



Martin Yale™

Important Information

Save Your Carton! Laminators are shipped in special cartons to protect them from damage. Please save your cartons in case the laminator ever requires servicing.

Remove the laminator from its box by grasping the housings and pulling up. Do not use rollers or shafts as handles- this could cause damage.

The power supply cord should be unplugged from the wall outlet when it is to be unused for a long period of time.

This manual is provided as an **Operator's Manual** and covers most situations you will encounter while using your laminator. It is not a Technical Service manual. For technical assistance beyond what this manual provides, contact Martin Yale at:

Martin Yale Industries
251 Wedcor Avenue
Wabash, IN 46992
Phone: (800) 225-5644
Fax: 800-654-8339

www.martinyale.com

This information is provided as a guide and does not constitute a representation or warranty, expressed or implied, relating to the suitability or fitness for a particular application or otherwise create guarantees of product performance. In all cases, customers should independently determine the suitability of products for their specific application before use. Manufacturer reserves the right to make changes any time.

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SPECIFICATIONS

Height	15”(381 mm)
Width	34”
Depth (with feed tray)	20”
Net Weight.....	66 lbs.
Shipping Weight	72 lbs.
Capacity.....	27”
Electrical.....	120V AC, 60Hz, 1400w
Maximum Speed.....	9.5 fpm (feet per minute)
Maximum Temperature	300 F
Maximum Board Thickness	1/4”

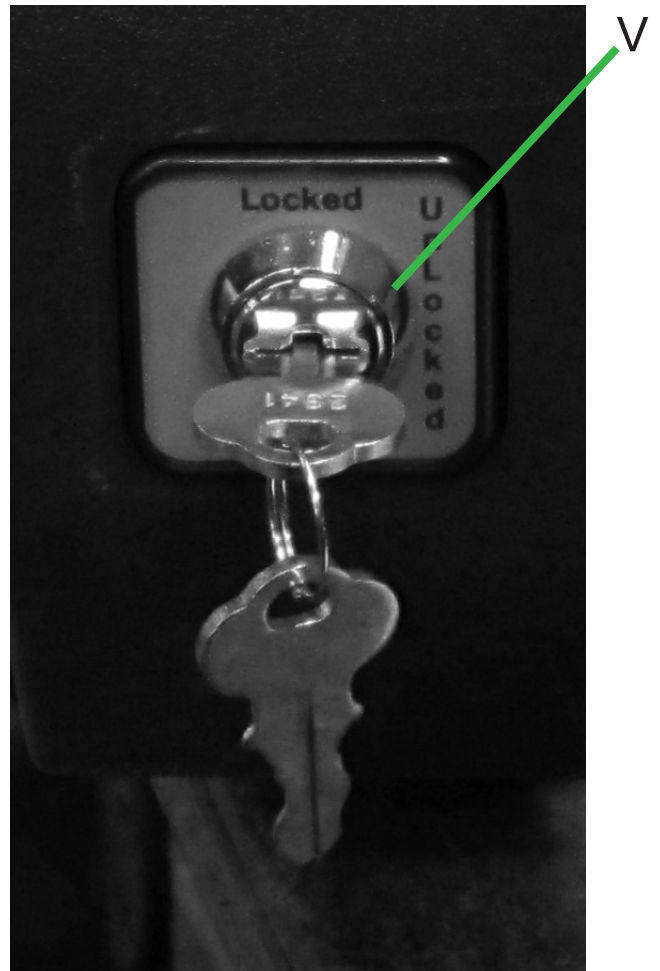
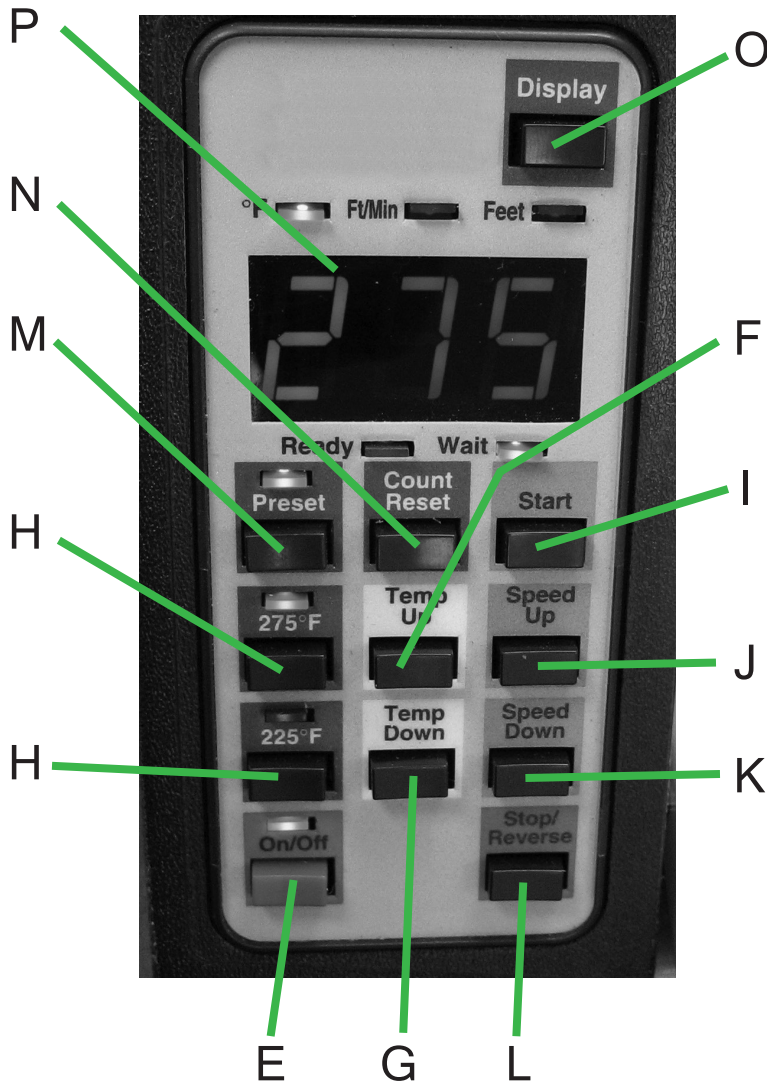
IMPORTANT SAFEGUARDS

