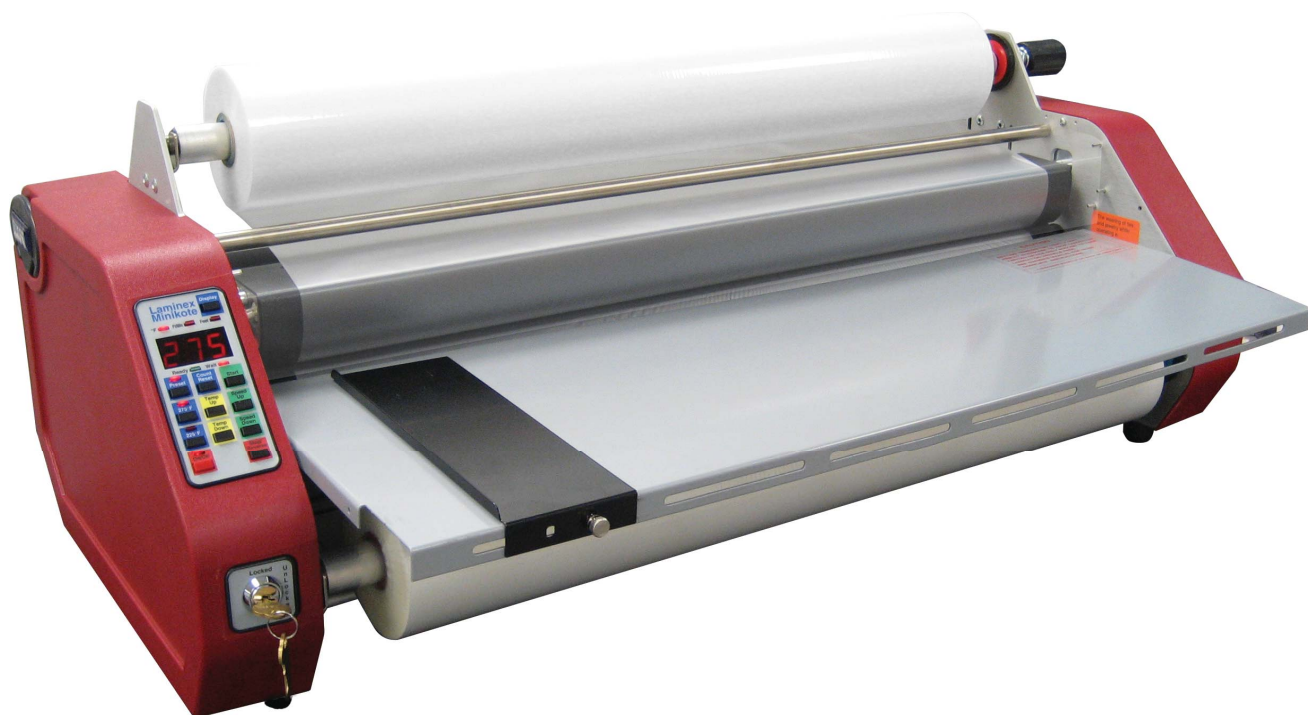


# OWNERS MANUAL

D&K Minikote



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## SPECIFICATIONS

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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

