

OPERATION, PARTS AND SAFETY MANUAL



SIGNODE®

**RCNS2-34
RCNS2-114
PISTOL-GRIP STYLE
AIR POWERED SEALERS**

**IMPORTANT!
DO NOT DESTROY**

**It is the customer's responsibility to
have all operators and servicemen
read and understand this manual.**

Contact your local Signode representative
for additional copies of this manual.

READ ALL INSTRUCTIONS BEFORE OPERATING THIS SIGNODE PRODUCT

WARNING

READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS PERSONAL INJURY.

GENERAL SAFETY CONSIDERATIONS

1. STRAP BREAKAGE HAZARD.

Improper operation of the tool or sharp corners on the load can result in strap breakage during tensioning, which could result in the following:

- A sudden loss of balance causing you to fall.
- Both tool and strap flying violently towards your face.

Failure to place the strap properly around the load or an unstable or shifted load could result in a sudden loss of strap tension during tensioning. This could result in a sudden loss of balance causing you to fall. Read the tool's operating instructions. If the load corners are sharp use edge protectors. Place the strap correctly around a properly positioned load.

- Positioning yourself in-line with the strap, during tensioning and sealing, can result in severe personal injury from flying strap or tool. When tensioning or sealing, position yourself to one side of the strap and keep all bystanders away.
- Using strap not recommended for this sealer can result in strap breakage during. Use the correct Signode products for your application.

2. TRAINING.

This tool must not be used by persons not properly trained in its use. Be certain that you receive proper training from your employer. If you have any questions contact your Signode Representative.

3. EYE INJURY HAZARD.

Failure to wear safety glasses with side shields can result in severe eye injury or blindness. Always wear safety glasses with side shields which conform to ANSI Standard Z87.1 or EN 166.



4. FALL HAZARD.

Maintaining improper footing and/or balance when operating the tool can cause you to fall. Do not use the tool when you are in an awkward position.

5. CUT HAZARD.

Handling strap or sharp parts could result in cut hands or fingers. Wear protective gloves.



6. TOOL CARE, MAINTENANCE & PARTS REPLACEMENT

- Take good care of the tool. Inspect and clean it daily, lubricate it weekly and adjust when necessary. Replace any worn or broken parts.
- **ALWAYS** disconnect the pneumatic connection to the tool when performing part removal and/or replacement procedures. **NEVER** connect a pneumatic source to a disassembled tool unless otherwise specified.

7. WORK AREA.

Keep work areas uncluttered and well lighted.

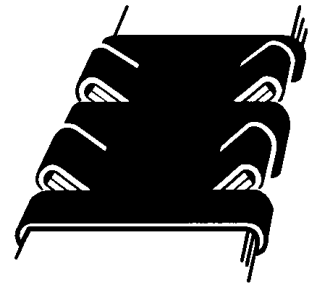
⚠️ WARNING

Use the correct Signode products for your application. If you need help contact your Signode Representative.

Signode tools and machines are designed and warranted to work together with Signode strapping and seals. Use of non-Signode strap, seals and/or manufactured or specified replacement parts may result in strap breakage or joint separation while applying strapping to a load or during normal shipping and handling. This could result in serious personal injury.

JOINT FORMATION

An improperly formed joint, or a joint with an incorrect number of notches, could result in strap separation. Before moving any package, be certain that the joint is formed as shown in the illustration. If not, remove the strap and check the tool for worn or broken parts. Repair the tool before applying another strap. Failure to follow this procedure could result in serious injury or death. If you have questions regarding proper joint formation, contact your Signode Sales Representative.



Before making a double reverse notch seal joint, read the sealing tool's Operation, Parts and Safety Manual. A properly formed double reverse notch joint will appear as shown in the illustration. More than one seal may be required for your application. Always use the correct number of seals recommended by your Signode Sales Representative.

If the double reverse notch joint does not appear as shown in the illustration, proceed as follows:

- A. Review the tool's operating instructions to be certain that the tool is being operated properly before applying another strap.
- B. Cut the strap off and apply a new strap and seal.

Tuck strap end back into the dispenser when not in use.

MOVING AND STACKING STRAPPED LOADS

Before moving or stacking any strapped load, follow all standard industry practices regarding safe material handling procedures.

CUTTING TENSIONED STRAP

Use only cutters designed for cutting strap; never use claw hammers, crowbars, chisels, axes or similar tools. Such tools will cause the strap to fly apart with hazardous force. Before using any Signode product, read its Operation and Safety Manual.

TABLE OF CONTENTS

Safety Information	2
Specifications	4
Pneumatic Information	5
Tool Installation	9
Tool Operation	9
Sealer Jaw Rotation	10
Troubleshooting	11
Parts List & Exploded View	12
Maintenance	16
Declaration of Conformity	19

! WARNING

Signode tools and machines are designed and warranted to work together with Signode strapping and seals. Use of non-Signode strap and seals and/or manufactured or specified replacement parts may result in strap breakage or joint separation while applying strapping to a load or during normal shipping and handling. This could result in serious personal injury.