- Read all the safety and operating instructions before connecting or using this unit.
- Retain this notice and the owner's manual for future reference.
- Adhere to all warnings and operating instructions.
- Do not use this unit near water (e.g. near a bathtub, etc.)
- Wearing ties or jewelry while operating a laminator may be hazardous to the operator.
- Warning: Do not touch hot surfaces such as heated laminating rollers.
- This unit should be installed so that its location or position does not interfere with its proper ventilation. For example, it should not be situated on a bed, sofa, rug or similar surface that may block the ventilation openings; or placed in a built-in installation, such as bookcase or cabinet or against the wall, that may impede the flow of air through its ventilation openings.
- This unit should be situated away from heat and air ventilation systems such as radiators, heat registers, stoves, etc.
- This unit should only be connected to a power supply outlet of the voltage, amperage and frequency marked on its serial tag.
- For 120 volt machines the socket outlet shall be installed near the equipment and be easily accessible.
- The power supply cord should be routed so that it is not likely to be walked upon or pinched, especially near the plug, convenience receptacles, or where the cord exits from the unit.
- Unplug the machine during any machine repairs.
- Clean unit only as recommended in this instruction manual.
- Make sure to remove the Feed Table before reversing the machine!
- Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through any openings.
- Caution: The Cutter blade is extremely sharp. Please handle carefully and dispose of properly.

GENERAL DIAGRAMS

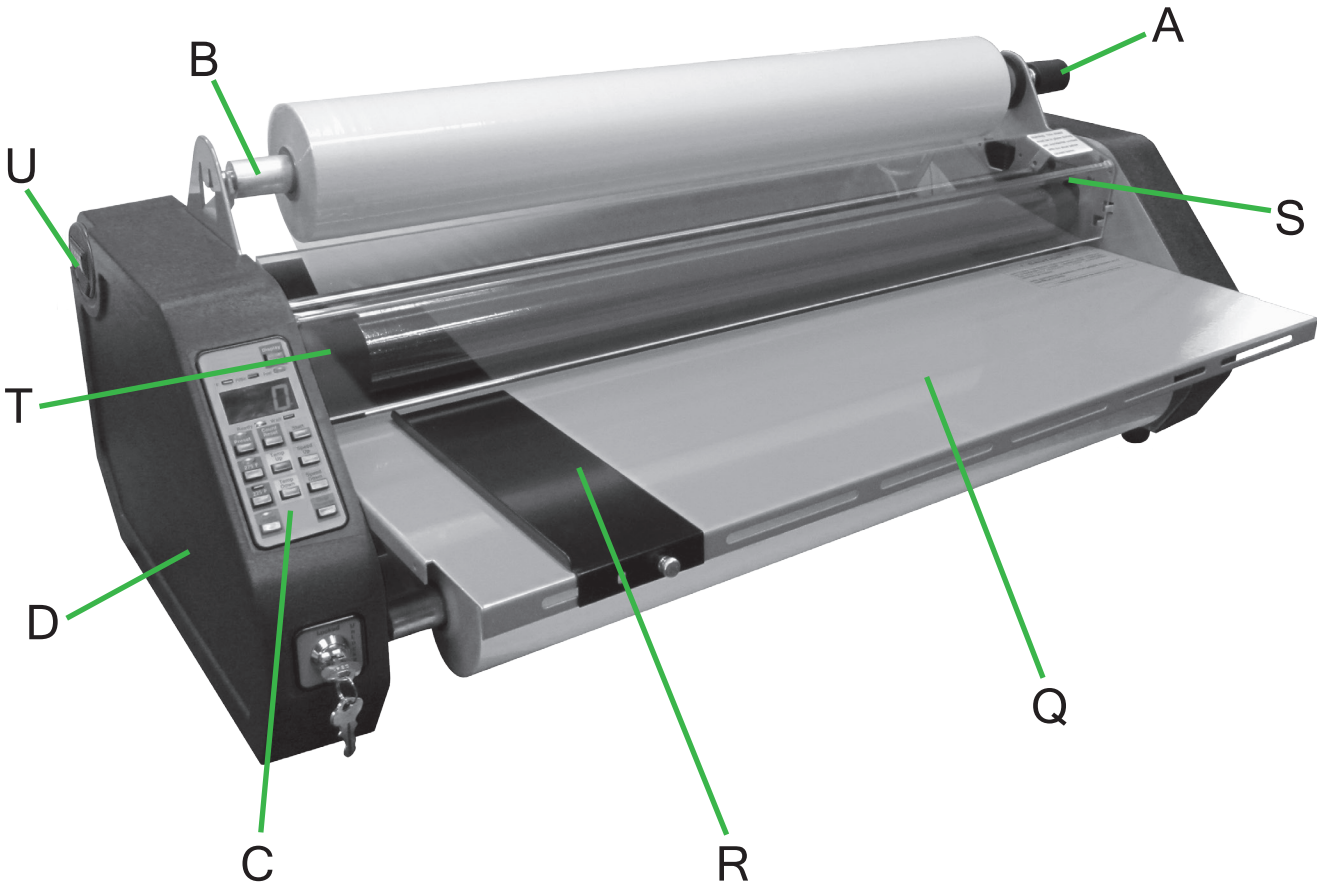
Your laminator offers variable speeds and a reverse feature. It is designed to laminate a variety of materials using up to 27" laminating films and adhesives. The laminator is capable of lamination from 1 to 9.5 feet per minute and can be reversed by the push of a button.

