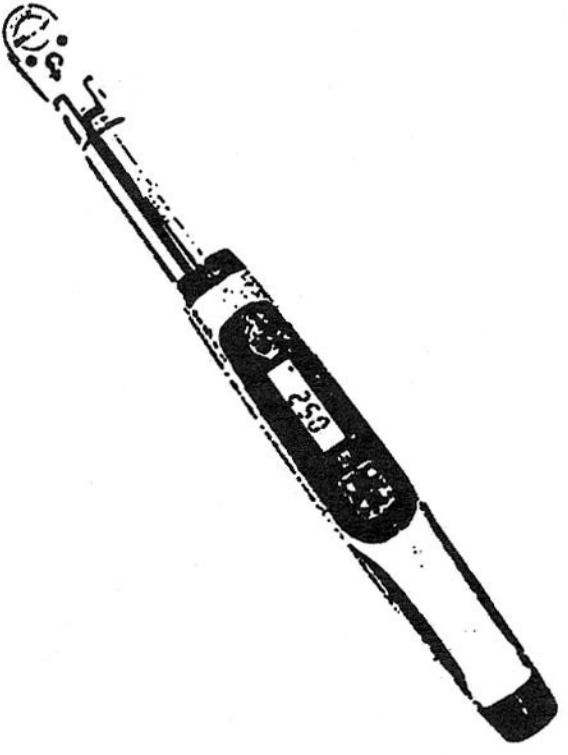
English

Instructions



Snap-on

TECHWRENCH™

ELECTRONIC TORQUE WRENCH

IMPORTANT SAFETY INSTRUCTIONS

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 torque wrench can cause part or tool breakage. Broken hand tools, sockets or accessories can cause injury. Excess force can cause crowfoot or flare nut wrench slippage.

- ❑ **Read this manual completely** before using the TECHWRENCH.
- ❑ For personal safety and to avoid wrench damage, follow good professional tool practices.
- ❑ Periodic recalibration is necessary to maintain accuracy.

- ❑ **Wear safety goggles, user and bystanders.**
- ❑ Be sure all components, including all adaptors, extensions, drivers and sockets are rated to match or exceed the torque being applied.
- ❑ Observe all equipment, system and manufacturer's warnings, cautions and procedures when using this wrench.
- ❑ Use the correct size socket for the fastener.
- ❑ Do not use sockets showing wear or cracks.
- ❑ Replace fasteners with rounded corners.

- ❑ **To avoid damaging the wrench:** Never use the wrench with the power off. Always turn ON the wrench so the applied torque is being measured.
  - ❑ Do not press ON/ZERO while torque is applied.
  - ❑ Never use this wrench to break fasteners loose.
  - ❑ Do not use extensions, such as a pipe, on the handle of the wrench.
  - ❑ Check that the wrench capacity matches or exceeds each application before proceeding.
  - ❑ Make sure the ratchet direction lever is fully engaged in the correct position.
  - ❑ Verify the calibration of the wrench if you know or suspect its capacity has been exceeded.
- ❑ Do not 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 should something give.

WARNING ***Electrical Shock Hazzard.***

Electrical shock can cause injury. Plastic handle is not insulated.

- ❑ Do not use on live electrical circuits.

SAVE THESE INSTRUCTIONS

INTRODUCTION

The Snap-on **TECHWRENCH** digitally displays fastener torque specification settings, torque readings and peak hold measurements.

Display - The wrench features a custom LCD with keypad selectable torque units conversion readout in ft-lb, in-lb and Nm.

Setting – Torque specification for fastener. The set value is adjustable between 5% and 100% of full scale by pushing the up or down keys. The scrolling display adjustment rolls-over at both ends for convenient and quick setting.

Tracking - While wrenching, the display switches to read the actual torque applied with a 0.2 second update rate.

Audible and Tactile Alert - When the applied torque equals the set torque value the wrench outputs a 1/2 second audible tone and the handle vibrates until torque is released.

