



TORQUE SCREWDRIVERS - MICRO-ADJUSTABLE

Adjustable models offer versatility for applications that require more than one torque value. These torque screwdrivers are particularly suited for the electronics industry and for instrument assembly work. A simple, cam-over design prevents over-tightening and possible damage to components.

Torque settings are easily and accurately changed with a unique adjusting knob and easy-to-read window scale. Adjusting the screwdriver is simple. Just pull out the adjusting knob to unlock, turn to the desired setting, then push the knob in until it clicks!

Positive locking knob makes accidental setting changes impossible. Automatic lock in counterclockwise direction makes fastener removal a snap. The Micro-Adjustable series includes six models with torque settings ranging from 20 in. ozs. to 40 in. lbs.

Features

- 6 models available
- Positive locking pull down adjustment knob
- Trilobular comfort grip
- Universal 1/4" hex bit holder with strong rare earth magnet
- Cam-over torque limiting clutch
- Slip resistant finish
- Easy-to-read window scale
- Light weight
- Automatic lock in CCW direction for removing screws
- Accuracy: $\pm 6\%$ of indicated value, CW, from 20% to 100% of full scale
- Individually serialized with matching certificate of calibration traceable to N.I.S.T.
- Meets or exceeds ASME B107.300 - 2010

TORQUE SCREWDRIVERS - MICRO-ADJUSTABLE

Product Code	Torque Range	Increments	W x L Inches	Wt. Oz.
61SM	20 - 100 in. ozs.	1 in. oz.	1.1 x 5.5	6.8
151SM	3 - 15 in. lbs.	.2 in. lbs.	1.1 x 6.25	8.0
401SM	5 - 40 in. lbs.	.5 in. lbs.	1.2 x 6.75	10.8
61NSM	10 - 80 cNm	1 cNm	1.1 x 5.5	6.8
151NSM	40 - 200 cNm	2 cNm	1.1 x 6.25	8.0
401NSM	50 - 450 cNm	5 cNm	1.2 x 6.75	10.8



TORQUE SCREWDRIVERS - SINGLE SETTING

The tamper resistant design of the **Single Setting** series is particularly suited for high-volume use in assembly operations. A simple, cam-over design prevents over-tightening and possible damage to components.

Torque screwdrivers may be ordered factory pre-set at an additional charge or they may be easily set by the operator with any quality torque calibration system. The end cap removes for easy access to the 1/8" hex adjustment screw. A hex adjustment key is included with each driver.

The Single Setting series includes four models with available torque settings from 6 in. ozs. up to 40 in. lbs. When precision and repeatability are a must, the choice is simple - CDI Torque Screwdrivers.

Features

- Factory Pre-Set models are set at the factory to the customer's specified torque setting and are furnished with a Certificate of Calibration
- Please specify desired torque setting when order is placed
- 4 models available
- Trilobular comfort grip
- Universal 1/4" hex bit holder with strong rare earth magnet
- Cam-over torque limiting clutch
- Rugged, light weight aluminum body
- Automatic lock in CCW direction
- Accuracy: $\pm 6\%$ of indicated value, CW, from 20% to 100% of full scale
- Meets or exceeds ASME B107.300 - 2010



TORQUE SCREWDRIVERS - SINGLE SETTING

Product Code Un-Set	Product Code Factory Pre-Set	Torque Range	W X L Length	Wt. Oz.
21SP	21SP-SET	6-32 in.ozs	1.1 x 4.5	5.3
61SP	61SP-SET	10 - 100 in.ozs.	1.1 x 5.6	7.0
151SP	151SP-SET	1.5 - 15 in. lbs	1.1 x 5.6	7.0
401SP	401SP-SET	4 - 40 in. lbs.	1.2 x 6.3	9.6



CERTIFICATION

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

CONVERSION TABLE

To Convert		Multiply By
From	To	
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

Form 20-201-WIL
2020-09 REV -

FOR YOUR PERMANENT FILE

SCREWDRIVER MODEL NUMBER:

SCREWDRIVER SERIAL NUMBER:

LIMITED WARRANTY

The WILLIAMS Micro-Adjustable Torque Screwdriver 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!



REPAIRS

Send to:

Snap-on Specialty Tools

19220 San Jose Ave.

City of Industry CA, 91748

Find other fine torque products at
<https://www.williams-industrial.com>

OPERATION MANUAL

MICROMETER ADJUSTABLE TORQUE SCREWDRIVER



WILLIAMS[®]

SAFETY MESSAGES

WARNING

Read operation manual completely before using torque instrument and store for future reference.

Wear safety goggles-both user and Bystanders

- An out of calibration torque screwdriver can cause part or tool breakage.
- Periodic re-calibration is necessary to maintain accuracy.
- Do not exceed rated torque as overtorquing can cause screwdriver or part failure.
- Do not use torque instrument to break fasteners loose.

