



MODEL:

ADN14

PRODUCT TYPE:

RIVET NUT DRILL ADAPTER KIT**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

This tool is designed to be used with a cordless drill that uses a clutch to limit torque to different settings. Use tool to set aluminum, steel and stainless rivet nuts up to 1/4" (6mm) in sheet metal. 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**

- Normal use of this product is likely to expose the user to dust and/or microscopic particles containing chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Always wear appropriate safety equipment 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.

RIVET NUT DRILL ADAPTER KIT

MADE IN CHINA

**Astro Pneumatic
Tool Company****Before Use**

When unpacking, check the parts diagram and part number listing on page 4 to make sure all parts are included. If any parts are missing or damaged, please call your distributor.

PRODUCT INFORMATION:

- Easily convert cordless or corded drills into power rivet nut setters
- Includes 8 mandrels and nosepieces in Metric and SAE: M3, M4, M5, M6, 8-32, 10-32, 10-24 and 1/4-20
- Innovative design withstands 4X the pulling force of other adapters, and features a CNC machined billet aluminum body and Cr-Mo mandrels.
- Use 12V and up cordless drills for aluminum and steel rivet nuts, or 14.4V and up for stainless up to 1/4" (all drills must feature torque limiting clutch)

DO NOT DISCARD – GIVE TO USER



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RIVET NUT DRILL ADAPTER KIT**I. Product Technical Data:**

Dimensions: 8.5" x 5.5" x 2.4"

Weight: 2.4 lbs

Hex Shank Size: 1/4"

Riveting Capability:

Rivet Nut Size		SAE 8-32	SAE 10-24	SAE 10-32	SAE 1/4-20	M3	M4	M5	M6
Nut Material	Aluminum	✓	✓	✓	✓	✓	✓	✓	✓
	Steel/Copper	✓	✓	✓	✓	✓	✓	✓	✓
	Stainless Steel	✓	✓	✓	✓	✓	✓	✓	✓

Rivet Type: Rivet Nut

Stroke Limit: Maximum 0.7 inch

Working Torque: Refer to section **III. Operation Guide**

Recommended RPM: Low speed (<240 RPM)

Requirements of Driving Tools: Requirements of cordless driving tool:

- adjustable torque setting
- chuck capacity of 6.35 mm (1/4") shank
- min 12V and maximum torque > 190 in/lbs for aluminum and rivet nuts
- min 14.4V and maximum torque > 250 in/lbs for stainless steel rivet nuts
- clutch provides a felt and/or audible indication of reaching max setting

Requirements of electric or pneumatic driving tool:

- adjustable torque setting
- chuck capacity of 6.35 mm (1/4") shank
- with maximum torque > 190 in/lbs for aluminum and steel rivet nuts
- with maximum torque > 250 in/lbs for stainless steel rivet nuts
- clutch provides a felt and/or audible indication of reaching max setting

Sizing Chart:

Rivet Nut	Rivet Nut Diameter	Drill Hole Size	Grip Range
M3	4.9mm OD	5mm (13/64")	26 – 16ga
M4	5.9mm OD	6mm (7/32")	26 – 16ga
M5	6.87mm OD	7mm (9/32")	26 – 16ga
M6	8.80mm OD	9mm (3/8")	26 – 13ga
8-32	5.9mm OD	6mm (7/32")	26 – 16ga
10-32	6.87mm OD	7mm (9/32")	26 – 16ga
10-24	6.87mm OD	7mm (9/32")	26 – 16ga
1/4-20	8.9mm OD	9mm (3/8")	26 – 13ga

II. SAFETY GUIDE:

1. Wear adequate protective gear including ANSI approved goggles and **thick work gloves**.
2. Only use the nut riveting adapter with driving tool that matches with requirements specified on **Product Technical Data**.
3. Switch off the driving tool before installing or uninstalling the nut riveting adapter.
4. The objects to be riveted **MUST BE SECURELY FIXED BEFORE** riveting in order to avoid possible injury. Unsecured objects may rotate with the driving tool if not secured.
5. The driving tool **MUST** be stopped if user releases the adapter's body during riveting.
6. During disassembly for mandrel changing or **Maintenance**, take care as there are pre-loaded springs within the tool.



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III. OPERATION GUIDE:

WARNING: The objects to be riveted **MUST BE SECURELY FIXED BEFORE** riveting in order to avoid possible injury. Unsecured objects may rotate with the driving tool if not secured.

IMPORTANT: Ensure the threads on mandrels are clean and the loaded rivet nut has full thread engagement with threaded mandrel during riveting. It is strongly recommended to clean and lubricate (ex. silicone spray) the threads on mandrels before and after use.

CRITICAL: Before using the tool on your intended work piece, it is **REQUIRED** that you test the tool with a rivet nut on a test piece to determine the adequate torque needed for your rivet nut size, rivet nut material, and sheet metal thickness and material.

- Ensure drill is in "drive" mode and not drill mode. Different drills will require different torque limiting settings for the same material.
- On the test piece, set your drill to a low clutch setting and work up to higher settings until the torque level is enough to fully set the rivet nut but not over set - **WARNING:** Over setting rivet nuts may permanently damage the mandrel or tool.
- Once the torque level is determined, test again on a new hole at your intended setting to confirm. The knurled part of the rivet nut should look mushroomed and starting to become flat on the other side of the work piece and should not rotate when you install a bolt.

1. Tool Installation:



Install a new mandrel and nosepiece to match your intended rivet nut thread size. Use the included wrench to install the new mandrel into the #2 Plunger Tube. Ensure that the mandrel and other components are tightly fixed in position. After installing the front bushing cover and lock bushing, lightly tighten the new nosepiece onto the end of the tool. Install the hex shank drive end of the tool into your drill and affix tightly into its chuck.