# IMPORTANT SAFEGUARDS

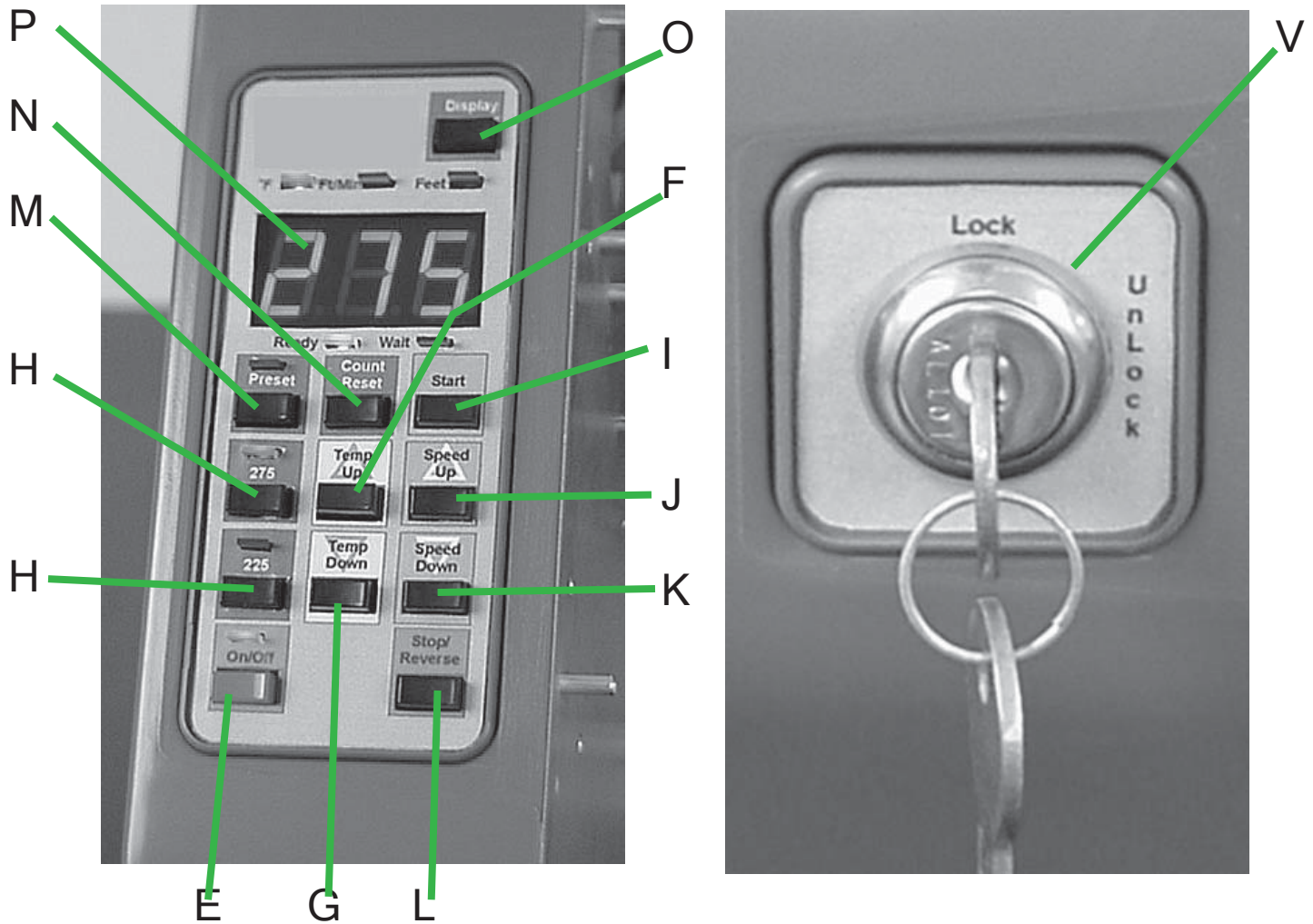
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- Read all the safety and operating instructions before connecting or using this unit.
- Retain this notice and the owners manual for future reference.
- Adhere to all warnings and operating instructions.
- Do not use this unit near water (e.g. near a bathtub, etc.)
- The wearing of ties or jewelry while operating a laminator may be hazardous to the operator.
- Warning: Do not touch hot surfaces such as heat shoes and heat 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

