PBS 6000 OPERATORS MANUAL

REMOVE AND READ THIS BEFORE UNPACKING OR OPERATING THIS BINDER

Forward

Thank your purchase of the PBS-6000 perfect binder. This product is easy to operate, safe and efficient. It is designed for a small to medium printing company or office. It's the perfect binding equipment for you and your business.

NOTE: All operators must read and comprehend this manual and other relevant documentation. Users must understand machine operation PRIOR to set up or power up.

Table of Contents:

Chapter 1: Specifications

1: Shipping

Shipping Weight	**535 lbs**
Shipping dimensions	**45” x 26” x 56”**

2: Electrical Requirements

Volts	**120**
Amps	**15**
Hertz	**50/60**
Phase	**Single**
Plug type	**NEMA 5-15P** (typical)
Circuit	**Dedicated**

3: Capacities

Glue	**2.5#**
Book block	**2”**
Spine length	**16”**
Max Page Thickness	**.012**
Max Cover Thickness	**.012 or pre-score**

Chapter 2: Safety

1: OPERATOR:

To avoid any unexpected accidents or injury, please observe relevant standards. Only trained, skilled operators are allowed to operate this machine who have read and comprehended this manual. Use this machine for making hard cover books, soft cover books and pads,

2: SAFETY:

Please follow All Safety instructions in this manual and any other relevant instructions available to you.

3: USE:

Use this machine for making sheet paper hard cover books, soft cover books and pads. Never use this machine for any use it is not designed or intended by the manufacture misuse will void warranty. Carelessness or misuse may , severely burn, cut, grind, pinch, crush, mangle, or cause other great bodily harm. Observe ALL safety warnings and instructions in this manual and any other documentation or safety standards and knowledge available to you. Do not operate this machine while wearing loose clothing hair or jewelry

4: GLUE:

Glue contact WILL quickly and severely burn you with second to third degree burns. If glue contact is ever made, urgently wipe off the excess glue while seeking cold water to externally cool it to minimize serious bodily harm, seek medical help as necessary per your doctors recommendation. NEVER contact hot glue or any area around the glue pot. Educate yourself with the proper recommended procedure regarding these safety issues and burns before operating this machine. In the event of respiratory distress or allergic reaction you can call the toll free number on the MSDS supplied with your glue.

5: MILL:

Never remove safety covers from the mill, Keep all parts clothing jewelry etc from this area of the machine,

6: SERVICE:

All service must be performed by qualified personnel who fully understand the service requirements and safety procedures involved.

UNPLUG and lockout the machine before attempting ANY kind of service

Never pull the drain plug on a hot machine
(See service for draining the glue)

Chapter 3: Unpacking

1: Installation Environment:

There must be space around the machine to work and overhead clearance to remove the top the room must be well ventilated, free of excessive dirt and electrical noise. The machine must be placed on a sturdy level surface.

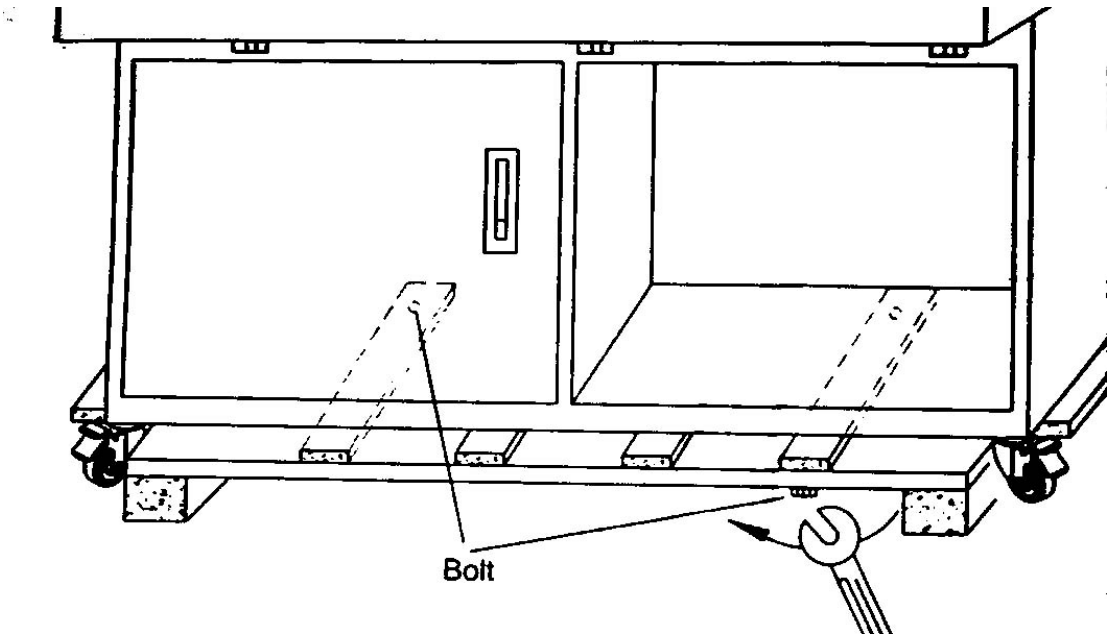
2: Tools:

- Philips Driver (preferred cordless drill w/ bit).
- 14mm (9/16) wrench required to remove the machine from the crate base.
- Consider all relevant safety recommendations (OSHA) for lifting otherwise use at least 2 people for lifting.

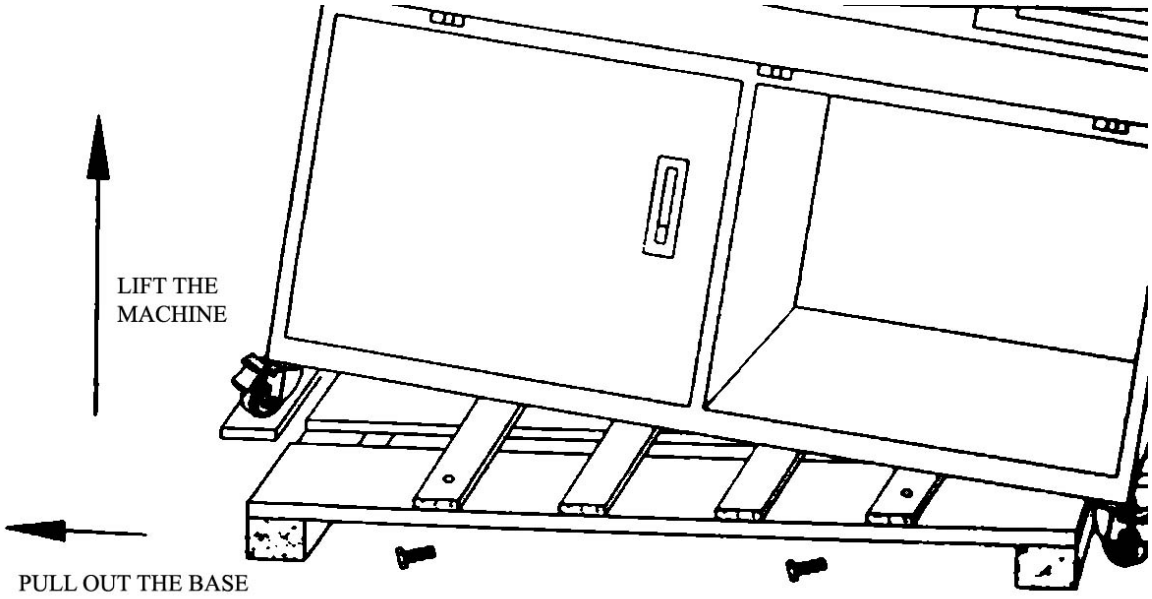
3: Unpack:

1. Remove 5 screws (indicated by the brand of a screwdriver) at the base on each side holding the crate body to the pallet base.
2. Using two or more people lift the body of the crate STRAIGHT up and then off.
3. Remove the plastic bag from the machine.
4. Look machine over for obvious damage.

5.



6. Remove the two bolts that are bolted through the bottom of the pallet into the bottom of the machine. (located underneath front right and rear left).



7. Lift the Left end of the machine up (using appropriate equipment or approved personnel).
8. Pull the pallet from under the machine.

9. Remove packing material from the area store this packing material for future use.
10. Roll machine into place of operation.
11. Lock the wheels once set in place.

Check the machine for damage or missing parts before operating

Chapter 4: Initial Set-up

1. Open the cabinet doors. Located in the cabinet are:

   - The hard cover nipping bars
   - Two sheet trays that mount on the back top of the binder
   - Set of Allen wrenches
   - 1 Philips screwdriver
   - 1 flat blade screwdriver
   - 1 open end wrench
   - Fuses and spare screws
   - Operators manual

2. Remove shipping brackets that hold the nipping table in place for shipping. Replace the screws back into the nipping table after brackets are removed. Save the brackets for future use in the event the machine is transported.

