

PREMIER III ***LAMINATOR***

OPERATING MANUAL

HIGH QUALITY LAMINATORS

THE CLEAR CHOICE WORLD WIDE

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FEATURES

Your new laminator has several standard features that set it apart from other models.

- **Interchangeable rubber rollers** for lower maintenance costs.
- Easily accessible **heat control** permits a wide range of applications.
- Push-away tension on the **cutter bar** minimizes plastic snags.
- **Release control** makes plastic threading easy and allows even heating of laminating rolls during warm up.
- **Cooling fans** permits lamination of plastics up to 5 mils.
- **Spring-loaded rubber rollers** accommodate a wide variety of mount board thicknesses.
- **Reverse drive switch** helps correct wrap-around problems.

Available options make the **Premier III** laminator even more versatile.

- **Pre-heater** permits one-sided lamination, dry mounting, and pouch lamination.
- **Footage counter** automatically records the amount of plastic for usage control and cost management.
- **Variable speed control** permits using a wide range of film thickness and substrates.

GENERAL CHARACTERISTICS

This chart compares the characteristics of the **Premier III** Series 12", 18" and 25" units:

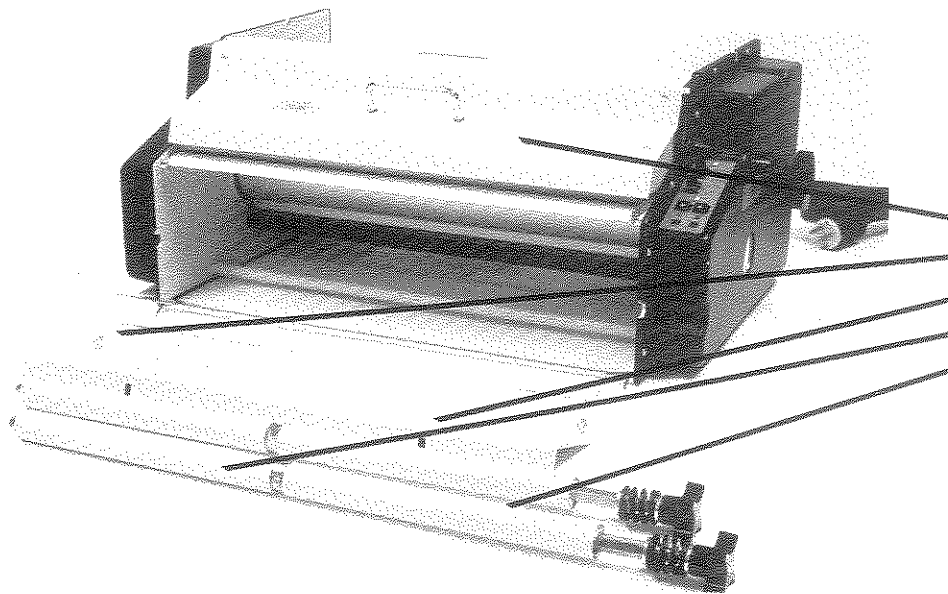
Premier III Series

Characteristic	12"	18"	25"
Plastic Width	up to 12"	up to 18"	up to 25"
Speed	5 FPM	5 FPM	5 FPM
Width	19"	25"	32"
Length	16"	16"	16"
Height	11"	11"	11"
Net Weight	47 lbs.	55 lbs.	83 lbs.
Power Consumed	1700 Watts	2200 Watts	2200 Watts
Power Supply	120v/60 cycle 220v/50 cycle	120v/60 cycle 220v/50 cycle	120v/60 cycle 220v/50 cycle
Speed	Preset	Preset	Preset
Pressure	Preset	Preset	Preset
Heat Setting	Adjustable	Adjustable	Adjustable
Plastic Length/ Thickness	Up to 500'/ 1.5 mils Up to 500'/ 3 mils Up to 200'/ 5 mils	Up to 500'/ 1.5 mils Up to 500'/ 3 mils Up to 200'/ 5 mils	Up to 500'/ 1.5 mils Up to 500'/ 3 mils Up to 200'/ 5 mils
Maximum Total Thickness That Passes Through Rollers	85 mils	85 mils	85 mils

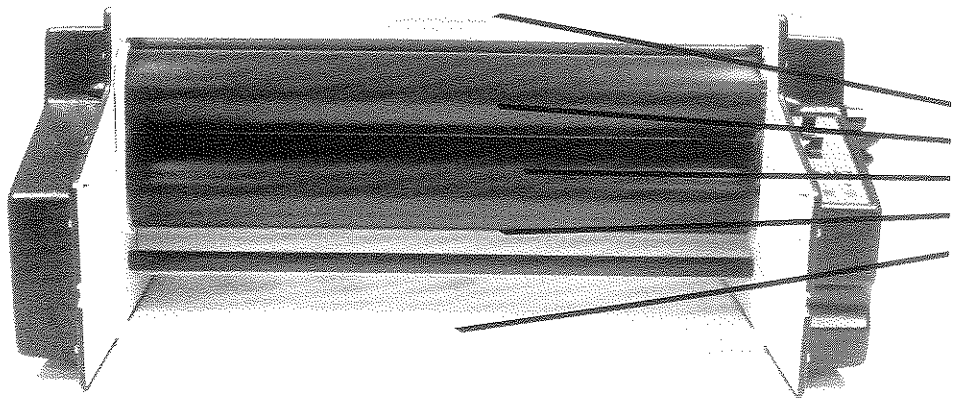
GETTING ACQUAINTED WITH YOUR NEW *PREMIER III* LAMINATOR

Position your laminator on an unobstructed, level surface.

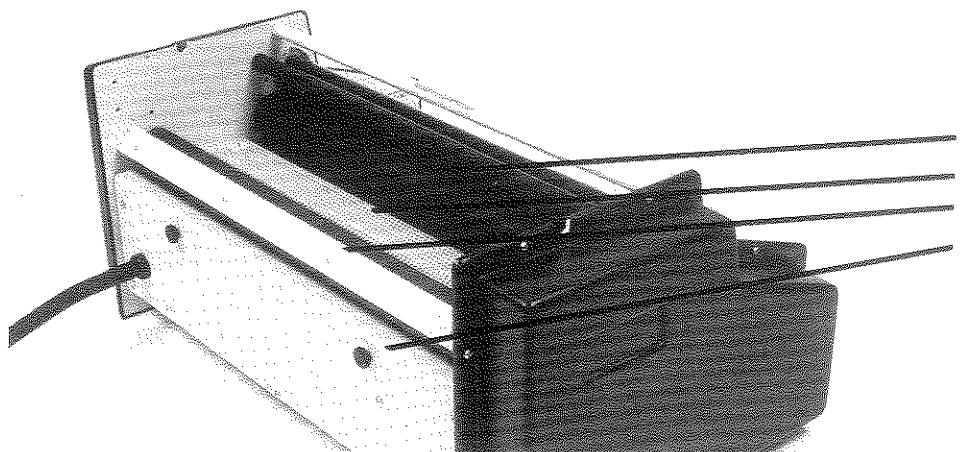
The photos below and on the following page identify major components and operating controls. Refer to them as you study the installation, operating and maintenance procedures described in this manual.



1. Pre-Heater (optional)
2. Heat Safety Shield
3. Exit Table
4. Core Grippers
5. Supply Mandrels

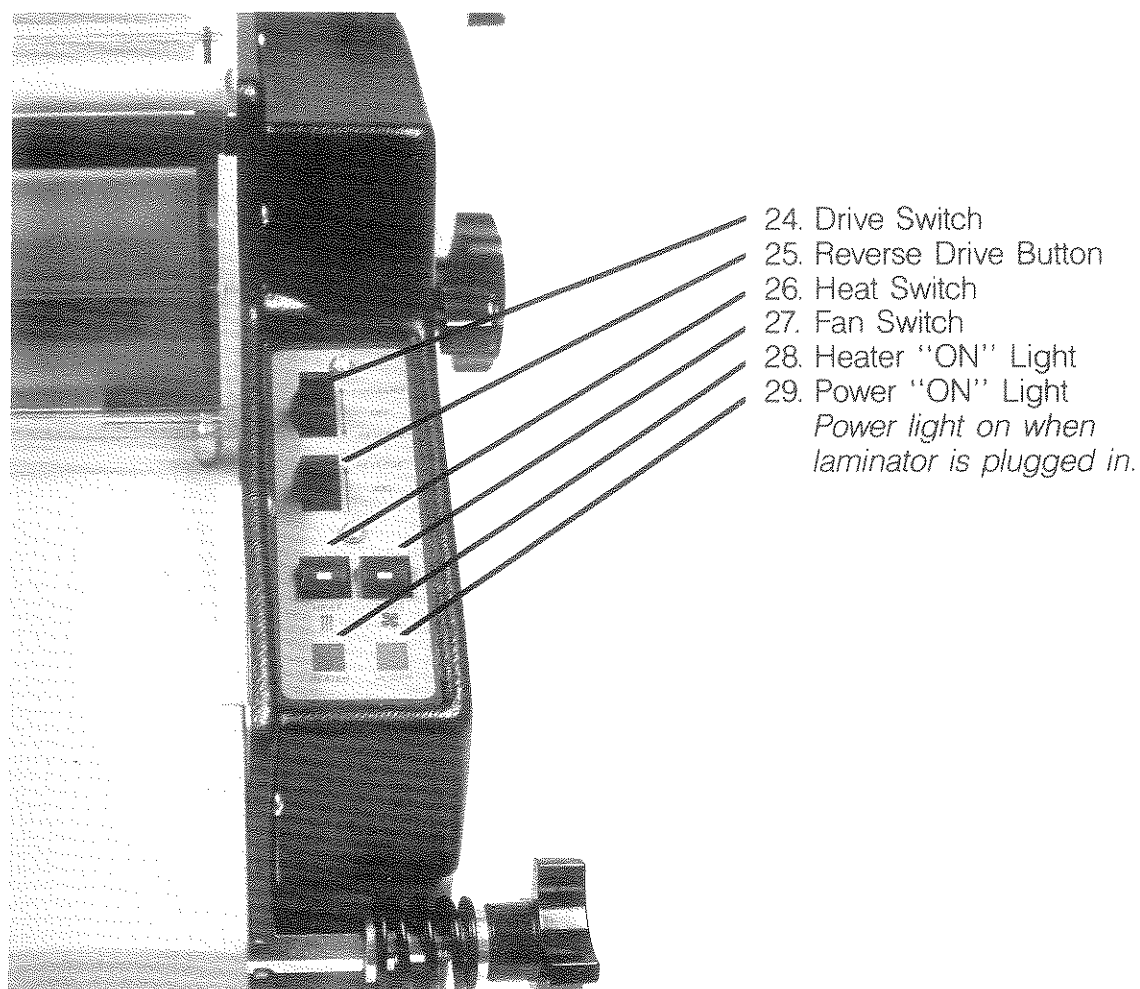
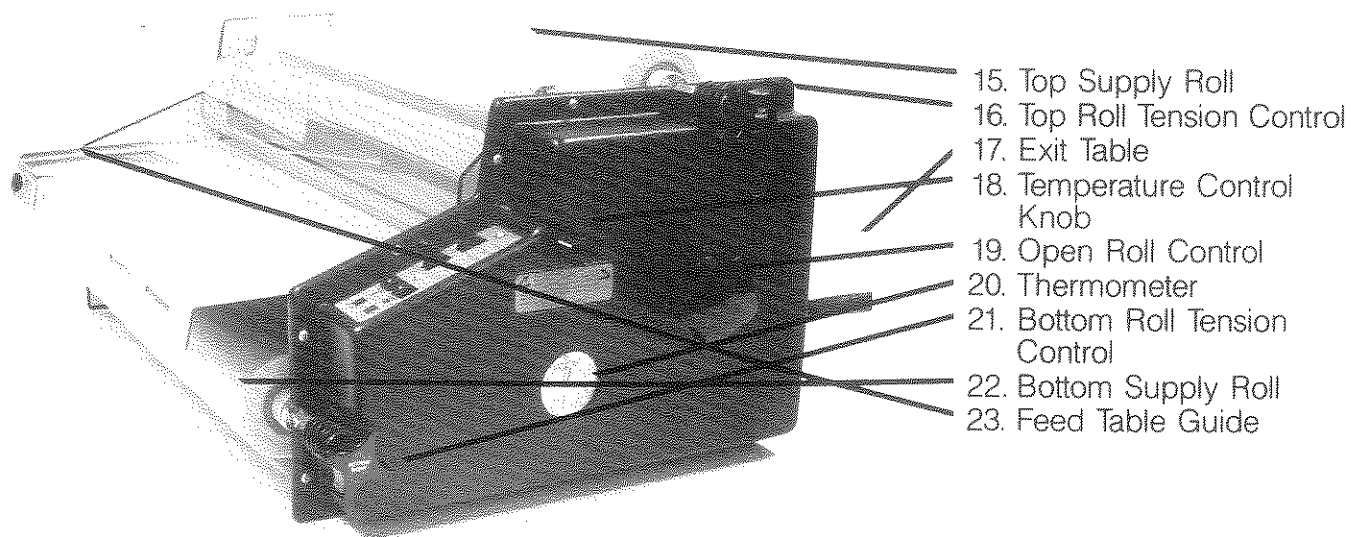


