# OPERATION, PARTS AND SAFETY MANUAL



# **MSIGNODE®**

RCN-3435, RCN-1431, N-1435, N-1444-50LSH, N-1457LSH, NS-1457-75L, NS-250-65L

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

SIGNODE ● 3620 WEST LAKE AVENUE ● GLENVIEW, ILLINOIS 60025

READ THESE INSTRUCTIONS CAREFULLY. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SEVERE 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.

- If the load corners are sharp use edge protectors.
- 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.

#### 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.

- Inspect and clean the tool daily. Replace all worn or broken parts.
- Lubricate all moving parts daily.
- On air powered tools, always disconnect the pneumatic connection to the tool when performing part removal and replacement procedures. NEVER connect a pneumatic source to a disassembled tool unless otherwise specified.

#### 7. WORK AREA.

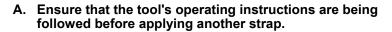
Keep work areas uncluttered and well lighted.

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 severe personal injury.

#### JOINT FORMATION

- 1. Before using this tool, read its Operation and Safety Instructions contained in this manual.
- 2. The RCN-3435 and the RCN-1435 are double reverse notch sealers. The N-1435, N-1444-50LSH and N-1457LSH are double crimp sealers and the NS-1457-75L and the NS-250-65L are single crimp sealers, although the single crimp sealers are usually required to place two crimps per seal. If an NS-250-65L tool is being used to crimp a 203 seal, then three crimps per seal are required. Refer to the specifications at the back of this manual for details. Properly notched or crimped seals will appear as shown in the illustration. If the joint does not appear as shown, then the operator must proceed as follows:



- B. Cut the strap off and apply another.
- 3. An improperly formed seal which does not have good notches or crimps, could result in strap separation. Before moving any package be certain that the seal is formed as shown. Inspect the joint to make certain it appears 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.







#### 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**

Using claw hammers, crowbars, chisels, axes or similar tools will cause tensioned strap to fly apart with hazardous force. Use only cutters designed for cutting strap. Read the instructions in the cutters manual for proper procedure in cutting strap. Before using any Signode product read its Operation and Safety Manual.

#### **TOOL CLEANING & LUBRICATION**

Clean and apply a light weight machine oil to all moving parts on a weekly basis. Refer to the Pneumatic Information shown in this manual for lubricant recommendations with regard to tool operation.

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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

RCN-3435 Part No. 009030

RCN-1435 Part No. 008500

N-1435

Part No. 008505

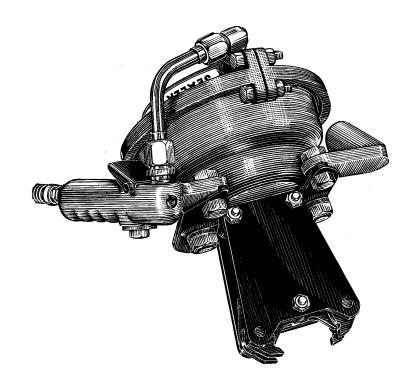
N-1444-50LSH Part No. 024271

N-1457LSH

Part No. 183022 (0X1015)

NS-1457-75L Part No. 014390

NS-250-65L Part No. 014360



#### **TOOL INSTALLATION**

To work effectively, these sealers 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.

The sealers may be suspended for sealing on top of a package by means of an optional eye bolt (35A) located on top of the tool. If desired, the sealers can be suspended for sealing on the side of a package by attaching a bracket (Part No. 010749) which can be obtained on request.

