

ARL-PRO 2700

THERMAL-MOUNTING ROLL LAMINATOR

OWNERS MANUAL



CALL TOLL FREE

1-800-282-9290



Free
**Lifetime
Tech
Support**

**Customer
Service**
M-F 8am to
6pm EST

IMPORTANT INFORMATION

PLEASE DO NOT DESTROY THE SHIPPING CARTON!

USI urges you to store the original carton in which your laminator was shipped. Should you ever need to return your laminator to our repair and service center, it is best repacked in the original carton to avoid damage during transport. Our special foam filled carton ensures the laminator's safe transit to our service facility. Failure to use original packaging will result in a repacking fee. If you have any service inquiries, please contact USI's Technical Support Hotline, M-F 8am-6pm EST, at 800-752-9131.

Warranty: A Full Two Year Warranty will be issued from date of product shipment. Please supply the model and serial numbers on all correspondence concerning your laminator.

EQUIPMENT WARRANTY

1. Standard Manufacturer Warranty

We warrant to the original purchaser the equipment manufactured to be free from defects in material and workmanship under normal use and service. Our obligation under this warranty shall be limited to the repair or exchange of any part or parts which may prove defective under normal use and service within two years from the date of shipment and which our examination shall disclose to our satisfaction to be defective. Warranty does not include damage due to operator error or general maintenance. When necessary, purchaser shall properly pack and return the unit to the USI Service Center, freight and insurance prepaid.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART, AND WE NEITHER ASSUME NOR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS LAMINATING MACHINE OR ANY PART THEREOF WHICH HAS BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, ALTERATION, ABUSE OR MISUSE. WE MAKE NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES OR PARTS NOT SUPPLIED BY US. THE TERM "ORIGINAL PURCHASER," AS USED IN THIS WARRANTY, SHALL BE DEEMED TO THE PERSON OR COMPANY WHO FIRST PUTS THE EQUIPMENT INTO SERVICE. THIS WARRANTY SHALL APPLY ONLY WITHIN THE BOUNDARIES OF THE CONTINENTAL UNITED STATES.

2. Enhanced Manufacturer Warranty and Protection Plan

In addition to the Standard Manufacturer Warranty set forth above in Paragraph 1, USI also provides an Enhanced Manufacturer Warranty and Protection Plan to the original purchaser of the equipment for a period of Two (2) years from the date of shipment. The terms of this Enhanced Manufacturer Warranty and Protection Plan (hereinafter referred to as the "Plan") is set forth below:

- a. The Plan provides unlimited email, phone and web-based support from USI Support ("Support") as well as replacement parts, equipment, and return shipping due to normal wear and tear and accidental damage during the Coverage Period, subject to the following limitations:
- b. Customers will be covered for up to three (3) incidents under the Plan per year in a Coverage Period. An "incident" means that a Customer either receives (a) a replacement part and/or equipment from USI * or (b) mail-in, physical service on a Product performed by USI or its agents.
- c. The Plan will cover the following non-consumable parts: timing boards, rollers, switches, user interface components (buttons and dials), power supplies, cables and wire harnesses, motors and mechanical components.
- d. USI shall have the option, at its own discretion, whether to: (1) ship replacement parts to repair the equipment; (2) bring the equipment to USI for servicing and repair, and/or; (3) to provide replacement equipment, and/or (4) to coordinate a repair service at the site where the product is housed.
- e. Exclusions and Limitations. The Plan does not cover the following consumable parts: laminating film. The Plan does not cover damage due to abuse, neglect or misuse, extreme environment, unusual physical or electrical stress or interference, exposure to moisture, flooding, or fire.
- f. Support determines course of action. The decision to issue replacement parts or have Product or parts of Product returned for servicing under this Plan is at Support's discretion. If replacement parts are deemed necessary, Support will coordinate shipment to you. If replacement parts are deemed unnecessary by Support, Customer may purchase a replacement part at cost. For service requiring return of Product or parts of Product, Support will issue a Return Authorization ("RA") Number to Customer. Unauthorized returns will not be accepted under any circumstances. USI will cover shipping both ways, and Support will choose and pay for method of return shipment to Customer. If Customer requests expedited shipping, it will be arranged by USI at an additional fee to be pre-paid by Customer.

g. LIMITATIONS OF LIABILITY. TO THE FULLEST EXTENT PERMITTED BY LAW, NEITHER USI NOR ITS SUPPLIERS SHALL BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS OR CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER THEORY FOR (A) LOSS OR INACCURACY OF DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY, OR (B) ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO LOSS OF REVENUE AND LOSS OF PROFITS. TO THE MAXIMUM EXTENT PERMITTED BY LAW, USI AGGREGATE CUMULATIVE LIABILITY HEREUNDER SHALL NOT EXCEED THE GREATER OF FIFTY DOLLARS (\$50.00) OR THE AMOUNT PAID BY YOU FOR THE PRODUCT THAT CAUSED SUCH DAMAGE.

