



Model:

91350

Product Type:

**WORLD'S 1ST 350FT/LB
1/2" DRIVE TORQUE WRENCH**



WARNING



Study, understand and follow all instructions provided with this product. Read these instructions carefully before installing, operating, servicing or repairing this tool. Keep these instructions in a safe accessible place.

INTENDED USE OF THE TOOL

The 91350 Torque Wrench should be used to torque fasteners within its allowable torque ratings. Do not use this tool outside of the designed intent. Never modify the tool for any other purpose or use.



WARNING



Caution: To help prevent personal injury

- Use of this product can expose you to chemicals such as phthalates which are 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/product. Always wear ANSI approved safety equipment, safety glasses and clothing when using this product. Study, understand, and follow all instructions provided with this product. Failure to read and follow all warnings and operating instructions may result in damages and serious injury or death.
- Always wear ANSI approved goggles when using this product. (Users and By standers).
- Never use this tool for any application other than for which it was designed.
- Only use accessories designed for this tool.
- Never alter or modify this tool in any way.
- Improper operation and/or maintenance of the tool, modification of the tool, or use of the tool with accessories not designed for it could result in serious injury or death.
- Always select the correct accessories of the correct size and design for the job that you are attempting to perform.
- Always work in a clean, safe, well-lit, organized and adequately equipped area.
- Do not begin repairs without assurance that vehicle is in secure position, and will not move during repair.

BEFORE USE

When unpacking, check the parts diagram and part number listing on page 3 to make sure all parts are included. If any parts are missing or damaged, please call your distributor.

DO NOT DISCARD – GIVE TO USER



**Astro Pneumatic
Tool Company**

www.astrotools.com

1 YEAR LIMITED WARRANTY

- Astro Pneumatic Tool Co. warrants our products to the original user against defective material or workmanship for a period of 1 year (except where noted on our price schedule) from the date of 1st use. Astro reserves the right to determine whether the product failed because of defective material, workmanship or other causes and to charge back for missing parts. Astro Pneumatic Tool Co., at its discretion, will repair products covered under this warranty free of charge. The distributor should direct the original user to return the product (with the exceptions listed below) with the distributor's name, address, adequate proof of date of purchase or a copy of warranty card, and a short note explaining the problem. **Failures caused by accident, alteration, or misuse are not covered by this warranty.**
- Astro Pneumatic Tool Co. or its authorized service representatives must perform all warranty repairs. Any repair to the product by unauthorized service representatives voids this warranty. The rights under this warranty are limited to the original user and may not be transferred to subsequent owners.
- This warranty is in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of limitations of incidental or consequential damages so the above limitations may not apply to you.



**PLEASE DO NOT RETURN ANY PRODUCT WITHOUT CALLING
1-800-221-9705 FOR INSTRUCTIONS**



PRODUCT INFORMATION

- 70-350 ft-lb range for use on everything from small passenger car lug nuts to high torque spec chassis and equipment all with your current 1/2" sockets
- Avoid the additional cost and storage space needed for 3/4" sockets and attachments
- 72-tooth head, locking micrometer style adjustment and 31.5" overall length for added leverage

Specification:

Square Drive: 1/2"

Range: 70-350 ft-lb

Resolution: 2 ft-lb

Length: 31.5"

Mechanism: 72-tooth

Accuracy: +/- 2%



Model:

91350

Product Type:

**WORLD'S 1ST 350FT/LB
1/2" DRIVE TORQUE WRENCH**

EXTENSIONS & 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:

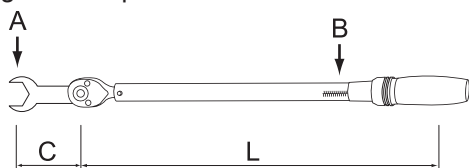
$$A = \frac{L + C}{L} \times B$$

A = Torque exerted @ end of adapter

L = Distance between square drive and hand position

B = Wrench scale reading

C = Length of adapter or extension



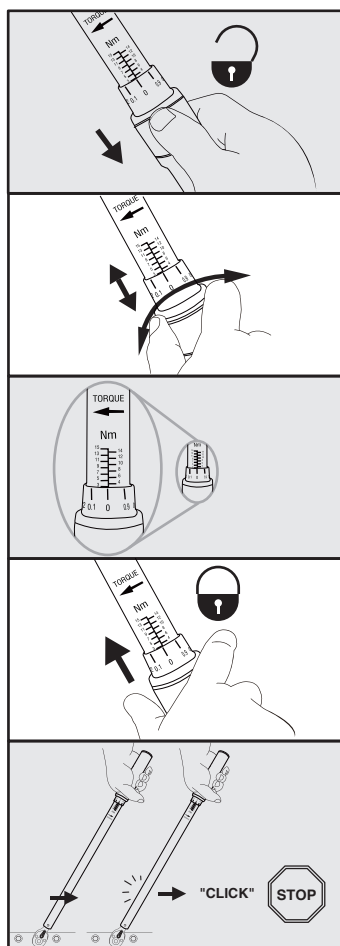
A number of variables including the length of the adapter or extension, length of the wrench and variations in hand position on the wrench will affect the accuracy of the above calculation.

STANDARD

We calibrate each torque wrench at the factory using torque standards according to DIN ISO 6789 & ASME B107.300-2010, and certifies it meets the accuracy requirements of specifications DIN ISO 6789 and ASME B107.300-2010.

CONVERT FROM	TO	MULTIPLY BY
ozf-in	lbf-in	0.0625
lbf-in	ozf-in	16
lbf-in	kgf-cm	1.1519
lbf-in	lbf-ft	0.083333
lbf-in	kgf-m	0.011519
lbf-in	N-m	0.1130
lbf-in	dN-m	1.130
lbf-ft	N-m	1.356
lbf-ft	kgf-m	0.1382
lbf-ft	lbf-in	12
N-m	dN-m	10
N-m	kgf-cm	10.20
N-m	kgf-m	0.10197
N-m	lbf-in	8.8507
N-m	lbf-ft	0.73756
dN-m	lbf-in	0.885
dN-m	N-m	0.100
kgf-cm	lbf-in	0.8681
kgf-cm	N-m	0.09807
kgf-m	lbf-ft	7.233
kgf-m	N-m	9.807

OPERATION



1. Unlock

2. Adjust

3. Align scale

4. Lock

5. Apply torque

SAFETY INSTRUCTIONS



WARNING

RISK OF FLYING PARTICLES

- The torque wrench may only be used for the controlled tightening of screws and nuts.
- The torque wrench is a measuring/testing instrument and they must not be used to loosen screw connections.
- Function direction: The torque wrench can only be operated clockwise to check the torque (according to the marking on the torque wrench).
- Never use torque wrench to break loose fasteners.
- Never use torque wrench as a lever bar.
- Use of damaged hand tools, sockets, extensions and accessories may result in injury.
- Do not use torque wrench as a hammer.
- Torque wrenches not in calibration may cause damage to parts or tools.
- Do not use extensions on handle as damage to torque wrench will result.
- Over tightening of fasteners may result in breakage.



**ALWAYS USE EYE PROTECTION
WHILE USING HAND TOOLS**



**INJURY MAY RESULT FROM
ELECTRICAL SHOCK**

- Handle is not insulated, do not use on live electrical or high voltage circuits.



Model:

91350

Product Type:

**WORLD'S 1ST 350FT/LB
1/2" DRIVE TORQUE WRENCH**

CARE AND MAINTENANCE

1. The torque wrench is a precision instrument, and should be stored with care. Don't throw it around, use to hammer with it, or use it as lever bar.
2. The torque wrench is lubricated for life and should not be oiled. The only exception is the ratchet head which may be lubricated as needed for smooth operation.
3. The torque wrench is a precision measuring instrument. Calibration must be done regularly to ensure accuracy and it's the owner's responsibility. Suggested calibration period is at least every 12 months or even shorter depending on situation.
4. Always store the torque wrench in the box after use to stay away from dirt and humidity.
5. Never disassemble the torque wrench by yourself. For any need to disassemble the torque wrench or repair it, please look for assistance from a qualified service station. Any incorrect action to disassemble the torque wrench may result in damage to this instrument.
6. Setting the torque value to the lowest scale value after use to preserve calibration of the tool.
7. The calibration of the torque wrench may only be carried out by an authorized laboratory or workshop.

Call 1.800.221.9705 for questions concerning performance of the product or other inquiries.

PARTS BREAKDOWN

