



CTG2000 / CTG3000 / CTG5000

1/4", 3/8", & 1/2" Digital Torque Wrench

OPERATING INSTRUCTIONS



CTG2000



CTG3000



CTG5000

SPECIFICATIONS

Accuracy (CW $\pm 2\%$) (CCW $\pm 3\%$)	Buttons 5
Data Memory Values 50	Batteries 2 AA
Number of Presets 9	Battery Life-Continuous Operation 110 Hrs
Operation Modes Peak Hold/Track	Battery Life-Standby 1 Year
Unit Selection ft-lb, in-lb, N-m, & kg-cm	Operating Temperature 14°F ~ 140°F
Head Type Flex Ratchet	Storage Temperature -4°F ~ 158°F
Gear teeth 36	Humidity Up to 90% non-condensing

Model Number	Square Drive	MIN. Operating Torque	MAX. Operating Torque	Length
CTG2000	1/4"	1.1 ft-lbs	22.1 ft-lbs	15½"
CTG3000	3/8"	5 ft-lbs	99.5 ft-lbs	16¾"
CTG5000	1/2"	15.1 ft-lbs	302.3 ft-lbs	25¾"

PLEASE NOTE

- The accuracy of the readout is guaranteed from 20% to 100% of maximum range + /- 1 increment. The torque accuracy is a typical value. Calibration point is at the middle line of the five anti-slip lines on the rubber handle. To maintain the accuracy of the torque wrench, calibration should be performed once a year or every 5,000 cycles, whichever comes first. Accuracy is based on the zero degree of offset from perpendicular drive.
- Use two AA batteries

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WARNING INFORMATION



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

This Instruction Manual Contains Important Safety Information. Read THIS INSTRUCTION MANUAL Carefully and understand ALL INFORMATION Before Operating THIS Tool.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Cornwell Tools for replacements. If the operator is not fluent in English, the product and safety instructions shall be read and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

METHODS TO AVOID HAZARDOUS SITUATIONS

! WARNING

- To safeguard torque accuracy avoid keeping tool set at high loads for long periods of time. When finished reset back to zero.
- Do not operate without eye and hand protection (users and bystander).
- Keep body working stance balanced and firm. Do not overreach when operating the tool.
- Keep fingers and hands away from pinch point region of this tool at all times.
- Do not force tool beyond its rated capacity. Overtorquing can cause breakage.
- Use of a "cheater bar" or leverage multipliers will result in an inaccurate reading and can possibly damage the wrench. Use of unapproved accessories could push the unit beyond its rated capacity and will void your warranty.
- Do not use torque wrench to loosen fasteners.
- The wrench should be sent in for calibration once every year or every 5,000 cycles for re-calibration.
- The wrench should be cleaned and stored properly after every use. Do not submerge this unit in any fluid.
- Wrenches should be re-calibrated if dropped or accidentally mishandled.
- The torque wrench should be "exercised" a minimum of three times at 100% of full scale before use.
- Do not remove any labels. Replace damaged labels.
- Communications port is for use by authorized service center technicians only.
- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.

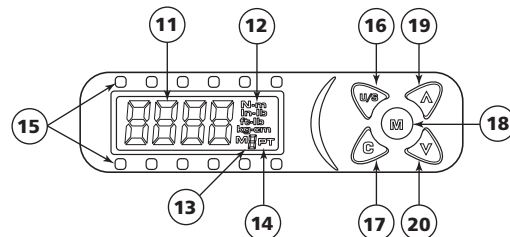
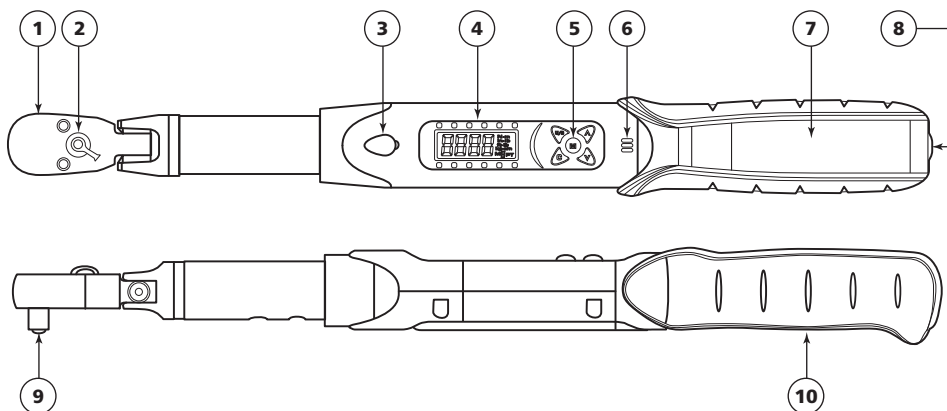
! WARNING: This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

