Rubbing Pad Installation / Replacement

This part is for the following models: OPPTION 3000, OPPTION 3000HP, PL230, PL1200, PL212, PL238, Including all II series machines *however this does not include dual temperature controlled machines or the Opption 3000 with a serial # before A310300 the machine must be sent to the factory for this modification*

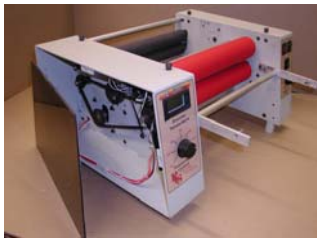
Tools Required: 5/64 Allen wrench 3/16 Allen wrench, needle nose piers, ¼" drill, and 5/16-18 tap.

Included In This Kit: Copper alloy replacement brushes, new brush springs, rubbing pad assembly, 5/16"-18 X 2 ¼" button head cap screw 5/16" Flat washer 5/16" lock washer, heavy duty RTD wires, slip ring compound, Small piece of aluminum tape

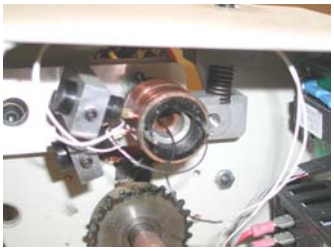
There is a certain level of expertise needed for this conversion if you do not feel you meet this requirement please send the machine to your dealer for this service. The person performing this task must be mechanically knowledgeable and understand how to operate hand tools. Please read and understand this instruction before attempting to make the modification. **Follow all safety procedures related to the tools and equipment you will use. Follow all safety precautions included in your operators manual and any other documentation available to you.**

1. Unplug the machine and allow it to cool if necessary before ANY work is started.
2. Gap the rollers (using the handle for this operation located on the right hand side of the machine).
3. Remove the side panel cover from the left hand side of the machine

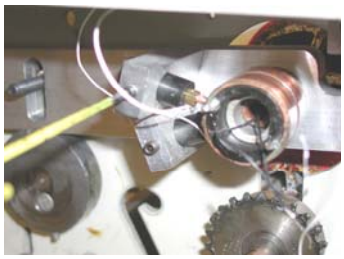




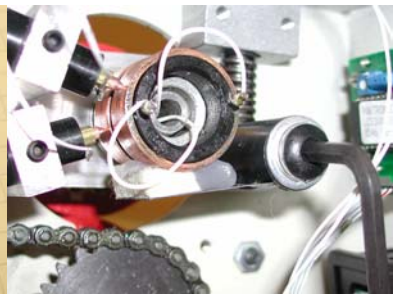
4. Cover the temperature control vent holes (black Box) with masking tape to assure that no foreign objects get inside.
5. Locate the forward most hole in the swing arm. This hole is toward the front of the machine ahead of the slip ring



6. Clean the slip ring surface using a scotch brite pad (this is the round copper part located on the left end of the upper roller). This process is simplified by holding the scotch brite pad stationary against the copper part of the slip ring while turning the upper roller with your hand. Continue this procedure until there are no deposits left on the copper surface and it is clean and shiny.
7. Remove the brushes from the brush holder by loosening the brush holder screws then pull the brush holder back slightly and remove the brush and the brush spring through the front of the brush holder.




8. Remove the rtd wire (the fine white wire that runs from the brush holder to the temperature control) by pulling back on the brush holder with one hand and pulling out the small metal "flag" (examine replacement for clues if necessary) and the connectors on the temperature control.
9. Install the new heavy-duty rtd wires these should run in the same path as the old ones use the included aluminum tape to secure these make sure that the wires DO NOT interfere with any moving parts. It does not matter what wire goes to which brush holder.
10. Install new brushes and springs. Tighten brush holders. **– DO NOT OVER TIGHTEN -** It does not take much pressure to hold these, as the brush holders are rather brittle.
11. Apply slip ring compound to the slip ring and rubbing pad, while applying an even amount of compound to the slip ring rotate the upper roller by hand in the normal direction of operation apply a generous amount of compound to the spring backing plate just behind the rubbing pad as to fill in the right angle. Use the pictures below as a guideline.
12. Install rubbing pad assembly. Remove the old rubbing pad assembly. Install the new assembly. The flat washer and lock washer should be up against the head of the screw and then place the screw through the rubbing pad assembly and then into the hole. The felt portion of the assembly should contact the bottom of the slip ring and there should be full coverage of the copper part of the slip ring. If your laminator does not have a rubbing pad installed you will have to tap the drilled hole in the swing arm just ahead of the slip ring. If your swing arm does not have this hole in it, you will need to drill one. You may call pro-lam tech support for help with this.