Tension Adjusting Knobs (A) are conveniently located on the Supply Mandrels (B) on the right side panel for easy access. A Control Panel (C) is located on the Left Housing (D) - (see page 4), and is equipped with a Power



Button (E) to turn the machine on, Temperature Up (F) and Temperature Down (G) buttons, two Preset buttons (H), a Motor Start button (I) to start the motor turning, Speed Up (J) and Speed Down (K) buttons to adjust the speed as necessary, a Motor Stop/Reverse button (L), a User Preset button (M) to save your own settings, and a Count Reset button (N) which resets the usage counter. The Display button (O) toggles the Display (P) between 3 settings. The Feedtray (Q) and Feed Guide (R) provide a smooth, durable paper path and the Heat Guard (S) protects hands from hot surfaces inside. Silicone coated nip rollers (T) provide pressure to laminate and mount. The Cutter (U) cuts and trims your laminated documents and the Keyswitch (V) prevents unauthorized usage. Pull roller lift levers (W) open the pull rollers (X) on the back of the laminator to allow boards up to 1/4" thick pass through.

GENERAL DIAGRAMS



Back View

I. Unpacking

Remove the laminator from its box by grasping the housings and pulling up. Do not use rollers or shafts as handles - this could cause damage. Choose a location for the laminator that is clean, well-lit and draft free. Make sure it is not in the path of any fans, room air conditioners, or positioned too close to the wall. The laminator comes ready to load the film onto the supply mandrels, thread the film through the machine, and install the feed table.

II. Information About Laminating Film

Laminating film is made up of two layers: a base film layer which provides protection, rigidity, and a gloss, matte or textured finish, and a dull or matte side which is heat activated and serves as the “glue” to bond the film to the product being laminated. Once heated, small amounts of the “glue” side can stick to the rollers and must be periodically cleaned from the laminator.

Laminating film is available in a variety of different lengths, and thicknesses. Your laminator is designed to accommodate laminating films up to 10 mils thick.

III. Operating

A. Control Panel

The control panel is located on the left side of the laminator. This panel is used to control the various machine functions listed below.

Display (O,P)

The display of the Laminator will show the 3 different parameters of the machine: temperature, speed, and usage counter. The default display mode is usage counter. If the machine is not yet up to temperature, the machine will display the set point temperature. When the machine reaches the set point temperature, the usage counter will be displayed. If the speed is adjusted, the machine will momentarily display the speed and then quickly return to usage counter mode. The “Display” button allows you to toggle between any of the 3 settings for the display.

Power (E)

The “On/Off” button turns the machine on.

Heat (F,G)

The temperature controls are the “Temp Up” and “Temp Down” buttons (yellow blocks). These buttons are used to adjust the temperature currently displayed. The temperature displayed is the temperature set point. This is the temperature that the machine will reach and hold. The temperature can be increased or decreased in 1° increments by pressing and releasing the up or down button. To rapidly increase or decrease the temperature, press and hold the button. When the machine reaches the set point temperature, the Ready light (green) will illuminate, and a two second beep will sound. If a significant change in the set point temperature occurs, the Wait light (red) illuminates until the laminator reaches the new set point temperature. At this time the Ready light will illuminate again. Note: depending on room conditions and desired set point, it will take between 20 and 30 minutes for the ready indicator to come on.

Standard Presets (H)

The Laminator is equipped with 2 factory presets. The buttons are labeled 275 and 225. These buttons will set both a speed and temperature, that being (275°F and 3 feet per minute) and (225°F and 3 feet per minute). If one of the presets is engaged, its corresponding LED will be illuminated.

Motor (I,J,K,L)

The motor controls are the 4 buttons on the right side of the control panel. The “Start” button will start the motor which will run at the current speed setting. The “Speed Up” and “Speed Down” buttons will adjust the speed setting. Pressing and releasing the button once will increment the speed by 0.1 ft/min (0.03 meters/min). To rapidly increase or decrease the speed, press and hold the corresponding button. To stop the motor, press and release the “Stop/Reverse” button. To reverse the machine, press and hold the “Stop/Reverse” button. The motor will remain in reverse as long as the button is depressed.

User Preset (M)

The laminator is equipped with a user defined “Preset” button. This button can be used to save a speed and temperature setting that you have defined. With the machine’s speed and temperature set to your preferred settings, press and hold the “Preset” button until the beeper sounds and the preset light comes on. To recall this setting at a later time, press and release the “Preset” button.

Usage Counter (N)

The Laminator is equipped with a usage counter that will indicate the feet (meters) of film used. This counter will appear on the display whenever the feet indicator light is on. This counter can be reset to zero by pressing the “Count Reset” button once the display is showing the usage counter.

Additional Features

Keyswitch

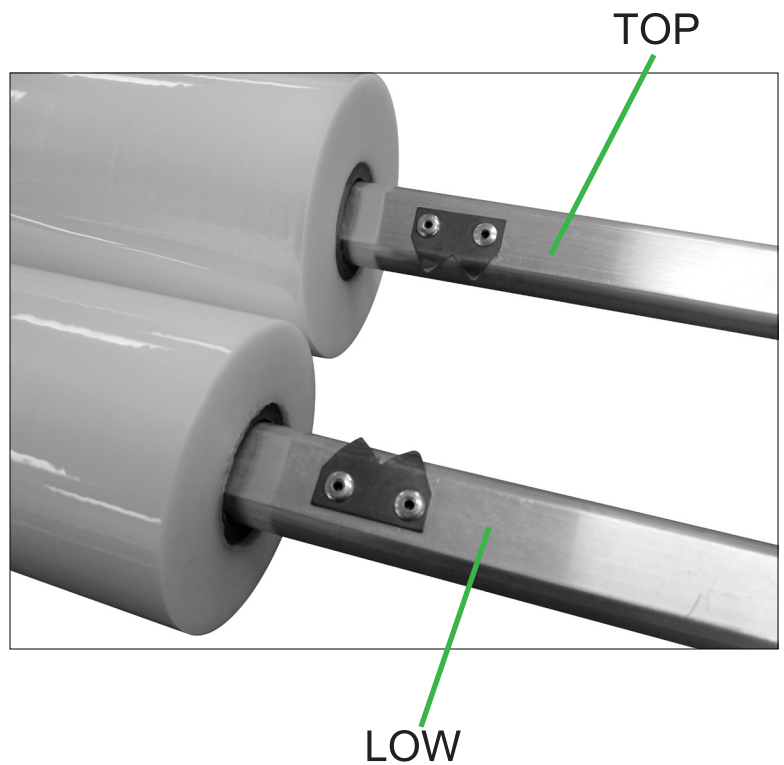
The keyswitch (located just below the control panel) locks out the motor, allowing the machine to remain heated; yet, preventing unauthorized usage when in the locked position.