Maximum operating pressure
is 90 psig (6.2 Bar)



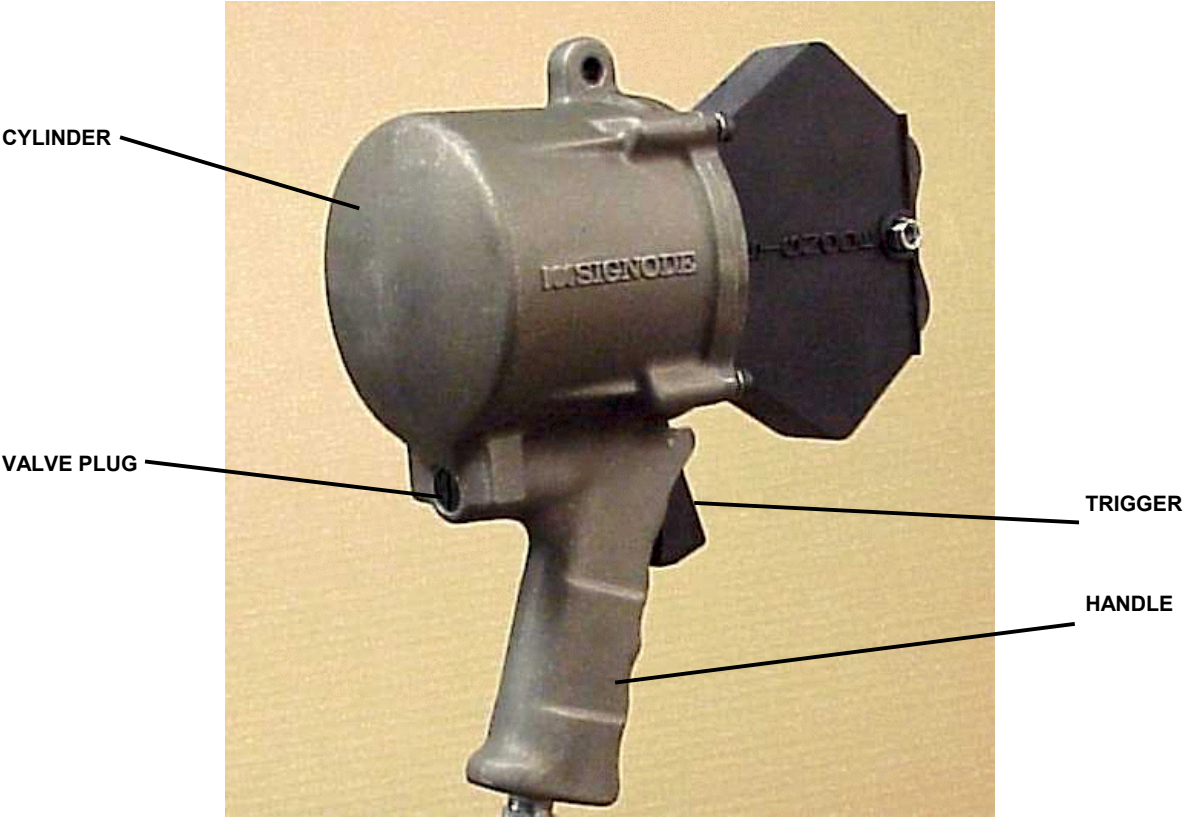
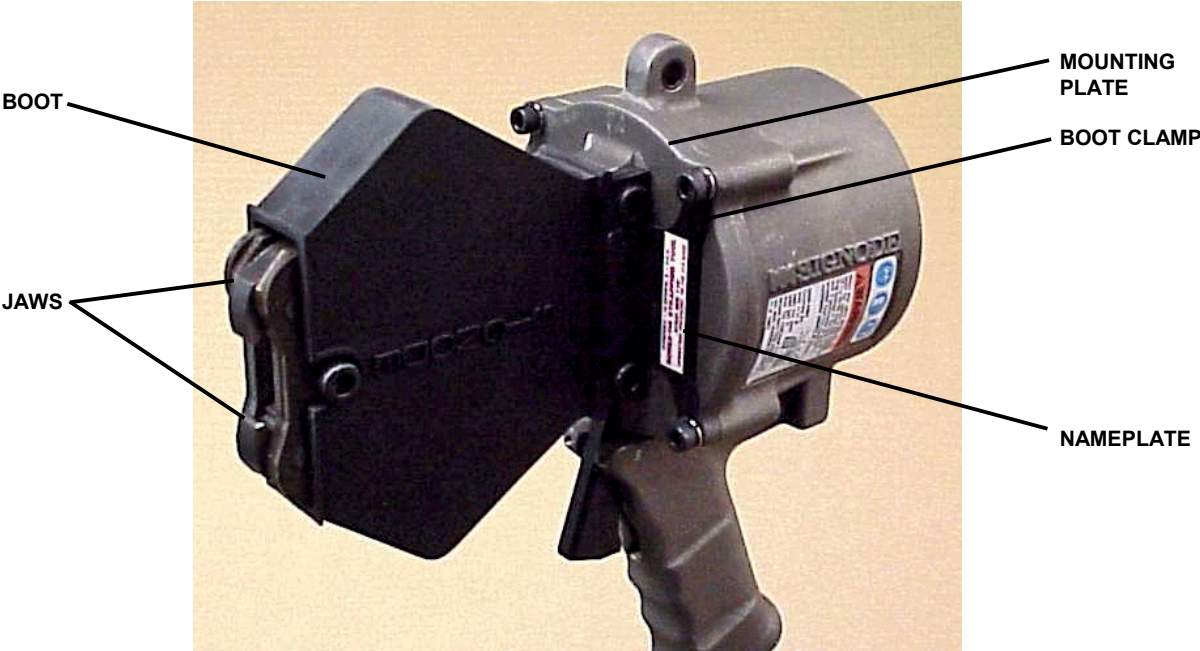
RCNS2-114, Part Number 424125
RCNS2-34, Part Number 424200

To work effectively, the RCNS2 tool must be properly installed. This installation includes, in some cases, proper suspension of the tool over the container to be strapped and the proper placement of the strapping dispenser to provide a continuous easy supply of strapping for the application.