6. Top Support Bar
7. Top Heat Shoe
8. Bottom Heat Shoe
9. Bottom Support Bar
10. Bottom Support Bar



11. Laminating Rolls
12. Pull Rolls
13. Cutter Bars
14. Exit Table Knob

COMPONENTS AND OPERATING CONTROLS — *Continued*



3. Roll Mode

INSTALLATION AND OPERATION

Checkout

With the laminator on an unobstructed, level surface, perform the following checkout before threading the machine with plastic:

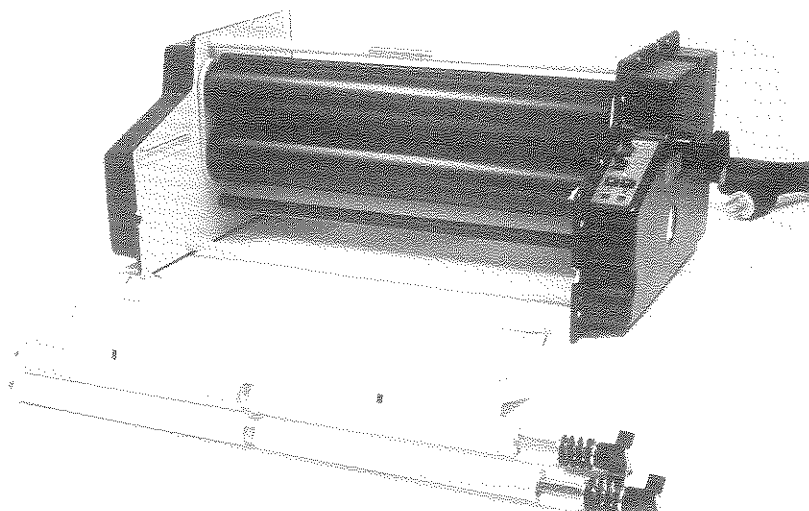
WARNING: *Make sure the power supply cord is free from under the machine prior to operation.*

AVERTISSEMENT: *S'assurer de bien degeger le fil electrique avant d'actionner le laminoir.*

1. Remove the optional pre-heater assembly by lifting it off.
2. Remove the protective cover from the shoe guard.
3. Connect the machine to a power source.
4. Turn the heat switch to the ON position. The indicating light should go on, signaling operation of the heaters (heating the heat shoe).
5. Turn the fan switch to the ON position.
6. The silicone laminating and pull rolls are shipped in the open position. Turn the roll pressure control knob clockwise to engage the rolls.
7. Turn the drive switch to the FORWARD position. The pull rolls and the laminating rolls should rotate, causing the feed board to pass through the laminating and pull rolls. Let the board clear the laminator.
8. Turn the drive switch to the OFF position.
9. Turn the heat switch to the OFF position.
10. Turn the fan switch to the OFF position.

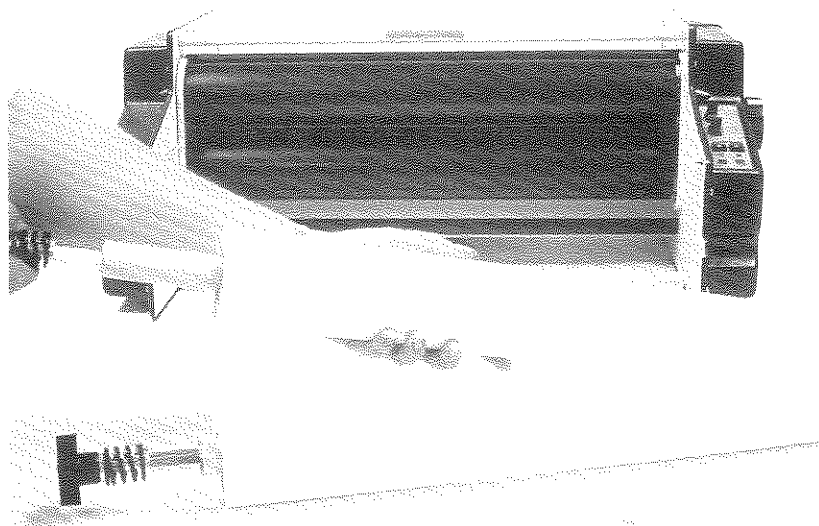
Threading the Laminator with Plastic

1. Remove the supply mandrels, heat shoe guard, pre-heater (if present), and feed table. The supply mandrels are now ready to accept loading of plastic rolls, wound with the polyester (shiny) side out. When viewed from the front of the machine, core grippers on both top and bottom supply mandrels must point toward the feed table with the tension control knob positioned on the right. (If you receive a roll of plastic in which the material is wound in the opposite direction, exchange the top and bottom supply mandrels so that the core gripper positions are reversed.)

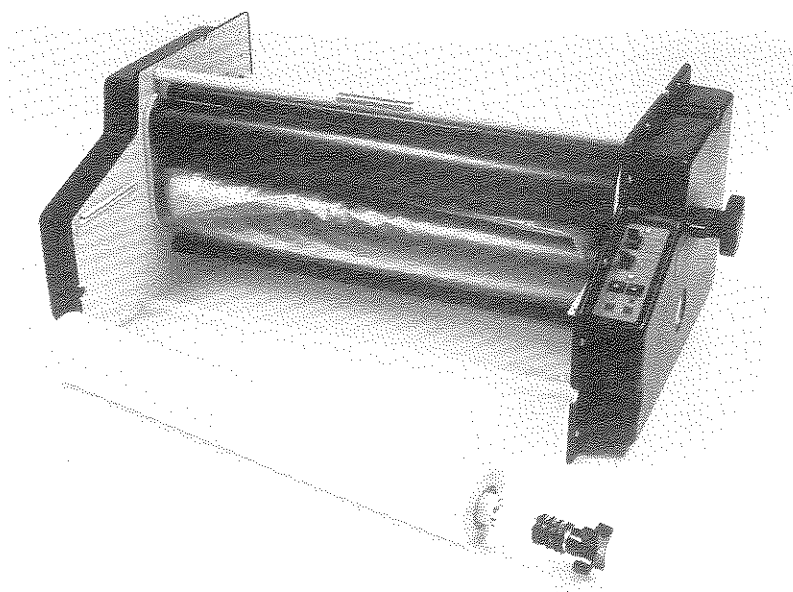


2. Slide a roll of plastic onto the bottom supply mandrel, turning the roll slightly when passing the core gripper, and center the roll. Make sure the dull side of the plastic is facing up and the shiny side is facing the heat shoes during the threading. Scored marks on the end of the mandrel provide a guide for proper alignment.

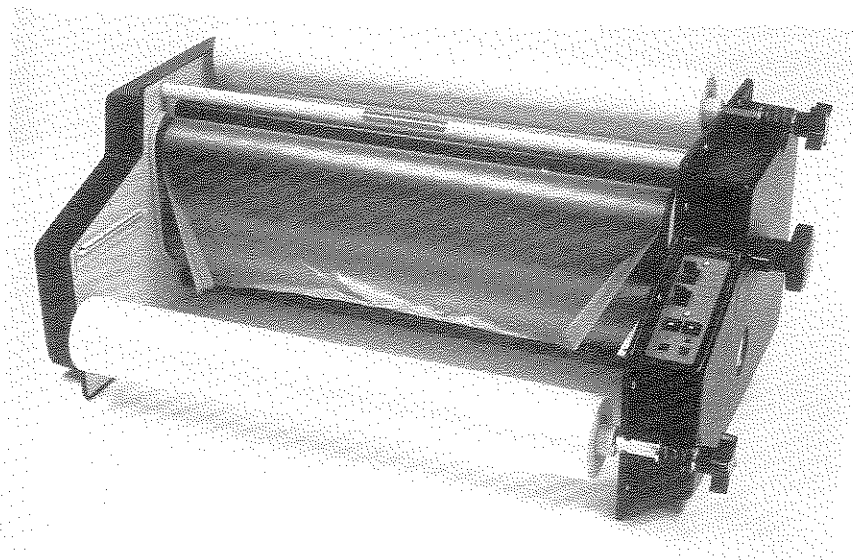
NOTE: *The pointed metal piece protruding from the center of the supply mandrels grips the cardboard core of the plastic supply roll to prevent slippage. When placing a roll of plastic on the mandrel, twist the supply roll in the direction away from the point on the gripper as it passes, or the gripper will break or become dislodged from its mounting.*



3. Review the threading diagram. With the plastic centered on the roll and the shiny side facing down, pass the end under and around the idler bar, *MAKE SURE THE PLASTIC IS THREADED AROUND THE BOTTOM IDLER BAR AND NOT THE MACHINE SUPPORT BAR.*

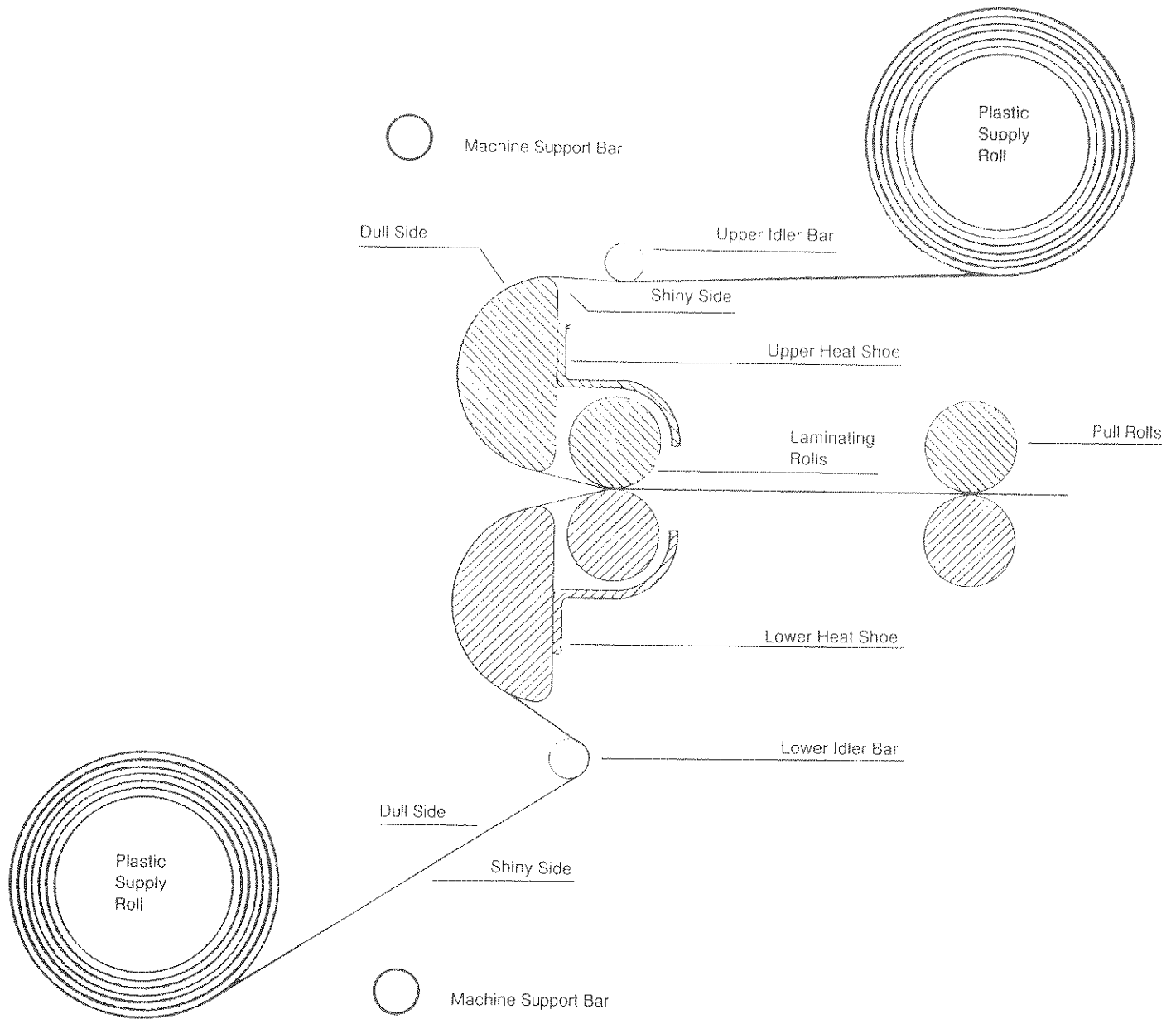


4. With the roll aligned with the scored line on the right side of the mandrel, place it in the bottom bracket. Place the left side of the shaft first, then position the mandrel in the right side by turning the tension knob to the proper setting. *CAREFUL ATTENTION TO THE RECOMMENDED LOADING PROCEDURE IS URGED WHEN THREADING PLASTIC IN THE LAMINATOR. ACCURATE ALIGNMENT OF ROLLS WILL MINIMIZE WASTE.*