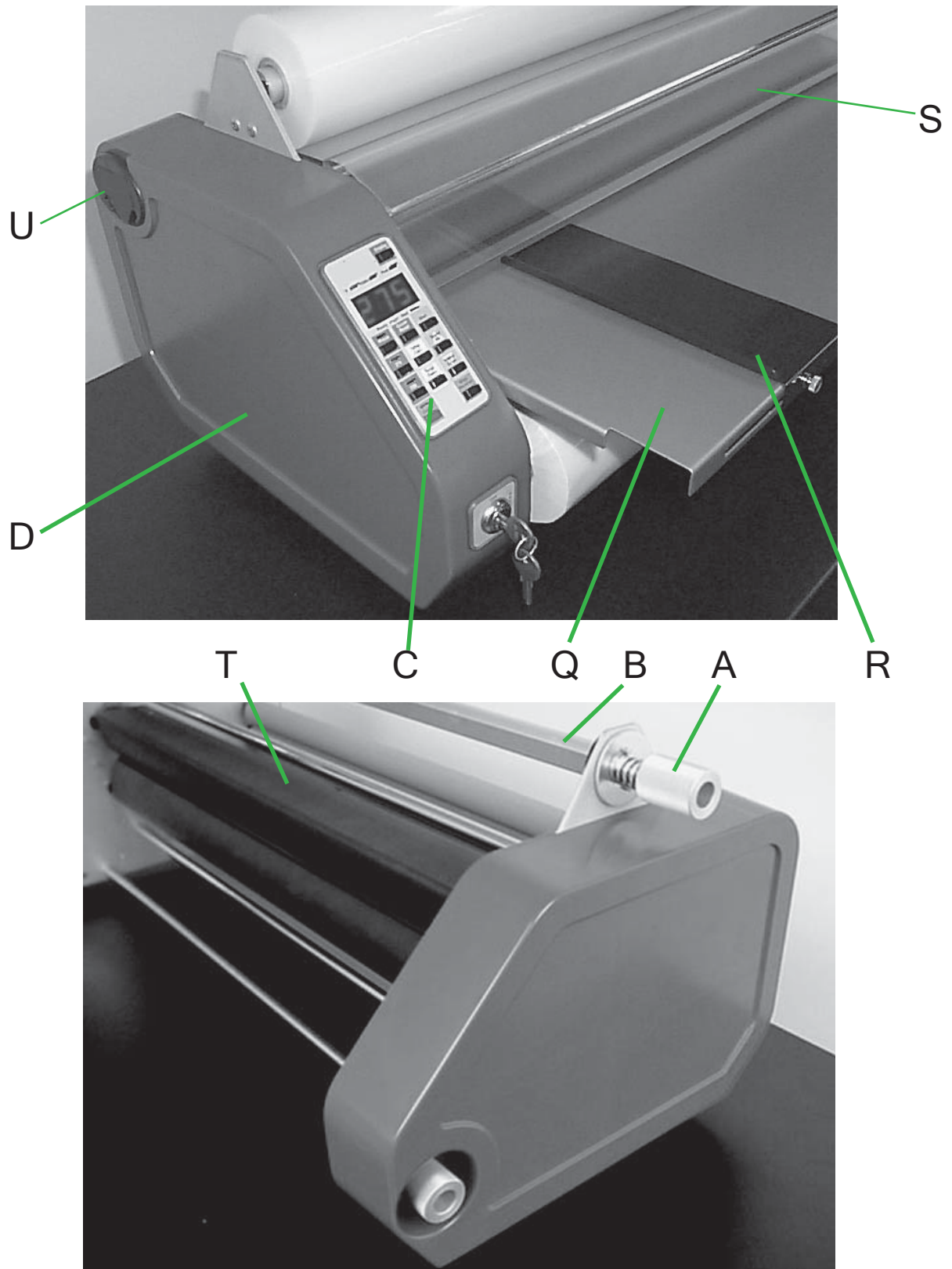
The D&K Minikote, offers variable speeds and a reverse feature. They are designed to laminate a variety of materials using up to 27" laminating film. The D&K Minikote is capable of lamination from 1 to 9 feet per minute and can be reversed by the push of a button.

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), 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. Teflon coated Heat Shoes (T) minimize friction. The Cutter (U) cuts and trims your laminated documents and the Keyswitch (V) prevents unauthorized usage.

## GENERAL DIAGRAMS



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## **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. Save the shipping carton. The shipping carton is required if it should become necessary to ship the laminator for service or repair. 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 to you ready to load the film onto the supply mandrels, thread the film through the machine, and install the feedtable.

## **II. Information About Laminating Film**

Laminating film is made up of two layers: a glossy layer which gives the lamination its strength, clarity and rigidity, 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 heat shoes and rollers and must be periodically cleaned from the laminator.

Laminating film is available in a variety of different lengths, and thicknesses. The Minikote Laminator is designed to use 1.5 mil (#150), and 3 mil (#300), film thicknesses.

## **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.



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### **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, it's 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 (0.1 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**