SOME COUNTRIES, REGIONS, STATES OR PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF REMEDIES OR OF INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES, OR THE APPLICABLE TIME PERIODS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY. EXCEPT TO THE EXTENT LAWFULLY PERMITTED, THIS LIMITED WARRANTY DOES NOT EXCLUDE, RESTRICT OR MODIFY STATUTORY RIGHTS APPLICABLE TO WHERE THE PRODUCT IS SOLD BUT, RATHER, IS IN ADDITION TO THESE RIGHTS.

h. SEVERABILITY. In the event that any of the provisions of this Contract shall be held by a court or other tribunal of competent jurisdiction to be unenforceable, the remaining portions of this Contract shall remain in full force and effect, provided that in such event the parties agree to negotiate in good faith substitute enforceable provisions which most nearly effect the parties' intent in entering into this Contract.

i. CHOICE OF LAW; JURISDICTION. This Contract shall be governed by and construed in accordance with the laws of the State of Connecticut, U.S.A., without regard to the choice-of-law principles thereof that would result in the application of the laws of a State other than Connecticut. Any dispute between the parties arising under or relating to this Contract shall be subject to the exclusive jurisdiction of the United States District Court for the District of Connecticut, state or the State courts sitting in the Judicial District of Middlesex County, Connecticut. A printed version of these Terms will be admissible in judicial and administrative proceedings based upon or relating to these Terms to the same extent and subject to the same conditions as other business documents and records originally generated and maintained in printed form.

Note: You will be charged for the replacement of any parts which are damaged as a result of improper packaging.

READ ME FIRST!

This manual contains all the information you need to properly unpack, operate and maintain your USI Laminator. Before unpacking your laminator we suggest you read and follow the manual step by step. It contains essential information about each and every facet of your laminator. Pay special attention to the work environment and safety precautions necessary for your laminating unit.

The manual is organized in the following way:

- There are seven major chapters, each covers a different subject heading.
- Each chapter is further broken down into parts.
- Each part contains a detailed discussion, including photographs and figures, covering either an operation or maintenance procedure for your laminator.
- Photographs and figures are numbered on each page for quick reference.
- Please pay special attention to particular notes and caution statements.
- These comments alert you to information we feel essential to operator safety and damage prevention to the laminator.

Copyright Information:

IMPORTANT: This manual is copyright protected by USI, Inc. in accordance with the laws and requirements of the United States Government. Any reproduction of this manual, in part or in full, without the written permission of USI, Inc. constitutes a violation of the U.S. copyright laws and is subject to prosecution.

For your safety...

Please review the following safety precautions

- **Do not** connect the laminator to electrical power or attempt to operate it until you have read the OWNERS MANUAL completely *and* understand it. If there are any areas of proper laminator operation that you do not understand, contact USI Technical Support for recommendations. Keep this manual in a convenient location for future reference.
- Read all safety messages located in this OWNERS MANUAL and on the laminator very carefully.
- Use care in unpacking and lifting the laminator as it weighs 80 pounds. Keep the laminator level when lifting or moving it.
- Consider the work area. A cluttered work space can lead to accidents. The laminator should be placed on a level, sturdy surface. **Do not** operate the laminator in a damp or wet environment. **Do not** operate electrical devices in the presence of flammable liquids, solvents or in gaseous/explosive atmospheres. Keep the work area well lit. Allow sufficient access to the front and the back of the laminator.
- Respect the heated rollers. Operating temperatures are hot enough to burn skin. If clearing a film wrap-around or jam on or near the heaters, first set the Heat Switch to the “OFF” position and allow the laminator to cool to room temperature. **Do not** operate the laminator without the heat guard in place. Before lifting or moving the laminator, set the Heat Switch to the “OFF” position and allow it to cool to room temperature.
- Removing the feed table exposes hot and moving parts. This means that you can be harmed if you remove the feed table. When running the machine without the feed table in position, use care to reduce the risk of injury to the operator.
- **Do not** operate this laminator without all detachable parts installed correctly. This means that there is risk of injury if this product is operated without all of its parts in their proper positions.
- Keep hands and clothing away from rollers. The rollers are pinch points that can trap body parts or clothing and cause serious injury. **Do not** wear any loose clothing, ties, jewelry, etc. which can be caught by rollers and draw any body part into the machine.
- Set the Drive Switch to the “OFF” position before walking away or leaving the laminator unattended. Use common sense; be cautious when operating your laminator. **Do not** operate the laminator when you are tired or your reactions are impaired in any way. **Do not** allow anyone to operate the laminator who has not received proper instruction and has not read the safety precautions. Keep children away.
- **Do not** use the laminator for other than its intended purpose.