3. Install the sheet trays onto the top of the main machine tube you will need to use the screws already installed into the tube

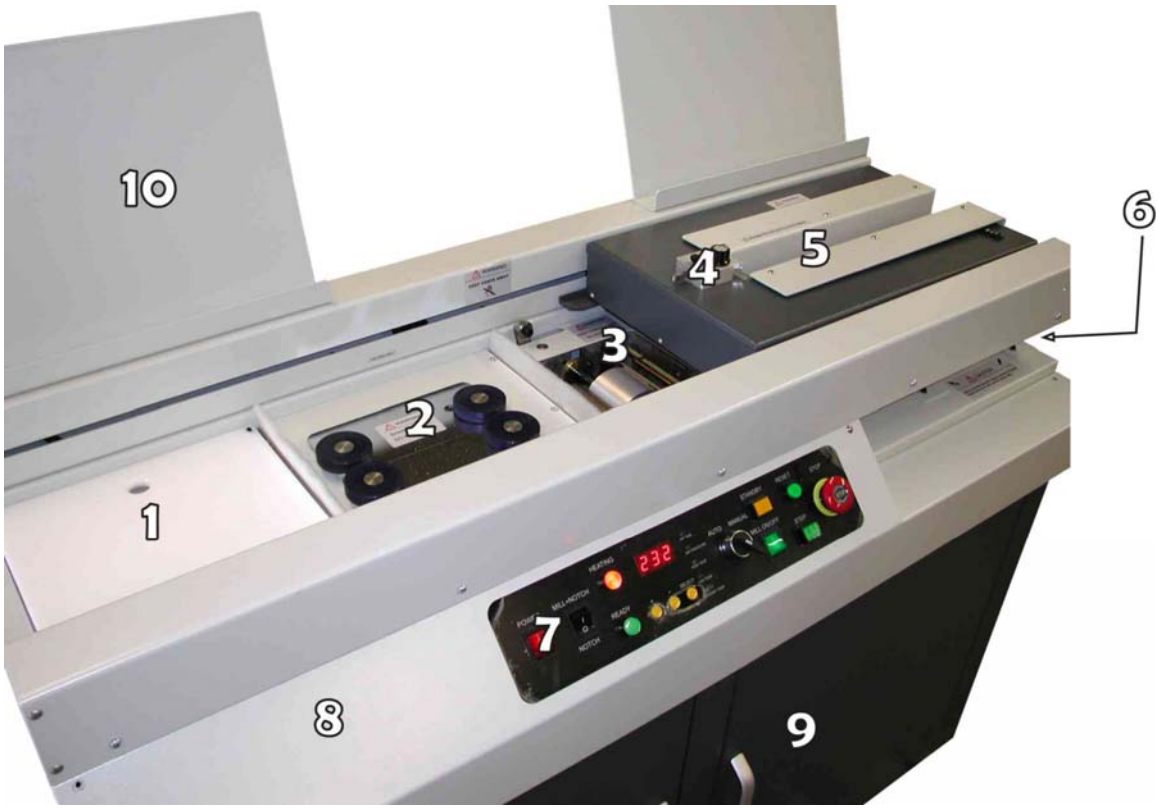
4. Press emergency stop of the front panel and turn off the main power switch
5. Plug the machine into an approved and **grounded** outlet
6. Turn on the main power.
7. Wait for the heating light to go out and the ready light to light (40-70 minutes)
8. Reset the emergency stop then press the reset button
9. The machine should open the book clamp, you are ready for operation see the relevant operation information in the following pages.

Chapter 5: Default Settings

Nip time	**5**
Nip pressure	**5**
High temperature	**350ºF / 175ºC**
Low temperature	**330ºF / 165ºC**
Standby temperature	**230ºF / 110ºC**
Soft cover thickness	**.010”**
Hard cover thickness	**.040”**
Notching depth	**.030”**
Glue Thickness	**.025”**
Ready Temperature	**135ºC / 275ºF**

Do NOT make any adjustments to the machine without reading the operators manual in it entirety