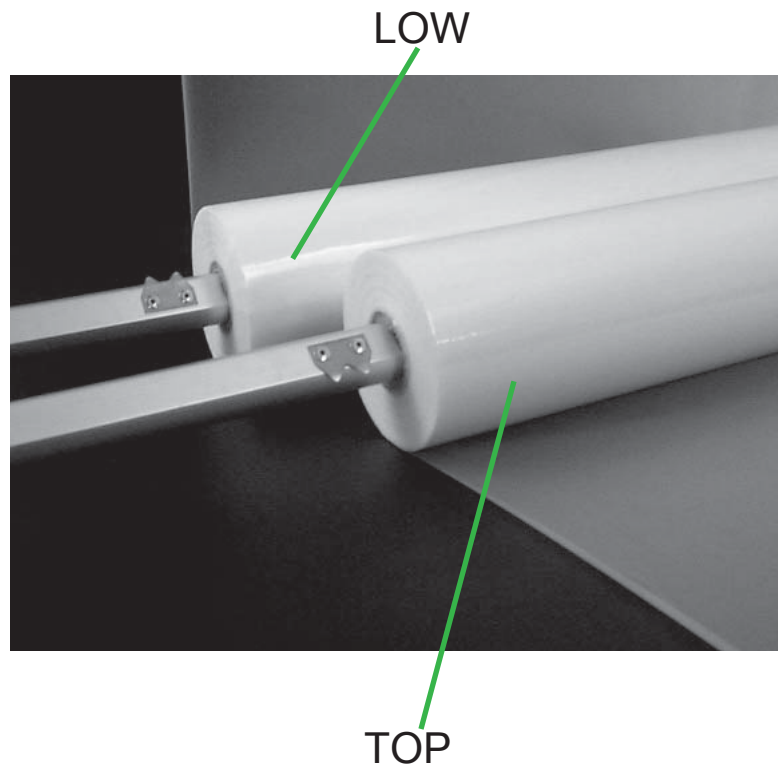
The keyswitch (located just below the control panel) locks out the motor, allowing the machine to remain heated; yet, preventing unauthorized usage when in the locked position.



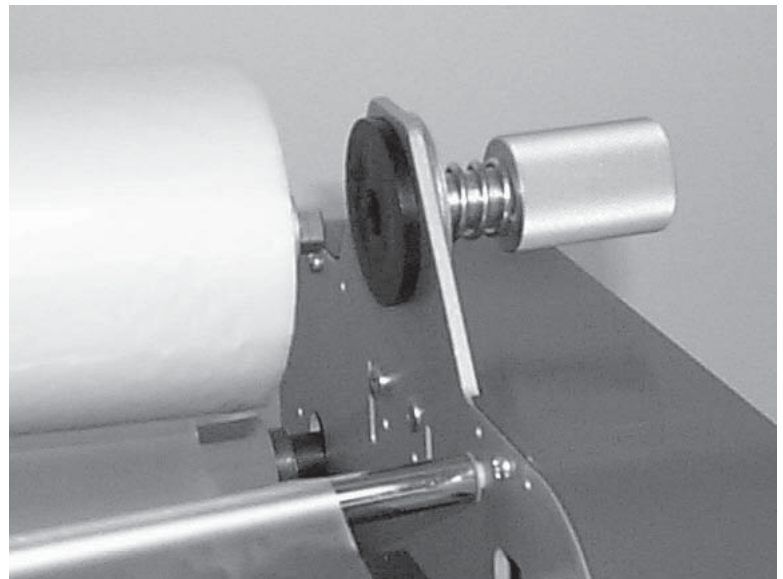
### B. Loading Film: 1" Mandrel (B)

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.

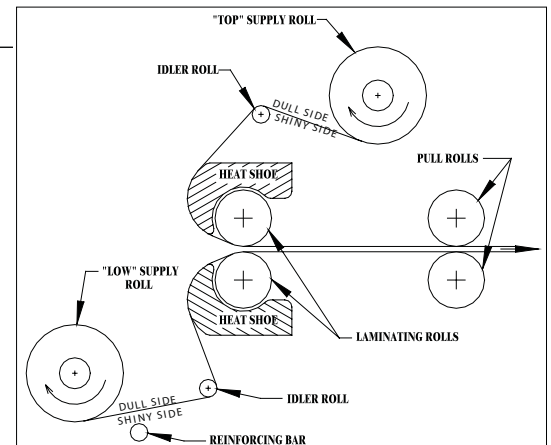


Load the mandrel on the laminator by inserting the slot end of the mandrel into the tension adjuster on the right side and then lowering the hanger end into the bracket on the left side.



### C. Threading the Film

Remove the feed tray and the heatguard. Thread the film as shown in the figure on the right. Pull the film around the idler rollers as shown. **Do not mistake the reinforcing bar for the idler roller.** Make sure the glossy and dull sides of the film are as indicated in the diagram. Position the threading board provided.