Peak Hold - When torque is released the display holds and flashes the peak torque reading for 10 seconds or until torque is re-applied.

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

Zero - Automatic self-check and re-zero at power-on and any time the ON/ZERO key is pushed. (This is not a calibration check).

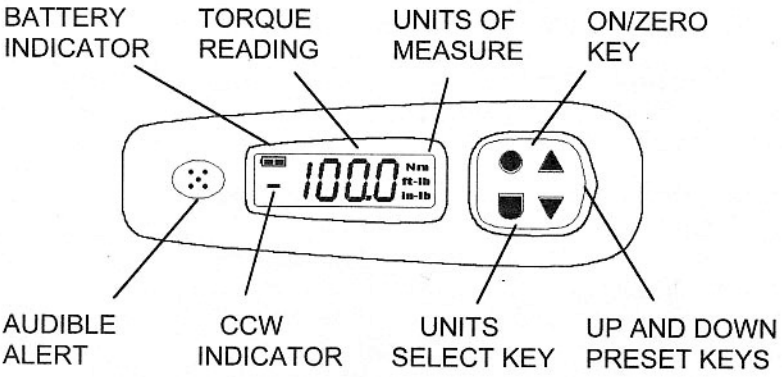
Setup Memory - At power-on the wrench returns to the last unit and torque setting.

Battery - The TECHWRENCH uses three standard replaceable AA alkaline cells for better than 100 hours continuous operation. A display indicator shows battery condition. A flashing "**bAtt**" display means the wrench is no longer accurate and the battery must be replaced.

Auto Power Off - Automatic shut-off after sitting idle for 2 minutes.

OPERATOR INSTRUCTION

Display and Keypad



Unscrew endcap on back of handle and install three "AA" alkaline cells, positive end into the handle first. (refer to page 6)

1. Push "**ON/ZERO**" key – the wrench will self-test and display the last fastener torque spec. setting.
2. Push "**U**NITS" key – to select "**Nm**," "**ft lb**," or "**in lb**."
3. Push and hold "Δ" (UP) or "∇" (DOWN) keys to set the fastener torque spec. (Display will roll-over at each end).
4. Apply torque slowly. The display will **TRACK** the applied torque. Stop and release torque when the **audible alert** is heard and the **vibration alert** is felt in the handle.
5. On release, note the **PEAK** (highest) torque applied* it will be displayed, flashing for 10 seconds or until torque is re-applied.

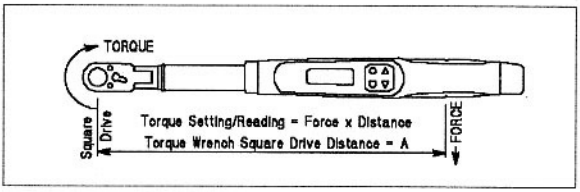
* The **PEAK** torque reading will tell you if excess torque has been applied. This feature can be used to improve your wrenching technique for best accuracy.

TECHWRENCH will automatically shut off after two minutes sitting idle to conserve battery power. The ON/ZERO key can be held down for 5 seconds to turn the wrench off.

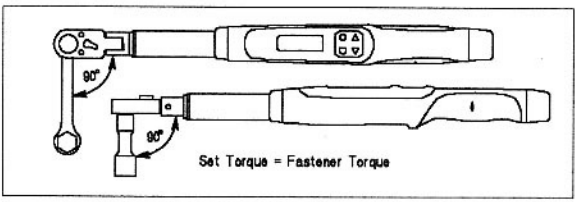
USE OF ADAPTORS, EXTENSIONS AND UNIVERSALS

Anytime an adaptor, 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.

