

OPERATION, PARTS AND SAFETY MANUAL

SIGNODE®

**AL-12/38
COMBINATION STRAPPING TOOLS**

**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.

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.

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.

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.



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.

CUT HAZARD

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



TOOL CARE

- Inspect and clean the tool daily. Replace all worn or broken parts.
- Lubricate all moving parts weekly unless otherwise specified.

WORK AREAS

Keep work areas uncluttered and well lighted.

! WARNING

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Use 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 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 severe personal injury.

JOINT FORMATION

- Before using this tool, read its Operation and Safety instructions contained in this manual.
- This tool is a double notch type sealer. Each notch-joint must be inspected to make certain it has four (4) good notches. A properly formed notch-joint will appear as shown in the illustration. If the notch-joint does not appear as shown, then the operator must proceed as follows.



PACKAGE SURFACE

1. Make certain that the tool's operating instructions are being followed before applying another strap.
2. Cut the strap off and apply a new strap and seal.
3. An improper formed seal which does not have four (4) good notches, 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 broken strap and check the tool for worn or broken parts. Repair 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 cutter's manual for proper procedures in cutting strap. Before using any Signode product read its Operation and Safety Manual.

MAINTENANCE

Clean and apply a light weight machine oil to all moving parts on a weekly basis. Clean the feedwheel daily with a wire brush. Debris accumulated in the teeth of either the feedwheel or the clutch plug must be removed with a small wire brush. A need to clean the teeth will become apparent when either the feedwheel skids on the strap or the lower strap slips on the clutch plug during tensioning.

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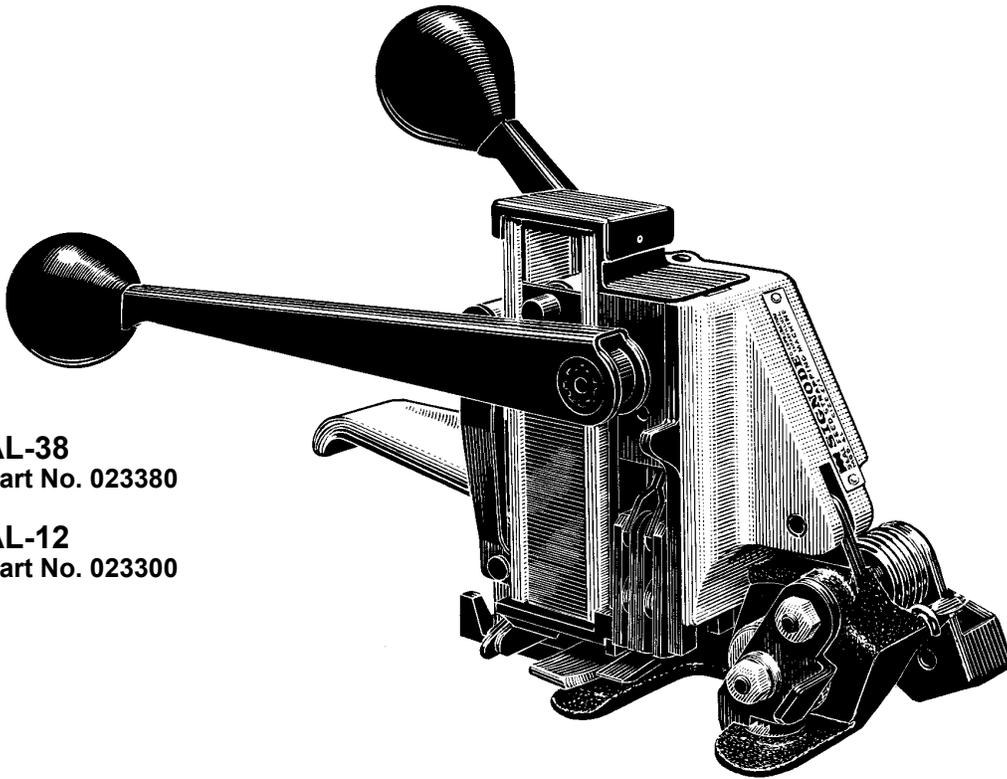
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! WARNING

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AL-38
Part No. 023380

AL-12
Part No. 023300

SPECIFICATIONS

MODEL	TYPE	STRAP		SEALS
		WIDTH	THICKNESS	
AL-38	APEX	3/8" (9.52mm)	0.017" (0.43mm) Minimum 0.020" (0.50mm) Maximum	38 AL
AL-12		1/2" (12.70mm)	0.017" (0.43mm) Minimum 0.023" (0.58mm) Maximum	12 AL

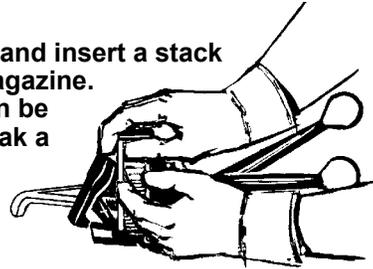
OPERATING INSTRUCTIONS

WARNING

- 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 serious personal injury.