#### **SEALER SPECIFICATIONS**

		SEA	LS	
TOOLS	STRAP SIZE	TYPE	REQUIRED (PER JOINT)	*MIN. AIR PRESSUR E
RCN-3435 Double Reverse Notch	3/4 x .025031 Painted & Waxed Magnus	34HC 34HOC 34HC-OF	1	55 psig
RCN-1435 Double Reverse Notch	1-1/4 x .031 Painted & Waxed Magnus 1-1/4 x .035 Painted & Waxed Heavy duty 1-1/4 x .031 Waxed Zinc finish Magnus	114 114OF 114P	1	65 psig
	1-1/4 x .031 Dry Magnus	127		
N-1435 Double Crimp	1-1/4 x .031 Painted & Waxed Magnus 1-1/4 x .031 Waxed Zinc finish Magnus 1-1/4 x .035 Painted & Waxed heavy duty 1-1/4 x .035 Painted Only, heavy duty	107DG 107DGOF	2	70 psig
	1-1/4 x .044 Dry Magnus 1-1/4 x .044 Painted U.S.G.M. Magnus	117HDGOF	2	80 psig
N-1444-50LSH DoubleCrimp	1-1/4 x .031 Painted & Waxed Magnus 1-1/4 x .044 Painted U.S.G.M. Magnus	447110005		80 psig
	1-1/4 x .050 Painted & Waxed U.S.G.M. Magnus	117HDGOF	3	90 psig
N-1457LSH Double Crimp	1-1/4 x .057 Painted & Waxed U.S.G.M. Magnus	117HDGOF	3	90 psig
NS-1457-75L	1-1/4 x .057 Zinc Finish Magnus	4 4 4 1 1 1 44		65 psig
Single Crimp	1-1/4 x .075 Zinc Finish Magnus	114HL**	1	90 psig
	2 x .044 Painted & Waxed Magnus 2 x .044 Painted Magnus	208DG		
NS-250-65L Single Crimp	2 x .044 Dry Finish Magnus	208	1	80 psig
·	2 x .050 Painted Heavy Duty	208DG 203***		

<sup>\*</sup> For fast and positive sealing, maintain an air line supply pressure at least 10 psig higher than the minimum air pressure required to seal.

<sup>\*\*</sup> Requires two seals with two crimps per seal.

<sup>\*\*\*</sup> Three crimps per seal required for packaging applications only.

#### PNEUMATIC INFORMATION

#### **Air Supply Installation**

If the compressor has a good dryer unit, use black pickled pipe. When a dryer unit is not installed, use galvanized or copper pipe.

To preform reliably, a pneumatic tool requires a continuous source of clean, water-free air at adequate pressure.

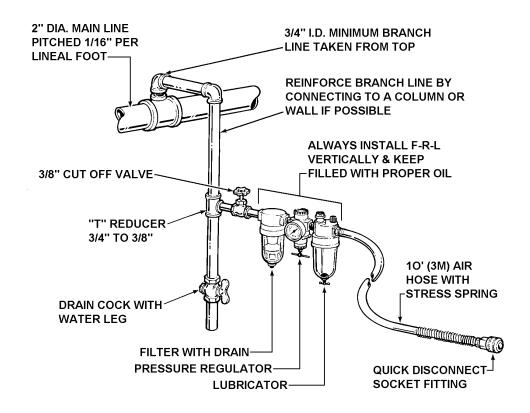
# AWARNING

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 for the tool.

A filter-regulated-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 poly carbonate. 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. 173111).

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 motor must be properly lubricated. This is achieved by keeping the air line lubricator filled with oil and correctly adjusted. Without proper lubrication, the motor will become sticky and the tool will give low and erratic tension and 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 1 to 4 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 cm² /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.

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

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

#### PNEUMATIC INFORMATION, Continued

#### **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

### AWARNING

Maximum operating air pressure is 130 psig.

Air line pressures must be maintained within the specified range.

A minimum air pressure setting, as indicated in the Specifications Section, must be maintained to ensure that the tool will seal properly.

#### **OPERATING INSTRUCTIONS**

### AWARNING

Wear safety glasses which conform to ANSI Standard Z87.1 or EN 166.

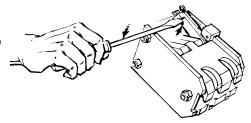
Stand to one side of the strap while tensioning. Make sure all bystanders are clear before proceeding.

Failure to follow the above could result in severe personal injury.

All sealers are compact, well balanced tools which combine the advantages of easy sealing action with high, uniform joint strength. Their simplicity of design assures continuous service without mechanical adjustment or maintenance. When used with air pressure at the high side of the range, the sealing is practically instantaneous. When the pressure is on the low end of the range, care should be taken to make sure that the sealing stroke is completed before releasing the pressure valve. This can be determined by the click sound made as the stroke is completed.