! WARNING

Failure to read this manual completely and thoroughly, understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and not comply with them, and neglecting the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

FEATURES AND FUNCTIONS



1. Reversible Ratchet Head
2. Direction Lever
3. Communication Port
(Authorized service center use only)
4. LCD Readout
5. Function Buttons
6. Alarm/Buzzer
7. Battery Compartment

8. Battery Cover
9. Ratchet Drive
10. Anti-Slip Handle
11. Torque Value Readout
12. Unit of Measure
13. Pre-Set Memory Indicator
(M1 - M9)
14. Peak Hold/Track Indicator

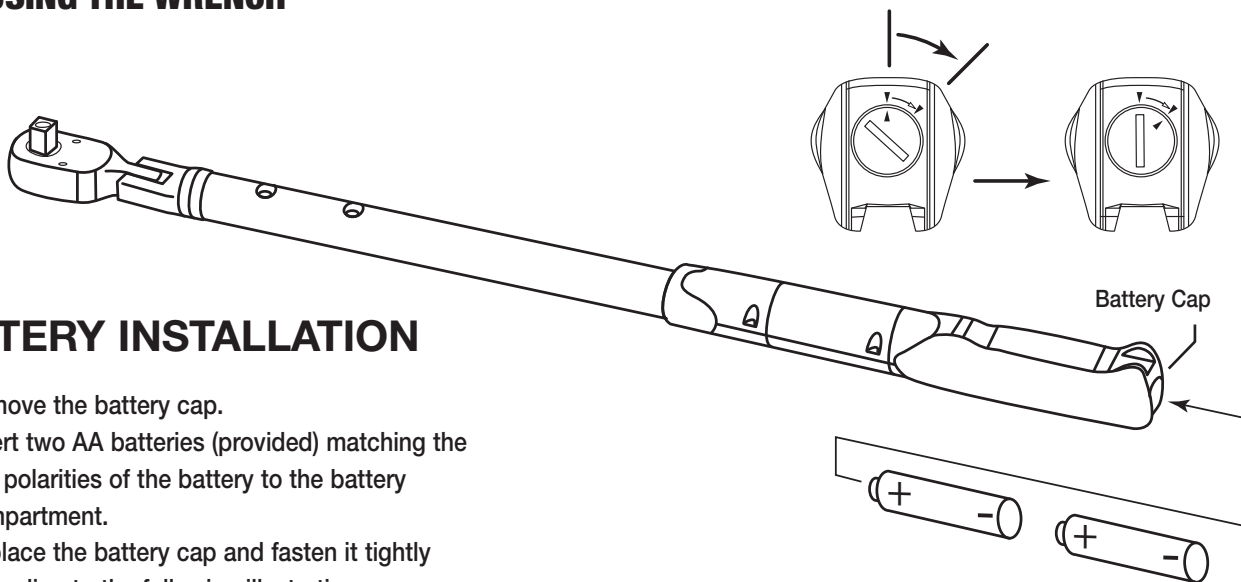
15. LED Indicator Lights
16. Unit/Setting Button
17. Power On/Clear Button
18. Pre-Set Number Select Button
19. Up Button
20. Down Button

REPLACEMENT PARTS AVAILABLE AS:

RS2HRP 1/4" HEAD REPAIR KIT
RS3HRP 3/8" HEAD REPAIR KIT
RS4HRP 1/2" HEAD REPAIR KIT

RSCTG2000CS MOLDED CASE FOR CTG2000
RSCTG3000CS MOLDED CASE FOR CTG3000
RSCTG4000CS MOLDED CASE FOR CTG5000

BEFORE USING THE WRENCH

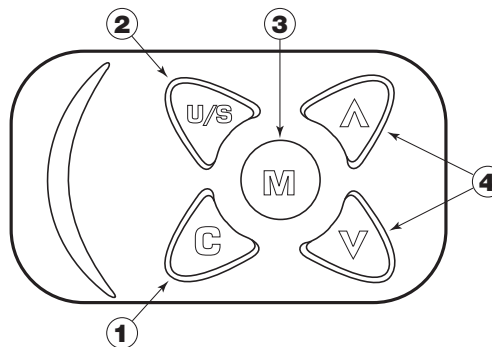


BATTERY INSTALLATION


- Remove the battery cap.
- Insert two AA batteries (provided) matching the +/- polarities of the battery to the battery compartment.
- Replace the battery cap and fasten it tightly according to the following illustrations:

SET UP

1. Power On/Clear
2. Unit/Setting
3. Memory (Stores up to 9 values)
4. Up/Down





SLEEP MODE

- The wrench will automatically go into "Sleep" mode after being idle for 5 minutes to save power. Press  to wake from "Sleep" mode.


SLEEP MODE

- If the wrench does not function normally, Press   at the same time to reset the wrench.

POWER ON / RESET

- Press  to power on the digital torque wrench.
- Pressing  can also be used to reset the torque wrench before use.

NOTE:

If an external force is being applied to the torque wrench during power-on/reset or wake up period, an initial torque will be shown in the display. Some or all the lights will illuminate and the wrench will sound a continuous alarm tone. To clear the display and stop the alarm press the  button.

LOW BATTERY VOLTAGE PROTECTION

- If the battery voltage is below 2.3 volts, the wrench will highlight the battery symbol and after a few moments turn off.




Battery Indicator

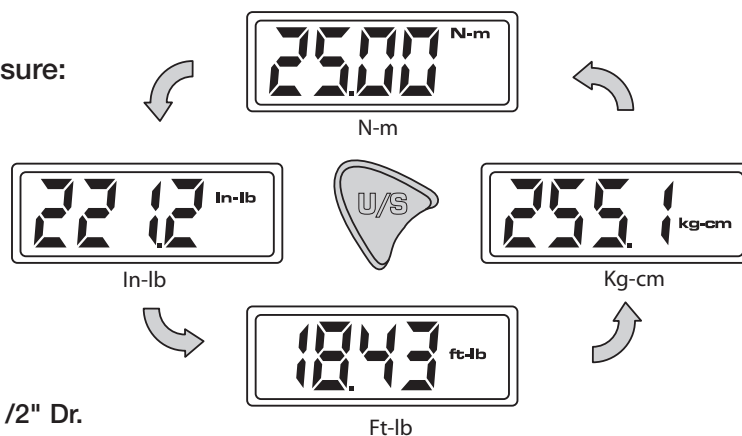
SELECTING UNITS OF MEASURE

The torque wrench displays 4 different units of measure:

1. Newton meters (N-m)
2. Inch Pounds (in-lb)
3. Foot Pounds (ft-lb)
4. Kilogram Centimeter (kg-cm)

Pressing the  button allows you to cycle sequentially through each of these units.

Note: The displays for CTG3000 3/8" Dr. and CTG5000 1/2" Dr. models show one less decimal place in the display.



CTG2000 - 1/4" Dr. Display

SETTING TORQUE VALUES







Use the Up  arrow to increase torque value. Use the Down  arrow to decrease torque value.

Note: The displays for CTG3000 3/8" Dr. and CTG5000 1/2" Dr. models show one less decimal place in the display.



RESETTING PRESET VALUES

Torque Wrench comes with 9 Preset values pre-installed at the factory.

To change a preset value stored in memory:

1. Press the  memory button repeatedly to access the preset value to be changed. (e.g. M5)
2. Press the  button to change the units of measure if required.
3. Use the UP/DOWN   arrow buttons to change the torque value.

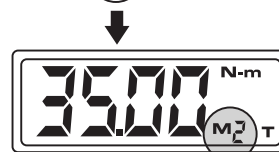
Do one of the following:

- A. Press the  button to store the new value. The torque wrench will stay at the new memory location and will be ready for immediate use.
- B. Press the  button to go to the next memory location in sequence. This is useful if you are wanting to change/store multiple values.



