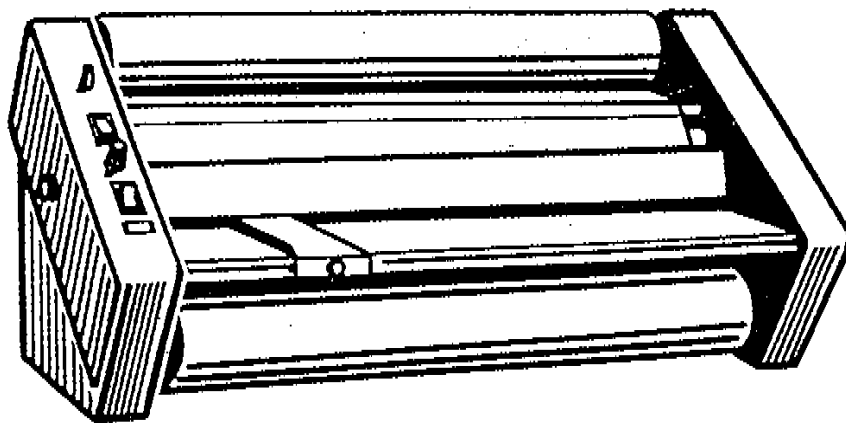


**USI, Inc.**  
**25" Classroom Laminator**





## IMPORTANT SAFEGUARDS

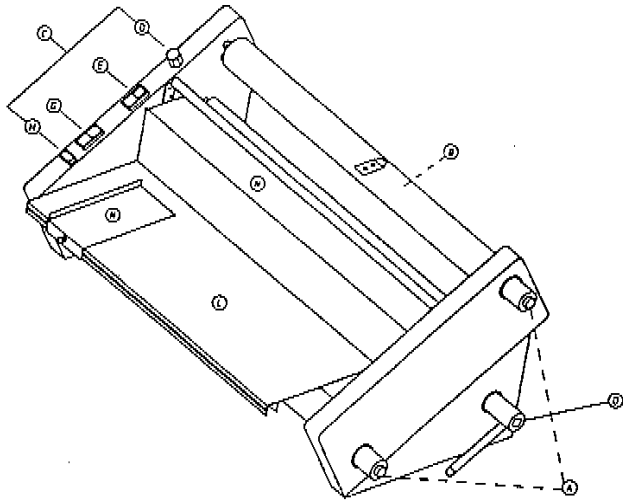
- Read all the safety and operating instructions before connecting or using this unit.
- Retain this notice and the owner's manual for future reference.
- Adhere to all warnings and operating instructions.
- Do not use this unit near water (e.g. near a sink etc.)
- This unit should be installed so that 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 a bookcase or cabinet, that may impede the flow of air through its ventilation openings.
- This unit should be situated away from heat sources 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 panel.
- 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.
- Clean unit only as recommended in its instruction manual.
- The power supply cord should be unplugged from the wall outlet when it is to be unused for a long period of time.
- Care should be taken so that objects do not fall, and liquids are not spilled into the enclosure through any openings.

**SAVE THESE INSTRUCTIONS**

# USI 25" Classroom Laminator Operator's Manual

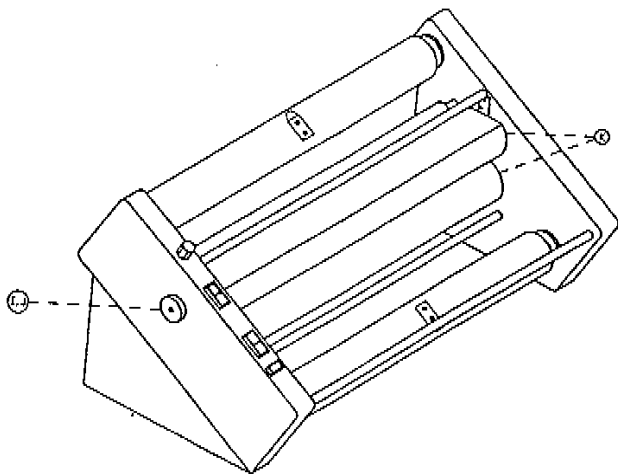
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### Description/Illustrations