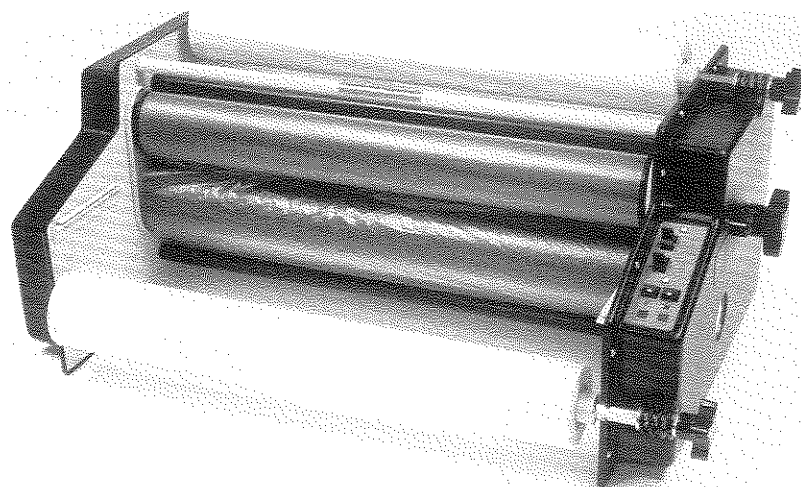


5. Load and thread the top roll of plastic in the same manner as the bottom roll; refer to the threading diagram.

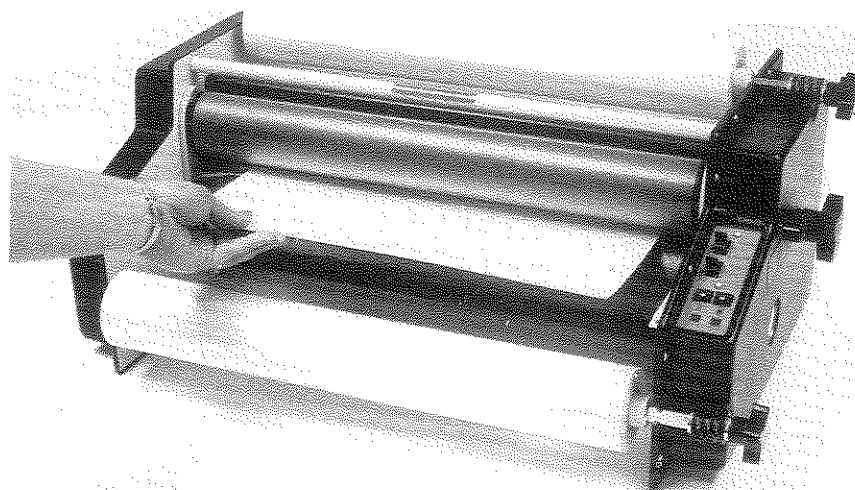
Plastic Threading Diagram



6. With both rolls threaded and installed in their respective brackets, unwind enough plastic from the top roll to reach the bottom of the lower heat shoe. Next, unwind enough plastic from the bottom roll to reach the top of the upper heat shoe.



7. With the plastic draped over the two heat shoes, push the wide edge of the feed board between the heat shoes so that the plastic is firmly positioned against the rubber laminating rolls. Make sure the rubber rolls are in the closed position. If a feed board is not available, any rigid card stock fitting the dimensions of your machine will do the job.



8. Allowing plenty of slack in the plastic supply rolls, turn the drive switch to FORWARD, permitting the plastic and feed board to pass through both sets of rubber rolls. When the material has cleared the pull rolls, turn the drive switch to the center position and pull the plastic sharply against the cutter bar to remove it.

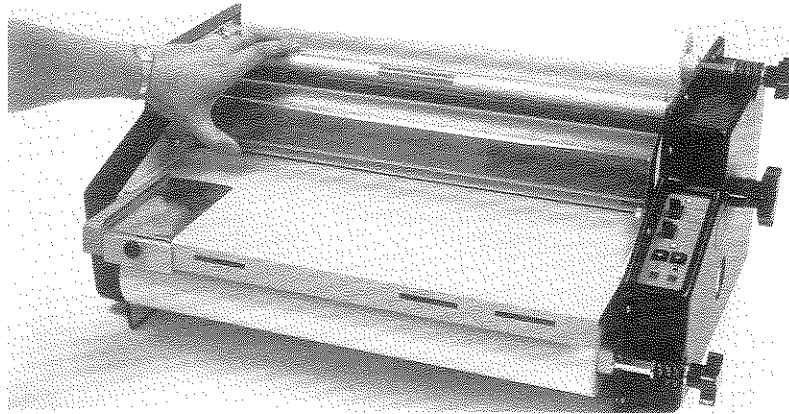
CAUTION: *The edge of the cutter bar is extremely sharp.*

AVERTISSEMENT: *La bande coupante transversale est extrêmement affilée.*

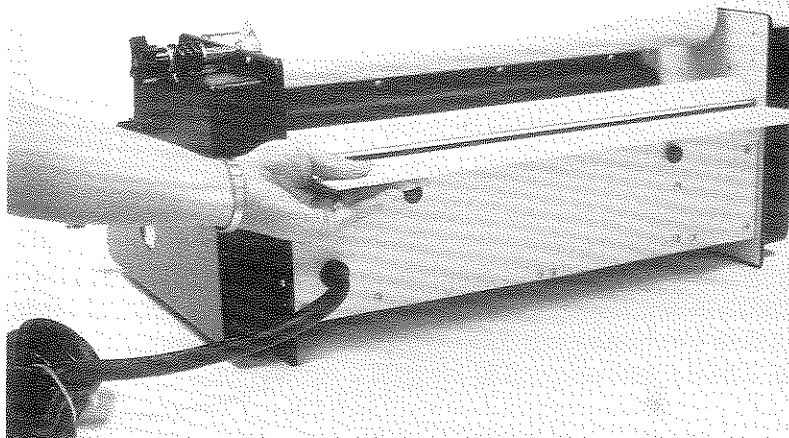
9. Install the feed table and shoe guard. The shoe guard hooks over the top support bar and rests on the feed tray.

CAUTION: *The laminator is designed to laminate with the operator directly facing the control panels and feed tray, not in an angular or sideways position. For operator safety, the guard must be in its designated position when the temperature of the heat shoe is in excess of normal room temperature, or when the drive switch is in the FORWARD position.*

AVERTISSEMENT: *Le laminoir est conçu pour que l'opérateur soit placé directement en face du panneau de contrôle et du plateau d'alimentation. Pour la sécurité de l'opérateur, l'écran protecteur doit être à sa position désignée lorsque la température des sabots chauffants excède la température normale de la pièce ou lorsque le commutateur est en position marche "avant."*



10. Install the exit table by loosening the black knobs protruding from the back of the machine sufficiently to permit positioning into the slots on the table. Tighten the knobs to secure the table.



LAMINATING

1. Turn on the heat switch. After approximately fifteen minutes, the equipment will be ready to operate.
2. When the indicator light goes out, adjust temperature. (See the next section for recommended temperature settings and adjustment instructions.)

WARNING: *Never permit the temperature to exceed 310 degrees Fahrenheit while plastic is threaded and the laminator is not running. The plastic could disintegrate and the machine would require cleaning and rethreading. When it is necessary to laminate at temperatures in excess of 310 degrees - such as for poster board - during the time the laminator is heating, pull some excess plastic off the supply rolls to provide slack so the plastic is not tight against the heat shoes. This will keep the plastic from melting when the laminator is not running.*

AVERTISSEMENT: *La temperature ne devrait jamais excéder 310 degrés F. lorsque le plastique est enfile et que le laminoir n'est pas en marche. Le plastique peut se desintegrer et le laminoir devra être nettoye et le film reenfile a nouveau. Lorsqu'il est necessaire de laminer a des temperatures excédant 310 degrés, comme les cartonsaffiches, pendant que le laminoir chauffe, tirez un excédant de plastique du distributeur du rouleau afin de relacher la pression contre les sabots chauffants. Ceci devra empêcher le plastique de fondre lorsque le laminoir n'est pas en marche.*

When the heat indicating light is on, it means the thermostat is calling for more heat to maintain the laminating temperature. During normal operation, the light will go on and off periodically. After initial warm-up (but not before), there is enough heat for laminating to continue normally even if the light is on. The heat drop during lamination is too slight to affect operation.

3. After the initial warm-up even though the indicating light has gone off, a cold spot may have developed where the laminating rolls come together. This is because the rolls are insulated from the heat source at this point. Symptoms of a cold spot are a thin, milky horizontal line on the laminated item where the plastic failed to achieve the same adhesion as on the hotter portions of the rolls.

To prevent cold spots, your laminator is equipped with a *roll pressure control* located on the right panel. Turn the roll pressure control counter-clockwise to simultaneously separate the laminating and pull rolls. You can determine if the rolls are open or closed by looking into the point at which they meet. With the rolls in the open position, they can revolve inside the heat shoes, thereby permitting even heating on all sides.

4. Turn the drive switch on. Plastic will not pass through the laminator while the rolls are open because there is no pressure on them.
5. Position the feed table guide for the work to be performed. Adjust by loosening the black knob, sliding the guide to the desired position, and tightening the knob.
6. Check the tension on the plastic rolls to see if both top roll and bottom roll have approximately the same drag. If a roll spins too freely, it is too loose. If a roll is difficult to turn, it is too tight. With the machine up to the desired laminating temperature, turn the switch to the FORWARD position and observe the plastic as it passes over the heat shoes.

To correct for *too much* tension, turn the tension control knob counter-clockwise until there is no longer any draw-in or narrowing of either web of plastic on the heat shoe. *Too little* tension on the top or bottom roll causes vertical streaks or blisters in the plastic as it passes over the heat shoe. To correct this, turn the tension control knob clockwise until vertical streaks are above the midpoint on the heat shoes.

For heavier weight films, such as 5 mil, *extra* tension may be desirable. This can be obtained by inserting a metal piece in the holes on the right side of the top and bottom idler bars. The metal must be long enough to reach the machine support bar so as to act a brake. Preventing the idler bar from revolving provides additional tension. This technique is usually not required on 1.5 mil or 3 mil thicknesses.

7. You are now ready to laminate. With the heat switch on and the indicating light out, turn the drive switch to the *forward* position. Next, turn the roll pressure control *clockwise*, placing the rolls in the closed position. Plastic will now pass through the rolls and you can begin to laminate. Feed items over the feed table, positioning them against the guide and into the laminating rolls.

Recommended Temperature Settings

Your laminator is set at approximately 300 degrees Fahrenheit at the factory. This is the recommended temperature setting for 1.5 mil plastic. If you are laminating with a different thickness of plastic, refer to the following table for recommended temperature settings:

Material	Thickness	Temperature Setting	Fan Switch Position
#150 Plastic	.0015 inch	300 to 315 degree range	OFF
#300 Plastic	.003 inch	275 to 300 degree range	ON
#14 Plastic	.005 inch	275 to 300 degree range	ON
#32 Plastic	.005 inch	250 to 275 degree range	ON
#150 Plastic	.0015 inch	320 to 350 degree range	OFF
Poster Board			
#150 Plastic	.0015 inch	350 degrees	OFF
Simultaneous Dry Mounting & Laminating			

Note: *It is quite possible that higher or lower variances from recommended temperature settings are necessary due to subject construction, ambient temperatures, humidity or quality of laminating material.*

To adjust the temperature, the laminator must be ON and the heat indicating light OUT. Move the temperature control knob to the **left to increase** and to the **right to decrease** the temperature. One-fourth turn of the knob changes the temperature approximately 20 degrees. After adjusting the knob, the heat indicating light will come on; wait for it to go out before increasing the temperature any further.