Electrical Safeguards...

- Never override or attempt to defeat electrical or mechanical safety interlock devices.
- The laminator has been manufactured with a plug on the machine designed to operate on a 115volt, 15 Ampere circuit.
- Disconnect the power supply before servicing your laminator. If you service the laminator yourself, contact USI Technical Support for additional safety recommendations. Use only USI parts for service or replacement. Failure to use USI parts could void manufacturer's warranty. **Note:** *Always* turn the laminator "OFF" *and* unplug it from the power outlet before attempting any service.
- The laminator should only be operated from the type of power source indicated in this OWNERS MANUAL and on the serial label located on the rear panel of the unit.
- **Do not** leave the laminator power "ON" for extended periods while not in use. Unplug the machine at the end of the day as a precaution against a possible fire hazard.
- **Do not** operate the laminator with a damaged power supply cord or plug. **Do not** use an extension cord. **Do not** abuse the power supply cord; *never* pull cord to disconnect it from a power supply. **Do not** allow cord to contact heat, oil or sharp edges. **Do not** cut off or otherwise bypass the grounding prong on the plug.
- Replace fuses only with same type fuses. Contact USI for replacement fuses.

1. Laminator Introduction...

USI Roll Laminators are uniquely designed and engineered to be user friendly, reliable and virtually trouble free and provide a quality lamination with a minimum level of user skill and machine control. USI's modular construction makes them easy to maintain and repair. All equipment controls are basic in design and function, and positioned for easy access. This laminator has been designed expressly to use USI and ProMount supplies. When used with these materials, you are able to encapsulate, mount, and mount and laminate. This machine has not been tested with any other materials and is not recommended for use with supplies other than USI and ProMount. We thank you for selecting this machine and assure you of our continuing support!

1.1 First, Find a Work Area...

A sturdy work station is required to house your USI laminator. Picking an area that is well lit, clean and dust free will help ensure the highest quality output. Ample room is necessary to access the laminator from all four sides. If the laminator is back against a wall, the laminating film may back up and jam the machine. **WARNING: Do Not** place the laminator where the heaters will be in the direct path of a room cooling fan, air conditioner or similar forced draft.

Tools necessary to set up your laminator include cutting pliers and adhesive tape. For future maintenance and repairs, an assortment of metric Allen key wrenches, a slotted screw driver and a Phillips screw driver are necessary.

1.2 Unpacking Your Laminator...

Your laminator comes packed in one carton. It contains (1) laminator, (1) heat guard, (1) top supply mandrel, (1) bottom supply mandrel, (1) threading board, (1) feed table with guide, (1) set of keys, (1) roller lift handle, and this Owners Manual.

Upon receipt of your laminator, inspect the carton, the machine and all other contents of the carton for shipping damage. Damage should be brought to the immediate attention of the delivering carrier and USI Customer Service.

Using a minimum of two people, carefully lift the laminator from the carton by grasping the ends of the machine and lifting. **Do Not** lift the laminator by the *Upper Idler Roller* or *Supply Mandrels*. These *are not* weight bearing parts and lifting the laminator by these parts can cause damage to the machine and possible personal injury.

For shipping purposes, white plastic tie straps are used to hold the power cord and accessories in place. These straps need to be *carefully* cut and removed prior to set up. Use care to ensure that you do not damage any machine wiring while cutting straps.

2. Machine Controls...

2.1 Motor Controls

All of the motor controls are located on the left side of the machine as viewed from the front.

Key Lock Switch: is located towards the top of the Left Control Panel. It disables the motor drive to keep unwanted users from running the machine. The machine comes with two keys; please keep one in a safe place in case of loss.

Motor Speed Control: is located in the middle of the Left Control Panel. It adjusts the roller speed from 0 to 12 feet per minute. The speed control should not be used to turn the rollers "Off," use the Motor Drive Switch to do so. The speed control is *only* to be used for controlling running speed.

Motor Drive Switch: is located at the bottom of the Left Control Panel. It makes the rollers run in either a "forward" or "reverse" direction. Press "Up" on the switch to engage "forward" or press "Down" to engage "reverse." The middle position is the roller "Off" setting. Roller speed is fully adjustable in either drive position.