The **USI 25" Classroom Laminator** is a reliable, easy-to-use professional laminator designed to laminate a variety of materials using 25" laminating film. It is capable of continuous lamination at 5 feet per minute and can be reversed manually. **Tension adjusting knobs (A)** are conveniently located on the **right side panel** for easy access. The **supply shafts (B)** are shown in place. The **control panel (C)** is located on the left housing. The **temperature control knob (D)** sets the temperature of both heaters at the same time. The temperature control is sub-divided to allow the operator to locate the optimum temperature setting (range) for 1.5 film. The **heat switch (E)** turns the heat on and off. The **motor drive switch (G)** is a two position switch (run/off). The **heater light (H)** glows while the laminator is warming up and goes out when it has reached the desired operating temperature. A **thermometer access port (I)** on the left side panel allows for easy temperature readings using the **thermometer (J)** provided. The machine incorporates **coated heat shoes (K)** to minimize friction. The **feed tray (L)** and **paper guide (M)** provide for a smooth and durable paper path into the machine and the **safety guard (N)** protects hands from the hot heater surfaces. The **manual reverse feature (O)** allows the rollers to be manually reversed to back out jammed materials or film.



## I. Unpacking and Assembly

Remove the laminator from its box by grasping the side panels 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, etc.

The laminator comes partially assembled. All you do is load the film onto the supply shafts, thread the film as shown on the machine and attach the feed tray.

## II. Information About USI Laminating Film

Laminating film is made up of two materials: a polyester film which gives the lamination its strength, clarity and rigidity, and a heat activated adhesive coating, which serves as the "glue" to bond the film to the product being laminated. USI laminating film is available in a variety of different lengths, widths and thicknesses. The 25" Classroom Laminator is designed to use film 1.5 mil thick wound on a 2 1/4" core.

## III. Operating

a. **Loading Film:** Unpack the upper and lower 2 1/4" diameter supply shafts. The upper and lower shafts are different. The word "**TOP**" or "**BOTTOM**" is stamped on the shaft. The end of each shaft is also different. The "**round**" end (fig. 1) fits in the bracket on the left side of the laminator. The "**slotted end**" fits into the tension disk on the right side.

Slide the film roll on to the shaft as shown in figure 1, leaving equal lengths of shaft sticking out of each end. The film roll will slide over the core lock, which will keep the roll from turning on the shaft.

Load both top and bottom shafts on the laminator by setting the slotted end (right side) into the friction plate, then sliding the round end (left side) on to the bracket.