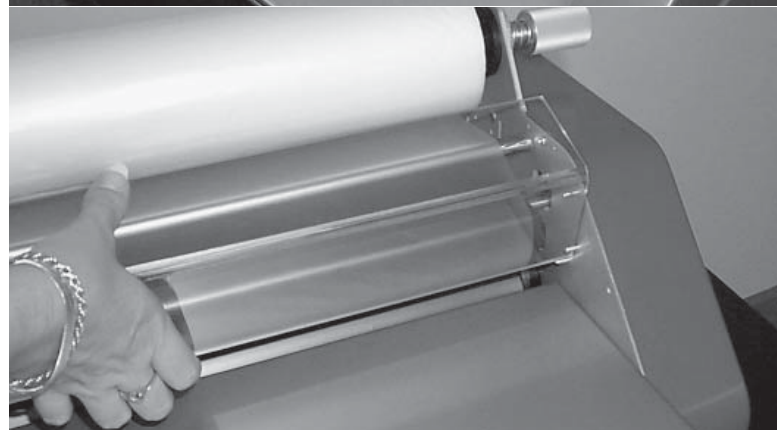
Turn power and keyswitch to on.



Start the motor by pressing the "Start" button, and reduce the speed to 1 foot/min. Feed the threading board and film in between the heat shoes. This will pull the film through the 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 residue on the heat shoes and 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 feedtable and align with the feedguide 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 feedtable 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. 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.



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**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 sidepanel. They should be rotating, both top and bottom, while film is feeding.

## **V. Maintaining the Minikote**

### **A. Care and Cleaning**

In the normal course of operating the D&K Minikote, dirt and adhesive will accumulate on the heat shoes and 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 heat shoes. The shoes are coated with a non-stick surface that could easily be damaged. Likewise, do not use sharp metallic objects or steel wool to clean the rubber rollers. Any scratches, indentations, or marks left on the rollers will appear on the laminated product.

To clean the shoes and rollers, use a clean, lint-free cloth. Some suggested solvents are rubbing alcohol(isopropyl), fingernail polish remover(with acetone), and Goof-Off® spray.





## B. Specific Troubleshooting Guide

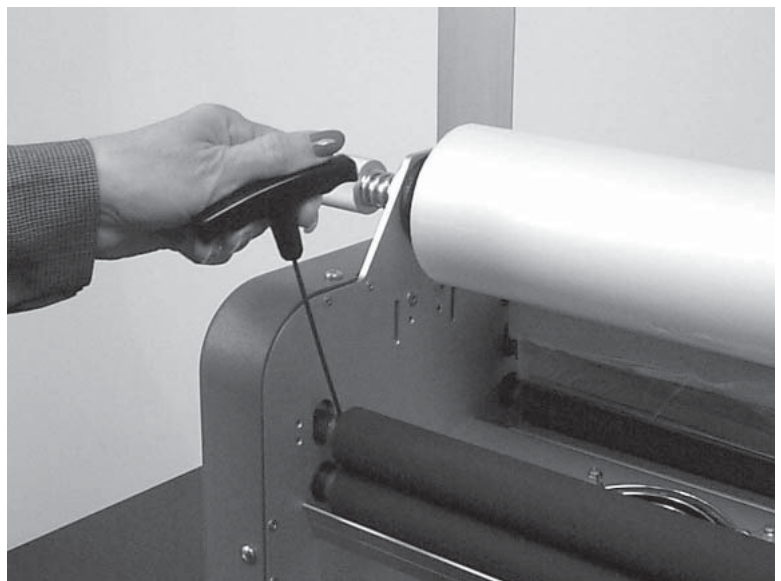
	Increase Heat	Decrease Heat	Worn, Dirty, Or Damaged Rollers	Increase Tension On Supply Rolls	Dirty Heat Shoes	Moist Or Coated Product	Decrease Tension On Supply Rolls	Reduce Speed	Check Threading Diagram
Wrinkles on Film (side to side)		●	●	●					
Wrinkles on Film (lengthwise)		●			●	●			
Plastic not 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 rollers			●						●
Film sticks to shoes				●					●
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:



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**Shut the machine off!** D&K Minikotes have set screws at both ends of each laminating and 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 rethread the film.