B. Loading Film: 1" Mandrel (B)

Unpack the upper and lower supply mandrels. The upper and lower mandrels are different. The word "TOP" is stamped on the shaft of the upper mandrel and the word "LOW" is stamped on the shaft of the lower mandrel. The ends of each mandrel are also different. The "hanger" end fits in the bracket on the left side of the laminator. The "slot end" fits into the tension adjuster on the right side.

Slide the film roll onto the mandrel by rotating the mandrel in the opposite direction of the gripper points, leaving equal lengths of mandrel sticking out of each end. The film roll will slide over the gripper, which will keep the roll from turning on the shaft.

Certain laminating films feature color-coded cores to facilitate loading. The film intended for the top roller contains a red core that corresponds to the red tension adjuster on the top of the machine. The bottom film supply features a blue core that corresponds to the blue tension adjuster on the bottom of the machine. Your laminator is compatible with most films on the market, however these may not feature red and blue cores.

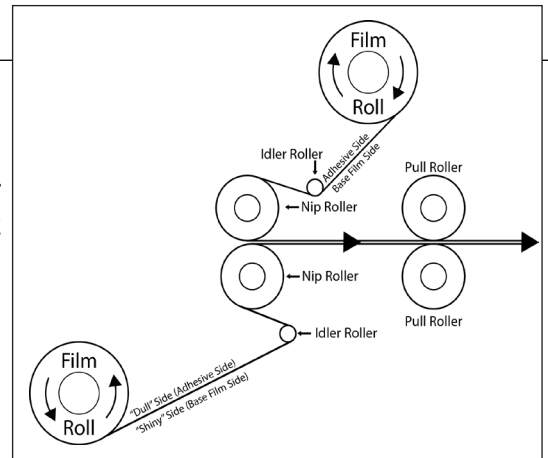


Load the mandrel on the laminator by inserting the slot end of the mandrel into the tension adjuster on the right side and then lowering the hanger end into the bracket on the left side.



C. Threading the Film

Remove the feed tray and the heat guard. Thread the film as shown in the figure on the right. Pull the film around the idler rollers as shown. Unhook the lower idler roller and lower it down for easier threading. Raise it back up and hook into the locked position before threading the film between the heated rollers. **Make sure the shiny and dull sides of the film are as indicated in the diagram.** Position the threading board provided.



Turn power and keyswitch to on. Start the motor by pressing the "Start" button, and reduce the speed to 1 foot/min.



Feed the threading board and film between the front rollers. This will pull the film through the rear pull rollers until it comes out the back of the laminator.



Slide the top and bottom film rolls from side to side on the mandrels so that the film is perfectly aligned top and bottom (Note: overlap will cause the film to deposit adhesive residue on the rollers, so this procedure is critical). Replace feed tray and heat guard.



D. Laminating

After the machine is loaded with film (see B. Loading Film: 1" Mandrel) and threaded (see C. Threading the Film), it is ready to laminate. Ensure that the laminator has reached the preset temperature. This will be indicated by the ready light being illuminated. Place document on the feed table and align with the feed guide to assure straight and even lamination. Start the motor with the "Start" button and adjust the speed as necessary. If necessary, adjust the supply roll tension (see E. Supply Roll Tension Adjustment). With both hands, guide the document into the throat of the laminator. While the document is pulled



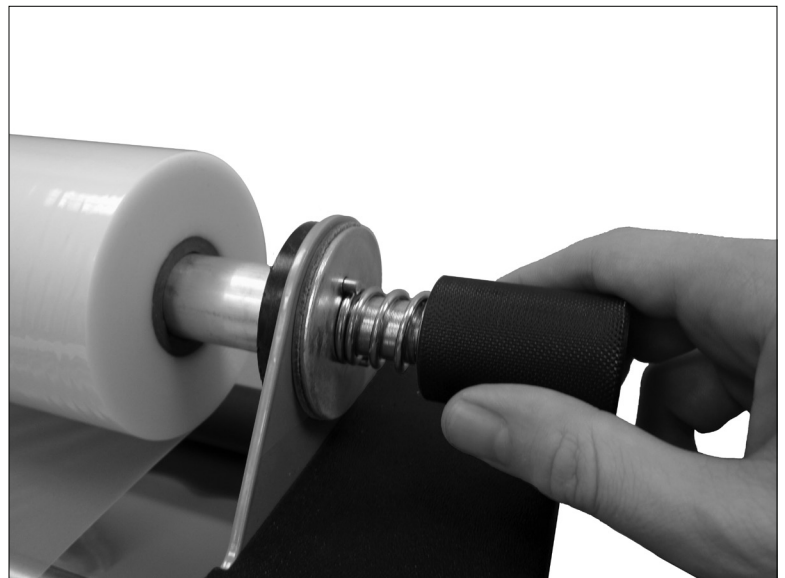
into the laminating rollers, keep document flat on the feed table while applying a slight back pressure. As the document exits the rear rollers, allow 3" to 6" of film to clear the rollers at the end of your document and turn the motor switch to stop. Do not bend or flex the document until it has cleared the rear rollers. Flexing a document while it is between the rear rollers may cause a line or indentation to occur in the laminated sheet. Using the hand held cutter, hold tension on the laminated document and slice through the film to release the document. Multiple documents can be run successfully if desired and cut at a later time.

E. Supply Roll Tension Adjustment (A)

Top and bottom supply rolls should have about the same tension. By turning the top roll with one hand, and the bottom roll with the other hand, it can be determined if one of the rolls is tighter than the other.

Note: Too much tension can destroy film, documents, and damage the machine.

Adjust the tension to the minimum amount required. Do this by loosening the tension knobs until there is no tension on the film. With the machine threaded and at operating temperature, turn the motor switch to forward and adjust the speed to the desired operating speed. Tighten the adjusting knobs only until the wrinkles in the film are removed.