Do not turn more than one revolution to the left until the indicator light has gone out. More than three revolutions of the knob to the left will disengage the thermoswitch.

Temperature may exceed 310 degrees when laminating poster board, etc. on a continuous basis, but when the machine is stopped, turn the heat off if the setting is in excess of 310 degrees. Never increase the heat beyond 370 degrees.

Simultaneous Laminating and Dry Mounting

NOTE: *If you wish, you can separate the dry mounting and laminating operations. You can laminate dry mounted items at a later time, or dry mount items that have already been laminated. If you do not want to combine the dry mounting and laminating steps, remove the plastic supply rolls (not the rubber rolls) from the laminator.*

1. Place the item you want to dry mount face down on a piece of release paper or reusable silicone-coated carrier. Completely cover the back of the item with a sheet of mounting tissue (there should be some excess).
2. To keep the tissue from slipping, tack it in place with a tacking iron; press the top of the iron on the dry mount tissue surface at the top edge. Then, trim the tissue to the size of the item.
3. Place the item on the mounting board face up. You are now ready to fix the tissue item to the mounting board. With the item centered on the mounting material, lift the bottom of the item, exposing the dry mount tissue. Press the tip of the iron against the dry mount tissue to affix the item to the mounting board.
4. The procedure for simultaneous two-side laminating and dry mounting is identical to the procedure for laminating single graphic sheets, described in the preceding section. Insert the mounting board into the laminator, placing the tacked edge into the rubber roles first. If the mounting material is of heavy weight, it may be necessary to adjust the heat to 350 degrees to ensure a good bond of the subject to the mounting material. When the item is fed into the laminating rolls, lamination is achieved at the same time the adhesive on the dry mount tissue is activated.

Helpful Hints

■ Wrinkle-free laminations

It is always desirable and frequently essential to smooth out the item as it passes over the feed table and through the rolls to ensure an even lamination without wrinkles. Smooth from the center of the item, back toward the trailing edges. When there is no longer sufficient surface to permit smoothing action, apply light pressure to the trailing edges with the index fingers in a back-and-away direction.

If wrinkles appear in the roll plastic as it moves over the heat units, increase the tension by turning the plastic supply roll knob in a clockwise direction.

To get maximum efficiency from the plastic rolls, you can feed several items into the laminator side by side. However, severe wrinkling can occur if these items are of unequal thickness, because the laminating roll is lifted off the thinner items by the thicker items. When laminating items side by side, it is important to arrange them so that thicknesses are approximately the same.

If wrinkling *does* occur:

1. Check the tension. (See *Laminating*, step 7.)
2. Make sure the plastic is threaded properly. (See *Threading the Laminator with Plastic*.) The most frequent operator error is threading the plastic under the machine support bar instead of under the idler bar on the bottom of the laminator.
3. Wrinkles can be caused by the drive gears not meshing. Unplug the machine, remove the plastic housings, and inspect the gears. If required, loosen the set screws so the gears mesh, then tighten the set screws before resuming operation.

■ Preventing wrap-around

When laminating thinner gauge films, there is a tendency for the finished laminated web to back up as it exits the laminator to the degree that it is grabbed by the revolving pull rolls and becomes wrapped around them. To minimize the occurrence of wrap-around, make sure that the laminated web cannot double back into the pull rolls by pulling it away as it emerges.

During the threading of plastic, the loose ends of the unlaminated plastic are particularly susceptible to wrap-around. To minimize this, hold the feed board taut after it emerges from the pull rolls until the plastic clears the exit table. Then, cut off the excess plastic flush with the pull rolls prior to laminating. Continue to exercise caution when first starting to laminate, taking care that the thin, unlaminated web does not get caught in pull rolls or laminating rolls.

If wrap-around *does* occur, you can easily correct it by reversing the direction of the rubber rolls, permitting the laminator to release the plastic from the rolls:

1. Remove the heat shoe guard and feed tray.
2. Cut the plastic web on the top and bottom, just in front of the idler bars.
3. Disengage the plastic from the heat shoes and grip the two loose ends, holding them together.
4. Turn the top control switch to the REVERSE position.
5. Briefly press the jog button and allow the laminator to back out the plastic that is wrapped around the rolls. Assist the operation by pulling lightly on the loose ends of the plastic.

NOTE: *Continuing to press the jog button may cause reverse wrap-around. Briefly press, then release, the jog button. Press the button again if additional backing is needed.*

■ Plastic remnant removal

When the plastic is about used up, unequal amounts may remain on the top and bottom rolls. If the plastic is run through the laminator without being matched to an opposing film, the adhesive exposed to the rubber rolls will offset onto the rolls. Such accumulation is undesirable, as it affects the quality of lamination.

Just before the last few inches pass through the rolls, stop the laminator and cut the plastic from the supply roll. Then, pull the plastic out backwards, towards you. If the rolls are closed, you can use the reverse switch. Or, you can open the rolls to pull the plastic out.

■ Width of plastic rolls

The size of the laminator is the only limitation to the width of the plastic rolls that you can use. If you have a **Premier III** Series 25, you can use any width roll **up to and including** 25 inch. (You can also use 18 inch and 12 inch rolls.) The same principle applies to the Series 18 and 12: you can use any width roll up to the size of the laminator. Make sure the upper and lower roll widths are the same.

When installing, always center the roll on the supply mandrel so that the core gripper engages the cardboard core. Look for the score marks around the supply mandrels to aid in aligning the top and bottom rolls.

■ Tension adjustment for quality laminations

- If the plastic shrinks while passing over the heat units, loosen the tension by turning the plastic supply roll knob counter-clockwise.
- If the laminated item curls *up*, compensate by loosening the tension on the *top* supply roll, balancing it with the bottom roll. Similarly, if the laminated item curls *down*, compensate by loosening tension on the *bottom* roll, balancing it with the top roll.

■ Plastic not sticking

1. Check the heat setting on the laminator. (See *Recommended Temperature Settings*.) If the plastic is not sticking to the item, it is likely that more heat is required.
2. If a milky, hazy line appears periodically across the width of the web immediately after the initial warm-up period, see *Laminating*, step 3.

■ Laminator squeaks

1. If the bottom idler bar is squeaking, deposit oil or graphite on the shaft at the point where it enters the side panels.
2. If the squeaking is caused by the plastic as it is drawn over the heat shoes, try reducing the tension and heat, but not to the extent that the quality of the lamination is lessened.

■ Laminations with pitted surface

1. Inspect the rubber rolls for plastic adhesive deposits. If such deposits exist, remove them. (See *Cleaning the Rubber Rolls*, Section 6.)
2. Inspect the heat shoes for plastic adhesive deposits. If such deposits exist, remove them. (See *Cleaning the Heat Shoes*, Section 6.)

■ Splices in the plastic rolls

1. Inspect plastic rolls for splices by turning them on end. A splice is identified by a colored strip exposed at the sides.
2. If a roll is spliced, place it on the **top** supply mandrel so you can watch for the spliced section during operation. When it appears, apply slack on the supply roll to minimize the tension, and stop feeding items until the splice passes through the laminating rolls. This procedure will prevent tearing of the roll and spoiling the item.

■ Plastic shrinking as it passes over heat shoes

Shrinking is caused by too much heat, too much tension, or both. Loosen tension by turning the tension control knob counter-clockwise, or reduce the heat. (See *Laminating* and *Recommended Temperature Settings*.)

■ **Plastic not sticking to items mounted on poster board**

One of the most difficult materials to laminate is poster board with pockets or metal magnets attached. Adhesion of the plastic around these items is improved by turning the work face down. Also, space the items to be mounted as far apart as is feasible and use a glue with a low moisture content.

■ **Lamination peeling off at corners**

Forcing items into the laminator results in insufficient heat on the leading edge. Feed items at approximately the same speed at which the plastic is moving over the heat shoes — not any faster.

■ **Supply roll will not turn**

Loosen the tension control.

4. Pre-Heater Mode

INSTALLATION

1. Remove the shoe guard, plastic supply rolls and feed tray.
2. Position the pre-heater assembly over the heat shoes:
 - The flange on the top of the pre-heater hooks over the top of the top heat shoe.
 - The semi-circular portions of the assembly nest against the heat shoes—the top half of the semi-circular aluminum fixture rests against the top half of the top heat shoe; the bottom half rests against the bottom half of the lower shoe.
 - The fit must be snug for the unit to function properly. (There will be an 1/8" gap where the platens run adjacent to the heat shoes; this gap enables the heating platens to open when the carrier is inserted.)

OPERATION

Laminating Plastic Pouches

1. With the pre-heater assembly installed, the heat switch ON, the fan switch OFF and the rolls in the closed position, turn the drive switch to the FORWARD position.
2. The proper heat setting is 370 degrees. (See *Recommended Temperature Settings* for heat adjustment procedures.) For best results, allow at least 30 minutes to thoroughly warm the pre-heater during the warm-up period, allow the rolls to rotate to permit even distribution of heat.
3. Select a pouch of the proper size and thickness. Place the item to be laminated between the sheets of the pouch.
4. Place the pouch containing the item in the carrier provided, with the item as far from the folded edge of the carrier as possible. The plastic surface of the carrier must be inside, with the paper surface of the carrier outside. Close the carrier.
5. Firmly and steadily push the carrier, folded edges first, into the slotted opening in the pre-heater. When you feel the laminating rolls grab it, release the carrier and let it pass through the laminator.
6. Support the carrier as it emerges from the pull rolls, preventing it from folding over or buckling. The material is still hot at this stage; let it cool in a flat position to prevent warping.
7. Open the carrier and inspect the lamination while still in the carrier. Remove the lamination.

Laminating Plastic Sheets: One Side

1. With the pre-heater assembly installed, the heat switch ON, the fan switch OFF, and the rolls in the closed position, turn the drive switch to the FORWARD position.
2. The proper heat setting is 370 degrees. (See *Recommended Temperature Settings* for heat adjustment procedures.) For best results, allow at least 30 minutes to thoroughly warm the pre-heater. During the warm-up period, allow the rolls to rotate to permit even distribution of heat.
3. Cut a piece of plastic from a roll, large enough to cover the material to be laminated, with some excess.
4. Place the item to be laminated face up on the opened carrier.
5. Place the plastic over the item with the dull (adhesive) side against the item. Smooth the plastic.
6. Place the plastic containing the item in the carrier provided, with the item as far from the folded edge of the carrier as possible. The plastic surface of the carrier must be inside, with the paper surface of the carrier on the outside. Close the carrier.
7. Firmly and steadily push the carrier, folded edges first, into the slotted opening in the pre-heater. When you feel the laminating rolls grab it, release the carrier and let it pass through the laminator.
8. Support the carrier as it emerges from the pull rolls, preventing it from folding over or buckling. The material is still hot at this stage; let it cool in a flat position to prevent warping.
9. Open the carrier and inspect the lamination while still in the carrier. Remove the lamination.

Laminating Plastic Sheets: Two Sides

1. With the pre-heater assembly installed, the heat switch ON, the fan switch OFF, and the rolls in the closed position, turn the drive switch to the FORWARD position.
2. The proper heat setting is 370 degrees. (See *Recommended Temperature Settings* for heat adjustment procedures.) For best results, allow at least 30 minutes to thoroughly warm the pre-heater. During the warm-up period, allow the rolls to rotate to permit even distribution of heat.
3. Cut two pieces of plastic from a roll or from the separate sheets of a pouch. The pieces must be large enough to cover the item to be laminated, with some excess.
4. Place one plastic sheet, dull (adhesive) side down, on release paper.
5. Lay the item to be laminated face up on the plastic. Cover the face of the item with the second sheet of plastic, dull (adhesive) side down.
6. Place the plastic containing the item in the carrier provided, with the item as far from the folded edge of the carrier as possible. The plastic surface of the carrier must be inside, with the paper surface of the carrier on the outside. Close the carrier.

To prepare a **single** transparency lift:

1. Cut a sheet of plastic from a roll or from a pouch slightly in excess of the picture area. The plastic should extend beyond the picture area permitting you to place the lift in a frame, if desired.
2. Place the plastic over the front of the picture item and place it in a carrier.
3. Follow the procedure for *Laminating Plastic Sheets: One Side*.

To prepare **two** transparency lifts **simultaneously**.