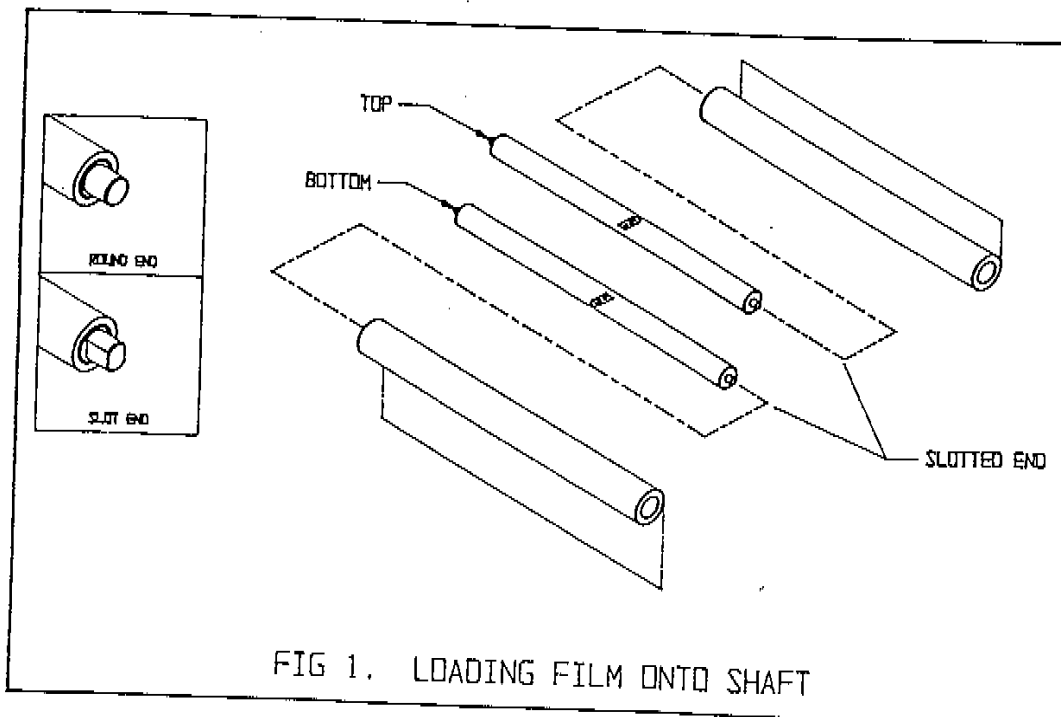


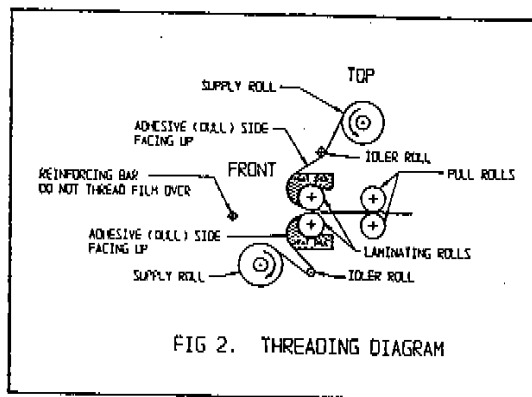
FIG 1. LOADING FILM ONTO SHAFT

### b. Threading the Film

Make sure the machine is plugged in, but that all switches are **"OFF"**. Remove the feed tray and the safety guard. Thread the film following the threading guide arrows on the side of the laminator (fig. 2). Pull the film around the idler rollers as shown. Make sure the adhesive side (dull coating) faces away from the heater surfaces.

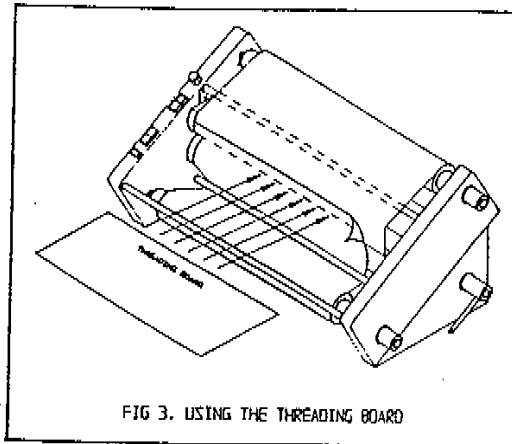
Position the threading board as shown in figure 3. If you don't have a threading board, a lightweight cardboard can be used to guide the film into the laminator.

Turn the power on and set the drive to **"RUN"**. Gently push the threading board and film in between the heat shoes. The film will be pulled through the laminator's two sets of rollers until it comes out the back of the machine.



Slide the top and bottom film rolls from side to side on the shafts 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 the feed tray and safety guard.



### c. Heat Adjustment

Turn the power switch to **"ON"** and allow about 15 minutes for the shoes to reach laminating temperature (235° - 270° F). The heater temperatures are controlled by the dial on the control panel. For 1.5 mil films, set the temperature knob to the right of the dial.

#### d. Tension Adjustment

Top and bottom supply rolls should have about the same tension. By checking the visual tension indicators on the brake assemblies it can easily be determined if one of the rolls is tighter than the other.

To adjust tension for upper and lower rollers machine must be loaded and heated.

**Step 1:** Loosen tension knobs by turning counter clockwise until there is no tension on upper or lower rollers. Film should pull freely.

**Step 2:** Turn drive switch on. As film runs through, it will appear wrinkled and bubbly.

**Step 3:** Gradually increase tension on both rolls by turning knobs clockwise until film is smooth. (When film is smooth, tension is properly adjusted.) **Note:** As film roll supply becomes low, it may be necessary to decrease tension on the rolls. Too little tension on top or bottom rolls causes vertical streaks in the film as it passes over the heat shoe. **Warning:** Too much tension damages the machine after a period of time.

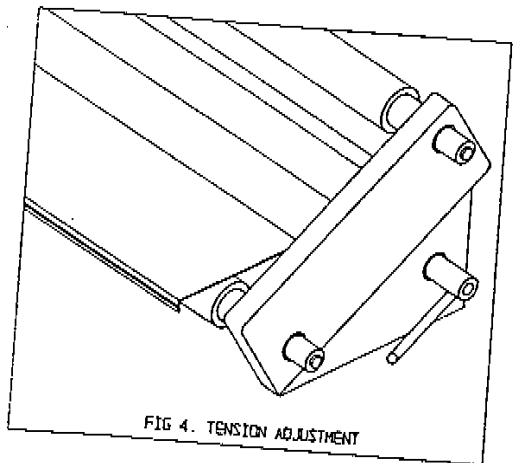


FIG 4. TENSION ADJUSTMENT

#### e. Proper Settings

After loading and threading the film, run a few feet to check the temperature and tension settings. Depending upon the type of film and materials being laminated, you will need to "balance" these settings for optimum adhesion, clarity and smoothness. In general, use the color coding and the table in the next column.