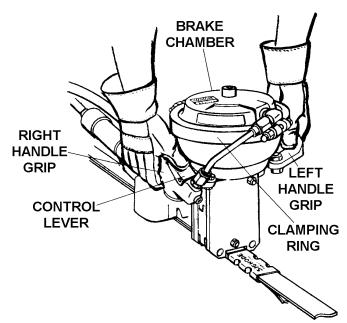
#### SPECIAL INSTRUCTIONS FOR N-1444-50LSH

This model has a unique feature which helps prevent incomplete notching or crimping of the seal and strapping. When the air line supply pressure drops below the 70 psig minimum sealing pressure, the jaw mechanism will lock on the joint until the air pressure is increased. A manual release is provided to unlock the jaw mechanism. To unlock the sealing mechanism, insert a screwdriver into the slot on the locking link (55) and pry outward, using the side plate for leverage, until jaws release.



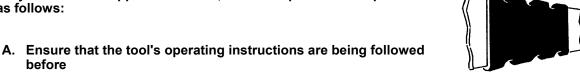
#### **SEALING OPERATION**

Sealing is performed by positioning the sealer jaws on the seal in the desired location, then pressing the black thumb lever located on the right handle grip. The lever must be kept completely depressed until crimping action is completed. This is indicated by an audible click.



#### JOINT FORMATION

The RCN-3435 and the RCN-1435 are double reverse notch sealers. The N-1435, N-1444-50LSH and N-1457LSH are double crimp sealers and the NS-1457-75L and the NS-250-65L are single crimp sealers, although the single crimp sealers are usually required to place two crimps per seal. If an NS-250-65L tool is being used to crimp a 203 seal, then three crimps per seal are required. Refer to the specifications at the back of this manual for details. Properly notched or crimped seals will appear as shown in the illustration. If the joint does not appear as shown, then the operator must proceed as follows:



B. Cut the strap off and apply another.

applying another strap.

An improperly formed seal which does not have good notches or crimps, could result in strap separation. Before moving any package be certain that the seal is formed as shown. Inspect the joint to make certain it appears 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.



TRIPLE CRIMP

DOUBLE REVERSE NOTCH

## AWARNING

NEVER HANDLE OR SHIP ANY LOAD WITH IMPROPERLY FORMED JOINTS. Misformed joints may not secure the load and could cause serious injury. Follow the joint inspection procedures in each sealers's manual.

#### **MAINTENANCE INSTRUCTIONS**

## **AWARNING**

Wear safety glasses which conform to ANSI Standard Z87.1 or EN 166.

Make sure the air has been disconnected from the tool before proceeding.

Use care when working with the compression spring (25).

Closely inspect the tool and replace any parts that are found to be broken.

Periodic cleaning of all external moving parts and the application of a light machine oil will greatly prolong the serviceability of these tools. In applications where a lubricator is not used, periodic addition of a light machine oil added directly to the hose connection is recommended. The sealers, if functioning properly, will not leak air when the control lever is in the "off" position or when holding the control lever firmly in the "on" position. If leakage is present, the Diaphragm (33) should be examined for damage or extreme wear. Remove the clamp ring (31) and separate the pressure plate (34) from the non-pressure plate (27). Remove the diaphragm, and replace if necessary.