1. Place the pictures back to back, with the surfaces you want to lift on the outside. Leave a border on all four sides in excess of the image you want to project on the transparency.
2. Prepare and laminate the item following the appropriate instructions for laminating with pouches or sheets (See *Laminating Plastic Pouches* or *Laminating Plastic Sheets: Two Sides*.)
3. Cut into the edges of the laminated pictures on all four sides just enough to permit the pictures to separate.
4. Place the work in a pan of lukewarm to which you have added a liquid dishwashing detergent. Let the work soak for approximately three minutes to loosen the film from the page.
5. Peel the paper, which is now blank, from the plastic. The image is now embedded in the adhesive side of the plastic. In most cases the paper will simply fall away. If the page does not separate easily, rub the paper off firmly but gently with your fingers under the water.
6. Remove the excess clay residue from the transparency by wiping the plastic gently with a wet sponge or soft cloth. Always rub in one direction and hold one end while rubbing, or the film will wrinkle. Blot with a paper towel and allow to dry completely.
7. Place in a cardboard frame if desired. Rigidity can also be obtained by laminating the transparency with 5 mil plastic, #32, on one side. This process eliminates the need for spraying.

You can also make transparent picture lifts in roll mode by following these steps, allowing for the differences in laminating techniques.

Creating a Textured Surface

A dimensional effect, not unlike the textured surface of an oil painting, can be achieved by crumpling the plastic sheet prior to lamination.

1. With the pre-heater assembly installed, the heat switch ON, the fan switch OFF and the rolls closed, turn the drive switch to the FORWARD position.
2. The proper heat setting is 370 degrees. (See *Recommended Temperature Settings* for heat adjustment procedures.) For best results, allow at least 30 minutes to thoroughly warm the pre-heater. During warm-up, allow the rolls to rotate to permit even distribution of heat.

3. Cut a piece of plastic from a roll, large enough to cover the material to be laminated, with some excess.
4. Crumple the plastic and roll it into a ball between the palms of your hands. Continue to roll the plastic until it forms the smallest possible ball.
5. Place the item to be laminated face up on the opened carrier.
6. Place the plastic over the item with the dull (adhesive) side against the item. Smooth the plastic.
7. Place the plastic containing the item in the carrier provided, with the item as far from the folded edge of the carrier as possible. The plastic surface of the carrier must be inside, with the paper surface of the carrier on the outside. Close the carrier.
8. Firmly and steadily push the carrier, folded edges first, into the slotted opening in the pre-heater. When you feel the laminating grab it, release the carrier and let it pass through the laminator.
9. Support the carrier as it emerges from the pull rolls, preventing it from folding over or buckling. The material is still hot at this stage; let it cool in a flat position to prevent warping.
10. Open the carrier and inspect the lamination while it is still in the carrier. Remove the lamination.

Helpful Hints

- It is important that the carrier make positive contact with the metal plates on the pre-heater. You should feel some resistance as the carrier is fed into the throat of the laminator. If the carrier slips easily through the plates, it may be necessary to tighten the springs holding the plates together. Do this by tightening the four screws that keep the plates in contact.
- Do not let the laminator stand for long periods with the heat switch ON without passing material through the rolls. To do so will cause excessive heat build-up in the pre-heater. If you do not plan to use the laminator for 30 minutes or more, switch it OFF for a few minutes to allow the heat to level off.
- When the laminator is in the pouch mode, place the drive switch in the FORWARD position, allowing the rollers to revolve continuously when the heat is on. This permits even distribution of heat to the rubber rolls.

5. Instructions for Using Optional Features

FOOTAGE COUNTER

This option allows accurate accounting of the amount of plastic used to laminate a particular order or by a particular department. *Refer to Section 7 for an illustrated parts breakdown.*

To measure the use of plastic with the footage counter:

1. Set the wheel of the counter against the roll of plastic.
2. Press the reset button located next to the digital readout.
3. The counter will continue to measure the number of feet of plastic used until you lift the wheel from the surface of the plastic.

VARIABLE SPEED CONTROL

The variable speed control provides greater versatility for laminating with a wider array of film thicknesses and substrates. Preparing for lamination with this control is identical to the procedures recommended in this manual for the standard unit. *Refer to Section 7 for an illustrated part breakdown.*

Observe the following when using the variable speed control:

- Speed settings on the variable speed control are similar to the numbers on a clock dial. That is, setting the dial at the 6 o'clock position produces an operating speed of about 6 feet per minute.
- Heavier gauges of plastic require slower speeds. For example, 1.5 mil plastic can be run at high speeds - 8 or 9 feet per minute - than the heavier 5 mil gauges, which generally cannot be run faster than 5 feet per minute.
- When laminating 1.5 mil plastic, it generally is not necessary to turn the fan on. The fan is essential when using the 3 and 5 mil gauges.
- It is necessary to monitor the ready light continuously. The ready light is illuminated when the unit is calling for more heat. If the light remains on more than a few seconds, check the thermometer. It may be necessary to operate at a lower speed or increase the heat if the temperature drops below the setting for sustained periods. Sporadic off-and-on activity is normal and will not necessarily require adjustment of the thermostat.
- Although you can "stop" the laminator through use of the speed control, it is potentially harmful to the unit. When not operating the laminator, turn the motor switch to OFF.

6. Maintenance

CLEANING THE HEATING SHOES

Use a soft rag to remove adhesive or dirt which may accumulate on the heating shoes. Clean the shoes while they are at full laminating temperature, being careful to avoid contact of skin with the hot surface.

CLEANING THE RUBBER ROLLS

Clean the rubber rolls with a mild solvent and a nylon mesh. *DO NOT USE SHARP METAL OBJECTS OR STEEL WOOL AS THESE COULD MAR THE SURFACE OF THE RUBBER.*

PRE-HEATER CLEANING AND ADJUSTMENT

To operate at maximum efficiency, the pre-heater must rest snugly against the heat shoes. Unless the inside of the pre-heater assembly is kept clean, a proper fit cannot be achieved. Dirt and foreign particles can also scratch the heat shoes. To keep the inside of the pre-heater clean, simply wipe surface with a lint-free cloth.

From time to time it is necessary to adjust the screws holding the metal plates of the pre-heater together. The best results are obtained when as snug a fit is possible exists as the carrier passes through the slotted opening into the rolls. If the plates offer no resistance, they are too loose. Allow the pre-heater to cool before tightening the screws.

LUBRICATION REQUIREMENTS

■ Rubber Roll Bearings

To lubricate the bearings, you must remove the plastic housings. Deposit oil on the felt washers located between the gears and the gear supports after each 40 hours of use. When you use the laminator continuously at temperatures of 325 degrees or more, it is advisable to shorten the lubricating intervals to 20 hours.

■ Drive Gears

Apply a light coat of gear lube or heavy grease after each 1000 hours of operations.

7. Illustrated Parts List

Diagrams on the following pages show the parts breakdown for each of the major subassemblies of the **Premier III** Laminator. Please use the Part Numbers (*not the reference numbers*) when ordering spare or replacement parts.

ILLUSTRATIONS

- 7-2 Right Housing
- 7-3 Motor Covers
Exit Table
- 7-4 Supply Roll
Heat Shoe
Rubber Roll Assembly
- 7-5 Feed Table
Left Housing
- 7-6 Pre-Heater (*with parts list*)
- 7-7 Footage Counter (*with parts list*)
Variable Speed Control (*with parts list*)

PARTS LIST

- 7-8 Description and Parts Numbers
- 7-10 Wiring Diagram

RIGHT HOUSING

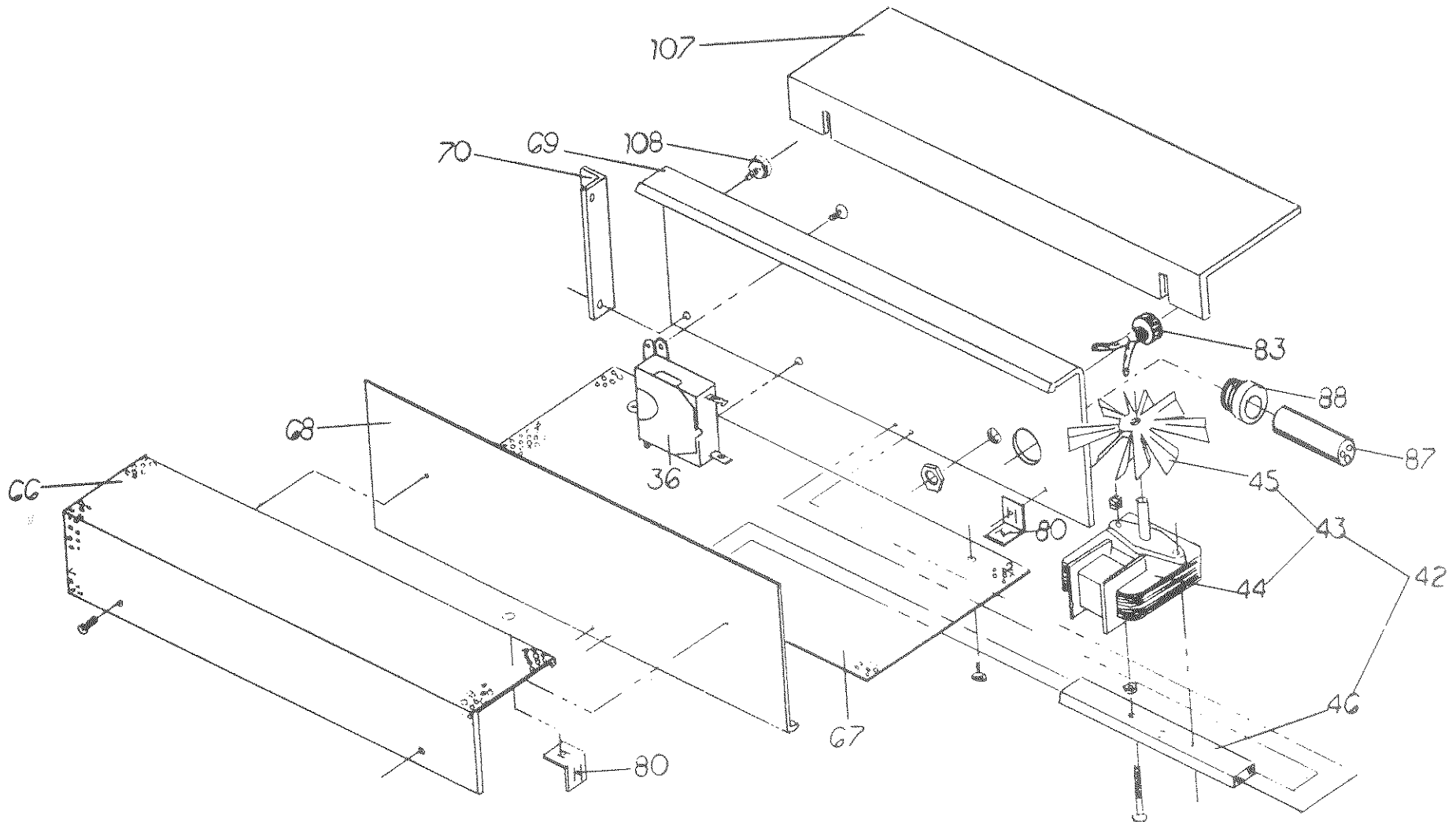
This exploded view diagram illustrates the assembly of the right housing. The main components and their assembly sequence are as follows:

- Base Housing (71):** The primary structural component.
- Switch Overlay (81):** A plate with four rectangular buttons, labeled "SWITCH OVERLAY".
- Decal (82):** A label for the switch overlay, labeled "DECAL".
- Control Knob (109):** A large, multi-faceted knob for manual control.
- Indicator Light (110):** A circular light with a lens, mounted on the housing.
- Internal Mechanism (111):** A complex assembly of gears and levers, including a long lever (114) and a small gear (116).
- Mounting Brackets (23, 24, 25, 26, 28, 33):** Various brackets and supports for the internal mechanism.
- Fasteners (98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500):** Various screws, bolts, and fasteners used to secure the components.