Foot Switch Socket: is located above the power cord connection; the optional Foot Pedal Control is plugged in here.

Foot Pedal Control: is optional and allows use of your foot to turn the motor drive "On" and "Off" to allow freer use of your hands for handling and feeding your substrates into the machine. The Foot Pedal Control does not control roller speed or direction; plug control into socket, depress the drive switch to the "forward" position, depress control pedal to engage rollers and then set roller speed as desired, release control pedal to stop rollers, set drive switch to "Off" when laminating is completed.

2.2 Fan Controls

Fan Switch: is located at the top of the Left Control Panel. When encapsulating with heavier Mil laminating films, it is usually desirable to cool the exiting laminating film to help ensure a quality finish. When the switch is set to the "On" position, the cooling fans automatically turn on and off whenever the rollers are engaged or disengaged.

2.3 Heat Controls

The heat controls are located on both the Left and Right Control Panels.

Heat Switch: is located on the Left Control Panel. It is the main power control for the heating system and is set to "On" whenever encapsulating or thermally activated foam board products are used. When using "cold" or pressure sensitive foam products, the switch is set to "Off."

Display Board: is located on the Right Control Panel. When the Heat Switch is set to the "On" position, the display normally shows your "Set" temperature.

Temperature Control: is located in the middle of the Right Control Panel. It allows the machine to be set from 180 to 300 degrees Fahrenheit. As the control knob is rotated, the set temperature is immediately shown on the display.

ACT Switch: is located on the Right Control Panel. When depressed it changes the display reading from the "set" temperature to the actual roller temperature.

C/F Switch: is located on the Right Control Panel. When depressed it changes the display readings from Fahrenheit to Centigrade.

Heat Mode Switch: is located at the top of the Right Control Panel. It changes the setting from “dual” heat (top and bottom rollers heated) for encapsulating to “single” heat (only top roller heated) for use with thermally activated foam board products. Dual heat should never be used with any foam board products as the extra heat can cause damage to them.

2.4 Tension Controls

Film Tension Knobs: are located on the right end of the machine at the end of each supply mandrel. Film tension can be tightened or loosened as necessary for smooth lamination with your individual rolls of laminate. In general, only tighten the tension enough for smooth lamination, excessively high tension can cause laminating problems and increase wear on the machine. It is normal to need higher tension on a new roll of laminating film and lower tension as the size of the roll decreases with use.

2.5 Roller Lift Control

Roller Lift Handle: is located on the right end of the machine. When received, the handle is not installed and is packed separately. Your machine is shipped with the rollers in the “closed” position, place the lift handle onto the lift shaft so that the handle is pointing **downward** and secure with the supplied screw and wrench. Do not turn the lift handle until it is securely fastened onto the lift shaft. Rollers should be in the “closed” (down) position for encapsulating and “open” (up) when processing foam board products. Processing some foam board products with the rollers in the “closed” position can cause damage to your substrate. This machine is not designed to process foam board products in excess of ¼” thick. It may also be beneficial to “open” the rollers to help facilitate cleaning them.

3. Basics of Operating Your Laminator, Encapsulating...

3.1 Encapsulating

Your new laminator arrives ready-to-run. For basic encapsulating, the machine needs to be loaded with laminating film and have the Feed Table and Heat Guard installed. If the machine is not loaded with laminating film already, do so as detailed in the section titled “3.2 Loading Film for Encapsulating.” For operating instructions utilizing foam boards, see the section titled “3.6 ProMount Foam Boards.”

Plug the laminator into an appropriate power supply and set the Heat Switch to the “ON” position. Next, set the temperature according to the film manufacturer’s recommendations for the film you have chosen, and allow the machine to heat for approximately 15 minutes. Temperature adjustment is detailed in the section titled “3.4 Heat Settings for Encapsulating.”

After 15 minutes of heating time, set the Motor Drive Switch to the “FORWARD” position and allow the rubber rollers to rotate ½ turn. Set the Motor Drive Switch to the “OFF” position and allow the machine to heat an additional 15 minutes before use. Check the heat setting and adjust as necessary.

Set the Motor Drive Switch to the “FORWARD” position and perform a test lamination to ensure proper settings for successful lamination. Watch film as it exits the rollers so it doesn’t wrap around the rollers. It may be helpful to hold the exiting film at first when starting a lamination run. If any adjustments are necessary make them now and run another test; see adjustment details in the section titled “3.5 Film Tension for Encapsulating.” Repeat this step until you obtain desired results.