Note: As the diameter of the film roll decreases, tension should be reduced.

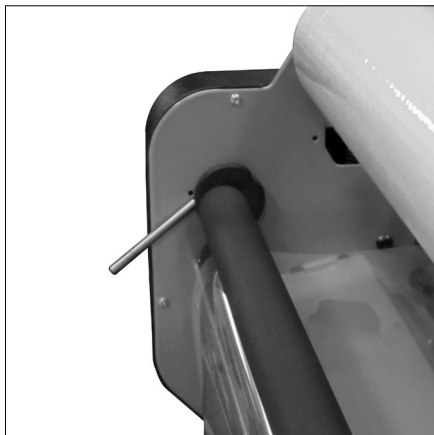
To increase tension, turn the adjusting knob clockwise. To decrease tension, turn the knob counterclockwise. If the tension is not equal top and bottom, the laminated product will curl. If the material curls **up** as it comes out of the machine, the top roll is probably tighter than the bottom. If it curls **down**, the bottom roll is probably tighter.

Note: Make sure the black disks are flat against the side panel. They should be rotating, both top and bottom, while film is feeding.

F. Mounting

Your machine is capable of mounting onto foam boards and other rigid substrates up to 1/4" thick. The machine can also simultaneously laminate and mount prints when using an adhesive-coated substrate or a mounting adhesive.

In order to mount an image onto a substrate, the pull rollers on the back of the machine must be in the open or "up" position. This is accomplished by flipping up the pull roller lift lever on each side of the laminator. The levers feature a groove that locks the pull rollers in the "up" or "mounting" position once they are fully raised. To lower the pull rollers, flip each lift lever to the "down" or "laminating" position.



Down (Laminating) Position



Up (Mounting) Position

The front nip rollers are spring-loaded and automatically adjust to the thickness of the print or board that is being fed into the machine. To process a board through the laminator, place it on the feed table and position it so the leading edge is parallel to the nip rollers. Push the board into the nip rollers until they open up and accept the material. Once the rollers have engaged the board, it will feed through the machine and come out the back end.

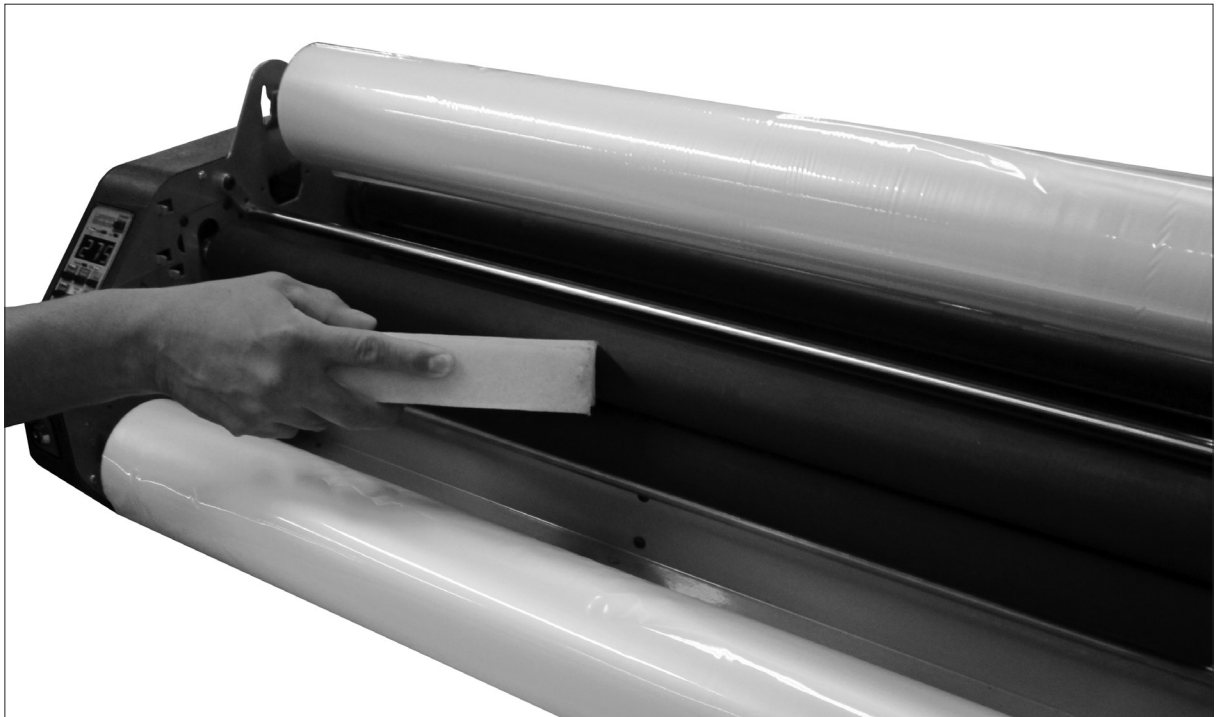
V. Maintaining the Laminator

A. Care and Cleaning

In the normal course of operation, dirt and adhesive will accumulate on the rubber rollers (Laminating produces static electricity which attracts airborne dust and dirt). Regular inspection and cleaning will assure that this does not become a problem.

Never use hard, sharp, or abrasive items to clean the rollers. The rollers are covered with a non-stick silicone surface that could easily be damaged. Any scratches, indentations, or marks left on the rollers will appear on the laminated product.

To clean the rollers, use a rubber roll cleaning eraser or a clean, lint-free cloth. Some suggested solvents are rubbing alcohol (isopropyl) or Poly-Off. Cleaning the rollers while they are warm, BUT NOT HOT, softens adhesives and makes removal easier.