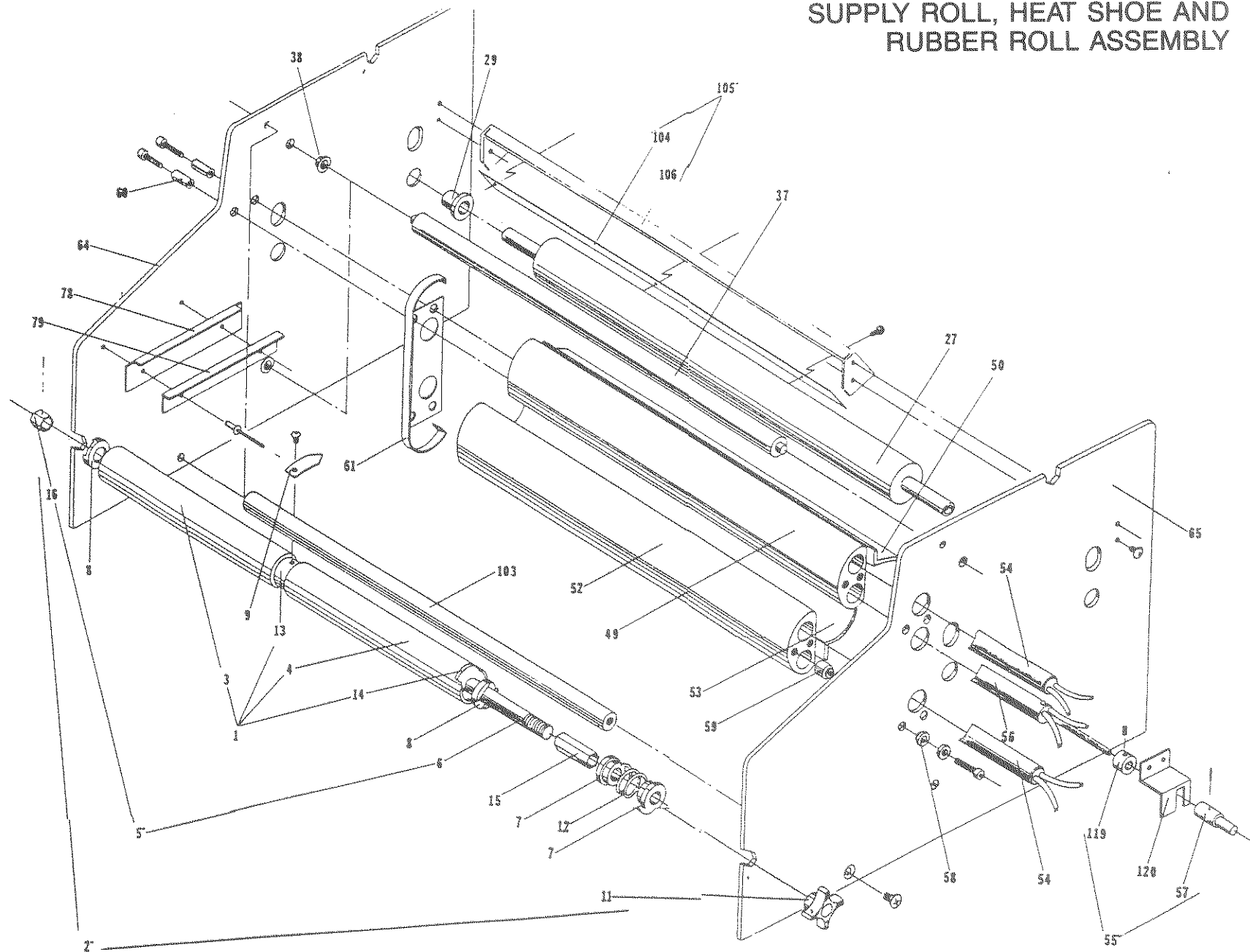
DECAL

71

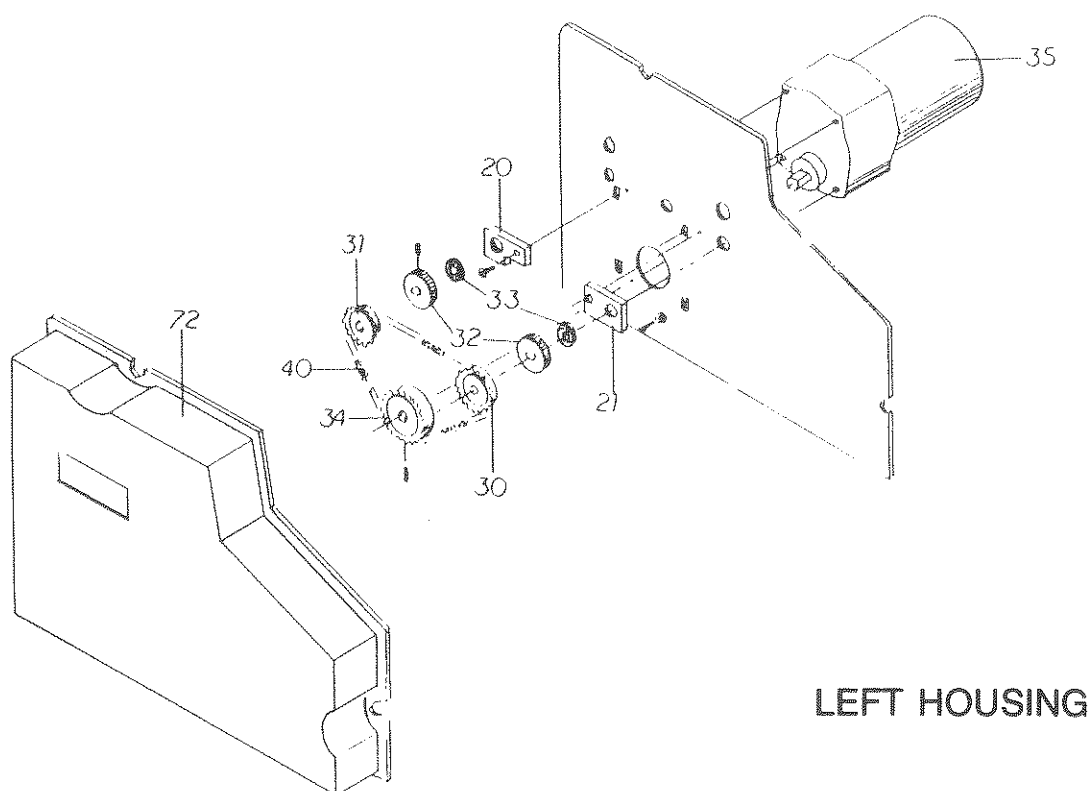
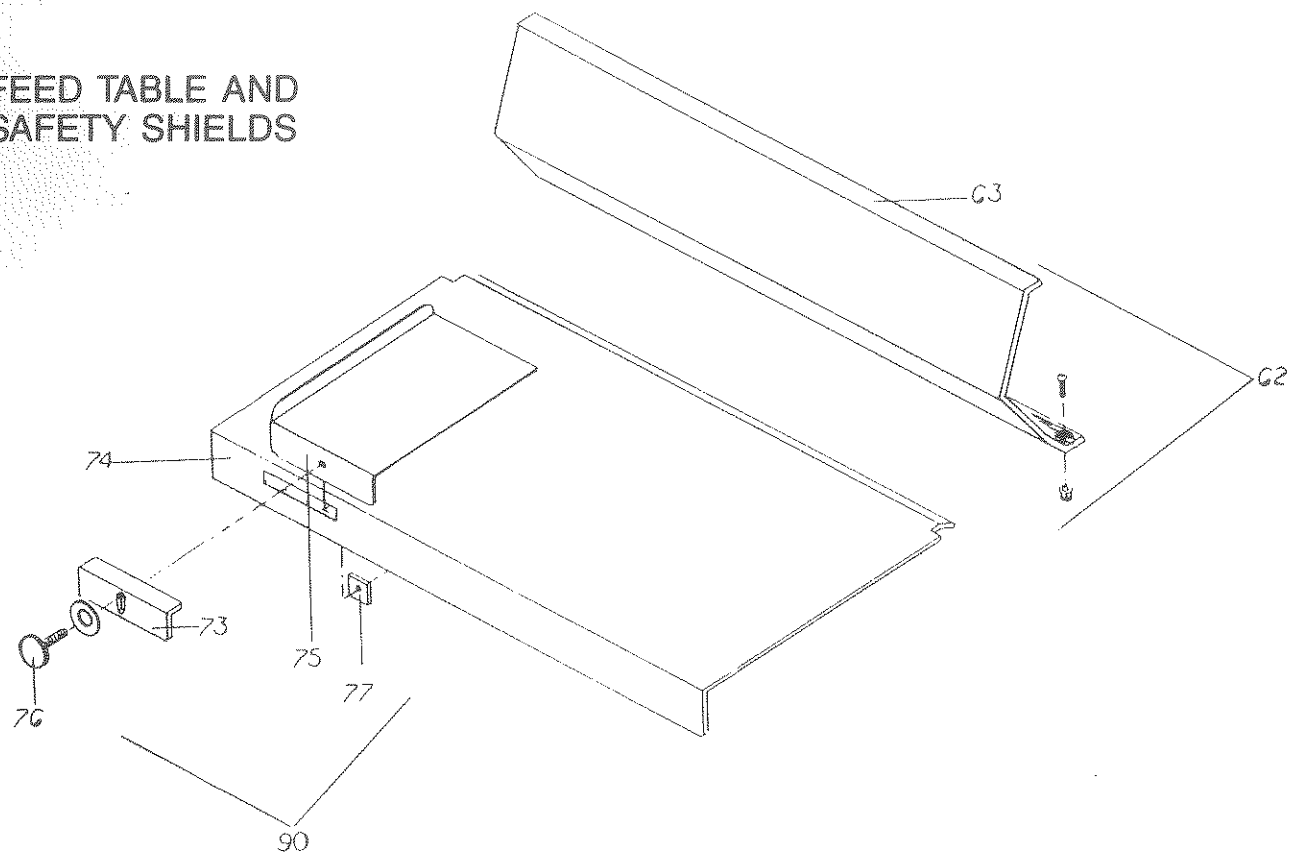
MOTOR COVERS AND EXIT TABLE