Pre-Set Memory Indicator: M1

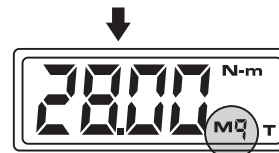
Press  or  ➔ for immediate use.



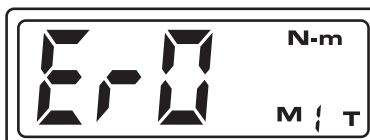
Pre-Set Memory Indicator: M2

Press 

Pre-Set Memory Indicator: M3
- M4,
- M5 . . . etc.



Pre-Set Memory Indicator: M9




If this warning appears, the wrench has applied more than 110% of the torque set in memory.




SELECTING TRACK AND PEAK MODES

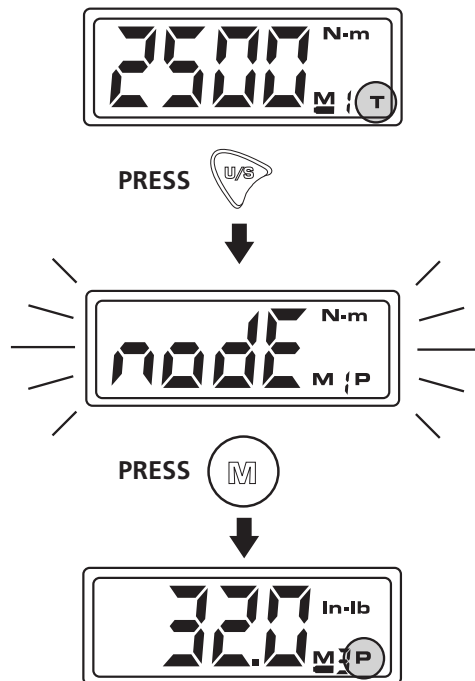
At start up either a (P) or (T) will show in the lower right hand corner of the display depending on the last time the wrench was used.

Note: Track (T) mode is the factory default.

1. In order to change the mode, press and hold the  button for 2 seconds.

Note: The display will briefly flash the "mode" screen.

2. Use the Up/Down   buttons to toggle between the Track (T) and Peak Hold (P) modes.
3. Press  button four (4) times to exit mode setting.



TRACK MODE

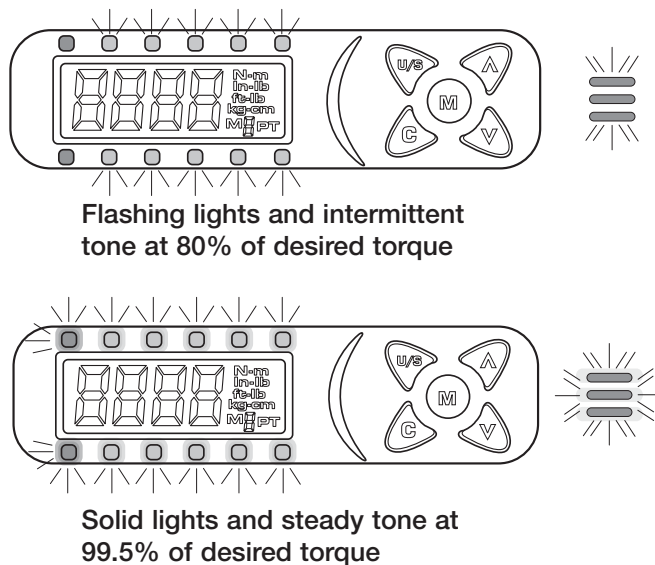
This mode allows the operator to visually monitor the amount of load that is being applied. Visual and auditory aids assist the operator in maintaining a consistent torque.

After setting the (T) Track mode and assigning a Memory Pre-Set to use, operator can begin to apply load to the wrench.

As a load is gradually applied to the wrench, the display will show the operator the amount of torque on the fastener.

When 80% of the desired torque is reached, the green lights will begin to flash and the alarm tone will beep intermittently.

When 99.5% of the desired torque has been reached, the alarm will change to a steady tone and the green lights will stop flashing and stay on. The red light will also illuminate.






PEAK HOLD MODE

This mode allows the operator to view and store individual torque values. Up to 50 values can be stored.

NOTE: The peak hold mode can only be used with a torque value previously stored in one of the 9 Pre-Set memory locations.