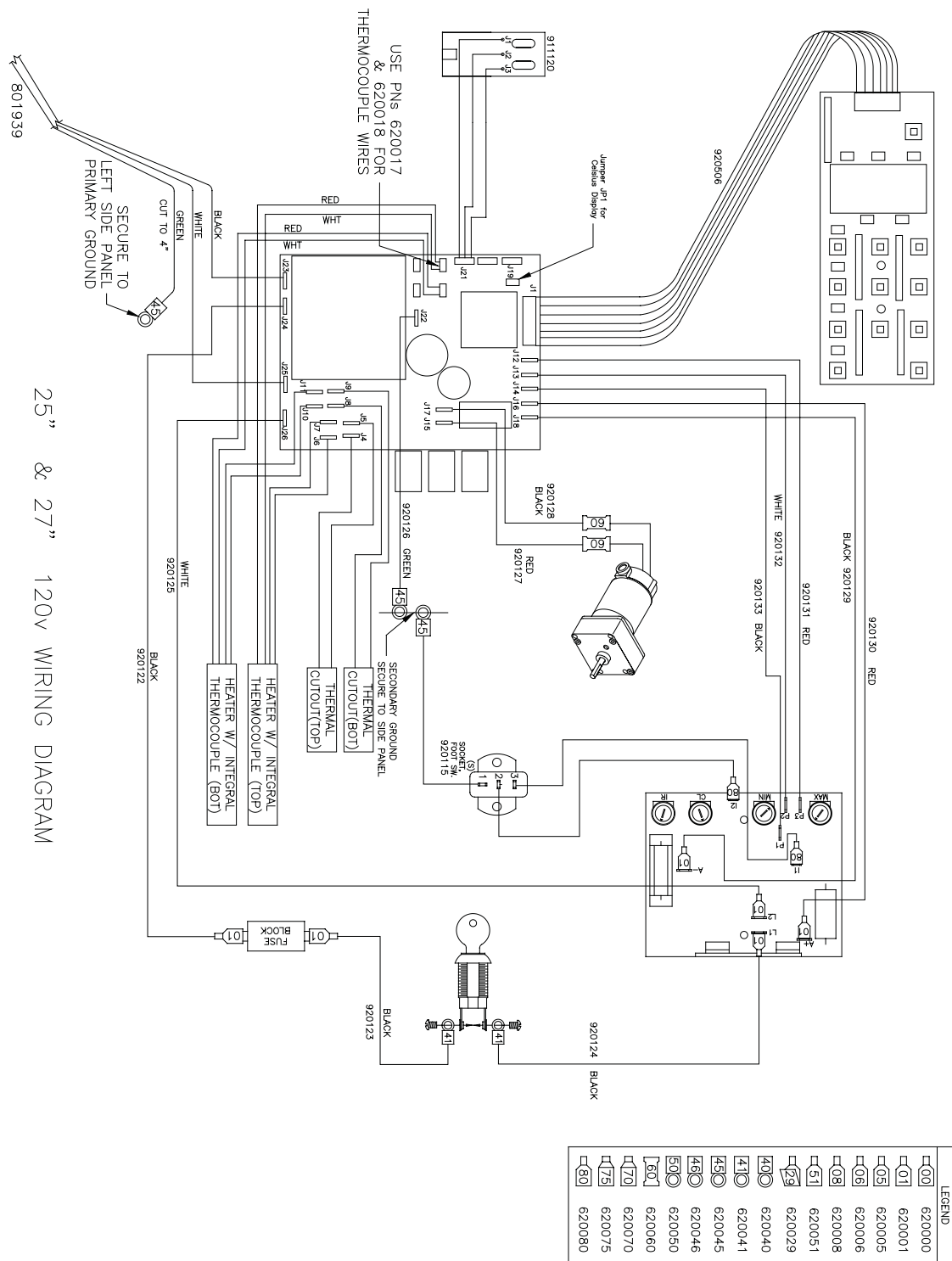
## Appendix A

### 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.**

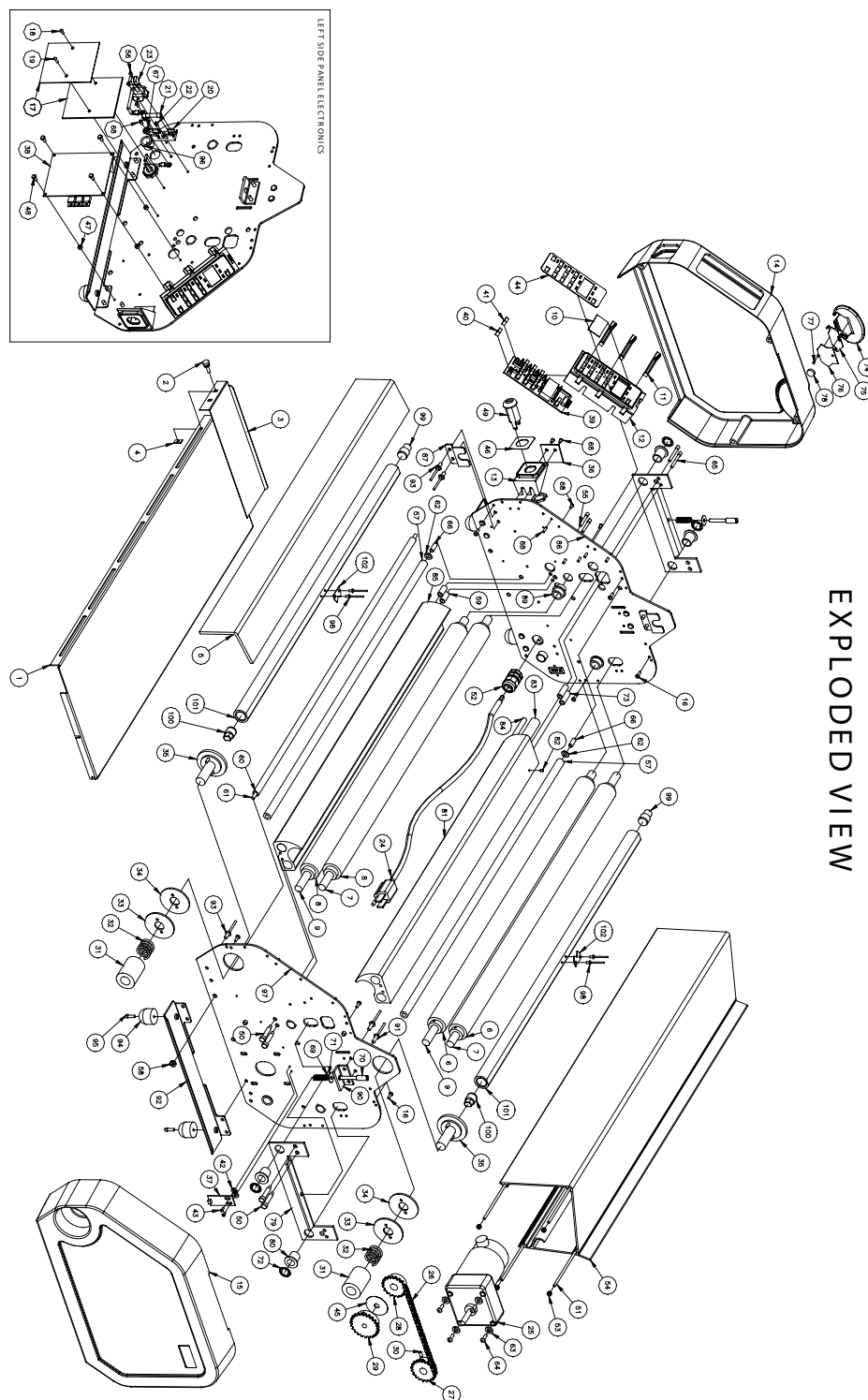


## WIRING DIAGRAM





# EXPLODED VIEW



# MiniKote 27"

201595

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	650801	ARL 27" Rubber Roll	104	707965	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	707588	Left Housing, MK2	77	600781	Screw, 2-56x3/16" Self Tapping
15	707587	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	907213		Pressure Adjust Plate SA MK2
18	611020	Screw, 6-32X3/8" W/Patch Phil	79	707939	Pressure & Heat Shoe Bracket
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	927729		Upper Heat Shoe Stat 27" 120v MK2G2
22	611027	Screw, 6-32 X 5/16 Phil Pan Hd	81	707662	Upper Heat Shoe ARL 27"
23	920115	Wire Ass'y, 6", Footswitch	82	600290	Screw, 8-32 X 3/16, Set
24	801939	Power Cords 16-3 Miller #E9006	83	802038	Heater w/o T. Couple
25	802102	Motor V01925AD83 90V DC	84	920501	Thermal Cutout, MK2 SA
26	908011	Chain	802078		T. Couple
27	801207	Sprocket 25B19 1/2 10-32 AV	927719		Low Heat Shoe Stat 27" 120v MK2G2
28	801206	Sprocket 25B20 1/2, 10-32 AV	83	802038	Heater w/o T. Couple
29	801205	Sprocket 25B23 1/2, 10-32 AV	84	920501	Thermal Cutout, MK2 SA
30	600350	Screw, 10-32 X 3/8 Set	85	707662	Lower Heat Shoe ARL 27"
31	707399	Tension Knob, AV-OEM	802078		T. Couple
32	802160	Compress Spring LC-098K-00-M/W	907580		Left Side Panel SA, MK2G2
33	707406	Friction Plate AV-OEM	86	707920	Left Side Panel, MK2
34	707405	Leather Washer, 1" AV-OEM	87	707231	Upper & Lower Left Supply
35	707415	Friction Stud Molded - OEM	88	604030	Roll Pin, 1/8X1/2, Zinc Plate
36	707985	Electrical Insulator	89	654090	Bushing - Lower Roll AV Delrin
37	911120	G1, Sensor Board, MK2G1	90	707229	Pressure Adjust Bracket - AV
38	911122	G2, Main Board, Mk2G2 110V.	91	604475	Rivet SD66BS "POP" Brand