- Do not use cheater extension on the handle to apply torque.
- Broken or slipping tools can cause injury.

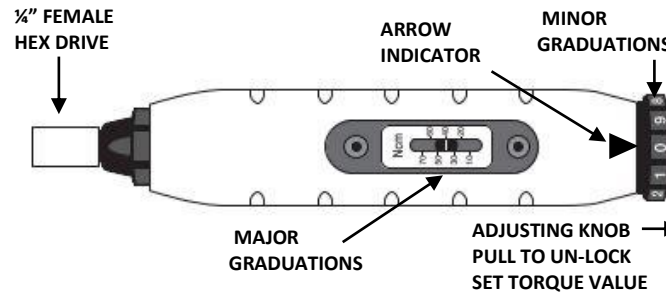
CAUTION - RATCHET HEAD

Ratchet mechanism may slip or break if dirty, mismatched or worn parts are used, or direction lever is not fully engaged. Ratchets that slip or break can cause injury.

MAINTENANCE / SERVICE

1. The torque screwdriver's internal mechanism is permanently lubricated during assembly. **Do not attempt to lubricate the internal mechanism.**
2. Clean torque screwdriver by wiping. **Do not immerse.**
3. Store torque screwdriver in protective tube at its lowest indicated torque setting or up to 20% of full scale. **Do not force knob below lowest setting.**

ADJUSTMENTS OF TORQUE SETTINGS



- A. To adjust knob hold body of screwdriver and firmly pull knob to rear. (See Figure IV).
- B. Set screwdriver to desired torque as follows
EXAMPLE - 22 Ncm.
 1. Turn adjusting knob clockwise until the major graduation line is aligned with the 20 on scale (See Figure I) and arrow indicator on screwdriver body is in line to "0" graduation on the adjusting knob.
 2. Turn adjusting knob two increments clockwise. Screwdriver is now set at **22 Ncm.** (See Figure II).

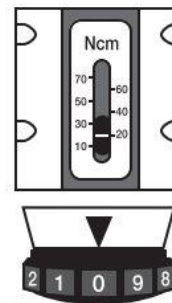


FIGURE I

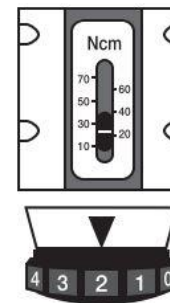


FIGURE II

3. To lock adjusting knob, push towards the drive until it clicks into the lock position. (See Figure III).
4. To torque fastener, keep hand centered on the screwdriver grip. Turn screwdriver clockwise until a click/impulse is heard or felt. The screwdriver will automatically reset for the next operation.

ADJUSTING KNOB LOCKED POSITION

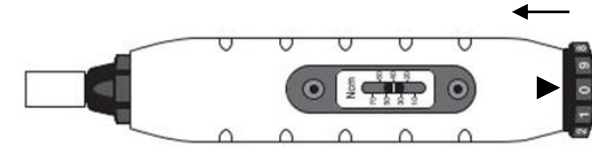


FIGURE III

ADJUSTING KNOB UNLOCKED POSITION

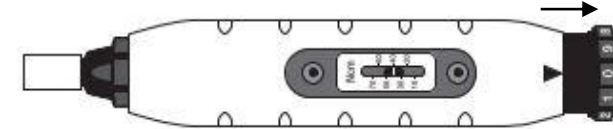


FIGURE IV

CERTIFICADO DE CALIBRACION

Esta llave está calibrada en fábrica y certificamos que cumple la precisión exigida por las normas y ASME. Adicionalmente, esta llave está calibrada con trazabilidad del National Institute of Standards and Technology (N.I.S.T.) de los Estados Unidos. Su llave se entrega con un certificado de calibración alojado en la caja del producto.

TABLA DE CONVERSIÓN

Para Convertir de	a	Multiplicar por
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cmkg	Nm	0.09806
mkg	in. lb.	86.7961
mkg	ft. lb.	7.23301
mkg	Nm	9.80665

GARANTÍA LIMITADA

La llave dinamométrica ajustable de micrómetro de escala dual con mango metálico WILLIAMS está respaldada por año de garantía. Esta garantía cubre defectos de fabricación y mano de obra. La garantía excluye el uso indebido, el abuso y el desgaste normal. La exclusión no está permitida en algunos estados y es posible que no se aplique. Esta garantía le otorga derechos legales específicos y es posible que tenga otros derechos que varían de un estado a otro.