2. Riveting:

- 2.1 While holding the adapter with your hand, operate the drill in the REV direction until you hear the adapter start to click. This means it has fully exposed the mandrel.
- 2.2 Switch the drill to the FWD setting.
- 2.3 Manually thread the selected rivet nut onto threaded mandrel; or hold the rivet nut in one hand and use another hand to pull the drill trigger slightly to have the nut threaded on by the tool.

2.4 Ensure the rivet nut has adequate thread engaged and that there is no cross threading. Check and confirm the objects to be riveted are **SECURE**.

2.5 Some small amount of clearance between nose piece and the flange of rivet nut may be beneficial to operation, but keep adequate thread engagement on the nut.

2.6 Refer to Section III. for determining the proper drill torque settings. (REQUIRED).

2.7 Put the rivet nut now threaded onto the tool's mandrel fully into the proper size hole (see Sizing Chart on page 2).

2.8 Align the adapter with the hole angle as best you can. While gripping the adapter firmly with one hand (wear work gloves), operate the drill in the FWD direction until you feel or hear the drill's torque clutch catching. The adapter should not rotate while the drill works. Release your grip on the adapter and reverse the drill out of the rivet nut. Depending on the material, you may need to manually help the adapter thread out of the rivet nut with your off hand.

Tip 1: If the torque setting of your drill is too high, not on, or on a drill setting, you WILL damage the rivet nut, workpiece, mandrel or tool. Monitor threads for burrs and lubricate when needed.

Tip 2: Make a note of the torque setting matching your application for future use.

IV. MAINTENANCE:

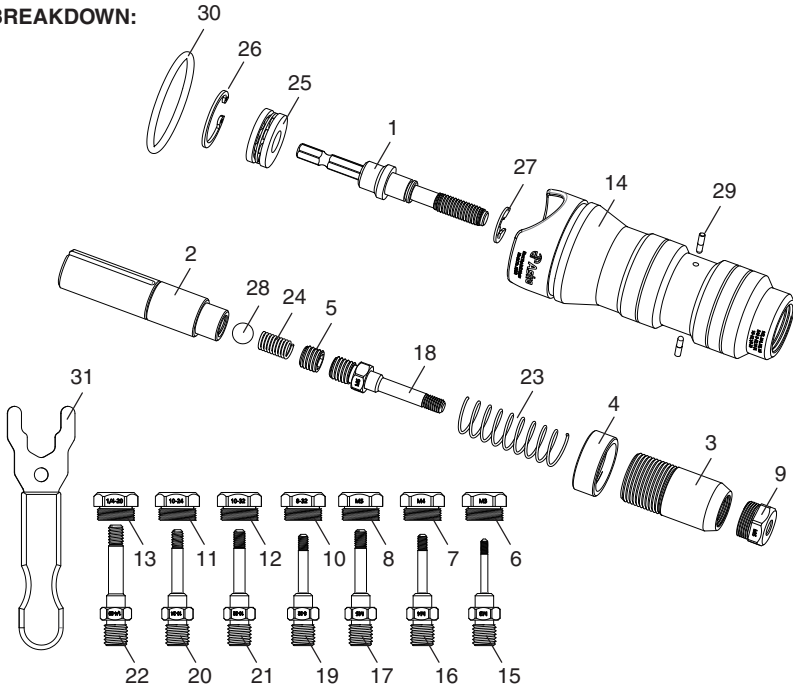
1. The nut riveting adapter is lubricated before shipping. Recommended: cleaning the components of plunger tube, and using lubricant grease to re-lubricate its parts on a yearly basis or earlier.



2. Threaded mandrel replacement:

Life span of threaded mandrel varies with usage frequency and the uses of different rivet nut sizes/types. Recommended: replacing the threaded mandrel with new spare and its nosepiece before worn-out.

PARTS BREAKDOWN:



Parts List

Index	Part No.	Description	Qty
1	ADN14-01	Hex Shank Driving Shaft	1
2	ADN14-02	Plunger Tube	1
3	ADN14-03	Front Bushing w/Knurling	1
4	ADN14-04	Locking Bushing	1
5	ADN14-05	Set Screw	1
6	ADN14-M3N	M3 Nosepiece	1
7	ADN14-M4N	M4 Nosepiece	1
8	ADN14-M5N	M5 Nosepiece	1
9	ADN14-M6N	M6 Nosepiece	1
10	ADN14-8-32N	SAE 8-32 Nosepiece	1
11	ADN14-10-24N	SAE 10-24 Nosepiece	1
12	ADN14-10-32N	SAE 10-32 Nosepiece	1
13	ADN14-1/4-20N	SAE 1/4-20 Nosepiece	1
14	ADN14-14	Aluminum Handle	1
15	ADN14-M3M	M3 Mandrel	1
16	ADN14-M4M	M4 Mandrel	1

Index	Part No.	Description	Qty
17	ADN14-M5M	M5 Mandrel	1
18	ADN14-M6M	M6 Mandrel	1
19	ADN14-8-32M	SAE 8-32 Mandrel	1
20	ADN14-10-24M	SAE 10-24 Mandrel	1
21	ADN14-10-32M	SAE 10-32 Mandrel	1
22	ADN14-1/4-20M	SAE 1/4-20 Mandrel	1
23	ADN14-23	Front Spring	1
24	ADN14-24	Inner Spring	1
25	ADN14-25	Thrust Ball Bearing	1
26	ADN14-26	C-clip	1
27	ADN14-27	E-clip	1
28	ADN14-28	Steel Ball	1
29	ADN14-29	Pins	2
30	ADN14-30	O-ring	1
31	ADN14-31	Wrench Kit	1
32	ADN14-32	Blow Mold Case	1