39	911125	G2, Display Board, MK2G2, Less Buttons	92	707234	Base Channel
40	610421	Black Button Cap, MK2G2, Req. 11	93	604465	Rivet SD64BS "POP" Brand
41	610422	Red Button Cap, MK2G2, Req. 1	94	801977	Rubber Feet 2580
42	604960	Nylon Washer .163X.377X.050 Thk	95	600055	Screw, 10-32 x 5/8 SHC
43	601100	Screw, 6-32X1/4 Pan Head	96	620430	Wire Bushing SB625-500
44	707989	G2, Display Label, MK2G2			
45	707309	Counter Label, MK2G2	907579		Right Side Panel SA, MK2G2
46	707922	G2, Switch Label, MK2G2	89	654090	Bushing - Lower Roll AV Delrin
47	610031	Spacer 1/4 OD x .171 ID x .125	90	707229	Pressure Adjust Bracket - AV
48	611021	6-32x 1/2 RH, Nylon Slotted	91	604475	Rivet SD66BS "POP" Brand
49	690917	Keyswitch	92	707234	Base Channel
50	600966	Screw, 1/4X1.25, Shoulder, 10-32	93	604465	Rivet SD64BS "POP" Brand
51	707980	27" Threaded Rod, Motor Housing	94	801977	Rubber Feet 2580
52	620112	Strain Relief, Heyco 3213/3	95	600055	Screw, 10-32 x 5/8 SHC
53	603326	Nut, 10-24 HEX, w/Nylon Insert	96	620430	Wire Bushing SB625-500
54	707925	27" Motor Housing, MK2	97	707921	Right Side Panel, MK2
55	600080	Screw, 10-32 X 1 1/4 SHC			
56	601090	Screw, 6-32X3/16 Pan Head	907411L		Lower Supply Roll SA 1"-27"
57	707907	Lower Idler Roll/ARL-27"	907411U		Upper Supply Roll SA 1"-27"
58	603356	Nut, 1/4-20 Hex w/Nylon Insert	98	604400	Rivet GSMD42S
59	610040	Spacer 1/4X3/4	99	707685	1" Supply Roll Plug - ARL, Seal
60	707974	27" Reinforcing Tube	100	707690	1" Supply Roll "D" Plug, ARL
61	707977	27" Reinforcing Threaded Rod	101	707706	1" Supply Roll Tubing ARL 27"
62	604955	Washer .265X.500X.015 Thk	102	707710	Torsion Spring 1" Extrusion
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