#### **PARTS LIST**

1 7414	10 LIO	•			N-1444	N-1457	NS-1457	NS-250	
<u>KEY</u>	QTY.	RCN-3435	RCN-1435	<u>N-1435</u>	<u>50LSH</u>	<u>LSH</u>	<u>75L</u>	<u>65L</u>	DESCRIPTION
1	1	008465	008465	008465	008465	008465	008465	008465	Valve cap
2	2	008134	008134	008134	008134	008134	008134	008134	"O" ring
3	1	008462	008462	008462	008462	008462	008462	008462	Spring
4	1	008468	008468	008468	008468	008468	008468	008468	Valve extension
5	2	008469	008469	008469	008469	008469	008469	008469	Seal
5 6	2	008494	008494	008494	008494	008494	008494	008494	Spacer
7	1	008468	008468	008468	008468	008468	008468	008468	Valve stem
8	1	008463	008463	008463	008463	008463	008463	008463	Stem cap
9	1	008477	008477	008477	008477	008477	008477	008477	SH Pipe plug, 1/4 NPT
10	1	008474	008474	008474	008474	008474	008474	008474	Rd. slot hd. mach.
	•	000-11-1	000414	000-11-1	000414	000474	000474	000-11-1	scr., 10-32 x 1 3/4
11	1	008466	008466	008466	008466	008466	008466	008466	Control lever
12	1	004963	004963	004963	004963	004863	004963	004963	Flexloc nut, thin 10-32 x 3/8
13	2	008493	008493	008493	008493	008493	008493	008493	Hex nut, 5/8-18
14	2	008496	008496	008496	008496	008496	008496	008496	Lock washer, 5/8
15	1	008470	008510	008476	030271	030271	014399	008470	Mounting plate
16	2	008497	008497	008497	008497	008497	008497	008497	HHCS 9/16-12x1-1/4
17	1	008473	008473	008473	008473	008473	008473	008473	Left handle
18	2	003449	003449	003449	003449	003449	003449	003449	Washer, 5/8 SAE
19	2	003449	003449	003449	003449	003449	003449	003449	Lock washer, 9/16
20	2	008498	008498	008498	008498	008498	008498	008498	Jam nut, 9/16-12
21	1	008482	008482	008482	008482	008482	008482	008482	Connector
22	1	008480	008480	008480	014368	014368	014369	014368	Tubing assembly
23	1	008483	008483	008483	008483	008483	01436 <u>9</u> 008483	008483	Elbow, 90 degree
23	•	000403	000403	000403	000403	000403	000403	000403	1/2 tube to 1/4 pipe
24	1	009033	008459	008459	014361	014361	014361	014361	Ram
2 <del>4</del> 25	1	014366	014366	014366	014366	014366	014366	014366	Spring
26 26	1	008488	008488	008488	014363	014363	014363	014363	Push plate
20 27	1	008484	008484	008484	014362	014363	014362	014363	Non-pressure plate
30	2	008492	008492	008492	008492	014362	008492	014362	Hex nut, 5/16-24
30 31	1	008487	008487	008487	014367	014367	014367	014367	Clamp ring
32	2	008491	008491	008491	008491	008491	008491	008491	Bolt**
33	1	008486	008486	008486	014365	014365	014365	014365	
34	1	008485	008485	008485	014364	014364	014364	014364	Diaphragm Draggues plate
									Pressure plate
35 35 A	1	008477	008477	008477	008477	008477	008477	008477	Pipe plug, 1/4-18
35A	1	009025	009025	009025	009025	009025	009025	009025	Eye bolt (optional)
36 36 A	3	008512			 009543	 000543		008512	SHCS 3/8-24 x 2
36A	3 3		 006827	008513	008513	008513			SHCS 3/8-24 x 3
36B					 464266	 464266	006827		SHCS 3/8-24 x 2 1/4
37 38	1		 009504	008479	161366	161366			Stop spacer
39	2	009036	008501	 000 <i>4E</i> 0	 000450	 000450	 04.420 <i>E</i>	 000450	<u>Link</u>
	2	009029	008458	008458	008458	008458	014395	008458	Spacer
40 41	2	 000028		014381	031297	031297	014391 014396	008451 008455	Jaw Jaw pin
	2	009028	008506	008514	008514	008514	014396	008455	Jaw pin
42	2	009026	008507	008516	008516	008516	014397 014399	008456 008557	Link pin
43	1	<u>009027</u>	<u>008508</u>	008515	008515	008515	014398	008557	Ram pin
44 45	4			008518	008518	008518	<u>014393</u>	<u>008453</u>	Link
45 46	2			008495	008495	008495			Link spacer
46 47	4	 000035		008472	008472	008472		 009454	Retaining ring
47 48	2	009035	008502	014383	030270	030270	014394	008454	Side plate
48	3	003868	003868	003868	003868	003868	003868	003868	Flexloc nut, thin 3/8-24

#### **PARTS LIST, Continued**

					N-1444	N-145 <i>1</i>	NS-145 <i>1</i>	NS-250	
<b>KEY</b>	QTY.	RCN-3435	RCN-1435	N-1435	<u>50LSH</u>	<u>LSH</u>	<u>75L</u>	<u>65L</u>	<b>DESCRIPTION</b>
49***	2			014371	031296	031296***			Crimper
50	1	009032	008503						<u>Notcher</u>
51	4	009031	008511						<u>Jaw</u>
52	1						014392	008452	Crimper
53	1				017949	017949			Link retainer
54	1				030263	030263			Guide spacer
55	1				030264	030264			Locking link
56	1				030265	030265			Link spacer
57	1				030267	030267			Spring
58	1				007631	007631			Roll pin, 1/8 x 3/8
59	1	003132	003132	003132	003132	286305	003132	003132	Caution sign
60	1	008673	008673	008673	008673	286303	008673	008673	Nameplate

<sup>\*</sup> Handle, complete with valve, Part No. 008460, includes keys 1 through 12.