Por favor recicla

NOTAS AMBIENTALES IMPORTANTES:

1. Este equipo puede contener materiales peligrosos que pueden ser dañinos para el medio ambiente.
2. No deseche este equipo como residuo municipal. Devuélvalo al distribuidor o al centro de recolección designado.

Gracias por preocuparse por nuestro medio ambiente!



**COBERTURA DE
REPARACIÓN Y SERVICIO**

Enviar a:
Snap-on Specialty Tools
19220 San Jose Ave.

Encuentre otros productos de torque fino en:
<https://www.williams-industrial.com>

LLAVES DINAMOMETRICAS DE DISPARO INSTRUCCIONES

DESTORNILLADOR DE TORQUE MICROJUSTAD



MENSAJES DE SEGURIDAD

ADVERTENCIA

Lea este manual en su totalidad antes de usar la llave dinamométrica, y guárdelo para referencia futura.

El operador y las personas cercanas deben utilizar gafas protectoras.

- Un destornillador de torque no calibrado puede causar la fractura de la pieza o de la herramienta
- Para mantener la precisión, es necesario recalibrar periódicamente la llave.
- No exceder el torque nominal prefijado, ya que puede provocar la fractura del destornillador o de la pieza.
- No utilizar la llave para soltar amarres agarrotados.
- No aplique extensiones en el mango.
- Las herramientas rotas o deslizantes pueden causar daños.

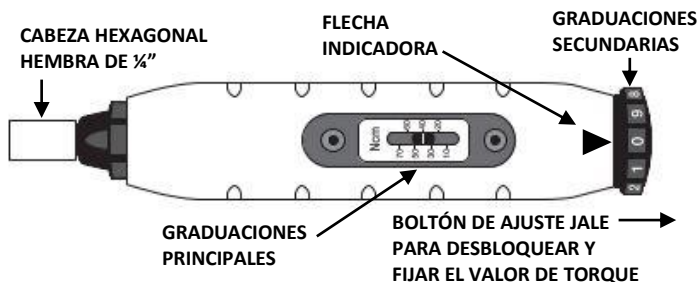
ATENCIÓN - CARRACAS

El mecanismo de la carraca puede saltar o romperse si está sucio, se usan repuestos inadecuados, tienen piezas desgastadas, o el sistema de selección no está completamente engatillado. Si la carraca salta o se rompe, se pueden producir

MANTENIMIENTO

1. El mecanismo interno del destornillador de torque se lubrica permanentemente durante el montaje. **No lubrique el mecanismo interno.**
2. Limpie el destornillador de torque frotándolo con un paño. **No la sumerja en fluidos.**
3. Guarde el destornillador de torque en su caja protectora ajustado al valor más bajo de torque. No force la empuñadura por debajo del ajuste más bajo.

ADJUSTE DE LOS VALORES DE TORQUE



- A. Para desbloquear el boltón de ajuste sostenga el cuerpo del destornillador y tire con fuerza hacia atrás. (ver fig. IV).
- B. Ajuste el destornillador al torque deseado como sigue: **EJEMPLO - 22 Ncm.**
 1. Gire el boltón de ajuste en el sentido de las manecillas del reloj hasta que la línea de la escala de graduación principal quede alineada con el 20 (ver fig. I) y la flecha indicadora del cuerpo del destornillador esté en línea con la graduación "0" del boltón de ajuste.
 2. Gire el boltón de ajuste unidades de increment en el sentido de las manecillas de reloj. El destornillador queda ajustado ahora en **22 Ncm.** (ver fig. II).
 3. Para bloquear el boltón de ajuste, empujelo hacia la cabeza transmisora hasta que haga click en la posición de bloqueo (ver fig. III).
 4. Para apretar un tornillo, mantenga la mano centrada en el mango del destornillador. Gire el destornillador en el sentido de las manecillas del reloj hasta que se escuche o sienta un click / impulse. El destornillador vuelve automáticamente a su posición original para la siguiente operación.

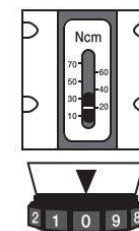


FIG. I

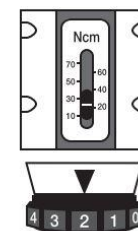


FIG. II

AJUSTE DEL BOTÓN - POSICIÓN DE BLOQUEO



FIG. III

AJUSTE DEL BOTÓN - POSICIÓN DE DESBLOQUEO



FIG. IV

NOTA SOBRE CARGA LATERAL:
AL APLICAR EL PAR TORSOR, DEBE MANTENERSE EL DESTORNILLADOR PERPENDICULAR AL PLANO DE USO (HORIZONTAL O VERTICAL). LAS IMPRECISIONES EN LAS LECTURAS DEL PAR TORSOR PUEDEN DEBERSE A LA APLICACIÓN DE UNA "CARGA LATERAL."