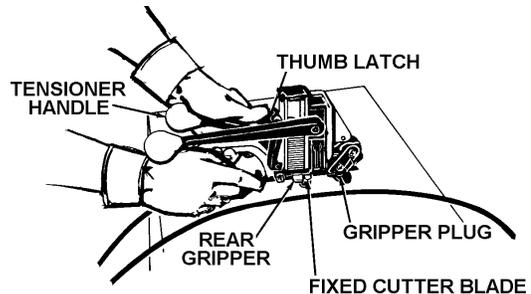
LOADING SEALS

To load seals, raise the seal pad to the top of the magazine and insert a stack of seals through the wide opening in the side of the seal magazine. Make sure the seal stack is pushed all the way in. Seals can be loaded at any time without waiting for seals to run out. Break a stack and load as many or as few as needed.

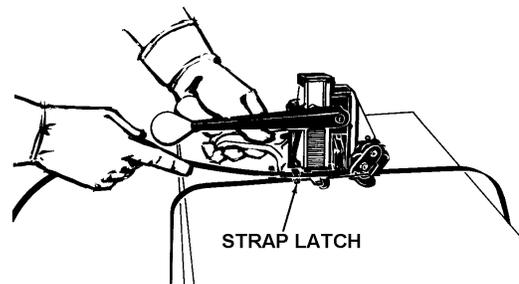


APPLYING A STRAP

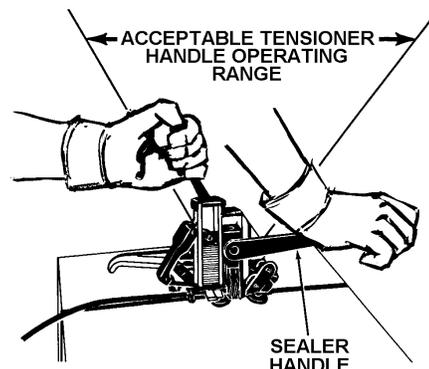
1. Encircle the package with the strap. Grasp the handle of the tool and the tensioner handle with your left hand. Squeeze the handles together to lift the feedwheel. Place the strap in the tool so that it is beneath the fixed cutter blade and the lead end of the strap covers the gripper plug. Press the thumb latch to release the rear gripper to hold the bottom strap in place.



2. Pull out excess slack in the strap. Insert the top strap above the fixed cutter blade and then insert it sideways into the strap latch.

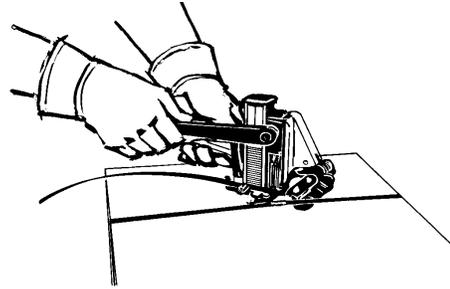


3. While standing to one side of the strap line, move the tensioner handle back and forth, as shown. Repeat this action until the desired tension is obtained. Complete the cut-off and sealing operation by pushing the sealer handle to its maximum forward position. The rear gripper automatically opens during this operation. **NOTE:** The tensioner handle can be used to help stabilize the tool during the sealing operation if its pulled back as the sealer handle is being pushed forward. The pin that protrudes from the tensioner handle contacts the sealer plate to prevent the tool from tipping forward and damaging soft packages.



OPERATING INSTRUCTIONS, Continued

4. Return the sealer handle to its original position. At the same time pull the tensioner handle all the way back to disengage the feedwheel. The tool can be removed from the tensioned strap by swinging the rear of the tool to the operator's left. Inspect the seal to make sure a proper joint has been formed. Refer to the view, next page, for details.



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 1. Make certain that the tool's operating instructions are being followed before applying another strap.
 2. Cut the strap off and apply a new strap and seal.
 3. An improperly formed seal which does not have four (4) good notches, 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 broken strap and check the tool for worn or broken parts. Repair the tool for worn or broken parts. Repair the tool before applying another strap.