SUPPLY ROLL, HEAT SHOE AND RUBBER ROLL ASSEMBLY

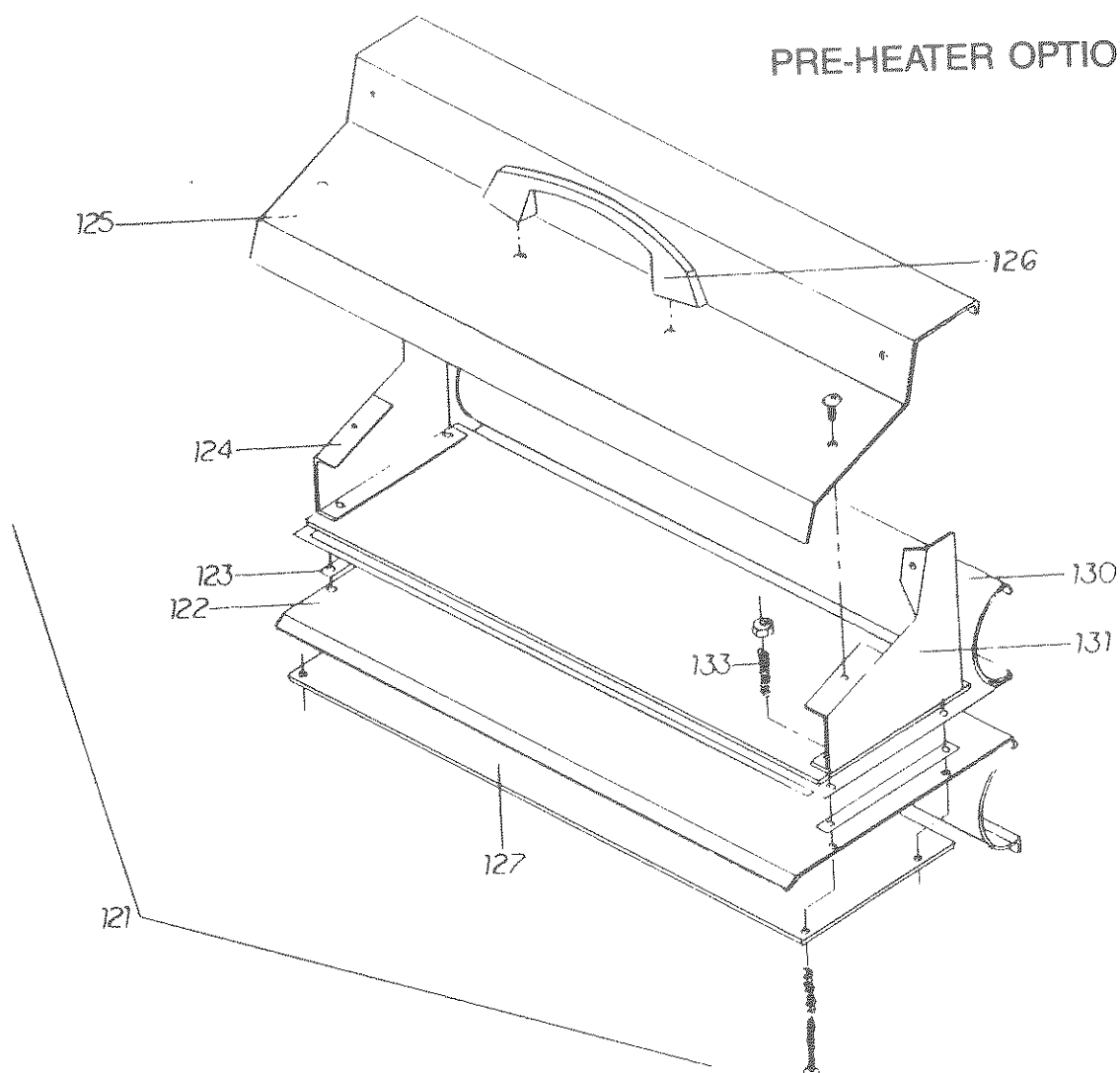


FEED TABLE AND SAFETY SHIELDS

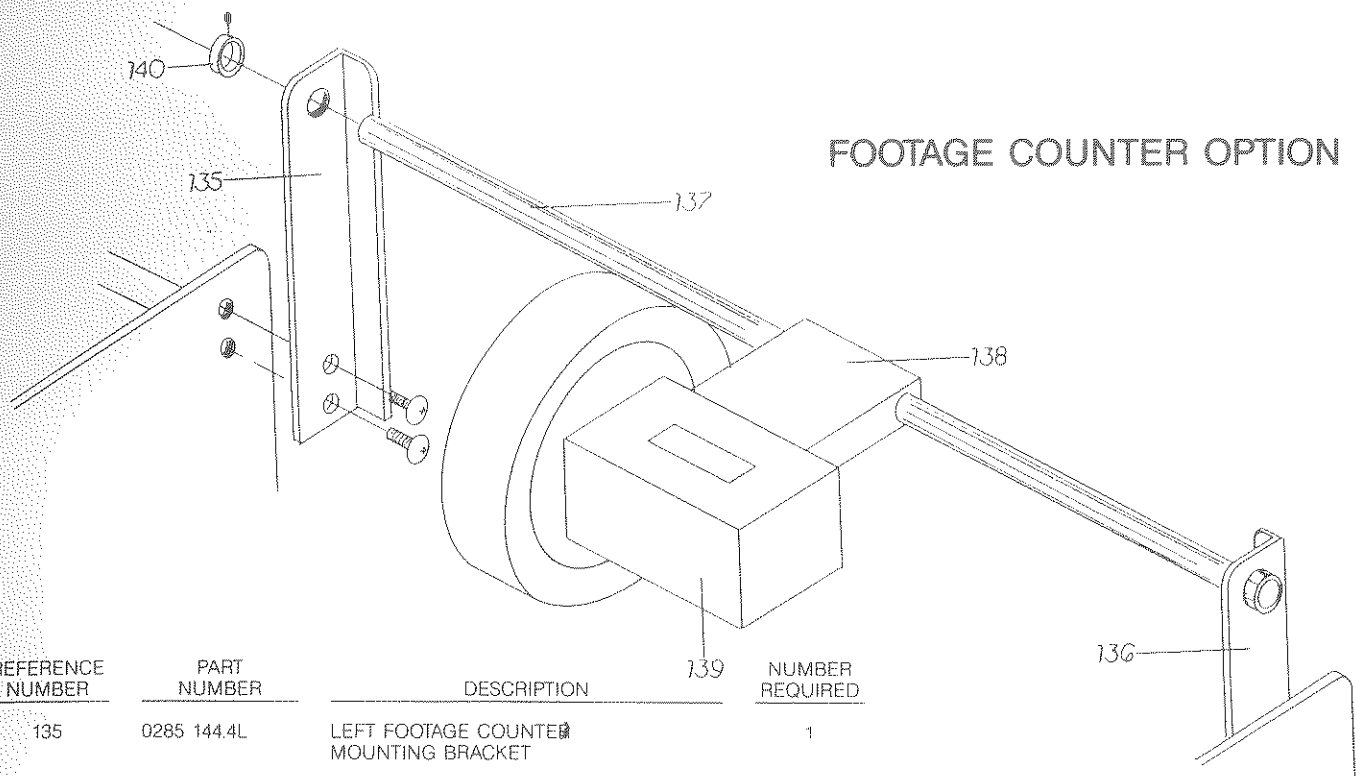


LEFT HOUSING

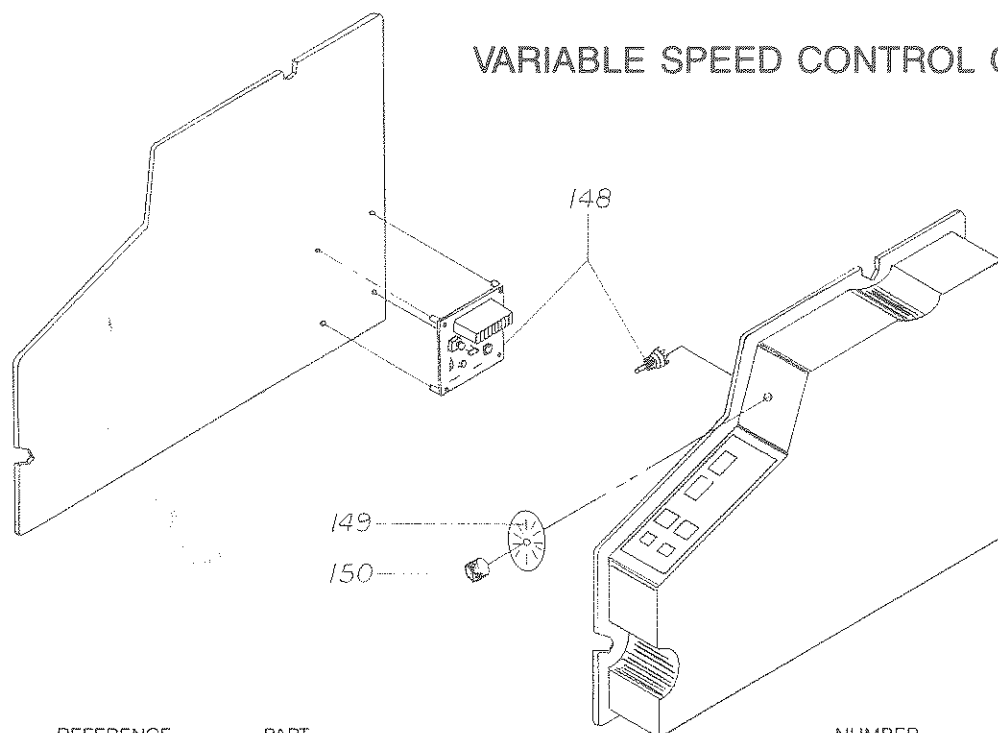
PRE-HEATER OPTION



REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
121	0200, 0800, 0500 082.5	OPTIONAL PRE-HEATER ASSEMBLY	1
122	0200, 0800, 0500 080.4	BOTTOM PRE-HEATER PLATE	1
123	0285 086.4	PRE-HEATER SPACER	2
124	0285 088.4L	LEFT PRE-HEATER COVER BRACKET	1
125	0200, 0800, 0500 082.4	PRE-HEATER COVER	1
126	PRH141	PRE-HEATER HANDLE	1 2 on 25"
127	0200, 0800, 0500 082.4	RETAINING PLATE	2
128, 129		NOT ASSIGNED	
130	0200, 0800, 0500 081.4	TOP PRE-HEATER PLATE	1
131	0285 088.4R	RIGHT PRE-HEATER COVER BRACKET	1
132		NOT ASSIGNED	
133	PRS241	PRE-HEATER SPRING	8



REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
135	0285 144.4L	LEFT FOOTAGE COUNTER MOUNTING BRACKET	1
136	0285 144.4R	RIGHT FOOTAGE COUNTER MOUNTING BRACKET	1
137	0200, 0800, 0500 145.4	FOOTAGE COUNTER SHAFT	1
138	0285 142.4	FOOTAGE COUNTER MOUNTING PLATE	1
139		FOOTAGE COUNTER ASSEMBLY	1
140	PRC095	SHAFT COLLAR	2



REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
148	PRM219	SPEED CONTROL	1
149	XS40	DIAL PLATE	1
150	PRK181	SPEED CONTROL KNOB	1

PREMIER III REPLACEMENT PARTS LIST

0200=12" MACHINES - 0800=18" MACHINES - 0500=25" MACHINES

REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED	REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
1	0200, 0800, 0500 002.4	.969 O.D. SUPPLY ROLL MANDREL INCLUDES NUMBERS 3, 4, 13, 14	2	27	0200, 0800, 0500, 040.4	RUBBER ROLL	4
2	0200, 0800, 0500 002.5	SUPPLY ROLL ASSEMBLY INCLUDES NUMBERS 1, 5, 7, 8, 9, 11, 12, 15 (SPECIFY TOP OR BOTTOM)	2	28	PRB043	TOP ROLL OILITE BEARING	4
3	0200, 0800, 0500 002.2L	LEFT SUPPLY ROLL TUBE	2	29	PRB048	BOTTOM ROLL OILITE BEARING	4
4	0200, 0800 0500 002 R	RIGHT SUPPLY ROLL TUBE	2	30	PRS251	LAMINATING ROLL SPROCKET	1
5	0200, 0800, 0500 011.4	SUPPLY ROLL SHAFT WITH HEX INCLUDES NUMBERS 6 AND 16	2	31	PRS249	PULL ROLL SPROCKET	1
6	0200, 0800, 0500 011.4	SUPPLY ROLL WITHOUT HEX (USES YOUR OLD HEX)	0	32	PRG131	RUBBER ROLL GEAR	4
7	0285 026.4	SUPPLY ROLL HEX BUSHING	4	33	PRW331	GEAR FELT WASHER	6
8	0285 025.4	SUPPLY ROLL FRICTION PLATE	4	34	PRS249	DRIVE SPROCKET	1
9	0285 015.4	SUPPLY ROLL DOG (CORE GRIPPER)	2	35	PRM215	MOTOR	1
10	3285 028.4R	RUBBER ROLL BOTTOM RIGHT REAR BEARING SUPPORT	1	36	PRM215B	MOTOR CAPACITOR	1
11	PRK170	SUPPLY ROLL TENSION KNOB	2	37	0200, 0800, 0500 052.4	IDLER SHAFT	2
12	PRS234	SUPPLY ROLL TENSION SPRING	2	38	PRB057	IDLER SHAFT BUSHING	4
13	0285 019.4	SUPPLY ROLL JOINER	2	39		NOT ASSIGNED	
14	0285 020.4	SUPPLY ROLL FRICTION PLUG	4	40	PRC083B	CHAIN	1
15	0285 027.4	SUPPLY ROLL HEX BUSHING	2	41	PRC084	CHAIN KIT: INCLUDES NUMBERS 40, 41 & 1 OFFSET LINK	1
16	0285 023.4	SUPPLY ROLL HEX ADAPTOR	2	42		COOLING SYSTEM: INCLUDES NUMBERS 43, 44, 45, 46	1 2 on 25"
17	0285 028.4R	BOTTOM RIGHT FRONT RUBBER ROLL BEARING	1	43	PRF117.5A	FAN MOTOR AND BLADE	1 2 on 25"
18	3285 030.5	RUBBER ROLL BEARING ASSEMBLY, TOP INCLUDES NUMBERS 19, 28, 118	2	44	PRF117	FAN MOTOR	1 2 on 25"
19	3285 030.4	TOP RUBBER ROLL BEARING SUPPORT	1	45	PRF113	FAN BLADE	1 2 on 25"
20	3285 028.4LR	BOTTOM LEFT REAR ROLL BEARING SUPPORT	1	46	3285 057.4	FAN MOTOR BRACKET	1 2 on 25"
21	3285 028.4LF	BOTTOM LEFT FRONT RUBBER ROLL BEARING SUPPORT	1	47, 48		NOT ASSIGNED	
22	3285 033.5	PRESSURE BAR ASSEMBLY INCLUDES NUMBERS 23 and 24	2	49	0200, 0800, 0500 060.4T	TOP HEAT SHOE	1
23	3285 033.4	PRESSURE BAR	2		0200, 0800, 0500 060.5T	TOP HEAT SHOE ASSEMBLY: INCLUDES NUMBERS 49, 50, 54, 56, 119	1
24	PRS233	PRESSURE BAR LEAF SPRING	2	50	0200, 0800, 0500 061.4	RUBBER ROLL HEATER	2
25	PRS240	PRESSURE BAR COIL SPRING	4 6 on 25"	51		NOT ASSIGNED	
26	PRC092	RETAINING COLLAR	2	52	0200, 0800, 0500 060.4B	BOTTOM HEAT SHOE	1
					0200, 0800, 0500 060.5B	BOTTOM HEAT SHOE ASSEMBLY: INCLUDES NUMBERS 52, 54	1