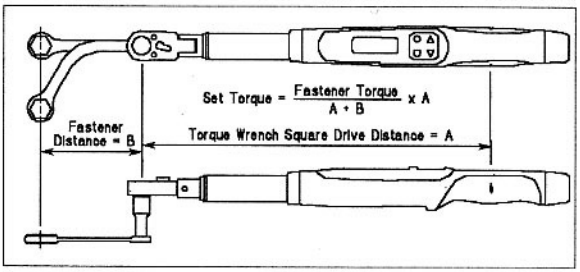
Fastener torque equals torque wrench square drive torque. Wrench setting is equal to desired fastener torque.



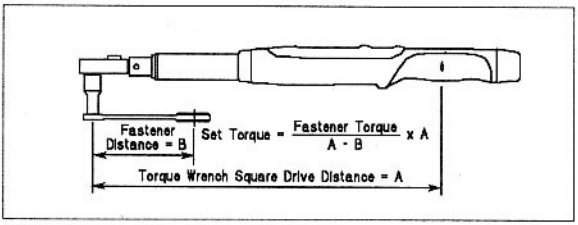
Fastener torque equals torque wrench square drive torque. Wrench setting is equal to desired fastener torque.



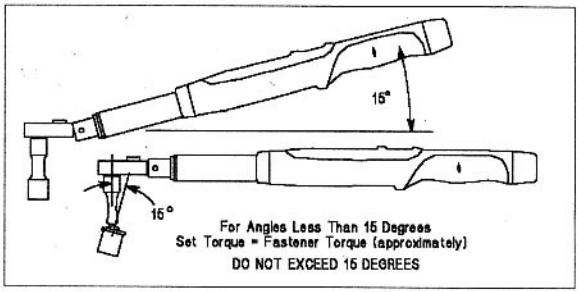
Fastener torque is greater than torque wrench square drive torque. Calculated setting will be lower than desired fastener torque.



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



When using wobble extension or a universal, do not exceed more than 15 degrees of offset from perpendicular drive. Do not use a long extension with the flex-drive at full flex.



SPECIFICATIONS

Display - 4-digit LCD, Low Battery Indicator.
Setting - display with no torque applied
Tracking - real time with torque applied
Peak - 10 sec. flashing at torque release

Display Capacity 8,000 Counts CW/CCW torque from 5% to 125% of full scale.

Model	Drive	Range ft-lb	in-lb	Nm
TECH1*	1/4in	1.00 - 20.00	2.0 - 240.0	1.35 - 27.12
TECH2	3/8in	5.0 - 100.0	60 - 1200	6.7 - 135.6
TECH3*	1/2in	12.5 - 250.0	150 - 3000	17.0 - 339.0
TECH4*	3/4in	30.0 - 600.0	360 - 7200	40.6 - 813.6

Accuracy (72°F)	CW	CCW	
	+/-2%	+/-3%	of reading from 20% to 100% of full scale
	+/-4%	+/-6%	of reading from 11% to 19% of full scale
	+/-8%	+/-10%	of reading from 5% to 10% of full scale

Torque Setting Resolution

TECH1*	0.1 ft-lb, 0.1 Nm, 0.1 in-lb
TECH2	1.0 ft-lb, 1.0 Nm, 1 in-lb.
TECH3*	1.0 ft-lb, 1.0 Nm, 1 in-lb.
TECH4*	1.0 ft-lb, 1.0 Nm, 1 in-lb.

Sealed Key Pad

⏻ **ON/ZERO** / power on - auto self check - zero
△ **UP** (+) / increments torque setting
▽ **DOWN** (-) / decrements torque setting
▢ **UNITS** / selects **Nm**, **ft-lb**, or **in-lb**, display

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

Dimensions -	length	weight
TECH1	16 I*	
TECH2	17 in	2.2 lbs.
TECH3	28 in*	
TECH4	42 in*	

Battery - three "AA" Alkaline cells, over 100 hours continuous operation.

Auto Shut-off - after 2 minutes idle with no torque applied.

(*) = preliminary specification

CALIBRATION

Contact your *Snap-on* sales representative for calibration services.