SPECIFICATIONS

MODEL	TYPE	STRAP		SEALS	AIR PRESSURE (psig)
		WIDTH	THICKNESS		
RCNS2-114	MAGNUS	1- 1/4" (31.75mm)	.025" to .031" (.64-.80mm)	SP,114,I, OF, P	Max. 90 (6.2 Bar) Min. 75 (5.2 Bar)
RCNS2-34		3/4" (19mm)		34HOC, HC, I, SHOC	

MAJOR COMPONENTS



PNEUMATIC INFORMATION

AIR SUPPLY INSTALLATION

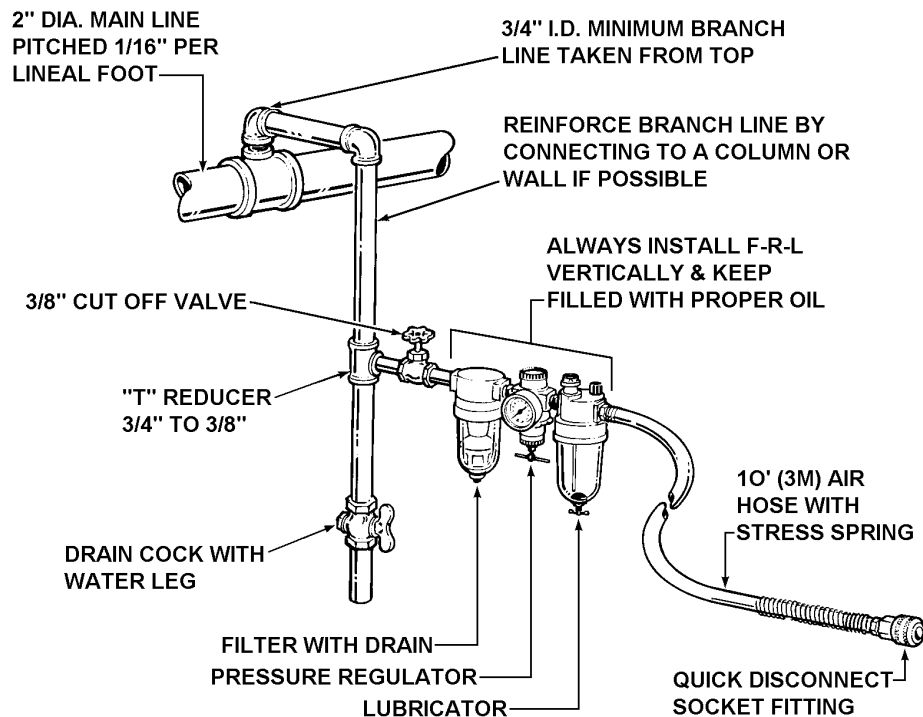
If compressor has a good dryer unit, use black pickled pipe. When a dryer unit is not installed, use galvanized or copper pipe. To perform reliably, a pneumatic tool requires a continuous source of clean, water-free air at adequate pressure.

WARNING

Never operate this tool using a bottled air or gas source.

Bottled air/gas sources do not provide consistent operating pressure and could result in air pressures that exceed the maximum allowed.

A filter-regulator-lubricator unit (Signode Part No. 008559) must be installed as close to the air tool as possible, preferably within 10 feet. It should be placed in a convenient location where it can easily be drained, adjusted, and filled with oil. The air hose must have at least a 3/8" I.D. A quick-connect press-on socket is installed on the stress spring end of the hose for convenient hookup to the air tool.



Filter and lubricator bowls are made of polycarbonate material. Do not install where bowls may be exposed to materials incompatible with polycarbonate. Certain oils, solvents, and chemicals or their fumes can weaken these bowls and possibly cause them to burst. Clean only with warm water. A cut-off valve placed ahead of the filter will be useful when cleaning the filter or replenishing the lubricator.

MOISTURE

Moisture is always present in air lines due to condensation within the lines as the air cools. Steps must be taken to remove this moisture and to keep it from the air tool. This is because water tends to wash away lubricants and cause corrosion, sticking and failure of internal parts.

The main line should be pitched so the far end terminates in a water leg. Branch lines are taken from the top of the main, never off the bottom. Every branch should have a water leg at its lowest point, with a drain cock which is drained daily.

If these precautions are taken and water is still present, an after cooler and a moisture separator are required between the compressor and the air receiver tank. A large air line separator can be installed in the air tool line, but precautions must be taken to insure that it will be drained daily, before the air tool is operated.