- C When ordering parts please show tool model, part number and name.
- C All recommended spare parts are underlined and should be stocked.
- C Standard hardware parts may be obtained from local hardware suppliers.

Items furnished with each sealer: 3/8" air hose (10' long) - Part No. 008558

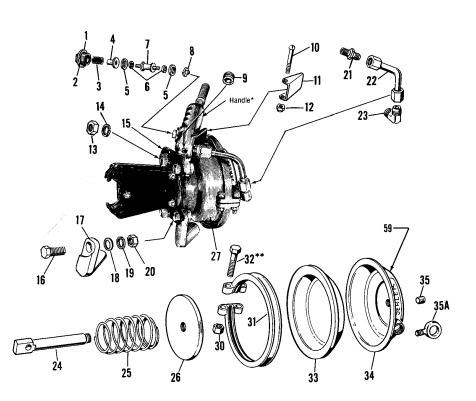
Disconnect plug - Part No. 008568 Disconnect socket - Part No. 008569

NOTE: Special manufacture sealer N-1457LSH is the same as the N-1444-50LSH sealer except for the special crimpers (Part No. 183023) which must be used when using .057" U.S.L.M. Magnus strapping.

NOTE: Snug hex nut (30) prior to torquing. Tap periphery and torque to 75-90 inch pounds.

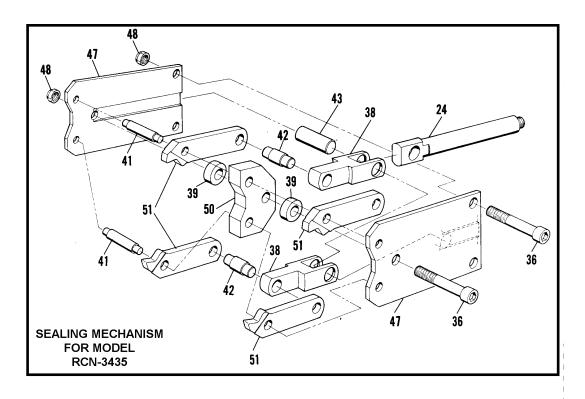
### **AWARNING**

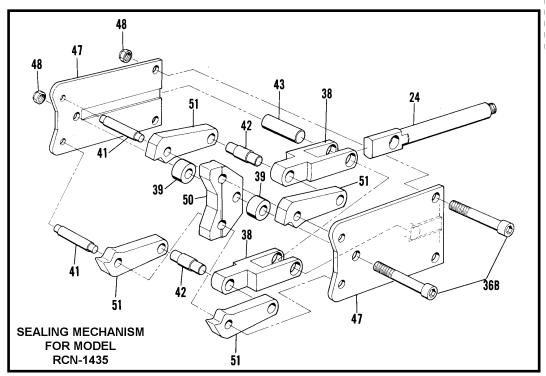
Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.



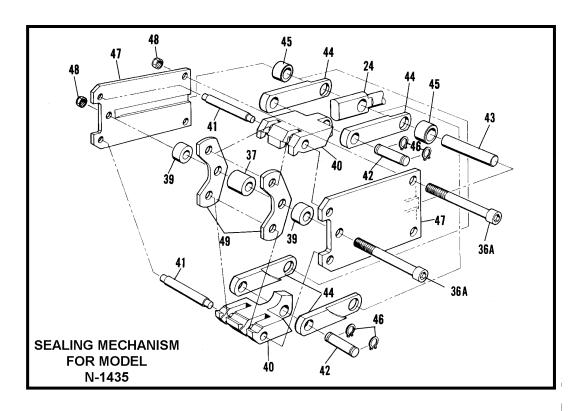
<sup>\*\*</sup> For field replacement use Soc. hd. cap scr., 5/16-24 x 1 1/2, Part No. 008851.

<sup>\*\*\*</sup> Use (2) crimpers (Part No. 183023) when using .057" U.S.L.M. Magnus strapping.

