Model:

PRN2

Product Type:

1/2" CAPACITY AUTOMATIC RIVET NUT SETTING KIT - METRIC & SAE

⚠ 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

www.astrotools.com

INTENDED USE OF THE TOOL

This tool intended to be used to set M5-M12 and 10-24"-1/2" aluminum and steel rivet nuts. Operate only at the require air pressure necessary. Do not over-set rivet nuts. 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**

BEFORE USE

When unpacking, check the parts diagram and part number listing on page 5 to make sure all parts are included. If any parts are missing or damaged, please call your distributor.

DO NOT DISCARD – GIVE TO USER

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.**
- **If one part of this product fails, please do not return the entire product. Astro will replace free of charge component parts of this product that fail within 1 year of first use by the original user. Items included in this category include but are not limited to kits, hand tool kits and any other product where there are multiple items or components that make up the unit. Please contact the phone number below in order to obtain the replacement components covered under 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

- Fully automated operation. One pull of the trigger sets and unthreads the tool from rivet nuts up to M12 and 1/2"
- Includes 10 mandrels / nosepieces in the following sizes: M5, M6, M8, M10, M12, 10-24, 1/4", 5/16", 3/8", 1/2"
- 4720 lbs of instant air-hydraulic pulling force
- Up to 7mm of adjustable stroke length, set by rotating the rear drum to your desired stroke setting

Specification:

Traction Power:	4720 lbs of force
Tool Stroke:	7mm max
Work Capacity:	1/2"
Air Inlet:	1/4" PT

Model:

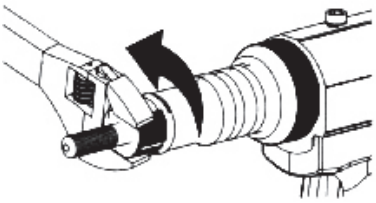
PRN2

Product Type:

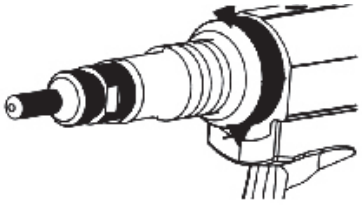
1/2" CAPACITY AUTOMATIC RIVET NUT SETTING KIT - METRIC & SAE

CHANGING MANDRELS

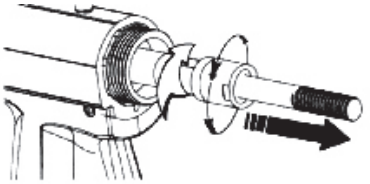
Disassembly



1. Turn Nosebiece counter clockwise to remove.

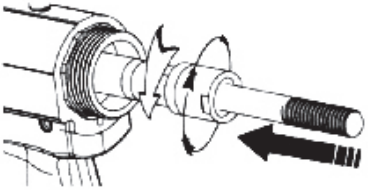


2. Turn Screw Cap and Seat counter clockwise to remove.



3. While holding down the Elastic Pin, rotate mandrel counter clockwise to remove

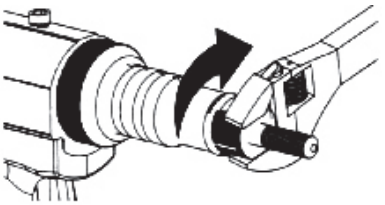
Installation



1. While holding down the Elastic Pin, Rotate mandrel dockwise to install.

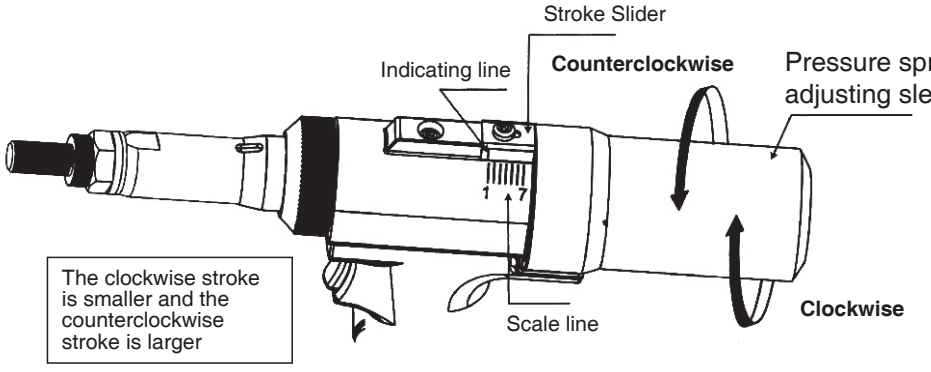


2. Screw the Screw Cap and Seat clockwise to install.

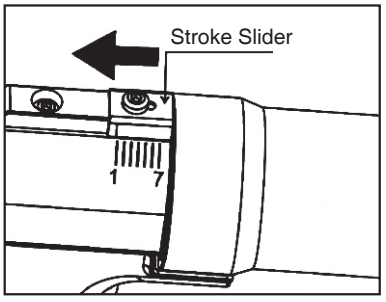


3. Screw Nosepiece clockwise to install.

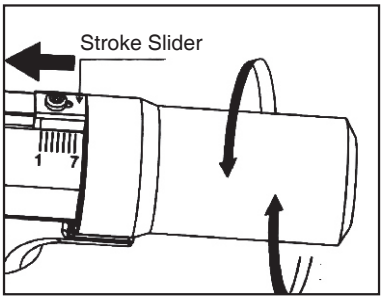
STROKE ADJUSTMENT



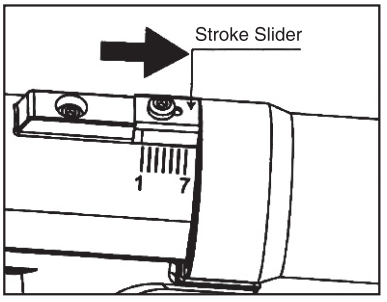




1. Loosen the stroke slider.



2. Rotate the pressure spring adjusting sleeve to the proper stroke (refer to the rivet stroke calculation).



3. Lock Stroke Slider in position, adjustment complete.

PRIMING

Priming is ALWAYS necessary after the tool has been dismantled and prior to operating. It may also be necessary to restore the full stroke after considerable use, when the stroke may be reduced and fasteners are not fully placed by one operation of the trigger.

OIL DETAILS

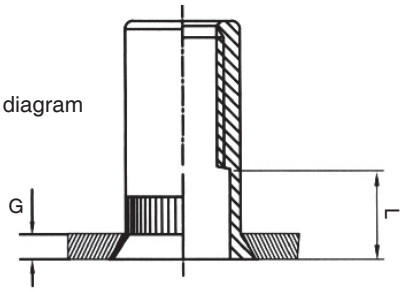
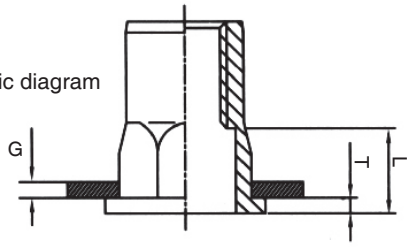
The recommended oil for priming is mineral oil based hydraulic oil like Castrol Hyspin VG 32 or other.

OPERATION AND MAINTENANCE

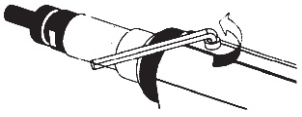
The following adjustments are essential to ensure optimum riveting performance. Therefore, it is recommended to have the same thickness and the same hole test plate as the machine.
The adjustment pattern in front of the upper assembly line. The stroke is too small, the riveting nut deformation is insufficient, the working riveting is not tight; the stroke is too large, the riveting nut excessive deformation, easy to pull bad riveting nut and drawing screw thread.