Water in air lines is a constant threat to the proper operation of air tools. Even near freezing operating conditions, a good refrigerant type dryer is essential. A good dryer will remove 95% or more of water right at the compressor. The remaining moisture is removed at the water leg in the piping system or in the filter (Part No. 008559).

NOTE: Additional information is available in the Signode publication, "Air Supply Manual" (Part No. 186038). If you have any questions, contact your local Signode Representative.

LUBRICATION

The air tool must be properly lubricated. This is achieved by keeping the air line lubricator filled with oil and correctly adjusted. Without proper lubrication, the tool will become sticky and will be difficult to release from the strap.

Install the lubricator as close to the air tool as possible. The arrow on the lubricator's top surface must point in the direction of air flow.

For proper operation, oil must drop through the lubricator sight glass at a rate of 4 to 10 drops per minute. This rate is checked while the air tool is running free. Only 20% of this oil is actually delivered to the tool. The remaining oil drops back into the oil reservoir. The unit is factory set and should require no adjustment. If an adjustment is required, the adjusting screw on top of the lubricator may be turned as marked to reduce or increase the flow of oil.

The correct grade of oil must be used in the lubricator; too heavy an oil will not provide sufficient lubrication and will cause sticking and sluggish operation of the air tool.

Recommended oils are any good grade of rust and oxidation inhibiting oil with a viscosity of 80-120 S.U.S. at 100 degrees Fahrenheit. (0.15 to 0.25 cm^2 /sec. at 38 degrees Celsius), such as:

Non Fluid Oil Co., grade #LS-1236
Signode oil - Part No. 008556

If necessary, use SAE #5 or SAE #10 non-detergent, cut 1 to 1 with kerosene.

PNEUMATIC INFORMATION, Continued

NOTE: Some oils contain anti-wear additives which may disable the tool. Be certain to use recommended oil.

Several drops of lubricator oil added to the inlet of the air line each day will help insure good operation. A noticeable reduction of performance can usually be corrected by squirting a few drops of oil into the air line.

COLD WEATHER OPERATION

If a tool does not operate satisfactorily in freezing temperatures, certain steps can correct the problem. The following steps can be taken to improve cold weather operation of the tool:

- a. An air line dryer adjacent to the compressor.
- b. Use lubricant recommended by Signode. Signode has tested the use of anti-freezes, none work well in air tools; the tool will gum up when anti-freezes are introduced and will not function properly. The best lubricant for freezing weather is the 1 to 1 oil and kerosene combination.
- c. If possible, run the air supply line to a indoor located Filter-Regulator-Lubricator or relocate the F-L-R to a warmer operating area.

AIR PRESSURE REQUIREMENTS

The RCNS operating pressure is 90 psig (6.2 BAR).

WARNING

Do not exceed the maximum operating pressure of 90 psig (6.2 bar).

TOOL INSTALLATION

To operate effectively, your tool must be installed properly. This installation includes proper suspension of the tool over the package to be strapped, correct placement of a strapping dispenser to provide a continuous easy supply of strap for the application, and a satisfactory air supply with air line pressures being maintained within the specified range.

TOOL OPERATION

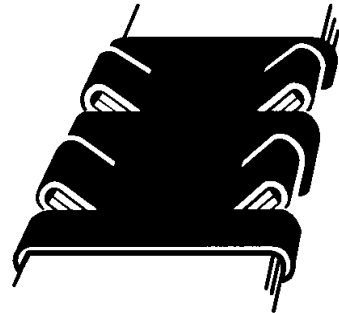
Position the sealer jaws over the seal. Press the trigger located on the handle grip. Make sure the trigger is kept completely pressed in until the notching action is complete. When the tool is used with pressure properly set at 90 psig (6.2 bar), sealing occurs immediately. If operating the tool at less than the recommended operating pressure, sealing takes longer; therefore take care to make sure that sealing is complete before releasing the trigger.

NOTE: OPERATOR GLOVES OMITTED FOR CLARITY PURPOSES ONLY!



WARNING

An improperly formed joint, or a joint with an incorrect number of notches, could result in strap separation. Before moving any package, be certain that the joint is formed as shown in the illustration. If not, remove the strap and check the tool for worn or broken parts. Repair the tool before applying another strap. Failure to follow this procedure could result in serious injury or death. If you have questions regarding proper joint formation, contact your Signode Sales Representative.



Before making a double reverse notch seal joint, read the sealing tool's Operation, Parts and Safety Manual. A properly formed double reverse notch joint will appear as shown in the illustration. More than one seal may be required for your application. Always use the correct number of seals recommended by your Signode Sales Representative.

If the double reverse notch joint does not appear as shown in the illustration, proceed as follows:

- A. Review the tool's operating instructions to be certain that the tool is being operated properly before applying another strap.
- B. Cut the strap off and apply a new strap and seal.

SEALER JAW ROTATION

WARNING

Disconnect the pneumatic connection to the tool when performing jaw rotation procedure.
Failure to do so could result in serious personal injury.

The cylinder and mounting plate can be rotated to allow the operator to hold the tool in the normal vertical position while sealing either horizontal or vertical strap. To do this refer to the exploded views shown on pages 13 and 15 using the following instruction:

2. Loosen the set screw (Key 56) and remove the trigger (Key 57) and pin (Key 55).
3. Remove the four socket head cap screws (Key 73) which secure the mounting plate (Key 1) to the cylinder (Key 51).