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Dealer, warrants to the original consumer purchaser that each new Minikote Laminator which proves defective in materials or workmanship within the applicable warranty period will be repaired or, at our option, replaced without charge upon its return as outlined below. The applicable warranty shall be one year from date of purchase. "Original consumer purchaser" means the purchaser who first purchased the product covered by this warranty other than for purpose of resale.

Liability for breach of any warranty express or implied shall be limited to the repair or replacement, at dealer, option, of the defective item. Dealer shall not be liable for damages arising out of, or in connection with the use or performance of any product. Any implied warranty shall be limited in duration to the duration of this warranty. Some states do not allow limitations on how long an implied warranty lasts for the exclusion or limitation of consequential damages, so the above limitation may not apply to you.

There are no consumer serviceable parts in the Minikote Laminator. If you require service under this Warranty, contact your dealer to obtain Return Authorization (RA), pack the product in its original packaging (or request the same from Technical Service when requesting the RA), and include a description of the malfunction and proof of date of purchase. Technical Service will arrange for the Minikote Laminator to be picked up by a freight company. Failure to return in original packaging could void this warranty.

The Warranty extends to and is enforceable only by the original consumer purchaser, and only for the period which the product remains in the possession of the original equipment purchaser. This Warranty does not cover any defect or malfunction due to the use of faulty non- Minikote Laminator materials, unreasonable use or abuse of the machine, or failure to provide reasonable and necessary maintenance. This Warranty gives you specific legal rights and you may have other rights, which vary, from state to state.