Chapter 6: Basics



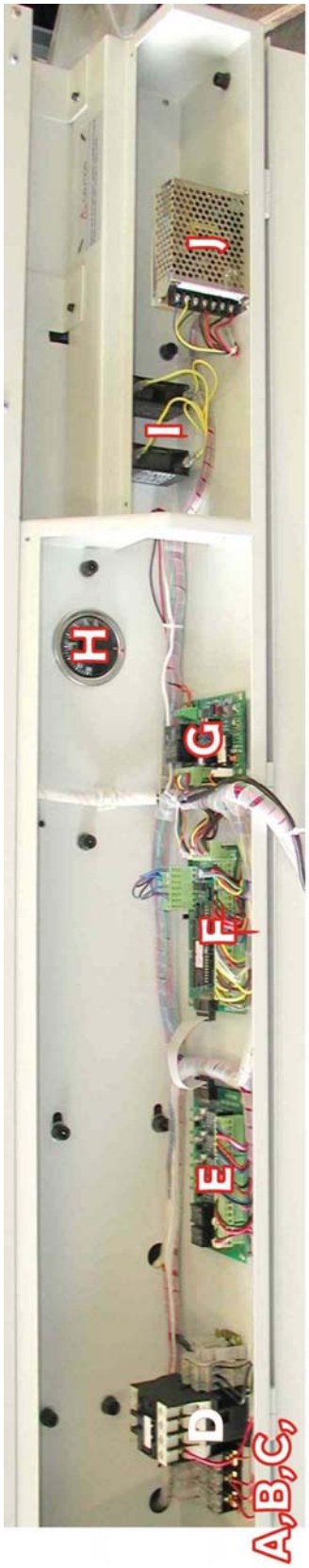
1: Machine

#	Name	Function
1	Hard Cover table	To stabilize end leaf insertion
2	Milling	For grinding the block, signatures and notching for glue
3	Glue Pot	Applies glue to the book block
4	Registration Gauge	Offsets the book block for hard cover application
5	Carriage / Block clamp	Clamps the book block and travels through the cycle
6	Nipping table	Sets grind and finish height, applies and nips cover to book
7	Control Panel	Operator interface
8	Service panel	Access to electronics
9	Cabinet	Provides access to mechanics and storage
10	Sheet Trays	Holds end papers and covers

2: Operator interface

#	Name	Function
1	Power Switch	Turns machine off/ on
2	Hard cover /soft cover	Changes the finishing thickness
3	Heating	Shows when the machine is in idle mode due to cold adhesive
4	Ready	Shows when machine is ready for operation (display temp must also be greater than low temp to function)
5	+	Increases menu item
6	-	Decreases menu item
7	Select	Toggles between menu items
8	Nip time	Sets the amount of time that the nipping bars apply pressure
9	Nip pressure	Sets the amount of time allowing the book to cool In the clamps
10	High Temperature	Sets the operating temperature of the glue
11	Low Temperature	Sets the min temperature that the machine will continue to function
12	Standby Temperature	Sets the standby temperature, this function minimizes warm-up time while protecting the integrity of the glue
13	Auto / Manual	Switches between auto and manual mode
14	Standby	Disables certain futures and keeps the glue at the lower desirable set point
15	Mill on/off	Turns the mill on or off
16	Reset	Resets the logic sequence of the machine, the e-stop must be set / reset before pressing this button – stay clear
17	Step	When in manual mode it steps between each function of the program
18	Stop	Stops all function except the book block clamp
19	Clamp open / close	Open and closes the clamp manually