NOTE: Removing the four mounting screws will release the boot clamp (Key 70). The boot clamp must be reinstalled when replacing the screws.

4. Pull the sealer mechanism and mounting plate out from the cylinder just enough for the mounting plate to clear the trigger's pivot on the cylinder handle.
5. Rotate the sealer mechanism and mounting plate 90° and reinstall back into the cylinder. Securely tighten all four mounting screws.
6. Reassemble the trigger back into the cylinder handle and securely tighten the set screw.

NOTE: This tool has metric fasteners.



HORIZONTAL STRAPPING



VERTICAL STRAPPING

NOTE: OPERATOR GLOVES OMITTED FOR CLARITY PURPOSES ONLY!

TROUBLESHOOTING

The following items are the most common tool symptoms if problems should occur. For symptoms or remedies not shown, contact your Signode service representative for additional information and details. The following tool symptoms are shown in this manual:

#1 SYMPTOM: Tool leaking air (Trigger in OFF position & tool at rest).

#2 SYMPTOM: Tool leaking air (Trigger in ON position while sealing).

#1 SYMPTOM: Tool leaking air (Trigger in OFF position and tool at rest). **	
CAUSE	REMEDY
1. Air leakage between mounting plate and cylinder.	1. Replace mounting plate o-ring (Key 18).
2. Air leakage at bottom of valve assembly by trigger.	2. Adjust valve plug as described in this manual. Disassemble, inspect, and repair valve assembly.
3. Air leakage at top of valve assembly by exhaust holes of valve plug.	3. Adjust valve plug as described in this manual. Replace piston o-ring (Key 19). Disassemble, inspect, and repair valve assembly.

#2 SYMPTOM: Tool leaking air (Trigger in ON position while sealing). **	
CAUSE	REMEDY
1. Air leakage at bottom of valve assembly by trigger.	1. Disassemble, inspect, and repair valve assembly. Replace piston o-ring (Key 19).
2. Air leaking by exhaust holes at top of valve assembly or around valve plug.	2. Disassemble, inspect, and repair valve stem.

**** Please note that there will be an initial rush of air from around the trigger when it is pressed to the ON or sealing position.**

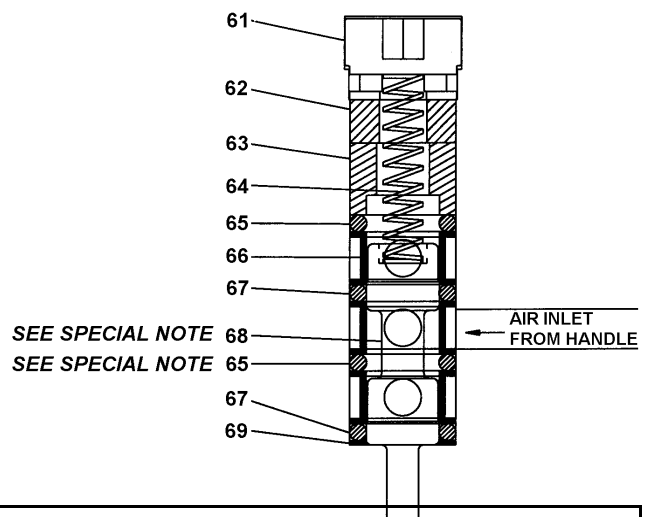
PARTS LIST, CYLINDER ASSEMBLY

<u>KEY</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	424137	Mounting plate
51	1	424139	Cylinder
52	1	008672	Bushing
53	1	286373	Info sign (3 icon)
54	1	424210	Warning sign
55	1	424207	Trigger pin
56	2	180131	SHSS, M4X 8
57	1	424145	Trigger
58	1	008478	Reducing bushing
59	1	020704	Hansen plug
60	1	424216	Tag
61	1	424141	Valve plug
62	1	424206	Compression spacer
63	1	424205	Sleeve spacer
64	1	093839	Compression spring, LEE #LC038-16MW
65	2	020680	O-Ring #112
66	3	023040	Valve sleeve
67	2	008596	O-Ring #111
68	1	424208	Valve stem
69	1	424204	Bottom spacer
70	1	424142	Boot clamp
71	1	424143	Nameplate (114)
	1	424201	Nameplate (34)
72	4	002187	Lock washer, 1/4
73	4	280832	SHCS, M6 X 30, full thread
74	1	180900	Information sign

- Standard hardware parts may be obtained from local hardware suppliers.
- When ordering parts, please show tool model, part number, and name.
- Recommended spare parts are underlined and should be stocked.
- This tool has metric fasteners.

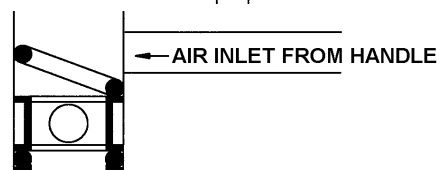
NOTES:

1. Bottom spacer (69) must be installed with "lip" facing up.
2. O-rings (65 & 67) are different sizes and must be installed in the proper sequence.
3. The (2) o-rings (65) are larger than the bore diameter and will not sit flat until the subsequent spacer in pushed into place.
4. Lubricate all O-Rings with White (Lubriplate) grease, GR-132, Part No 422792.
5. Torque the four cap screws (Key 73) to 65-75 in lbs. (7.2-8.5Nm).