When laminating, run a small amount of film before feeding the print into the laminator to avoid a “dwell line” across the leading edge of your print. Feed the print slowly *and* evenly. Smoothing the print or keeping gentle “back pressure” on it as the rollers pull it through will help to ensure a professional, wrinkle free finish. You may laminate subsequent prints now, leaving appropriate space between each print for trimming.

When your last print has cleared the pull rollers and completely exited the laminator, set the Motor Drive Switch to the “OFF” position. **Do Not** use the Speed Control Knob to turn the drive system “OFF;” the speed control is *only* to be used for controlling running speed.

When you have finished laminating, set the Heat Switch and the Motor Drive Switch to the “OFF” position, rotate the roller lift handle to “open” the rollers, and unplug the machine at the end of the day.

3.2 Loading Film for Encapsulating...

3.2.1 Non-Color-Coded laminating film:

Select the two rolls of laminating film that you wish to use. Both rolls of film should be of the same size, type and thickness. **Note:** Always operate the laminator with two rolls of laminating film of the same *width* to avoid excessive adhesive transfer to the Rubber Rollers. Next, take the Bottom Supply Mandrel (labeled “Low”) and insert it into the roll of film until the “gripper dog” meets the film’s cardboard core. Rotate the mandrel in the opposite direction from which the “gripper dog” points. As you rotate, apply pressure to force the mandrel into the roll of film and proceed to center it on the Supply Mandrel.

Place the loaded Bottom Supply Mandrel on the laminator; insert the right side first and then lower the left side into the roll bracket.

Take the Top Supply Mandrel (labeled “Top”), insert it into the roll of laminating film as above, and place it in the top position in the same manner as was done with the lower. **Note:** See the Threading Diagram Label on the bottom of the Feed Table for reference.

3.2.2 Color-coded laminating film:

Select the two rolls of laminating film that you wish to use. Both rolls of film should be of the same size, type and thickness. **Note:** Always operate the laminator with two rolls of laminating film of the same *width* to avoid excessive adhesive transfer to the Rubber Rollers. Next, take the Bottom Supply Mandrel (marked with the **blue** Color-Code) and insert it into the roll of film so the **blue** end of the mandrel matches the **blue** end of the film roll. While inserting the Supply Mandrel, rotate it in the opposite direction from which the “gripper dog” points while pressing it into the roll of film and center on the mandrel. Place the loaded Supply Mandrel on the machine by matching the blue end with the Blue Friction Stud and then lower the left side into the roll bracket.

To load the top, do the same as with the lower, only match the **red** ends.

CAUTION: Do not apply excessive force to the ends of the Supply Mandrel (i.e. with a hammer, etc.). Excessive force will damage the mandrel.

Notes:

- When loading your laminating film, check for film *splices*. These rolls will be clearly marked. Splices are not common, but are unavoidable. If you find a spliced roll, place it in the “top” position on the laminator so that the splice can be monitored carefully. When the splice is ready to come through the laminator, set the Motor Drive Switch and the Heat Switch to the “OFF” position and allow the machine to cool. Then rotate the roll of film by hand so that the film is very slack. Set the Motor Drive Switch to the “FORWARD” position again and allow the splice to run through. If necessary, keep turning the roll of film by hand to keep it slack until the splice has passed through.
- When loading film on the laminator, be sure the heat is turned “OFF” and the machine is cool to avoid chance of burns.
- Film rolls must be centered on the Supply Mandrels. If the rolls are not aligned, hot adhesive will be deposited on the Rubber Rollers necessitating a cleaning operation.

- 1" core laminating film is rolled adhesive side "in" (poly-in"). When loading film on the Supply Mandrels, be sure that the roll is positioned correctly to unroll as shown in the Threading Diagram on the back of the Feed Table. If the roll is loaded in reverse, the film could adhere to the laminator when heated necessitating a cleaning operation.

3.3 Threading Film for Encapsulating...

Thread the top film under the Upper Idler Roller. Pull the film down so that the film's leading edge is just below the Lower Front Laminating Roller. Next, thread the bottom film around the Lower Idler Roller. Pull it upward until it is even with the top of the Top Front Laminating Roller (the film will overlap). Tape the lower film's edge to the upper film. This creates a film "Web." Refer to the Threading Diagram on the back of the Feed Table for additional details.

Loosen the tension on both rolls of laminating film by turning the Tension Adjustment Knobs counter-clockwise; when threading the laminating film it is best to have no drag at all. Turn the Speed Control Knob to a slow speed setting. Set the Motor Drive Switch to the "FORWARD" position and using the Threading Board, push the film Web into the Laminating Rollers. This process will push the Web into the Pull Rollers and then exit the machine. Ensure that the Threading Board and laminating film exit between the rear Pull Rollers.