B. Specific Troubleshooting Guide

	Increase Heat	Decrease Heat	Worn, Dirty, Or Damaged Rollers	Increase Tension On Supply Rolls	Dirty Rollers	Moist Or Coated Product	Decrease Tension On Supply Rolls	Reduce Speed	Check Threading Diagram
Wrinkles on Film (side to side)		●	●	●					
Wrinkles on Film (lengthwise)		●			●	●			
Plastic not bonding	●						●		
Bubbles or Blisters		●	●		●				
Impressions on product			●						
Squeaking sounds						●			●
Film narrowing on shoes						●			●
Film wrinkling on shoes	●			●					
Continuous blemish			●		●				
Cloudy film	●			●					
“Orange Peel” Finish		●							
Film sticks to nip rollers			●						●
Film sticks to pull rollers				●					●
Film won't stay aligned									●
No seal on edges	●			●			●		
Poor seal - one side only					●				

C. Removing a “Wrap-Around”

A “wrap-around” occurs if the film exiting the rear rollers curls around one of them causing the laminate to wind around the roller.

If the wrap-around is not severe, simply use the reverse feature and back the film out. **Make sure to remove the Feed Table before reversing the machine!**

For extreme wrap-arounds (i.e. when plastic and/or product have wrapped around the rubber rollers several times) follow this procedure:



Shut the machine off! There are set screws at both ends of each pull roller. With the use of a 3/32 hex key, loosen all four set screws on the pull rollers. Cut the plastic between the laminating and pull rollers, grab the loose end and pull. The rollers will rotate freely on the roll shafts and the “wrap-around” will easily unwrap. Tighten all the set screws and re-thread the film.

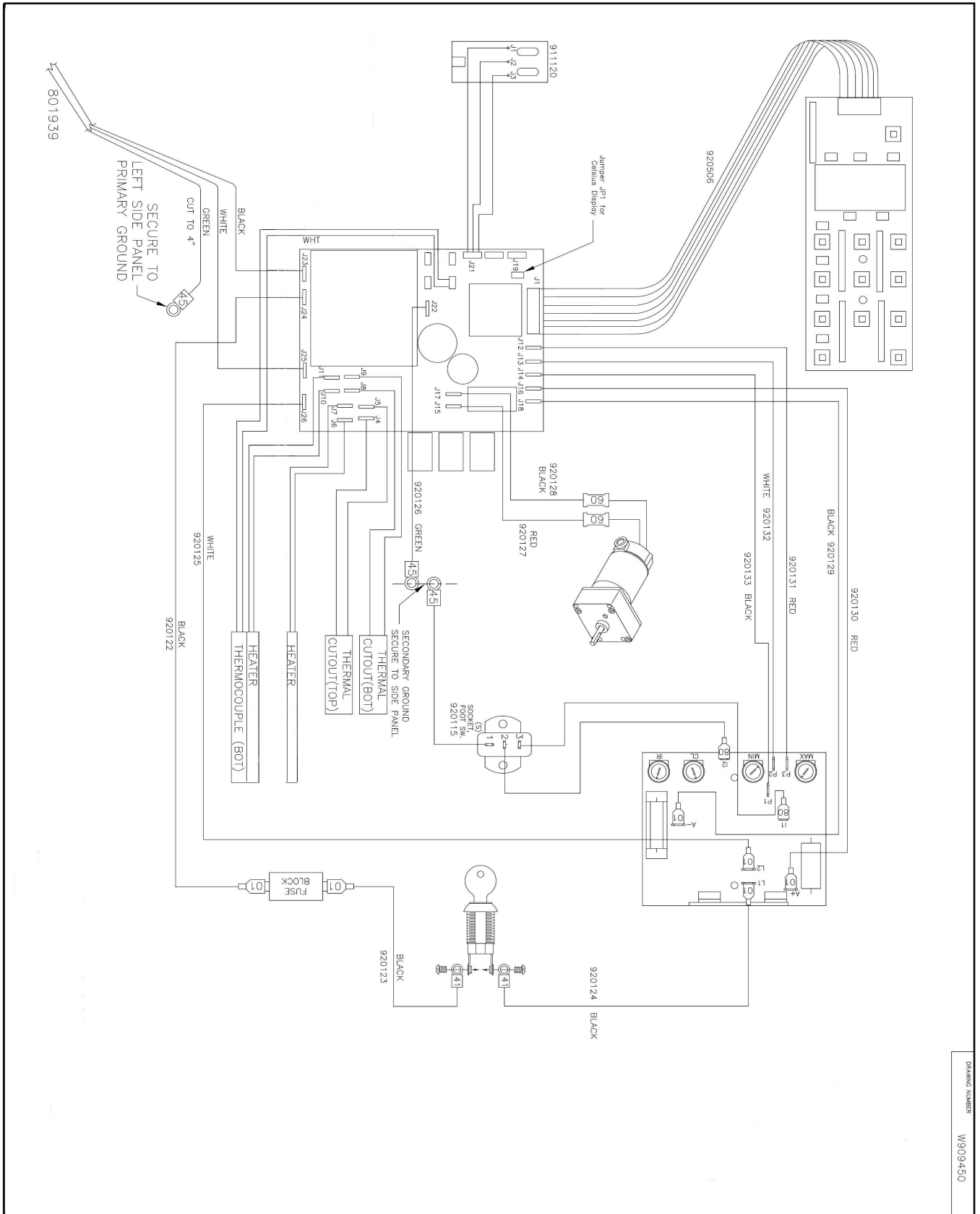
Appendix A

Replacing the hand held Cutter Blades.

The hand held cutter blade can be replaced by removing the small screw on the back of the cutter, then removing the cutter back. **Caution: The cutter blade is extremely sharp. Please handle carefully and dispose of properly.** Remove and discard the old blade. Re-install cutter back and screw. **Caution: Do not over tighten screw.**