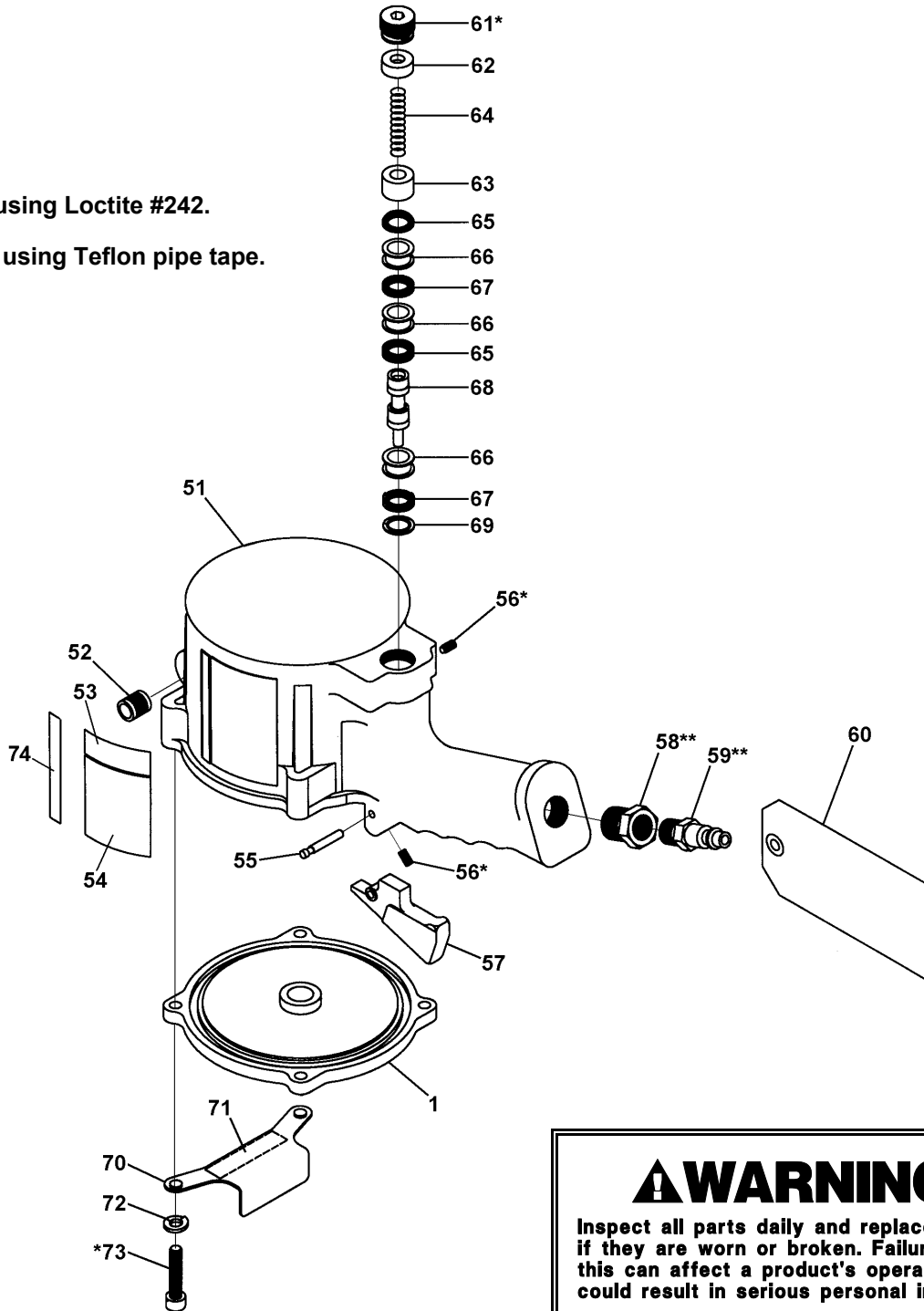
SPECIAL NOTE:

The lower of the two large o-rings (65) must be placed so the portion of the o-ring closest to the handle air inlet is below the inlet when the valve sleeve (68) is pushed into place. Failure to do this could result in air leakage.



* Install using Loctite #242.

** Install using Teflon pipe tape.



⚠ WARNING
 Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.

VALVE PLUG ADJUSTMENT:

1. Turn plug until flush with cylinder casting.
2. Connect air to tool and check for leaks with trigger in both the On and OFF positions.
3. If leakage should occur, turn valve plug clockwise (in 1/4 turn increments only) until leakage stops.
4. Lock valve plug in place with set screw (56).