Remove the Threading Board and save it for your next use. Your laminator is now loaded and ready to be heated.

Note: If the Threading Board becomes lost or damaged, you can make your own with a piece of poster board. Cut the poster board 10" wide by 30" long.

3.4 Heat Settings for Encapsulating...

For Basic encapsulating, set the Heat Switch to the "ON" position. The Red Indicator Light will illuminate and remain lit while the Heat Switch is in the "ON" position. Next, set the Heat Mode Switch on the Right Side Panel to "dual heat." The Display Board, also on the Right Side Panel is now illuminated and shows the current set temperature. To reset the temperature, rotate the Heat Control Knob located below the display. The new set temperature will be displayed immediately. The Heat Indicator Lamp will be illuminated while the machine is heating and will turn off when the set temperature is reached. To view the actual running temperature, depress the ACT Button on the Display Board.

Notes:

- When setting the heat to a temperature below 200°F, first rotate the Heat Control Knob fully clockwise and then proceed to the desired temperature setting.
- The temperature display can be toggled between Fahrenheit and Centigrade by depressing the C/F button on the Display Board.

3.5 Film Tension for Encapsulating...

To adjust the film tension on the Top and Bottom Supply Mandrels, the laminator must be loaded *and* heated. Remove the Heat Guard and Feed Table and then loosen the tension on both rolls of laminating film by turning the Tension Adjustment Knobs counter-clockwise until there is no drag on either the Top or Bottom Supply Mandrels. Turn the Speed Control Knob to a slow speed setting and set the Motor Drive Switch to the "FORWARD" position. As the film runs through the laminator with no tension it will appear wrinkled and bubbly. Gradually increase the tension on both the Top and Bottom Supply Mandrels by turning the knobs clockwise until the film is smooth on the Heated Laminating Rollers and is no longer wrinkled and bubbly appearing.

Notes:

- For best results, reset the film tension with EACH new set of film rolls.
- As the film supply becomes low and the roll diameter decreases, it is necessary to *decrease* the tension on the film rolls.
- Too little tension on the Top or Bottom Supply Mandrels causes vertical or diagonal streaks in the film as it passes over the Heated Laminating Rollers.
- Excessive tension will lead to *increased* wear on the laminator and will cause exiting laminating film to curl excessively.

4. Basics of Operating Your Laminator, ProMount Foam Boards...

Your new laminator is capable of running many different types of ProMount foam board products that allow you to professionally and easily mount with pressure sensitive products or thermally mount, or thermally mount and laminate in one step. For mounting, remove both rolls of laminating film and the film web and install the Feed Table and Heat Guard.

4.1 Mounting using a ProMount Pressure-Sensitive Mounting Board...

Before starting, refer to the instruction sheet packed with each box of ProMount Mounting Boards for specific instructions on mounting and laminating.

1. Plug the laminator into an appropriate power supply. **Do not** turn the heat on. If the machine is hot from previous use with thermal products, allow it to completely cool to room temperature before proceeding.
2. Set the rollers to the "open" position
3. Starting at the top of the mounting board, peel back 2" of the liner paper. **Do not** remove the entire liner paper.
4. Line up the top edge of the substrate to be mounted with the top of the mounting board and gently set down on the board. **Do not** press the substrate down firmly until you are certain that it is aligned correctly for your needs; the repositionable adhesive will allow for slight adjustments to the substrate as long as it is not firmly pressed into place.
5. Set the Motor Drive Switch to the "FORWARD" position and adjust the rollers to a very slow speed.
6. Slowly insert the top edge of the mounting board into the nip roller opening and continue to slowly peel back the release liner with one hand, while lifting the substrate away from the mount board with the other. A gentle push may be required to start the board into the machine. **Do not** allow the substrate to contact the mounting board until it contacts the rubber rollers; the rubber rollers will advance the board and the substrate will adhere to the board and automatically exit at the rear.
7. When your last mounting board has cleared the pull rollers and completely exited the laminator, set the Motor Drive Switch to the "OFF" position. **Do Not** use the Speed Control Knob to turn the drive system "OFF;" the speed control is *only* to be used for controlling running speed. When you have finished mounting, set the Motor Drive Switch to the "OFF" position, rotate the roller lift handle to "open" the rollers, and unplug the machine at the end of the day.

4.2 Mounting using a ProMount Thermal Mounting Board...

Before starting, refer to the instruction sheet packed with each box of ProMount Mounting Boards for specific instructions on mounting.