13. While slightly twisting the assembly toward the slip ring (as to slightly compress the rubbing pad) tighten the Allen bolt securely. The steel portion of the slip ring assembly is spring steel. The slip ring assembly is designed to be twisted toward the slip ring so that slight pressure is applied by this spring steel and would account for slight wear of the pad. With excessive use it is possible, however, improbable that this may need to be adjusted **– Do not over pressurize this assembly as it may result in the pad being torn from the spring backing – notice the picture above – use this for a guideline**
14. Remove any debris from the inside of the panel.
15. Remove masking tape (from step 4.).
16. Replace side panel cover and follow the startup procedure on the next page

Start-up procedure

This procedure must be carefully followed after servicing your laminator.

Do not leave the machine unattended at anytime during this procedure without unplugging it first.
If at any time the machine does not operate properly, immediately unplug the machine and contact pro-lam tech support.
The following instructions take into account other instruction included with this packet has been followed. Do not operate any equipment without a sufficient ground.

1. The machine should remain unplugged until this procedure is carefully followed.

2. Make sure that the machine is correctly reassembled and that all repairs have been completed.

3. Set all controls to their “off “ position, speed control and temperature control at a minimum

4. Remove any film from the laminator

5. Plug the machine in, do not turn any functions on at this time

6. Check the temperature of both rollers after 15 seconds then after 1,2 and 3 minutes. If at anytime they heat, immediately unplug the laminator and contact tech support, your relay may need to be replaced

7. If this step fails, STOP, unplug and lock out the machine, Then call tech support for further instruction

8. With the machine plugged in check to see if the fans operate, if not go to step 7.

9. With the machine plugged in, turn on the roller heat switch, make sure that the temperature control is set to the lowest temperature (50˚).

10. If a temperature is not displayed in the display go to step 7.

11. Check the temperature of both rollers after 15 seconds then after 1,2 and 3 minutes. If at anytime they heat to over 100˚ immediately unplug the laminator and contact tech support, your temperature control may need to be replaced.

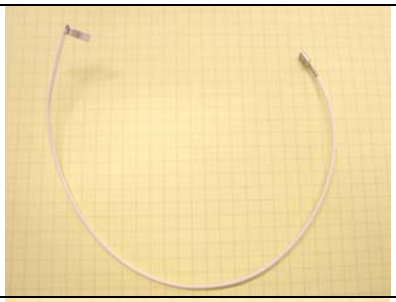
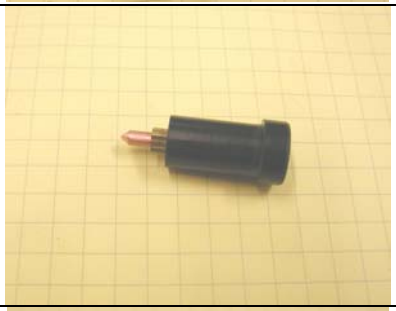
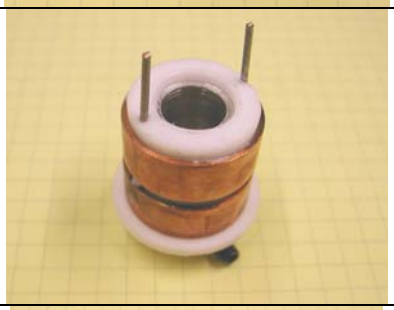
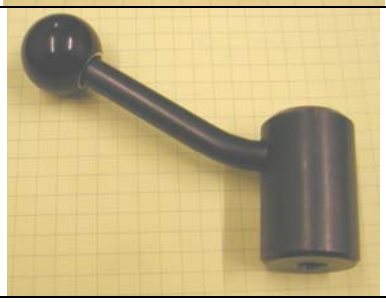
12. If step 11 passes go to step 13 otherwise see step 7.

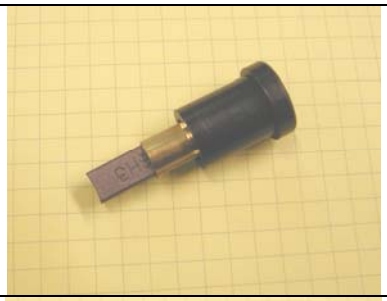
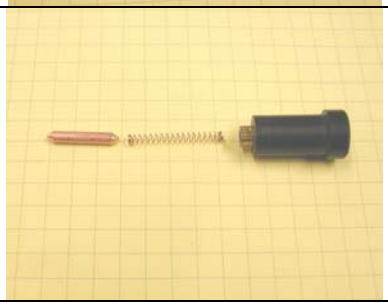
13. Set the temperature to 200˚, watch the displayed temperature, if the machine does not meet this temperature within 20˚ (180˚-220˚), go to step 7.

14. If you have passed all functions to this point, check any remaining functions, (fans, motor, speed control ect.) then test the machine for lamination quality.

END OF STARTUP PROCEDURE

Ocular Glossary

	RTD Sensor Lead
	Rubbing Pad
	Rubbing Pad with Grease
	Sensor (RTD) brush holder assembly
	Slip Ring
	Camshaft Handle

	Power Brush Assembly
	RTD / Sensor Brush, Brush Spring, Brush Holder (in sequence)