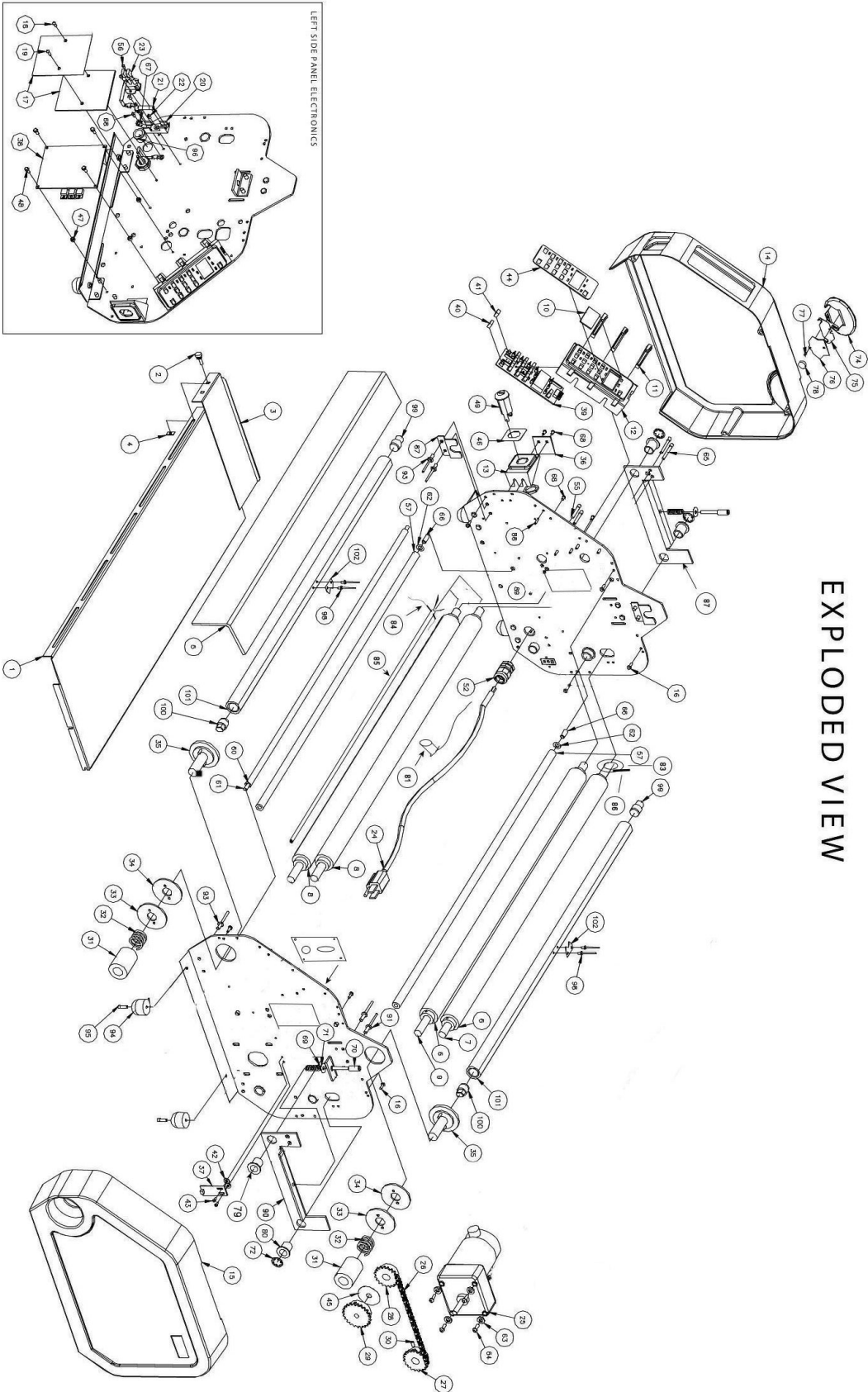
WIRING DIAGRAM



DRAWING NUMBER

W909430

EXPLODED VIEW



EXPLODED VIEW

1	707905	Feed Table, ARL, 27"	68	601115	Screw, 8-32x1/4 Pan Head
2	601345	Screw #8-32 x 1/2"	69	802155	Pressure Spring
3	707284	Left Feed Guide, Black Powder	70	707211	Pressure Adjust Screw
4	603340	Nut, 8-32 Tinnerman	71	605021	Washer, Zinc, .203X.625X.016
5	707942	Heat Guard 27", MK2 28 9/16	72	708147	Clip, Bushing, Retaining
6	650801	27" Pull Roll	73	610026	Spacer 1/4 x 1.032 Steel
7	707901	Upper Roll Shaft ARL-27"	103	690918	Key
8	709573	27" Rubber Roll	104	707873	Chassis
9	707902	Lower Roll Shaft ARL-27"			
10	707998	Display Lens, MK2G2	907002		Hand Held Slitter Assembly
11	707852	Bracket Block, MK2	74	707001	Hand Held Slitter Housing
12	707851	Switch Mntg Bracket, MK2	75	707002	Slitter Hook Blade
13	707944	Keyswitch Bracket, MK2	76	707003	Slitter Blade Cover
14	707588Blk	Left Housing, MK2	77	600781	Screw, 2-56x3/16" Self Tapping
15	707587Blk	Right Housing, MK2	78	707004	Slitter Magnet, Pressure Sens.
16	611077	6-19 x 5/8 Plastite 48-2 Thread			
17	801923	Motor Control KBIC-11 PMCL			
18	611020	Screw, 6-32X3/8" W/Patch Phil	79	654081	Bushing, Front Rollers
19	601112	6-32X1/2 RH, Nylon Slotted	80	654095	Bushing, Upper Roll AV
20	801988	Fuseholder, Molded Base			
21	802448	Fuse, 8A/250V Slo Blo	81	911131	IR Sensor
22	611027	Screw, 6-32 X 5/16 Phil Pan Hd	82	600290	Screw, 8-32 X 3/16, Set
23	920115	Wire Ass'y, 6", Footswitch			
24	801939	Power Cords 16-3 Miller #E9006	83	707813	Pull Roller Lifter
25	802104	Motor, 90V DC	84	920503	Thermal Cutout, MK2 SA
26	908026	Chain	85	802065	Heater, 650W
27	801207	Sprocket 25B19 1/2 10-32 AV			
28	801208	Sprocket 25B30	86	707814	Pull Roller Lift Pin
29	801205	Sprocket 25B23 1/2, 10-32 AV	87	707871	Pressure Bracket, Lt.
30	600350	Screw, 10-32 X 3/8 Set	88	604030	Roll Pin, 1/8X1/2 , Zinc Plate
31	707399	Tension Knob, AV-OEM	89	654090	Bushing - Lower Roll AV Delrin
32	802160	Compress Spring LC-098K-00-M/W	90	707870	Pressure Bracket - Rt.
33	707406	Friction Plate AV-OEM	91	604475	Rivet SD66BS "POP" Brand
34	707409	Friction Disc, Black	92	707234	Base Channel
35	707415	Friction Stud Molded - OEM	93	604465	Rivet SD64BS "POP" Brand
36	707985	Electrical Insulator	94	801977	Rubber Feet 2580
37	911120	G1, Sensor Board, MK2G1	95	600055	Screw, 10-32 x 5/8 SHC
38	911122	G2, Main Board, Mk2G2 110V.	96	620430	Wire Bushing SB625-500
39	911125	G2, Display Board, MK2G2, Less Buttons			
40	610421	Black Button Cap, MK2G2, Req. 11			
41	610422	Red Button Cap, MK2G2, Req. 1	89	654090	Bushing - Lower Roll AV Delrin
42	604960	Nylon Washer .163X.377X.050 Thk	91	604475	Rivet SD66BS "POP" Brand
43	601100	Screw, 6-32X1/4 Pan Head	92	707234	Base Channel
44	707989	G2, DisplayLabel, MK2G2	93	604465	Rivet SD64BS "POP" Brand
45	707309	Counter Label, MK2G2	94	801977	Rubber Feet 2580
46	707922	G2, Switch Label, MK2G2	95	600055	Screw, 10-32 x 5/8 SHC
47	610031	Spacer 1/4 OD x .171 ID x .125	96	620430	Wire Bushing SB625-500
48	611021	6-32x 1/2 RH, Nylon Slotted			
49	690917	Keyswitch			
50	600966	Screw, 1/4X1.25, Shoulder, 10-32	907411LP		Lower Supply Roll SA 1"-27"
52	620112	Strain Relief, Heyco 3213/3	907411UP		Upper Supply Roll SA 1"-27"
55	600080	Screw, 10-32 X 1 1/4 SHC	98	604400	Rivet GSMD42S
56	601090	Screw, 6-32X3/16 Pan Head	99	707685	1" Supply Roll Plug - ARL, Seal
57	707907	Lower Idler Roll/ARL-27"	100	707690	1" Supply Roll "D" Plug, ARL
58	603356	Nut, 1/4-20 Hex w/Nylon Insert	101	707706	1" Supply Roll Tubing ARL 27"
59	610040	Spacer 1/4X3/4	102	707710	Torsion Spring 1" Extrusion
60	707974	27" Reinforcing Tube			
61	707977	27" Reinforcing Threaded Rod			
62	604955	Washer .265X.500X.015 Thk			
63	604840	Washer, 1/4 Split Lock			
64	600680	Screw, 10-32X1/2 Button Head			
65	600711	Screw, 10-32X1.5 SHC			