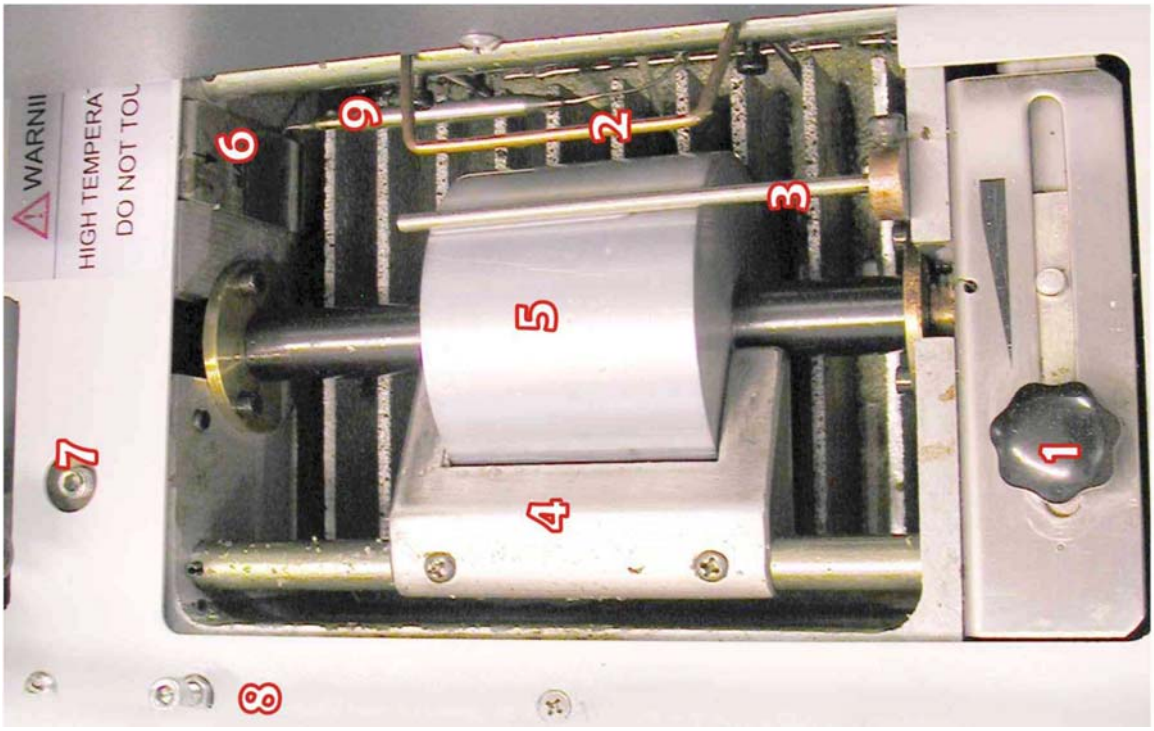
3: Service Access



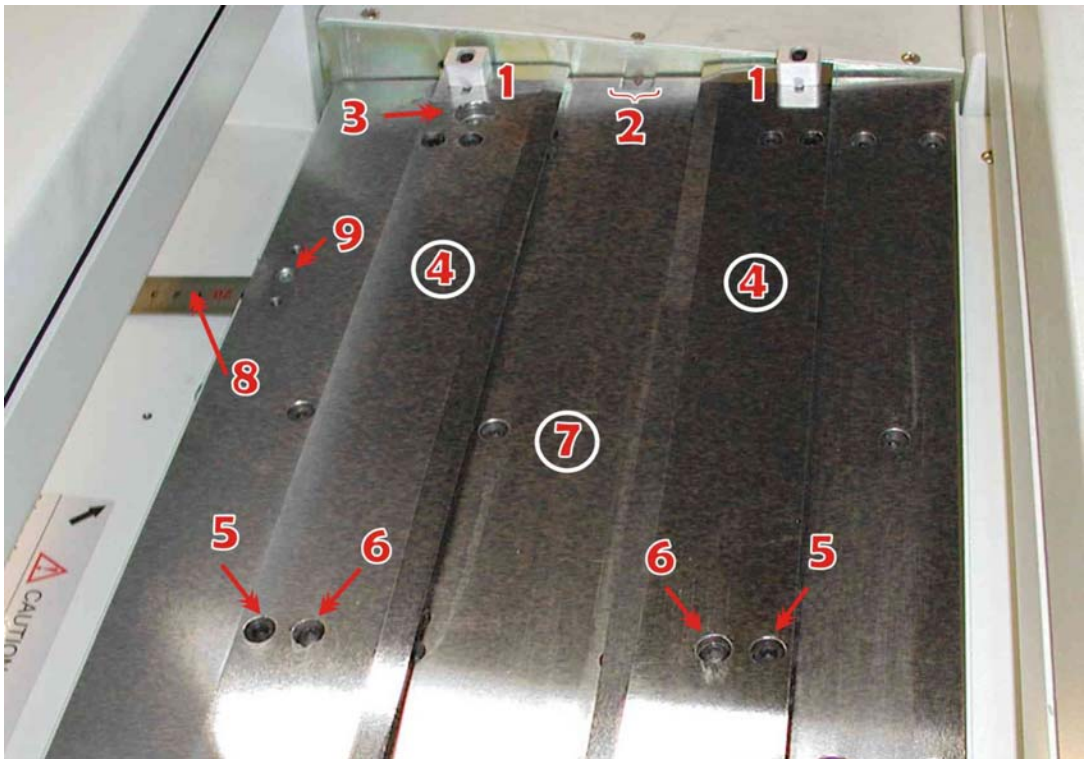
	Name	Function
A	Fuse 1	Protects milling motor
B	Fuse 2	Protects logic and motors
C	Fuse 3	Protects heater circuit
D	Relay	Powers Milling motor
E	Motor control board	Sequences motor direction and function
F	Logic board	Controls machine
G	Temperature control board	Controls temperature, interfaces to logic board
H	Redundant low temperature failsafe	Prevents machine from starting when glue is still solid
I	Motor Run Capacitors	Run Capacitors allow motors to function
J	Power Supply	Provide Power to logic boards