PART ADJUSTMENT, REMOVAL & REPLACEMENT

REFER TO PAGES 7 AND 8 FOR ADDITIONAL INFORMATION

DISASSEMBLY OF TOOL:

1. Remove the seals from the magazine and the sealer mechanism.
2. To remove both units loosen the cutter adjustment screw (33) and remove the top and bottom cap screws in the sealer frame (1 and 2).
3. Push the magazine out to the side so the locating lug clears the offset in the frame. Pull back the entire sealer mechanism and magazine assemblies, twisting the front outward away from the sealer frame. Remove both assemblies from the sealer frame.
4. The magazine is now easily separated from the sealer mechanism. The magazine and sealer mechanisms are now accessible for examination and replacement of worn or broken parts. The sealer mechanism is serviced by removing the cutter blade pins and cutter blade. Clean the parts. Jaws and notchers are replaced as required. Note that the outer jaws can be reversed front to back to provide new cutting edges, doubling the life of these parts. After necessary repairs have been made, grease the parts or apply light machine oil. The tool is now ready for reassembly.

REASSEMBLY OF TOOL:

1. Place the sealer mechanism against the magazine and hold the units together.
2. Be sure the strap latch spring (26) is in the correct position in the tensioner frame (23).
3. Insert the lower portion of the assembly into the tool first and hook the slot in the sealer cam (70) on to the cam roller (7) inside of the sealer frame. Then swing the front of the sealer mechanism into the sealer frame so that the guide on the jaw support (76) aligns with the groove in the front of the sealer frame. Then push the whole assembly forward into place engaging the lug in the side of the magazine into the offset in the sealer frame.
4. Insert and snug up but do not tighten the top and bottom cap screws (1 and 2).
5. With jaws in the down position, advance the cutter adjustment set screw (33) until a slight bind can be felt when operating the sealer handle.
6. Securely tighten the top and bottom cap screws (1 and 2).
7. Insert a stack of seals into the magazine. Operate the sealer mechanism through 3 or 4 cycles to check tightness of the cutter adjustment set screw and see that the seals feed properly. If the sealer mechanism is excessively tight, back off the cutter adjustment set screw slightly. Next, apply a strap under tension to be sure that all elements of the tool operate properly.

EJECTOR (48) AND EJECTOR LEVER (46) W/O MAGAZINE REMOVAL:

1. Remove the seals from the magazine.
2. Remove the Truarc (43) from the right side of the ejector arm pin (42).
3. Lift the sealer handle to clear the ejector arm pin (42).
4. Drive out the ejector arm pin (42) from the sealer handle side.
5. Remove the ejector arm spring (45).
6. Place the sealer mechanism in the UP position with the sealer handle in the rest position.
7. Hold the gripper lever (35) down and pull out the ejector lever.

EJECTOR DISASSEMBLY

1. Drive out the roll pin (49) from the ejector pin (50). Be sure to support the ejector lever (46). See Figure 7.
2. Remove the pin (50), ejector (48), and spring (47). Replace the ejector lever and/or ejector as necessary.
3. Reassemble with the new ejector by following these steps in reverse order.

NOTE: If only the ejector needs to be replaced, it can be removed without removing the ejector lever following the above 3 steps.

. . . Continued

PART ADJUSTMENT, REMOVAL & REPLACEMENT, Continued

REFER TO PAGES 7 AND 8 FOR ADDITIONAL INFORMATION

REASSEMBLE THE EJECTOR LEVER (46):

1. Insert the ejector (48) into the cutter block (52) slot, hold the gripper lever (35) down and slide the ejector lever (46) into position.
2. Start the ejector arm pin (42) through the left side of the ejector lever (46) and magazine.
3. Insert ejector arm spring (45) and maintain alignment with a punch from the sealer handle side.
4. Tap ejector arm pin (42) in from the tensioner handle side, while removing the aligning punch at the same time.
5. Push on the lower left part of the ejector lever (46) to align holes on the right side of the tool. Finish tapping in the ejector arm pin (42) and replace the Truarc (43).
6. Insert a stack of seals into the magazine. Operate the sealer mechanism through 3 or 4 cycles to check the tightness of the adjustment set screw and to see that the seals feed properly. If the sealer mechanism is excessively tight, back off the cutter adjustment set screw slightly. Next, apply a strap under tension to be sure that all elements of the tool operate properly.

REPLACING THE FEEDWHEEL:

To change a dirty or worn feedwheel remove the left hand nut (32) from the feedwheel shaft and the lock nut (14) from the support shaft. Press down on the tensioner handle to raise the feedwheel and remove the washer (31), side plate (29) and feedwheel (28). Replace the feedwheel and reassemble the parts in reverse order.

REPLACING THE GRIPPER PLUG:

Turn the tool on its side. Remove the feedwheel by following the Feedwheel Replacement Instructions. Using a punch, drive the plug (25) and roll pin (24) upward and out. Make certain a roll pin is properly installed in the new gripper plug. Drop the new gripper plug, with roll pin, into the hole in the base, properly aligning the roll pin with its hole. Drive the gripper plug downward with a length of brass rod or re-install the feedwheel and apply a strap under tension to fully set the plug.

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.