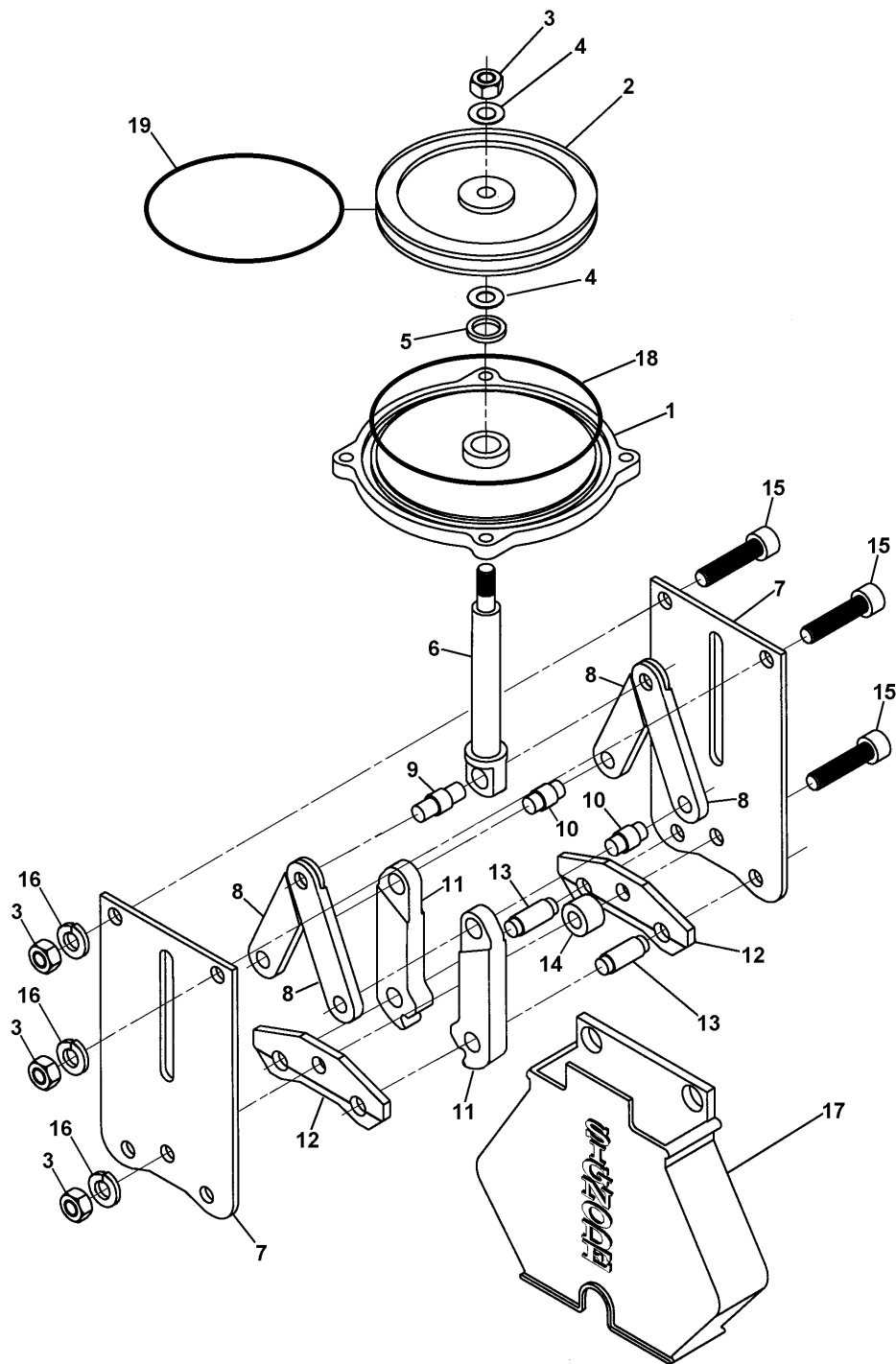
PARTS LIST, SEALER ASSEMBLY

<u>KEY</u>	<u>QTY.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	424137	Mounting plate
2	1	424136	Piston
3	4	276495	Flexloc nut, M8 (w/nylon)
4	2	424214	Washer
5	1	422858	O-ring #112 Quattro
6	1	424129	Ram
7	<u>2</u>	<u>424126</u>	<u>Side plate (114)</u>
	<u>2</u>	<u>424211</u>	<u>Side plate (34)</u>
8	4	424128	Sealer link
9	1	424130	Ram pin
10	2	424131	Link pin
11	<u>2</u>	<u>424134</u>	<u>Jaw (114)</u>
	<u>2</u>	<u>424213</u>	<u>Jaw (34)</u>
12	<u>2</u>	<u>424127</u>	<u>Notcher (114)</u>
	<u>2</u>	<u>424212</u>	<u>Notcher (34)</u>
13	<u>2</u>	<u>424132</u>	<u>Jaw pin</u>
14	1	424133	Notcher spacer
15	3	280878	SHCS, M8 X 35 (full thread)
16	3	280807	Lockwasher, M8
17	<u>1</u>	<u>424138</u>	<u>Boot</u>
18	1	424202	O-ring #243
19	1	424203	O-ring #342

- Standard hardware parts may be obtained from local hardware suppliers.
- When ordering parts, please show tool model, part number, and name.
- Recommended spare parts are underlined and should be stocked.
- This tool has metric fasteners.

⚠ WARNING

Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.



NOTES:

1. Lubricate all O-Rings with White (Lubriplate) grease, GR-132, Part No 422792.
2. Lubricate all moving parts (except O-Rings) with Molith No. 2 or Lubriplate 3000W grease, GR-132, Part No 422793.
3. Torque nut (Key 3) on ram (Key 6) to 140-150 in-lbs. (15.8-16.9Nm).