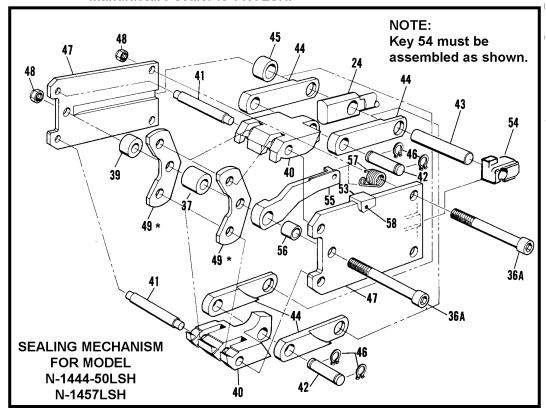


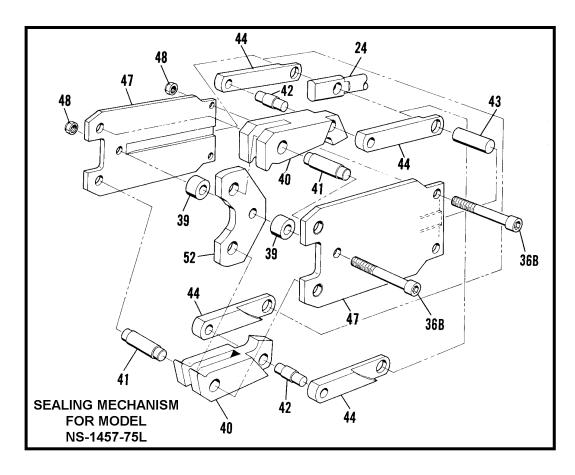


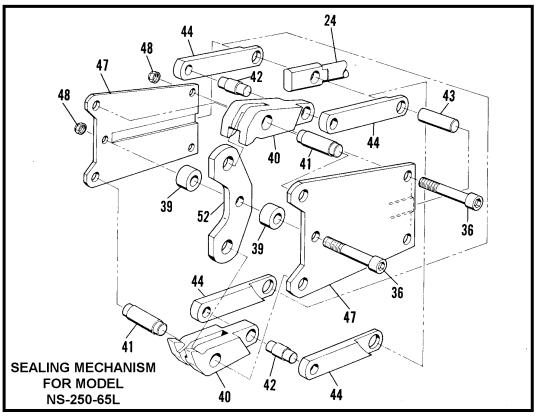
Inspect all parts daily and replace them if they are worn or broken. Failure to do this can affect a product's operation and could result in serious personal injury.



\* Key 49 uses (2) crimpers (Part No. 183023) when using .057" U.S.L.M. Magnus strapping. Use only on special manufacture sealer N-1457LSH.









# 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: RCN Tool Series

N Tool Series NS Tool Series

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: Date: 19 DEC 1994

(Peter Oseland)

#### 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 be 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

PART#	DESCRIPTION	AREA OF USE
LUBRICAN	ITS	
008556	LS-1236 AIR LINE OIL	AIR MOTORS, AIR VALVES
177029	GEAR HOUSING GREASE	CLUTCH DRIVES, INTERNAL GEARS, GEAR SETS
422792	WHITE LUBRIPLATE GR-132 GREASE	PNEUMATIC PARTS, AIR CYLINDERS, AIR VALVES, O-RINGS
422793	BLACK LUBRIPLATE 3000W GREASE	MOVING EXTERNAL PARTS, JAWS, LINKS
425239	RED MOBILITH SHC 007 GREASE	INTERNAL GEARS
432322	EP ACCROLUBE GREASE	HIGH FRICTION CONTACT PARTS
<b>ADHESIVE</b>	S	
274111	LOCTITE #380 BLACK MAX	PERMANENT, FLAT SURFACE PART CONTACT
422794	LOCTITE #222 PURPLE	LOW STRENGTH, SCREWS 1/4" (6MM) OR SMALLER SIZES
422795	LOCTITE #242 BLUE	MEDIUM STRENGTH, SCREWS 5/16" (8MM) OR LARGER SIZES
422796	LOCTITE #271 RED	HIGH STRENGTH, SEMI-PERMANENTSCREW APPLICATION
422797	LOCTITE #609 GREEN	PERMANENT, CURVED SURFACE PART CONTACT
CLEANING	BRUSHES	
023963	SMALL BRUSH	FEEDWHEEL & GRIPPER TEETH
269589	LARGE BRUSH	FEEDWHEEL & GRIPPER TEETH