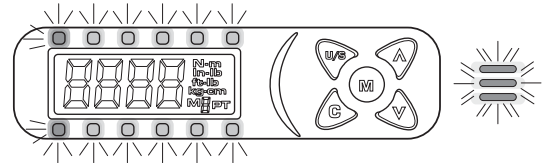
Storing Peak Hold Values:

1. Using the  button, navigate to the desired preset value.
(e.g. M3, M4, M5 . . . etc.)
2. Apply load to the handle until the red light illuminates and the alarm tone sounds, then release the load.
3. The highest torque value reached during the application shows and flashes in the display.
4. Pressing the  button stores the torque value.
Note: Each time a value is stored, the location number increases sequentially:
n001, n002, n003 . . . etc.
5. Pressing the  button while the torque value is flashing allows the operator to bypass this value and not store it.
6. Repeat steps 1 through 4 until the desired number of torque values have been stored.





NOTE: A maximum of 50 values can be stored in the Peak Hold memory. The word "FULL" appears in the display when an attempt is made to store more than the allotted maximum.



Be sure the wrench is in Peak Hold Mode (P).





Viewing Peak Hold Values:

1. Press and hold the  button for 2-3 seconds.
"nodE" appears in the display.
2. Press the  button again and the display will alternate between the last stored value and the location to which it was assigned.
3. To display a different torque value stored in the Peak Hold memory, use the   buttons to navigate to the desired location.



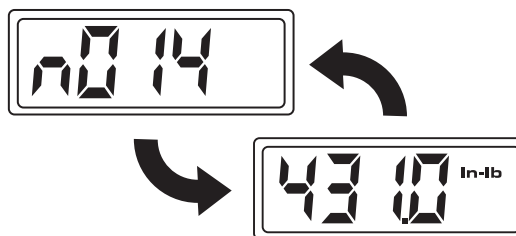
PEAK HOLD MODE CONT'D

Deleting a Peak Hold Value:

1. Repeat steps above to view and navigate to the location you wish to delete.
2. Press the  button.
"No?" appears in the display.
3. Press the  button again.
"dEL" appears in the display and this action deletes the current entry.
4. The preceding memory location and torque value will now alternate on the display.






Note: The display will automatically return to the location that preceded the one deleted.
e.g. If location 15 (n015) was deleted from memory the display would then show (n014) location 14.



When a stored value (location number) is removed from memory, the subsequent location numbers are reassigned. If location 3 is deleted, the value that was in location 4 moves down one slot and becomes value 3. The value in location 5 moves to 4, etc.

Deleting all Peak Hold Values:

1. Repeat steps 1 - 3 above.
2. Press the  button a third time.
"cLrA" appears in the display. This clears all stored Peak Hold values from memory.
3. Press the  button a fourth time.
"ConU" appears in the display allowing you to continue to proceed to the next function you wish to perform.
4. Press the  button to return to the opening/start display screen.





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1/4", 3/8", & 1/2" Digital Torque Wrench

WARRANTY COVERAGE

DIGITAL TORQUE WRENCH - LIMITED 12-MONTH WARRANTY

Cornwell Tools warrants to the original purchaser that the company's digital torque wrenches are free from defects in material or workmanship during the one year warranty period. We will repair any digital torque wrench which fails to give satisfactory service due to defective workmanship or materials (excluding calibration) for 12 months from the date of original purchase. (Calibration is only covered by this warranty for each new unused torque wrench out of box.) Products must be returned with proof of purchase, freight prepaid, to the warranty service center listed below.

This warranty excludes torque wrenches which have been subjected to abnormal use, accident, neglect, or lack of maintenance. Any modification, disassembly of this wrench (beyond replacing the head kit), or repair by an unauthorized service center will void the warranty.

This warranty gives you specific rights. You may also have other rights which vary from state to state.

The foregoing obligation is Cornwell Tools' sole liability under this or any implied warranty and under no circumstances shall Cornwell Tools be liable for any incidental or consequential damages.

Note: 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.

WARRANTY SERVICE

For Warranty Service and Recalibration/Certification Services, contact:

POWER TOOL REPAIR

891 Moe Dr. Suite H

AKRON, OH 44310

Phone: 330-630-0022

Fax: 330-630-3320

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Repair kits and replacement parts are available for many Cornwell products, regardless of whether or not the product is still covered by a warranty plan.