4: Glue Pot

#	Name	Function
1	Glue Leveler adjustment	Sets the ultimate thickness of glue on the book, Careful this is hot, wear protection. Turn knob counter-clockwise to release, set, then tighten
2	Glue Leveler	Levels the glue on the book, adhesive thickness should start about .025" (about half the thickness of a penny) use #1 to adjust
3	Glue Dam	Creates a dam of glue for the book to run through not a normally adjusted item
4	Roller Scraper	Removes and controls excess glue from the roller too large of a gap will create air pockets in the spine Adjust with #7
5	Roller	Moves fresh adhesive up to the glue dam
6	Glue Level indicator	Keep adhesive level between min and max, more will take longer to warm up less will create air pockets in the spine
7	Adjustment for roller scraper	Sets adhesive supply on the roller, to much space on the roller scrapper will result in a loss of glue control and result in air pockets
8	Glue Pot adjustment	Sets glue pot height, Factory Setting
9	Capillary bulb	Redundant failsafe this does not allow the machine to operate until the mechanical sensor "sees" a warm enough temperature to melt the adhesive this bulb corresponds to "H" in the service panel

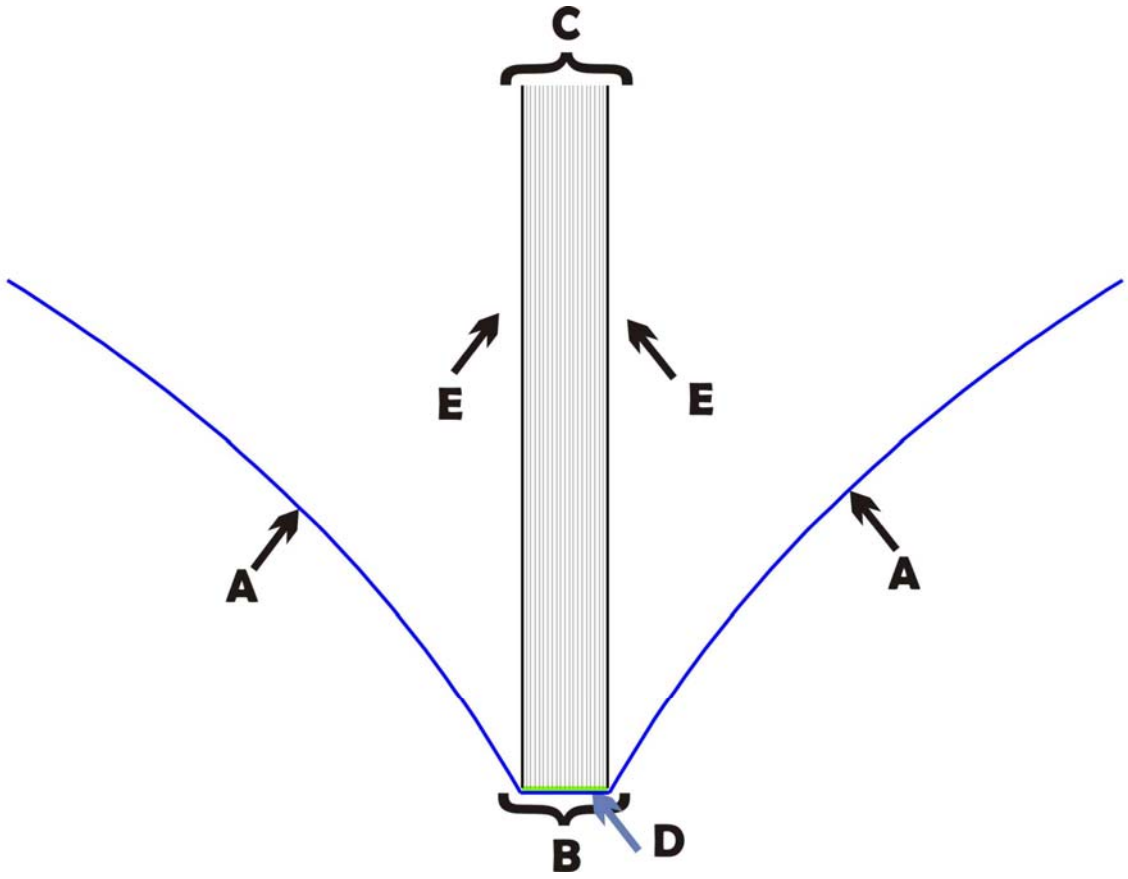


5: Nipping Table



#	Name	Function
1	Top Alignment guide blocks	Adjust to make the cover square with the book
2	Center guide	Use in conjunction with registration marks on cover
3	Cover sensor	"Sees" cover when in auto mode, use caution, when in auto mode the binder will start after seeing the cover keep this sensor clean and free of debris. If using flat black covers it may be necessary to run the machine in manual mode
4	Nipping bars	Clamps the cover to the spine and allows the book to set.
5	Nipping bar guide pins	"pins" the nipping bars in position (non-adjustable DO NOT remove) (4 ea outermost screws)
6	Nipping bar attachment screws	Allows for quick interchangeability of hard cover bars (4 ea innermost screws)
7	Nipping Table	Sets the block height for milling and the dressed block for cover application (adjustable – see service)
8	Side guide	Guide for quick accurate cover placement
9	Side guide lock screw	Loosen to adjust #8

6: Typical Book



	Name
A	Cover
B	Spine
C	Book block
D	Glue
E	End leafs (hard cover only)

Chapter 7: Operation

1: General Operation

Read and understand the remainder of this manual before you proceed to operate your machine.
The machines are calibrated at the factory. The hard and soft cover book binding process may require alternate settings. It is advised by the factory that you participate in a certified book making and training seminar offered by your dealer. Your dealer will guide you in understanding the different setting and calibration on the machine, proper operation of your machine, understanding the difference in paper cover stock and glues.

Keep in mind all safety factors in any operation or adjustment.

Contact With Hot Glue Will Severely Burn You!!

- Keep clear of all moving parts on the machine.
- Do not allow to operate, or operate near children or incompetent persons.
- Only allow competent, aware, and trained operators only.
- Do not operate if on medication, drugs alcohol or any other substance that may impair ones judgment.
- Use adhesives and consumables of the highest quality.
- Be aware of the age of the glue and follow the manufactures recommendations regarding longevity.
- Follow the manufactures temperature guidelines for the adhesives you are using.