NOTE: IN ORDER TO ACHIEVE THE BEST ADJUSTMENT EFFECT, PLEASE USE THE FOLLOWING METHOD TO CALCULATE THE RIVET STROKE

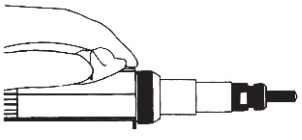
RIVET STROKE CALCULATOR

Countersunk head/small countersunk head series rivet nuts	Flat head series rivet nuts
Schematic diagram  L = deformation region G = riveting workpiece thickness **Calculation method** **L-G = Rivet stroke.**	Schematic diagram  L = deformation region G = riveting workpiece thickness T = brim thickness **Calculation method** **L-T-G = Rivet stroke.**

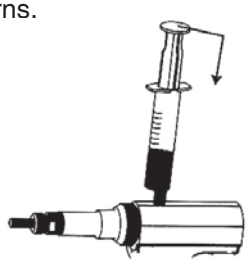
Hydraulic Fluid: If stroke adjustment still can not be reached, check to add hydraulic oil. after adjusting the pressure sleeve rotated counterclockwise 6 turns.



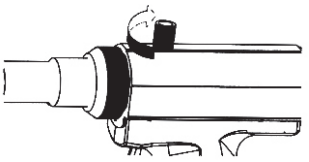
1. Use the provided hex wrench to remove the oil-filling screw located on the top of the tool.



2. Drain the oil once the top fill screw is removed.
Then connect your air supply source to the tool. Use a shop rag to cover the oil fill hole and pull the trigger so the residual hydraulic oil can be discharged.
Then release the trigger to disconnect the air source.



3. Use the oiling syringe to inject about 15ML of hydraulic oil in the oil filling hole.
Once finished filling tool with hydraulic oil, wipe off the excess oil that may have dripped.



4. Once finished with filling with oil, inspect the O-ring on the oil filling screw for tears or cracks.
If not damaged, reinstall and tighten the oil-filling screw.

Model: **PRN2**

Product Type:
1/2" CAPACITY AUTOMATIC RIVET NUT SETTING KIT - METRIC & SAE

MAINTENANCE INSTRUCTION

1.) LUBRICATION:
Before connection of the hose, apply 4 to 5 drops of a good quality air tool oil at the air inlet.
After 3 to 4 hours of operation, oiling may be necessary again.

2.) TIGHTNESS OF PARTS:
Regularly check whether all connecting parts are **fastened securely. Follow this procedure daily before beginning work.**

3.) STORAGE:
Avoid storing the tool in a location subject to high humidity. If the tool is left unused, the residual moisture inside the tool can cause rust. Before storing and after operation, oil the tool at the air inlet with a good quality air tool oil and run it for a short period.

4.) DISPOSAL:
Follow national legislation of waste disposal.

5.) ORDERING SERVICE PART:
For further operational and handling information or for replacement of parts and components, contact the sales agent from where you purchased the tool, or the service division of our company, phone number 800-221-9705.
* When ordering parts and components, give each part number, name, and quantities.

Users of this tool should review the chemical composition of the work surface and any products used in conjunction with this tool for any such chemicals prior to engaging in any activity that creates dust and/or microscopic particles.

Users should obtain the Material Safety Data Sheets for all identified chemicals, either from the manufacturer or their employer, and proceed to study, understand, and follow all instructions and warnings for exposure to such chemicals.

Some examples of these chemicals are: lead from lead based paints; crystalline silica from bricks, cement and other masonry products; and arsenic and chromium from chemically treated lumber. A listing of the chemicals can be obtained at www.oehha.ca.gov under Propoisition 65.

In order to reduce their exposure to such chemicals, users should always:
- work in well-ventilated areas.
- wear appropriate safety equipment and clothes that are specifically designed to filter out microscopic particles.