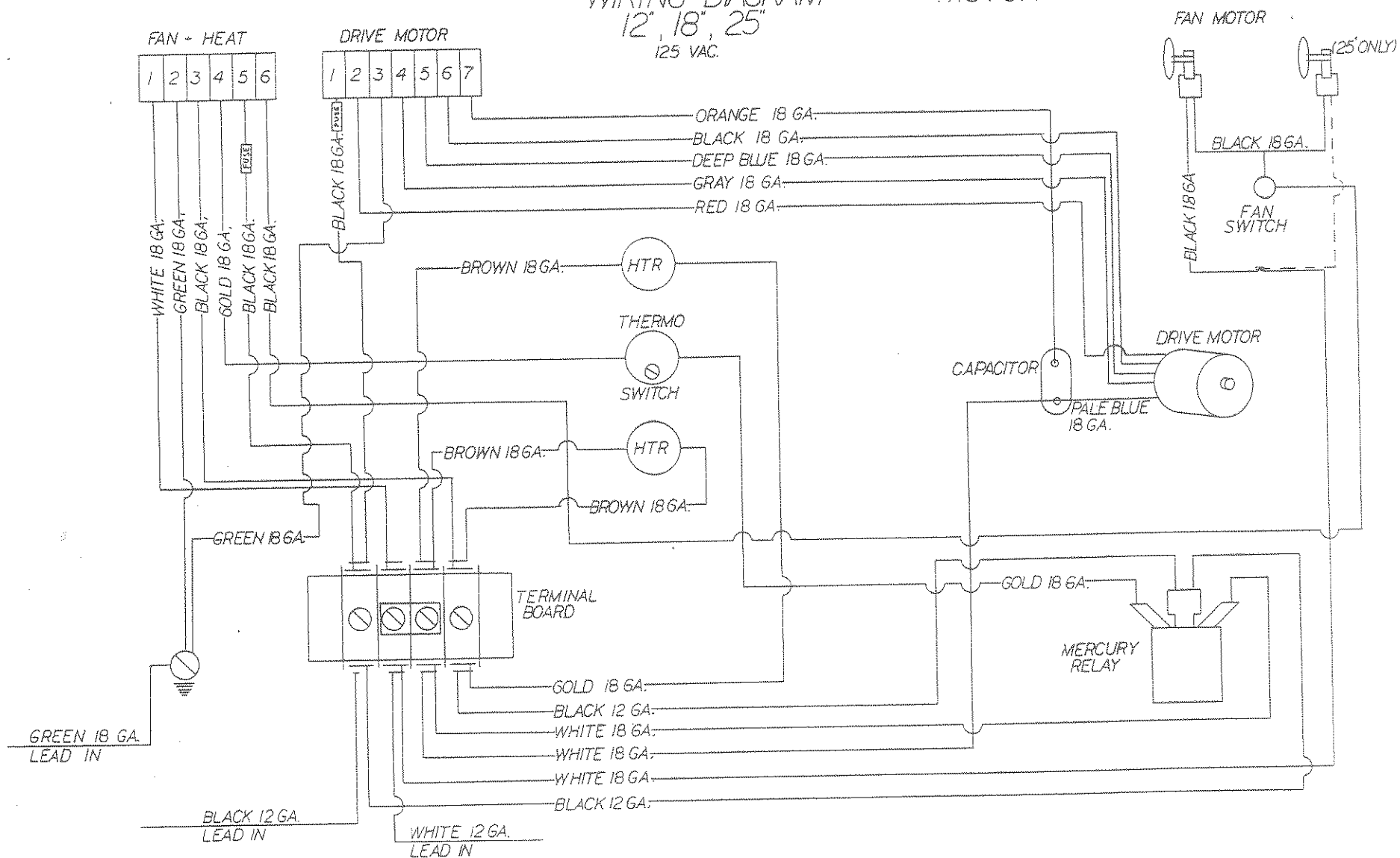
PREMEIR III REPLACEMENT PARTS LIST continued

REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED	REFERENCE NUMBER	PART NUMBER	DESCRIPTION	NUMBER REQUIRED
53		SAME AS NUMBER 50		86	PRT318	LIGHT MOUNTING BRACKET	1
54	PRH144-12" PRH145-18" PRH146-25"	CARTRIDGE HEATER	2	87	PRC102	POWER CORD	1
55		THERMOSWITCH ASSEMBLY INCLUDES NUMBERS 56, 119	1	88	PRB066	STRAIN RELIEF BUSHING	1
56	PRT316	THERMOSWITCH	1	89	PRB064	LARGE SNAP BUSHING	1
57		NOT ASSIGNED		90	0200, 0800, 0500 096.5	FEED TABLE ASSEMBLY INCLUDES 73, 74, 75, 76, 77	1
58	PRW332	FIBRE HEAT SHOE WASHER	4	91-95		NOT ASSIGNED	
59	PRS231	FIBRE HEAT SHOE SPACER	4	96	PRR222	RELAY	1
60	PRS230	BRASS HEAT SHOE SPACER	4	97	PRT303.5	TERMINAL BLOCK ASSEMBLY INCLUDES 98, 99, 100, 101, 102	1
61	0285 071.4	HEAT SHIELD	1	98	PRT300	TERMINAL BLOCK	1
62	0200, 0800, 0500 074.5	SAFETY SHIELD ASSEMBLY INCLUDES #62 AND FASTENERS	1	99	PRT306	180° TERMINAL	4
63	0200, 0800, 0500 074.4	SAFETY SHIELD	1	100	PRT307	45° TERMINAL	4
64	0285 090.4L	LEFT SIDE PANEL	1	101	PRT308	90° TERMINAL	1
65	0285 090.4R	RIGHT SIDE PANEL	1	102	PRT309	TERMINAL BLOCK JUMPER	1
66	3200, 3800, 3500 092.4T	TOP MOTOR COVER	1	103	0200, 0800, 0500 110.4	STABILIZER	2
67	3200, 3800, 3500 092.4BT	BOTTOM MOTOR COVER	1	104	0200, 0800, 0500 111.4	CUT OFF BLADE	1
68	3200, 3800, 3500 093.4FT	FRONT MOTOR COVER	1	105	0200, 0800, 0500 112.5	CUT OFF ASSEMBLY INCLUDES NUMBERS 104, 106	1
69	3200, 3800, 3500 093.4BT	BACK MOTOR COVER	1	106	0200, 0800, 0500 112.4	CUT OFF BRACKET	1
70	0285 091.4	BACK MOTOR COVER BRACKET	2	107	3200, 3800, 3500 113.4	EXIT TABLE	1
71	0285 094.4R	RIGHT HOUSING	1	108	PRK177	EXIT TABLE KNOB	2 3 on 25"
72	0285 094.4L	LEFT HOUSING	1	109	PRK180	THERMOSWITCH KNOB	1
73	0285 097.4S	FEED TABLE GUIDE STABILIZER	1	110	PRT311	THERMOMETER	1
74	0200, 0800, 0500 096.4	FEED TABLE	1	111	PRS238	THERMOMETER SPRING	1
75	0285 097.4L	LEFT FEED TABLE GUIDE	1	112		NOT ASSIGNED	
76	PRK177	FEED TABLE GUIDE KNOB	1	113	3285 121.4	CONTROL PANEL PLATE	1
77	0285 099.4	FEED TABLE GUIDE NUT	1	114	3200, 3800, 3500 130.4	CAM SHAFT	1
78	0285 098.4T	TOP FEED TABLE BRACKET	2	115	PRK175	CAN SHAFT HANDLE	1
79	0285 098.4B	BOTTOM FEED TABLE BRACKET	2	116	PRB058	CAN SHAFT BUSHING	2
80	PRT319	TOP & BOTTOM MOTOR COVER BRACKET	6 7 on 25"	117	3285 133.4	CAM	2
81	PRC116.5	SWITCH AND LIGHT ASSEMBLY	1	118	3285 134.4	CAM WEAR PLATE	2
82-85		NOT ASSIGNED		119	0285 139.4A	THERMOSWITCH STOP COLLAR	1
				120	0285 139.4	THERMOSWITCH STOP	1

WIRING DIAGRAM

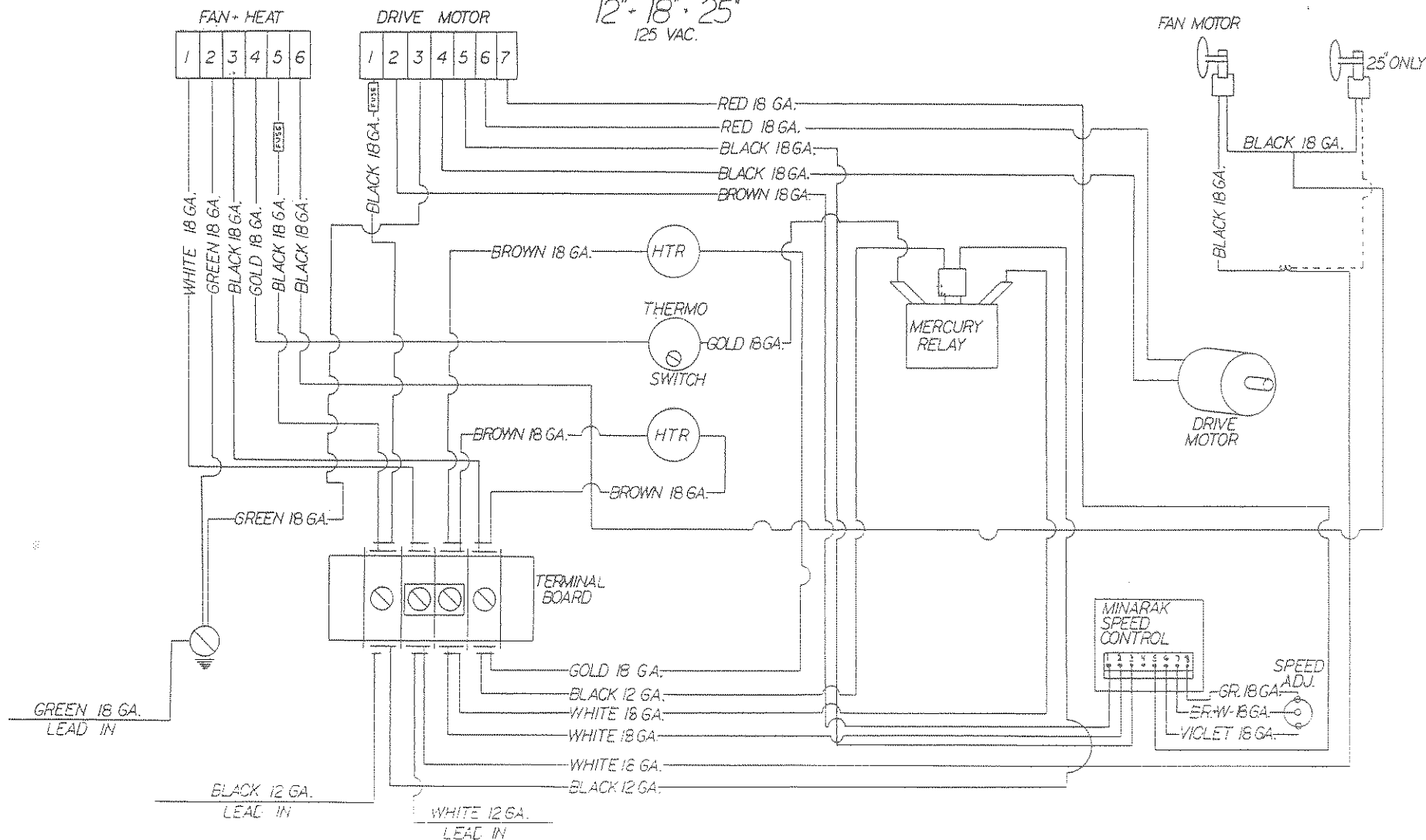
PLM III
WIRING DIAGRAM
12", 18", 25"
125 VAC.

ORIENTAL
MOTOR



WIRING DIAGRAM

P.M.V.S.
WIRING DIAGRAM
12" - 18" - 25"
125 VAC.



WIRING DIAGRAM 220 VOLT

PLM III
WIRING DIAGRAM
12", 18" AND 25"
230 VAC

ORIENTAL
MOTOR 5/10/89
CIRCUIT BOARDS