- Follow the manufactures recommendations for the paper you are using.
- Use only approved materials available through your dealer.

2: Menu Operation:

- Press select to toggle between menu items.
- #8-12 on page 6-15 indicate the menu selection.
- when the selection of your choice is lit push +/- to change the parameter to the desired or recommended settings.
- Refer to page 6-15 for more accurate descriptions of the functions.

3: Reset Operation

Whenever a reset function is desired the stop button must be engaged before the reset button is pressed. At this point the machine will go into an auto reset mode, make sure before pressing that you have removed the book block from the binder.

4: Standard soft cover automatic operation

1. Turn on the binder (#1 page 6-15).
2. Make sure that the standby light is off; push the standby button until it is not lit (#14 page 6-15).
3. Wait for the binder to reach temperature, and the ready light to come on (#4 page 6-15) (wait will be 40 minutes – 70 minutes depending on the glue level).
4. Make sure the glue level is between min and max (#6 page 6-17), Use only approved supplies available through your dealer.
5. Cycle the stop button (#18 page 6-15) (press then rotate to release).
6. Press the reset button (#16 page 6-15)(this will reset the logic).
7. Put the auto manual switch to manual (#13 page 6-15).
8. Press the step button (#17 page 6-15) to step it through the program STAY CLEAR repeat this step 2-4 times, this will mix the glue in the glue pot.
9. The typical sequence that the machine will go through is as follows; be careful and familiarize yourself with the following sequence, when the machine is in auto mode it will automatically cycle through these steps. Even without pressing the "STEP" button!

    - Press step
    - Block clamp closes
    - Press step
    - Carriage travels to the left, over the glue pot and through the grinder
    - Stops on the left
    - Press step
    - The carriage moves to the right over the grinder and through the glue pot
    - The carriage stops on the right

- The nipping table raises
- The nipping bars clamp/close
- The machine is idle for the programmed amount of time
- The block clamp opens
- The nipping bars open
- The nipping table drops
- The nipping table raises
- End of cycle, waiting…

10. You are now ready to bind a book.
11. Turn machine to Auto (#13 page 6-15).
12. Turn grinder on (#15, page 6-15).
13. Switch the hard soft cover to soft cover (#2 page 6-15).
14. Shuffle book to align and straighten pages.
15. Open or close the block clamp switch until the book just fits between the clamp bars.
16. Carefully install book into block clamp,- keep fingers clear as this will automatically close. Make sure pages are straight and flat against the left side of the block clamp or the registration gauge. (#4 page 6-14).
17. The block clamp will automatically close.
18. The carriage will move to the left over the glue pot and thru the grinder.
19. The carriage will stop on the left and wait for a cover to be installed on the nipping table.
20. Carefully install the cover – after one second of the cover sensor (#3 p. 6-18) seeing the cover, the carriage will automatically come back (make sure that the center of the cover is aligned with the center guide (#2-p.6-18) or the side guide (#8-p.6-18).
21. The carriage moves right, over the grinder and through the gluepot, glue is applied and sequentially returns to the nipping table.