If the film comes out cloudy, (or not adhered) raise the temperature but do not exceed the maximum for type of film used. If the film comes out very wavy, lower the temperature but do not exceed the minimum. If wrinkles appear on the laminated materials, check the tension adjustment. **Note:** Thick papers and most boards will not seal right to the edge without some degree of wrinkles in the edge of the film. For this reason, we recommend trimming the film flush to the edge of thick pieces. See the trouble shooting chart, page 11 for more specific information.

### IV. Maintaining the 25" Classroom Laminator

#### a. Care and Cleaning

In the normal course of operating the Laminator, 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 be easily 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 rubber cleaning solvent and a clean, lint-free cloth. If a cleaning kit is not readily available, rubbing (Isopropyl) alcohol will do an adequate job.

## b. Routine Maintenance

### Tightening Drive Sprocket Set Screws

If the rollers do not turn normally with the motor, check that the set screws are properly tightened. The pulley and timing belt are located behind the right side panel of the machine. Remove the side panel and locate the set screws at the base of each pulley. These set screws should be tightened on the flat surface of the shaft.

### Adjusting the Roller Pressure

**Note:** Roller Pressure is factory pre-set. Adjust only if necessary. The roller pressure may need adjusting to accept thicker or thinner materials. If the need arises, the following procedure should be followed: Remove left and right housings from the laminator. Locate the pressure adjustment screws (as shown in fig. 5). Adjusting these screws up or down increases or decreases roller pressure. Whenever an adjustment is made to one side, it must also be done to the other side so that both sides apply equal pressure. The only time this is not true is when you are correcting for unequal pressure.

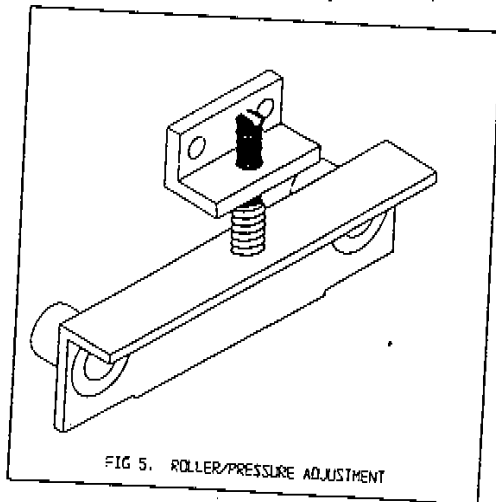


FIG 5. ROLLER/PRESSURE ADJUSTMENT

### Replacing Fuse

A 15 amp fuse (located at the rear of the machine) has been added to protect the laminator from any damage from the power source.

### Motor Protection

The motor is thermally protected to prevent damage due to stalling or jamming. The motor will stop running when it reaches a maximum temperature. If this occurs, turn the unit off and allow it to cool. If the film is jammed, follow the procedure described below in "Manual Reverse".

## V. Manual Reverse

The laminator is equipped with an "Anti Wrap-Around" feature. If a "wrap-around" occurs and is not severe, simply use the reverse feature of the laminator and back the film out. **Make sure to remove the Feed Table before reversing the machine.**

To operate the **Manual Reverse** feature located on the right side panel (fig. 6), turn the motor off and rotate the handle in either direction and push in until it locks into place. Maintain the engaged position and turn in either direction to remove a wrap-around.

