



Model:

78850

Product Type:

**SPINNING HANDLE TORQUE
LIMITING EXTENSION SET****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.

**Astro Pneumatic
Tool Company****INTENDED USE OF THE TOOL**

The Spinning Handle Torque Limiting Extensions are design to limit torque delivered to lug nuts when using an impact wrench. **These tools are not designed for reaching the final torque specification. Always follow use with torque wrench.** Do not use this tool outside of the designed intent. Never modify the tool for any other purpose or use.

PRODUCT INFORMATION

- Spinning handles allow user to hold attachment while in operation for convenience and speed
- Quickly attach wheels to the vehicle with your impact and socket
- 5-piece set covers over 91.5% of vehicles on the road

Because the purpose of these tools is to limit torque, some extensions can be used for other applications within 5 ft. lbs. above their rating.

80: Use on 80 ft. lbs.

90: Use on 90 ft. lbs. & 95 ft. lbs.

100: Use on 100 ft. lbs. & 105 ft. lbs.

120: Use on 120 ft. lbs. & 125 ft. lbs.

140: Use on 140 ft. lbs.

Always calibrate (page 2) before use.

**ALWAYS USE A TORQUE WRENCH
AFTER USE TO REACH FINAL TORQUE SPEC.**

**WARNING****Caution: To help prevent personal injury**

- Use of this product can expose you to lead, which is known to the State of California to cause cancer, birth defects, or reproductive harm. For more information, visit www.P65Warnings.ca.gov. Always wear the proper 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



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Torque Levels With Your Impact

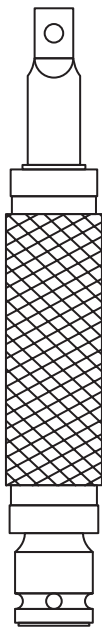
Explanation	The Spinning Handle Torque Limiting Extension Set is calibrated from the factory and therefore it is static. Because the torque level is determined when machined, it cannot change and the user must calibrate how they use, and what they use with the extensions below to obtain the desired torque level.
1. Torque	Use a torque wrench with the adapter to torque a lug nut to the level you wish to limit torque to. Mark with chalk or a paint pen on the lug nut and the face of the hub or wheel at the same location. Remove the lug nut with a breaker bar. Select the extension whose rating matches closest to the level you torqued the lug nut to. Install your impact socket and attach to your impact gun.
2. Test	Set your impact to the middle power level and install the lug nut on with the torque limiting extension until it appears to stop rotating (usually 1-2 seconds). Visually check if the marks on the lug nut and hub or wheel face align. If the mark is not rotated far enough, remove the lug nut, increase the power level and perform the test again until the power level of your impact reliability hits the mark you made. If the mark rotates too far do the opposite. Once determined, always use this air pressure and power setting.
3. Adjust	If in the less common instance that your impact gun at its lowest power setting is too high, or at the highest power setting too low, and you are still unable to align your test marks closely enough and adjusting air pressure supply is not an option consider these solutions: <ul style="list-style-type: none">A) Modify the mass of your extension. This can be done by choosing a different impact socket, for instance deep vs. shallow. More mass will increase the calibration torque level of the whole tool.B) Use a different impact gun if available. Power level has some effect, but IPM (impact per minute) is the primary determinant of how close the extension will perform to its stated value from the factory. An impact gun with a higher IPM will not allow a torque limiting extension to rotate back and fight against the impact gun.C) Ensure you are not over impacting the extension (i.e longer than around 2 seconds).
4. Select	Depending on the impact gun and/or socket you need to use to get the job done on a daily basis, if the torque range you wish to hit is still not obtainable, you may need to use a different torque extension from the set. For instance, if through testing you determine your 90 ft. lbs. stick is always 10 ft. lbs. low with your set-up it would not be uncommon to need to use the 100 ft. lbs. extension from then on, as long as the results are consistent. Consistent repeatable results are the intention of the product in order to ensure it does not go over a certain value. Reaching specific torque values is meant to be done with a torque wrench.
5. Always Finish With A Torque Wrench	As mentioned above, this set is designed solely to LIMIT torque. It is not designed to hit a specific torque range of your choosing, this task should always be done with a torque wrench. For example, if you're wishing to torque a vehicle's lug nuts to 100 ft. lbs., the 80 or 90 ft. lbs. extension might be a good choice to quickly install the wheels on the car and ensure in doing so, you will not exceed the recommended torque level. Once the car is on the ground, torque the lug nuts to the final 100 ft. lbs. with a calibrated torque wrench. Using this tool as the only method to fasten bolts and nuts with a required torque value is not recommended and the user does so at their own risk.



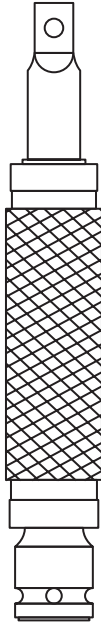
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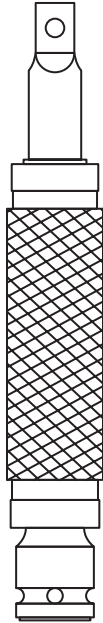
PARTS BREAKDOWN



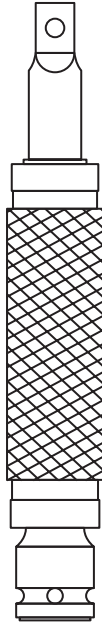
1
(Yellow)



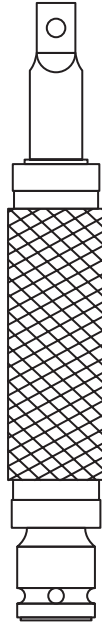
2
(Red)



3
(Blue)



4
(Gray)



5
(White)

Parts List

<i>Index</i>	<i>Part No.</i>	<i>Description</i>	<i>Qty</i>
1	788501	80 ft. lbs. Spin Torque Extension	1
2	788502	90 ft. lbs. Spin Torque Extension	1
3	788503	100 ft. lbs. Spin Torque Extension	1
4	788504	120 ft. lbs. Spin Torque Extension	1
5	788505	140 ft. lbs. Spin Torque Extension	1