1. Plug the laminator into an appropriate power supply and set the heat as detailed in the section titled "Heat Settings for ProMount Thermal Products."
2. Set the rollers to the "open" position.
3. Place the image to be mounted on the adhesive-coated side of the mounting board; the adhesive side is the "dull" side of the board.
4. Cover your print with the "Cover Sheet;" a cover sheet is included with each box of ProMount Mounting Boards. **Note:** be certain that the board is completely covered by the cover sheet; any exposed adhesive on the mounting board will be deposited on the rubber rollers requiring cleaning. The "glossy" side of the cover sheet contacts the mounting board and your print.
5. Set the Motor Drive Switch to the "FORWARD" position and adjust the rollers to a very slow speed, approximately 8 inches per minute. **Note:** if the roller speed is too fast a poor mount bond will result. When possible, perform a test to ensure proper settings for successful mounting.
6. Insert the board into the roller nip opening. Ensure the board will enter centered and straight. A gentle push may be required to start the board into the machine. Hold the edges of the board until it is engaged in the rollers and the laminator begins pulling it on its own.
7. The board will feed through the laminator and automatically exit at the rear of the unit. **CAUTION!** *The board will be hot!* Allow it to lie flat while cooling.
8. When your final mounting board has cleared the pull rollers and completely exited the laminator, set the Motor Drive Switch to the "OFF" position. **Do Not** use the Speed Control Knob to turn the drive system "OFF;" the speed control is *only* to be used for controlling running speed. When you have finished mounting, set the Heat Switch and the Motor Drive Switch to the "OFF" position, rotate the roller lift handle to "open" the rollers, and unplug the machine at the end of the day.

4.3 Mounting and Laminating using a ProMount Pouch Board...

Before starting, refer to the instruction sheet packed with each box of ProMount Pouch Boards for specific instructions on mounting and laminating.

1. Plug the laminator into an appropriate power supply and set the heat as detailed in the section titled "Heat Settings for ProMount Thermal Products."
2. Set the rollers to the "open" position if using 3/16" thick **white**, or 1/4" thick **white** or **black** ProMount Pouch Boards. If using 3/16" thick **black** ProMount Pouch Boards, set the rollers to the "closed" position.
3. A ProMount Pouch Board consists of a ProMount mounting board with a sheet of laminating film on top. The film is sealed to the mounting board along one of the short edges of the board. Carefully examine the pouch board to determine which edge is sealed. Starting at the end opposite of the sealed edge, gently lift and pull back the laminating film. Care should be taken not to break the sealed hinge.
4. Center the image to be laminated on the board and lay the film back over it.

5. Set the Motor Drive Switch to the “FORWARD” position and adjust the rollers to a very slow speed, approximately 8 inches per minute. **Note:** if the roller speed is too fast a poor lamination will result. When possible, perform a test lamination to ensure proper settings for successful lamination.
6. Slowly insert the pouch board into the roller nip opening. Ensure that it will enter centered and straight. A gentle push may be required to start the board into the machine. Hold the edges of the board until it is engaged in the rollers and the laminator begins pulling it on its own. Smoothing or keeping gentle “back pressure” on it as the rollers pull it through will help to ensure a professional, wrinkle free finish.
7. The pouch board will feed through the laminator and automatically exit at the rear.
8. **CAUTION!** *The pouch board will be hot!* Allow it to lie flat while cooling. **Note:** If there is any dirt or adhesive on the surface of the board, it can be removed by dampening a lint free cloth with ISO Propyl Alcohol (IPA) and wiping the surface.



WARNING: ALWAYS USE CARE WHEN USING IPA! IPA IS VERY FLAMMABLE! THE FLASH POINT OF IPA IS 11°C (51.8°F). THE SELF-IGNITION TEMPERATURE IS 400°C (752°F).

9. When your final pouch board has cleared the pull rollers and completely exited the laminator, set the Motor Drive Switch to the “OFF” position. **Do Not** use the Speed Control Knob to turn the drive system “OFF;” the speed control is *only* to be used for controlling running speed. When you have finished mounting, set the Heat Switch and the Motor Drive Switch to the “OFF” position, rotate the roller lift handle to “open” the rollers, and unplug the machine at the end of the day.

4.4 Heat Settings for ProMount Thermal Products...

Set the Heat Switch to the “ON” position. The Red Indicator Light will illuminate and remain lit while the Heat Switch is in the “ON” position. Next, set the Heat Mode Switch on the Right Side Panel to “single heat.” The Display Board, also on the Right Side Panel is now illuminated and shows the current set temperature. The recommended processing temperature for ProMount foam board products is 300° F. To reset the temperature, rotate the Heat Control Knob located below the display. The new set temperature will be displayed immediately. The Heat Indicator Lamp will be illuminated while the machine is heating and will turn off when the set temperature is reached. To view the actual running temperature, depress the ACT Button on the Display Board. Allow approximately 20 minutes of heating time, while the machine is heating set the Motor Drive Switch to the “FORWARD” position and allow the rubber rollers to rotate at a very slow speed to help ensure even heat distribution.