⚠ WARNING ⚠

1. The tool shall not be used in potentially explosive atmospheres.
2. Disconnect the air hose before changing or adjusting any inserted tools.
3. Before using tool, please confirm all couplings and plugs are fixed securely. An air hose that is under pressure may lash out when disconnected and could lead to serious injuries.
4. Prevent loose clothes, long hair or any other personal accessories from coming close to moving parts to reduce the risk of being caught, trapped or drawn into the rotating spindle.
5. Excessive high air pressure that exceeds the maximum pressure may cause injuries to user.
6. Exposure to strong vibration for extended time may cause harm to operator.
7. Be aware of the rotation direction before starting the tool to reduce hazardous situations due to unexpected rotation direction.
8. WATCH YOUR STEP! Leaving excess hose unattended near working area or walk path could result in injury or death.
9. Wearing eye/face protection could reduce the danger to person from high speed splinters being emitted from the tool or work surface.
10. Wearing correct breathing protection will help avoid inhaling dust or debris from work process that can be harmful to your health.
11. High sound levels can cause permanent hearing loss. Use hearing protection while operating tool.
12. Due to the material being processed, there may be a risk of explosion or fire. Be aware of work surface dangers prior to beginning work.
13. There is a risk of being cut due to high speed rotation. Do not touch high speed rotating disc.
14. This power tool is not insulated. If contact is made with an electric current, injury may occur.
15. Dust created by sanding, sawing, grinding, drilling and other related activities may expose the user to dust and/or microscopic particles that may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Model:

PRN2

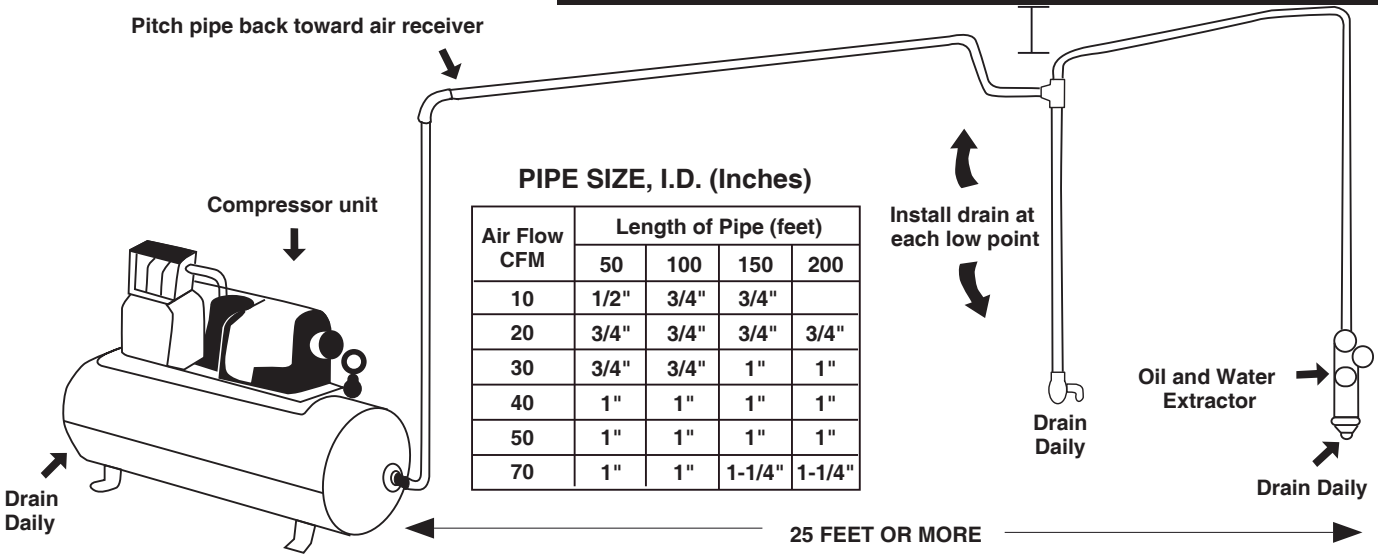
Product Type:

1/2" CAPACITY AUTOMATIC RIVET NUT SETTING KIT - METRIC & SAE

The oil and water extractor should not be mounted on or near the air compressor.