66	707062	Idler Roll Dowels			
67	604815	Washer, #8 Ext Star Lock			

LIMITED WARRANTY

Martin Yale Industries, LLC warrants, for the period of time listed below from the date of shipment, all component parts and workmanship of its products to be free of manufacturing defects.

Martin Yale Industries retains the right to authorize labor to repair any of their products in the field or have the machine returned to our factory for repair.

Martin Yale Industries will repair or replace any component part found to be defective within the warranty period, not caused by accident, misuse, or improper maintenance, damages by freight handlers, act of nature or unauthorized modifications or the use of other than Martin Yale components/parts.

Warranty is conditioned on notifications to Martin Yale's Customer Service Department by calling (800) 225-5644. All materials being returned for warranty after credit must have a requested Return Goods Authorization number (RGA) from our Customer Service Department, and must be returned within thirty (30) days after the discovery of the defect. All shipping costs on the returned material must be prepaid by the customer; credit will be issued, including the cost of ground freight, if the item proves to be defective. Incoming cartons must be clearly marked on the outside with the RGA number and "Warranty Parts". Martin Yale is not responsible for products that are returned and are not in their original packaging or are packaged insufficiently to protect the enclosed material.

Excluded from warranty coverage are normal wear items and electrical components. These exclusions include but are not limited to knives, cutters, belts, chains, PC boards, optics, paper punch pins, blocks, and rubber rollers. These items are not included for consideration unless the components are deemed defective.

This warranty is in lieu of all other warranties, expressed, implied, statutory or otherwise. Martin Yale industries make no warranty of merchantability or fitness for a particular purpose. To the extent permitted by law, any consequential or incidental damages of any kind, including, but not limited to lost profits or other economic injury are not warranted.

Finishing Equipment: Laminating Machines, Folding Machines, Booklet Makers, Letter Openers, Business Card Slitters, Score & Perforating Machines, CD Insert Slitters, Guillotines & Paper Trimmers, Paper Joggers, Stackwagons, Collators, Padding Presses, Moisteners, Check Signing Machines, Express Tabbers, Paper Punches, Reference Systems, Catalog Racks, Posting Trays, Keyboard Drawers, Printer Stands; One year parts, 90-days labor. Paper Trimmer blades have a lifetime warranty. Martin Yale reserves the right to repair or replace at our discretion all finishing products that are covered under warranty.

Disclaimers:

- a) This warranty applies to current models only. For discontinued models, consult original warranty.
- b) All repairs must be pre-approved by Martin Yale and performed by an authorized Martin Yale technician.
- c) Extended warranties are subject to the same provisions and terms of the general warranty.
- d) Martin Yale makes no warranty of merchantability or fitness of any product, for any particular purpose.
- e) To the extent permitted by law, any consequential or incidental damages of any kind, including but not limited to lost profits or other economic injury are not warranted.
- f) This warranty is in lieu of all other warranties, expressed, implied, and statutory or otherwise and is subject to change without notice.
- g) Must have proof of purchase to claim warranty.

*Labor portion of the warranty ONLY available in the Continental US.



Martin Yale™

Martin Yale | 251 Wedcor Avenue, Wabash, IN 46992 | Phone: 800-225-5644 | Fax: 800-654-8339
www.MartinYale.com