapter

L = Distance between square drive and hand position

TW = Wrench scale reading

A = Length of adapter or extension



A number of variables can affect torque accuracy. These include the length of an adapter or extension, length of the wrench and variations in hand position on the wrench will affect the accuracy of the above calculation.

NOTES
