

READ BEFORE USE

1. This torque wrench is a precision instrument intended to be used only to tighten screws, bolts and nuts to a desired torque. Do not use it as a "nut breaker", pry bar, or in lieu of a regular ratchet.
2. Do not apply torque in excess of the maximum capacity of the wrench.
3. Apply load to the grip only (unless otherwise specified) and do not use any handle extension bars for leverage as this will result in inaccurate readings and may damage the wrench.
4. Make sure you adjust the wrench to the proper units when setting the torque.
5. Do not disassemble the wrench for any reason. Highly stressed internal components may cause severe injury when released in an unintended manner.
6. The wrench should be re-calibrated periodically however it is up to the user to determine the best calibration interval based on usage and criticality of the application.

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APPLYING TORQUE

1. Attach proper socket on wrench. Attach the socket onto the fastener. Make sure the socket is fully engaged and not at an angle to the fastener.
2. Apply hand pressure to the grip. Make sure you are positioned so if a failure occurs, or if the socket slips off of the fastener you will not get hurt or lose your balance.
3. If, due to the required force, you need to use both hands, put the other hand on the top of the first hand, never on any other part of the wrench.
4. Apply a steady force until the wrench signals a yellow light. Stop applying force when you see the green light or hear the buzzer sound. If you over torque the fastener loosen and re-tighten the fastener.

Trouble Shooting

Display will not clear: Turn the wrench on and off with no load applied to the ratchet. If the wrench display still does not clear return the wrench for repair. This is usually caused by over torque or a broken drive.

Wrench will not power up: Install fresh batteries.

Wrench will not stay turned on: Install fresh batteries.

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Features

Accuracy: +/-2% Indicated Value
Bi Directional
Expanded Range: 10-100% of full scale
Interchangeable heads
Patented Swivel Head Design
Large Digit LCD display
Large English Printed Keys
4-AA Batteries
Long Battery Life (up to 100 hrs.)
All Metal Tube Design
Aluminum Protective Armor
Scratch Resistant Display
Super Fast 2500 Samples per second
Auto Clear Mode
Two Way Computer Control
(with optional add on kit)
Comfortable Rubber Grip



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MAINTENANCE:

1. Remove the batteries if the wrench is to be unused for extended periods to avoid leakage.
 2. With the exception of the ratchet mechanism, do not lubricate the wrench. The ratchet mechanism may be lubricated as needed with a few drops of light machine oil.
 3. Do not use acetone or other solvents to clean the wrench, use window cleaners or denatured alcohol applied with a clean cloth.
 4. With the exception of the ratchet mechanism, there are no user-serviceable parts. For repair and/or re-calibration information contact the warranty repair center nearest your location.
- Calibration cycle:** To be determined by user based on usage and criticality of application however wrench should be tested for calibration at least yearly or sooner if the applications critical. Calibration can be carried out by any lab with torque loading standards.

WARNING!

Overtorqued or defective fasteners, sockets, as well as the wrench itself, may suddenly break causing you to lose balance, fall, or to suffer other trauma. Be sure that you have firm footing, are properly balanced, and if necessary, are using appropriate harness, back support, or other safety device to avoid injury if breakage occurs.

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OPERATION

General:
Power: Install 4-AA batteries by unscrewing the end cap. The wrench will turn on when power is applied. Do not apply torque on the drive when the wrench is powered on as this might shift the zero and give false readings (zero taken when power is turned on). Press and hold the power key for 3 seconds to turn power of (auto off after 3 minutes).

Peak Hold: The wrench will turn on in Peak Hold mode (PH shown on the LCD). This mode holds the highest torque value on the display until either the clear key is pressed or you apply a new torque value (auto clear). Select Track mode by pressing the Power and then the Target + key.

Set the target torque (torque you want to achieve): Press the Target + or Target - keys. You can always check the current target by pressing either key once. The current setting will show for a few seconds.

Target Torque Example: Set the target torque to 100 ft. lb. Apply torque. When the torque approaches 98 ft. lb. (-2% of target) you will see a yellow "approaching target" light. When the torque is between 98 and 102 ft. lb. the green LED will light and a beeper will sound (stop applying torque). When torque applied is over 102 ft. lb. a red LED will light and the buzzer will sound intermittently (press the clear key to clear the red light).

Units: To change the Units press the Units key. Note the arrow pointing to the proper units.

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Specifications:
Accuracy: +/- 2% I.V. from 10-100% of scale +/- 1 increment increments.

.1 for wrenches with full scale over 100
0.1 for wrenches with full scale under 99

Bi-Directional Operation (CW and CCW)

Power: 4-AA non rechargeables standard (not included)

Battery Life: Up to 100 hours

Units: Ft. lb., In. lb., Nm (auto conversion)

Display: Large .5" high LCD

Lights:

Yellow (approaching target torque)

Green (within target range)

RED (over target range)

Buzzer: Audible buzzer when target reached

Keys: Tactile feedback-silicone sealed

Power/Clear, Target +, Target -, Units

Calibration: Any certified lab can re-calibrate

Certification: Supplied with NIST traceable cert with readings.

Housing: Heat Treated Thick Walled Steel Tube

Handle: Soft cushion grip over hardened steel housing

Armor: Cast aluminum armor to protect electronics

Temperature: Use: 40-110 °F.

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Memory: In order to take advantage of the memory features you will need the computer add on kit. The wrench will log the last 100 torque values when the clear key is pressed. If you do not want to save a reading use the auto clear feature. See the instructions for the add on kit for details on how to download memory to an Excel spreadsheet.

Direction:

When the wrench reads a CCW torque an arrow will point to the CCW icon.
If you plan to measure torque in the counterclockwise direction apply a load in the ccw direction and then power cycle the wrench. This will adjust zero and compensate for hysteresis (a physical characteristic of all steels).

Extended Functions: There are many extended functions available with the add on kit. All functions are controlled via a com port adapter supplied with the add on kit.

Extended functions:

Memory recall, memory Dump (to Excel), memory erase, units change, mode change, target (set point) change, target zone change (1% to 10%), key lockout, clear display, read torque remotely, send individual readings to Excel, and much more. See add on kit operation manual for more information.

Manual Clear: You can manually clear the display by pressing the clear key

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PROTO
Proto Electronic
Torque Wrench
Operation Manual
JH series

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