The temperature of air is greatly increased during compression. As the air cools down to room temperature, in the air line, on its way to the Air Power Tool, the moisture contained in it condenses. Thus, for maximum effectiveness, the oil and water extractor should be mounted at some point in the air supply system where the temperature of the compressed air in the line is likely to be lowest. Air lines must be properly drained daily. Each low point in an air line acts as a water trap. Such points should be fitted with an easily accessible drain. See diagram below. Pitch all air lines back towards the compressor so that condensed moisture will flow back into the air receiver where it can be drained off.
Drain daily.

SUGGESTED AIR LINE CONNECTION

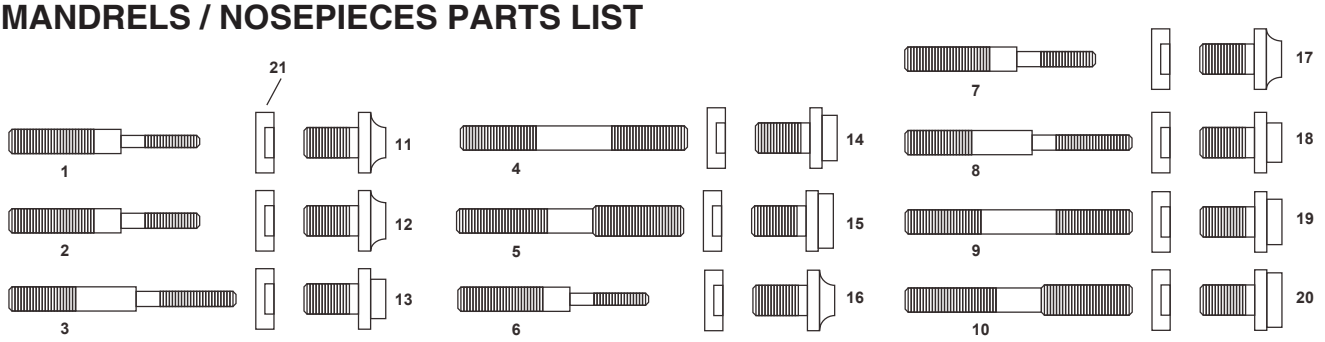


PIPE SIZE, I.D. (Inches)

Air Flow CFM	Length of Pipe (feet)			
	50	100	150	200
10	1/2"	3/4"	3/4"	
20	3/4"	3/4"	3/4"	3/4"
30	3/4"	3/4"	1"	1"
40	1"	1"	1"	1"
50	1"	1"	1"	1"
70	1"	1"	1-1/4"	1-1/4"

Oil and Water Extractor should be at least 25 ft. from the compressor. Further if possible.

MANDRELS / NOSEPIECES PARTS LIST



Index	*Part No.*	*Description*	*Qty*
1	PRN2-A116	M5 Mandrel	1
2	PRN2-A117	M6 Mandrel	1
3	PRN2-A118	M8 Mandrel	1
4	PRN2-A119	M10 Mandrel	1
5	PRN2-A120	M12 Mandrel	1
6	PRN2-A121	10-24" Mandrel	1
7	PRN2-A122	1/4" Mandrel	1
8	PRN2-A123	5/16" Mandrel	1
9	PRN2-A124	3/8" Mandrel	1
10	PRN2-A125	1/2" Mandrel	1

11	PRN2-A126	M5 Nosepiece	1
12	PRN2-A127	M6 Nosepiece	1
13	PRN2-A128	M8 Nosepiece	1
14	PRN2-A129	M10 Nosepiece	1
15	PRN2-A130	M12 Nosepiece	1
16	PRN2-A131	10-24" Nosepiece	1
17	PRN2-A132	1/4" Nosepiece	1
18	PRN2-A133	5/16" Nosepiece	1
19	PRN2-A134	3/8" Nosepiece	1
20	PRN2-A135	1/2" Nosepiece	1
21	PRN2-A136	Sleeve	10

Model:

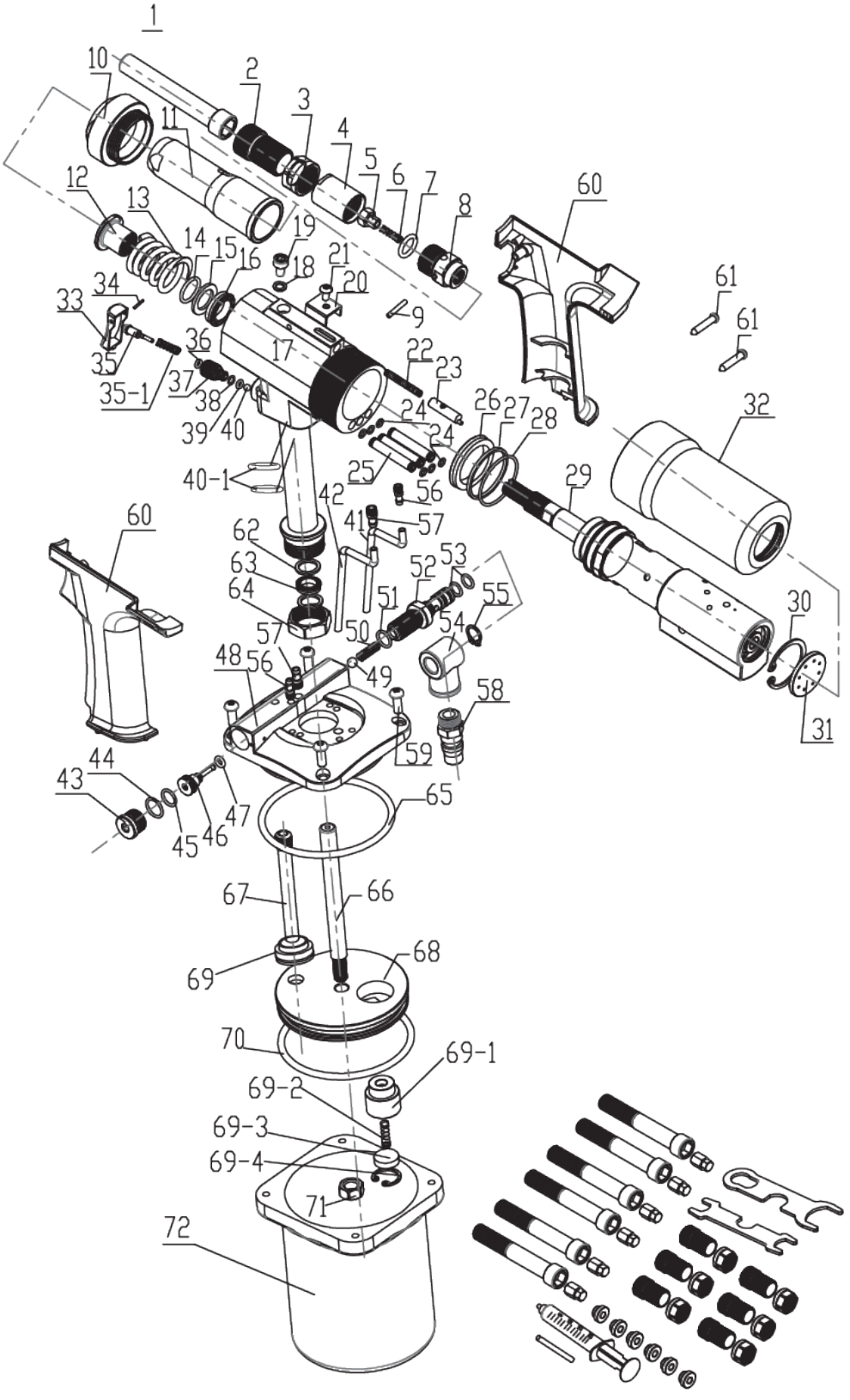
PRN2

Product Type:

1/2" CAPACITY AUTOMATIC RIVET NUT SETTING KIT - METRIC & SAE

PARTS BREAKDOWN

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



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

Parts List

Index	Part No.	Description	Qty
1	PRN2-A01	Drawing screw	1
2	PRN2-A02	Gun head	1
3	PRN2-A03	Gun head lock nut	1
4	PRN2-A04	Connecting sleeve	1
5	PRN2-A05	Position the drive rod	1
6	PRN2-A06	Spring	1
7	PRN2-A07	O-ring	1
8	PRN2-A08	Spring seat	1
9	PRN2-A09	Elastic pino	1
10	PRN2-A10	Screw cap	1
11	PRN2-A11	Gun head seat	1
12	PRN2-A12	Reset seat	1
13	PRN2-A13	Return spring	1
14	PRN2-A14	O-ring	1
15	PRN2-A15	PTFE gasket	1
16	PRN2-A16	Oil seal	1
17	PRN2-A17	Cylinder assembly	1
18	PRN2-A18	M5 Combined gasket	1
19	PRN2-A19	M5X8 Socket head cap screw	1
20	PRN2-A20	Stroke screw slider	1
21	PRN2-A21	Stroke slider	1
22	PRN2-A22	Stroke adjusting spring	1
23	PRN2-A23	Adjust the limit lever	1
24	PRN2-A24	O-ring	6
25	PRN2-A25	Air supply pipe	3
26	PRN2-A26	Oil seal	1
27	PRN2-A27	PTFE gasket	1
28	PRN2-A28	O-ring	1
29	PRN2-A29	Air motor assembly	1
30	PRN2-A30	Snap ring	1
31	PRN2-A31	Silencing board	1
32	PRN2-A32	Compression spring adjusting sleeve	1
33	PRN2-A33	Trigger	1
34	PRN2-A34	Trigger pin	1
35	PRN2-A35	Switch lever	1
35-1	PRN2-A35-1	Switch spring	1
36	PRN2-A36	O-ring	1
37	PRN2-A37	Switch sleeve	1
38	PRN2-A38	O-ring	1

Index	Part No.	Description	Qty
39	PRN2-A39	O-ring	1
40	PRN2-A40	Steel ball bulkhead o4	1
40-1	PRN2-A40-1	O-ring	1
41	PRN2-A41	Trachea	1
42	PRN2-A42	Trachea	1
43	PRN2-A43	Control bulkhead	1
44	PRN2-A44	O-ring	1
45	PRN2-A45	O-ring	1
46	PRN2-A46	Control lever	1
47	PRN2-A47	O-ring	1
48	PRN2-A48	Upper cylinder head	1
49	PRN2-A49	Rubber ball	1
50	PRN2-A50	Reversing spring	1
51	PRN2-A51	O-ring	1
52	PRN2-A52	Joint body	1
53	PRN2-A53	O-ring	2
54	PRN2-A54	Air source connector seat	1
55	PRN2-A55	Snap ring (inner)	1
56	PRN2-A56	Tracheal connector	2
57	PRN2-A57	Tracheal connector	2
58	PRN2-A58	Pneumatic quick coupling	1
59	PRN2-A59	Semicircular ball screw	4
60	PRN2-A60	Handle	2
61	PRN2-A61	Half ball tapping screw	2
62	PRN2-A62	PTFE gasket	2
63	PRN2-A63	Oil seal	1
64	PRN2-A64	Cylinder assembly lock nut	1
65	PRN2-A65	O-ring	1
66	PRN2-A66	Cylinder piston rod	1
67	PRN2-A67	Upper cylinder head assembly	1
68	PRN2-A68	Cylinder piston plate	1
69	PRN2-A69	Dust ring	1
69-1	PRN2-A69-1	Cylinder piston walve	1
69-2	PRN2-A69-2	Exhaust spring	1
69-3	PRN2-A69-3	Rubber gasket	1
69-4	PRN2-A69-4	Snap ring	1
70	PRN2-A70	0-ring	1
71	PRN2-A71	Cylinder rod nut	1
72	PRN2-A72	Cylinder	1