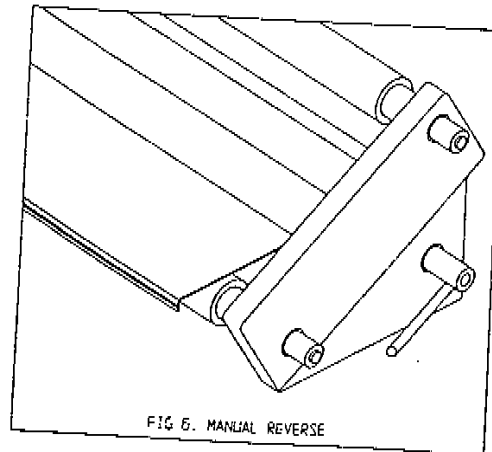


FIG 6. MANUAL REVERSE

# GENERAL SPECIFICATIONS

## USI 25" CLASSROOM LAMINATOR

Height	15"
Width	34"
Net weight	68 lbs.
Shipping weight	75 lbs.
Input fuse	15 amp
Speed	5 feet per minute
Temperature range	235° - 270° F
Max. film thickness	1.5 mil
Max. material thickness	1/64"
Width of Lamination	Up to 25"
Electrical	120V AC, 60 Hz 3 way grounded plug

# TROUBLE SHOOTING CHART

	INCREASE HEAT	DECREASE HEAT	WORY, DIRTY OR DAMAGED ROLLERS	INCREASE TENSION ON SUPPLY ROLLS	DIRTY HEAT SHOES	MOIST OR COATED PRODUCT	DECREASE TENSION ON SUPPLY ROLLS	CHECK SET SCREWS	CHECK THREADING DIAGRAM	INCREASE ROLLER PRESSURE
Wrinkles on film (side to side)		●	●	●						
Wrinkles on film (lengthways)		●								●
Plastic not bonding	●			●		●				
Bubbles or Blisters		●	●							●
Rollers not turning					●					
Impressions on product							●			
Squeaking sounds			●							
Film narrowing on shoes						●	●	●		
Film wrinkling on shoes	●					●		●		
Continuous blemish			●	●						
Cloudy film	●		●	●	●					
"Orange Peel" finish		●								
Roller slips or jogs										
Film sticks to rollers			●				●			
Film sticks to shoes								●	●	
Film won't stay aligned				●				●	●	
No seal on edges	●							●	●	
Poor seal- one side only			●		●					●

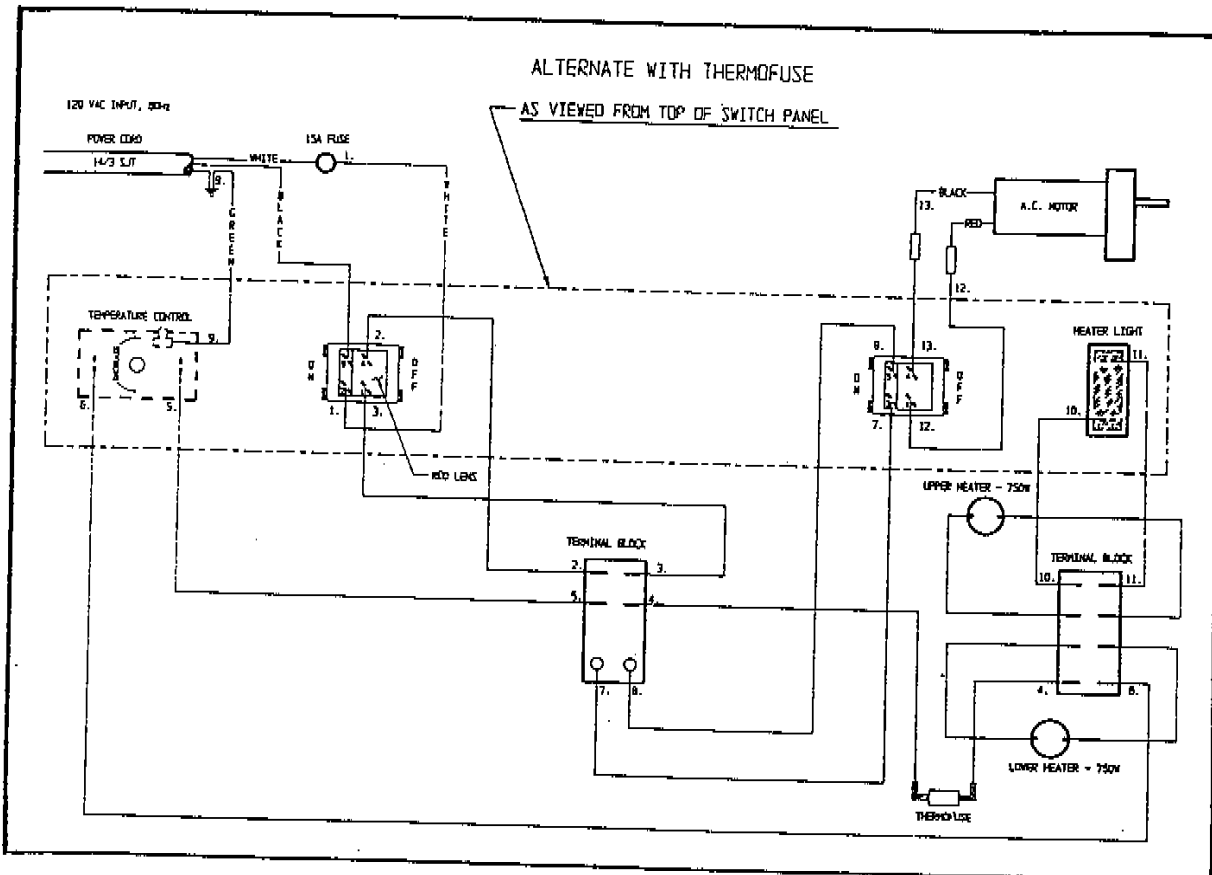
\* When using this chart, try only one solution at a time, then test it before trying another.