TOOL MAINTENANCE

GENERAL

The most common reason for poor tool performance and incorrectly formed straps joints is improper tool maintenance. The easiest way to determine if a tool is performing correctly is by inspecting the strap joint. Having a tool maintenance program is a simple task which consists of three parts. First, a quick daily inspection of the tool for any worn or broken parts. Secondly, keep each tool on a schedule of service intervals for cleaning and lubrication. Third, when problems do occur, use the troubleshooting guide to properly determine and fix problems before they lead to more serious tool conditions. Each of these three tasks have been outlined for this particular tool, read and understand all information for improving the life and performance of the tool.

TOOL INSPECTION

Visually inspect the exterior of the tool on a daily basis. Decreased tool life can be prevented by early detection of broken parts. Replace all broken parts with new parts. Review any part removal, replacement & adjustment instructions found in this manual.

SERVICE INTERVALS

Tool component wear is affected by the environment, strap tension and strap gauge which the tool is subjected to. All critical moving components of the tool should be inspected periodically. Broken parts can increase sealing effort, leading to additional component wear and produce lower joint strength.

Inspect the components of the sealing mechanism when:

- A. Joint does not appear as shown in this manual or visually it is detected that the joint is not all formed or formed improperly.
- B. Sealing effort requires higher air pressure or tool is difficult to remove from strap.
- C. When scheduled.

DANGER

If there is any question that joint formation is not as shown or is suspect, it is important that you contact your tool representative immediately.

TOOL LUBRICATION

Signode tools use a variety of greases and oils, all of which can be ordered through Signode. When ordering indicate tool model, part number and name.

THREAD SEALANTS

Signode tools are assembled using a variety of thread sealants, all of which can be ordered through Signode service using the appropriate description and part number.

- Loctite #222, Part No 422794.
- Loctite #242, Part No 422795.
- Loctite #609, Part No 422797.



EU Declaration of Conformity

The Supply of Machinery (safety) Regulations
1992 (S.I. 1992/3073)

It is hereby declared that the undermentioned machinery has been designed and constructed to comply with the health and safety requirements defined in EC Directive 89/392/EEC

Machine Supplier: Signode, Division of ITW Ltd.
Queensway, Fforestfach
Swansea SA5 4ED

Machine Description: RCNS2

Machine Type: Pneumatic Sealer Hand Strapping tool.

Provisions with which machine complies:

89/392/EEC, 91/368/EEC

Harmonized EuroNorms with which machine complies:

EN 292:1, EN 292:2, EN 294, EN 349

Technical Standards with which machine complies:

NA

Signature: 
(Peter Oseland)

Date: 1 JANUARY 2001

**SIGNODE
NEW TOOL WARRANTY**

Signode Engineered Products Warrants that a new Signode strapping tool will operate per functional specifications for a period of sixty (60) days after the date of shipment to the owner's place of business. Normal wearing parts, as outlined in the Operation, Parts & Safety manual, are covered by a thirty (30) day warranty unless, in Signode's judgement, these parts have been subjected to abnormal or extreme usage. Signode's sole liability hereunder will be to repair or replace, without charge, F.O.B. Signode's Glenview, Illinois plant, any tool which proves to not operate per functional specifications within the stated period. Signode reserves the right to replace any tool which proves not to operate per functional specifications with a new or like-new tool of the same model if in Signode's judgement such replacement is appropriate. Any new replacement tool provided to an owner will carry a full sixty (60) day warranty. Any warranty repaired tool or like-new replacement tool will carry a warranty for the balance of the time remaining on the initial sixty (60) day warranty. This warranty will be extended to compensate for the time the tool is in Signode's possession for warranty repairs.

This warranty is void as to any tool which has been: (I) subjected to mis-use, misapplication, accident, damage, or repaired with other than genuine Signode replacement parts, (II) improperly maintained, or adjusted, or damaged in transit or handling; (III) used with improperly filtered, unlubricated air or improper strapping material, (IV) in Signode's opinion, altered or repaired in a way that affects or detracts from the performance of the tool.

SIGNODE MAKES NO WARRANTY, EXPRESSED OR IMPLIED, RELATING TO MERCHANTABILITY, FITNESS OR OTHERWISE EXCEPT AS STATED ABOVE AND SIGNODE'S LIABILITY AS ASSUMED ABOVE IS IN LIEU OF ALL OTHERS ARISING OUT OF OR IN CONNECTION WITH THE USE AND PERFORMANCE OF THE TOOL. IT IS EXPRESSLY UNDERSTOOD THAT SIGNODE SHALL IN NO EVENT BE LIABLE FOR ANY INDIRECT OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES WHICH MAY ARISE FROM LOSS OF ANTICIPATED PROFITS OR PRODUCTION, SPOILAGE OF MATERIALS, INCREASED COSTS OF OPERATION OR OTHERWISE.

Considerable effort has been made to ensure that this product conforms to our high quality standards. However, should you experience any difficulties, please contact your Sales Representative providing samples and the manufacturing code specified on the tool.

Thank you for your help.

**SIGNODE ENGINEERED PRODUCTS
Hand Tool Division
3620 W. Lake Avenue, Glenview, Illinois 60025**