IMPORTANT

If you have an in-house calibration capability, instructions are available at:
www.snapon.com/torque/techwrench
Calibration by the user is recorded in the wrench memory and voids factory certification.

Equipment Required:
Precision test bars and certified calibration weights, or another torque source, accurate to 1/2% of reading.

CERTIFICATION

This torque wrench, as calibrated at the factory, is certified to meet the accuracy specified in International Standard ISO 6789 and was calibrated on a torque standard traceable to the National Institute of Standards Technology (N.I.S.T.).

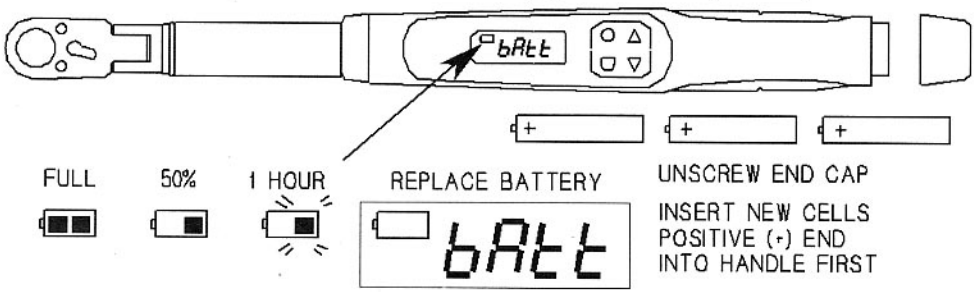
MAINTENANCE / SERVICE

Clean torque wrench by wiping with damp cloth. Do NOT use solvents, thinners or carburetor cleaners. Do NOT immerse in anything. Service, repair and calibration are to be done by Snap-on Service Centers only. Contact your Snap-on Tools representative. Ratchet head repair can be done by Snap-on Representative or user.

NOTE: If the display shows **"Err0"** at power on, the wrench is damaged and must be returned for repair

BATTERY REPLACEMENT

Replace with three "AA" Alkaline cells only (available anywhere).



AUTHORIZED SNAP-ON REPAIR CENTERS

USA

Eastern Repair Center
6320 Flank Drive
Harrisburg, PA 17112
Phone: 717-652-7914
Fax: 717-652-7123

Northern Repair Center
3011 E. State Rt. 176, Dock A
Crystal Lake, Il 60014
Phone: 815-479-6850
Fax: 815-479-6857

Southern Repair Center
2828A Pacific Drive
Norcross, GA 30091
Phone: 770-446-2929
Fax: 770-446-9203

Western Repair Center
6632 Fig Street, Unit B
Arvada, CO 80004
Phone: 301-442-9516
Fax: 301-442-0921

CANADA

Western Repair Centre
7403-48 Street SE
Calgary, Alberta
Canada, T2C-4H6
Phone: 403-720-0525
Fax: 403-720-0524

INTERNATIONAL

United Kingdom Repair Center
Telford Way
Telford Way Industrial Estate
Kettering, Northants
NN16 8UN England
Phone: 44-1-536-413855
Fax: 44-1-536-413900

Australia Repair Centre
Snap-on Tools australia PTY.LTD
Unit 6/110 Station Road
Seven Hills, NSW 2147
Australia
Phone: 61-2-8937-9155
Fax: 61-2-9624-2445

Singapore, Repair Center
Snap-on Tools Singapore PTE Ltd
128 Tagore Lane, Blk 4 Singapore
787554 Republic of Singapore
Phone: 011-65-451-5570
Fax: 011-65-451-5574

Japan Repair Center
Snap-on Tools Japan K.K.
3-5-12 Konan
Minato-KU, Tokyo 108
Japan
Phone: 81-3-5463-1280
Fax: 81-3-5463-1284

CONGRATULATIONS! You own the first electronic torque wrench designed exclusively for the professional technician.

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Kenosha, WI 53141-1410 USA

Form ZTECHWRENCH

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