# USI 25" CLASSROOM LAMINATOR PARTS LIST

<u>Part No.</u>	<u>Description</u>
5598014	Threading board
1115006	Thermometer
6302027	Temperature control
1101037	Knob, temperature control
1302083	Power switch w/light
1302084	Drive switch
1301064	Heating light
3301036	Panel, control console
2601070	Label, control panel
1033007	Screw, torx hd. 10 - 24 x 1/2
1610038	10 - 24 Star lock-nut
1308052	Input fuse, ceramic 15 amp
1220008	Fuse holder
2601069	Label, fuse holder
6001008	Supply shaft, upper
6001009	Supply shaft, lower
5606045	Safety guard
5606048	Feed tray
5606044	Paper guide
1101035	Knob, paper guide
6203022	Thermal cut-off
2302091	Heater
5612023	Heater shoe, upper
5612024	Heater shoe, lower
1309026	Drive motor, 120V
2102151	Motor shroud
2102145	Cover, motor shroud
6202043	Power cord
1106050	Strain relief
1103020	Feet
5003018	Drive roll
5003019	Pull roll
2004027	Roll shaft, upper
2004028	Roll shaft, lower
2004030	Roll shaft, rear lower
1659025	Spacer, roller
1104061	Bearing (.750)
2102137	Bogey
2005005	Key, manual reverse
1107027	Compression spring, man. rev.
2009030	Dowel pin
4010009	Handle, reversing key

<u>Part No.</u>	<u>Description</u>
1107022	Compression spring, roller
2701028	Screw, pressure adjusting
3301038	Right end cap
3301039	Left end cap
5611196	Right side plate
5611197	Left side plate
5606043	Idler roll
6001004	Cut-off assembly
6001001	Friction stud/tension sub-assembly
1107011	Friction pressure spring
3301012	Pressure plate
3301016	Friction knob
5901016	Friction washer
1112017	Pulley, 19T
1112018	Pulley, 20T
1112019	Pulley, 24T
1112025	Drive belt
1033006	Trimmed hex hd. 10 - 32 x 1/2
1659026	Nylon washer
2009030	Dowel pin
2102133	Film deflector
5606042	Cross support
1104057	Bushing, nylon split
1104062	Bearing (350)
1203039	Terminal block
1203040	Terminal block
1661017	Rivet Retainer
1675019	Rivet
2102138	Bracket, pressure
3301014	Roll holder
5099027	Stud, heater shoe
028011	Spacer, upper heater shoe
1004052	Screw, 10 - 32 x 1 3/4 phillip pan head
1051023	Screw, 10 - 32 x 1/4 hex socket with brass tip
5606047	Bracket, heater shoe
006029	Screw, 6 - 32 x 3/4 phillip pan head
025001	Roll pin
2004029	Spacer, lower shoe

# WIRING DIAGRAM



## ONE YEAR LIMITED WARRANTY

USI, Inc. warrants to the original consumer purchaser that each new USI laminator which proves defective in the materials or workmanship within the applicable warranty period will be repaired or, at our option, replaced without charge upon its return, postpaid, as outlined below. The applicable warranty shall be one year from date of purchase. "Original consumer purchaser" means the person who first purchased the product covered by this warranty other than for purpose of resale. This warranty does not cover any defect or malfunction caused by damage not resulting from a defect or malfunction due to faulty materials or workmanship, or caused by unreasonable use or abuse.

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