Note: processing foam board products with the “dual heat” mode selected will *overheat* and *damage* your substrates. If the machine was recently run in “dual heat” mode and is still fully heated, allow the machine to heat in “single heat” mode for approximately 10 minutes to allow the bottom roller to cool before proceeding.

4.5 Heat Settings for ProMount Pressure Sensitive Products...

We do not recommend using any heat with ProMount Pressure Sensitive Products.

5. Cleaning the Machine...

If you service the laminator yourself, call USI Technical Assistance (800-752-9131) for additional service and safety recommendations.

5.1 Cleaning the Rubber Rollers

With continuous use, the Rubber Rollers will accumulate adhesive and dirt. If indentations or bumps begin to appear on the surface of the finished lamination, or the Rubber Rollers have “shiny” spots on them (especially on the ends), cleaning is necessary. Use a dry Scotch Brite® scrubbing pad to cut through adhesive deposits. Rotate the Speed Control Knob to a slow speed setting and toggle the Motor Drive Switch between the “FORWARD” and “OFF” positions to advance the rollers and clean all areas. Proceed to wipe the rollers clean using the sponge pad moistened with cleaning fluid.

Notes:

- Be certain that the laminator has cooled down to room temperature when cleaning the Rubber Rollers to avoid the chance of burns.
- Use cleaning fluid sparingly; **Do Not** allow it to “run” onto wiring or into the “ends” of the laminator.
- **Do Not** use knives, scissors, any sharp metallic objects or steel wool to clean the Rubber Rollers. Use of such objects will damage the rubber surfaces and require replacement of the rollers. Damage of this nature is not covered under the Manufacturer’s Warranty.

For additional maintenance and service procedures call USI Technical Support for recommendations.

6. General Operating Tips...

- Read the instruction manual before operating your laminator.
- This laminator has been designed expressly to use USI and ProMount supplies. This machine has not been tested with any other materials and is not recommended for use with supplies other than USI and ProMount.
- Always run test samples before laminating valuable items.
- Feed the print through slowly *and* evenly, smoothing it or using gentle “back pressure” as it is pulled into the laminator.
- If encapsulating, operate the laminator with two rolls of the same width laminating film to avoid excessive adhesive transfer to the rollers.
- If laminator is not in current use, turn the machine “OFF.”
- Never feed abrasive materials or metal objects such as staples or paper clips through the laminator. Keep sharp objects like scissors and rulers away from the rollers at all times.
- Once an item has been fed between the Rubber Rollers, do not attempt to alter its position as this can damage the print.
- Do not stop the laminator before the item has completely exited from the rear to avoid a “dwell line” across the print.
- Do not service the laminator before disconnecting the power supply.

7. Troubleshooting...

7.1 Encapsulating

1. Laminating film is not bonding to substrate or to itself at sealed edges:
 - a. Heat is set too low.
 - b. Film tension is too tight.
 - c. Bottom roll of laminating film is threaded incorrectly.
2. Wrinkles or irregular waves running across the laminated web (perpendicular to the edge):
 - a. Heat is set too high.
 - b. Film tension is too loose (large, irregular waves).
 - c. Film tension is too tight (small, fine wrinkles – “orange peel” effect).
 - d. Roller speed is too fast.
3. Stretch lines running with the web (parallel to the edge):
 - a. Film tension is too tight.
 - b. Heat is set too high.
 - c. Substrate is too thick to seal fully.
4. Blisters on surface of substrate or along edge of substrate:
 - a. Heat is set too high.
 - b. Excessive moisture in the substrate being laminated.
 - c. Inks are not fully dry.
 - d. Rubber Rollers are not clean or are damaged.
5. Curling of the finished lamination:
 - a. Unbalanced tension on the supply mandrels; too much tension on the top supply mandrel will cause the film to curl upward, or too much tension on the bottom supply mandrel will cause the film to curl downward.
 - b. Bottom roll of laminating film is threaded incorrectly.
6. Wrinkling around edge of laminated substrate:
 - a. Substrate to be laminated is too thick; try a laminating film with a thicker adhesive layer to compensate for the added thickness or flush cut the substrate.

7.2 Mounting

1. Print is not bonding to foam board:
 - a. Heat is set too low.
 - b. Roller speed is too fast.
 - c. Print was not placed on the adhesive side of the mounting board (ProMount Mounting Boards only).



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