22. The nipping table lifts.
23. The nipping bars close.
24. The book sets for the programmed time.
25. The block clamp opens.
26. The nipping bars open.
27. The nipping table drops.
28. The binder waits for the book to be pulled out (there is an optical sensor in the block clamp).
29. Remove the book, set aside for 10 minutes
30. The nipping table returns to the initial height ready for a new book.
31. Start the sequence over.
32. Allow the book to set and cool for at least 10 minutes before handling for any reason

5: Standard soft cover manual operation

Manual operation of the PBS-6000 is similar to the automatic operation however, instead of the computer waiting for the optical sensors to be energized it bypasses this operation with the use of the STEP button (#17 page 6-15) this feature allows you to run the machine without books or covers in place.

To put the machine into manual mode:

1. Make sure the auto switch (#13-p.6-15) is in manual
2. Run the machine through a complete cycle or three before your first bind

6: Standard Hard Cover Operation

(hard cover function in manual mode only)

1. Turn on the binder,(#1 page 6-15).
2. Make sure that the standby light is off; push the standby button until it is not lit (#14 page 6-15).
3. Wait for the binder to reach temperature, and the ready light to come on (#4 page 6-15) (wait will be 40 minutes – 70 minutes depending on the glue level).
4. Make sure the glue level is between min and max (#6 page 6-17).
5. Cycle the stop button (#18 page 6-15) (press then rotate to release).
6. Press the reset button (#16 page 6-15)(this will reset the machine and the logic). Stay clear of the machine when pressing.
7. Put the auto manual switch to manual (#13 page 6-15).
8. Press the step button (#17 page 6-15) to step it through the program STAY CLEAR repeat this step 2-4 times, this will mix the glue in the glue pot.
9. **Be careful and keep clear when operating the machine.**
10. Make sure that the hard cover bars are installed (see nipping bar installation).
11. Make sure that the hard cover settings are correct (typical hard cover function requires a change in certain menu settings). We recommend increasing the nip pressure significantly to allow the needed time for the adhesive to congeal inside the isolated backing of a hardcover.
12. You are now ready to bind a book.
13. Make sure the machine is in manual (#13 page 6-15).
14. Turn mill on (#15, page 6-15).
15. Switch the hard / soft cover to hard cover (#2 page 6-15).
16. Jog the book content to make sure the pages are flush on the spine.
17. Open or close the block clamp switch until the book just fits between the clamp bars.

18. Carefully install book into block clamp, make sure that the spine is flat and the book is against the registration guage

19. Press Step the block clamp will close.

20. The carriage will move to the left over the glue pot and thru the grinder.

21. The carriage will stop on the left,

22. Open the block clamp just enough to install your end leafs (follow manufactures recommendation for end leaf prep). The fold on the end leaf will be cut off if installed on the nipping table with the rest of the book

23. CLOSE THE CLAMP. manually push the close button until the clamp stops moving and the clamp motor shuts off.

24. Carefully install the cover onto the nipping table make sure that the center of the cover is aligned with the center guide (#2-p.6-18) or the side guide (#8-p.6-18). It is a good idea to perform the “gutter” of the hard cover so that it follows the contour of the nipping table and the book block. The hard cover should conform to the specifications included with your cover maker manual or in the appendix.

25. Press the step button.

26. The carriage moves right, over the grinder and through the gluepot, glue is applied and sequentially returns to the nipping table.

27. The nipping table lifts.

28. The nipping bars close.

29. The book sets for the programmed time.

30. The block clamp opens.

31. The nipping bars open.

32. The nipping table drops.

33. The binder waits for the book to be pulled out (there is an optical sensor in the block clamp).

34. Remove the book.

35. The nipping table returns to the initial height ready for a new book.

36. Allow the book to set for at least 10 minutes before handling for any reason

Start the sequence over.

7: Check your book

You may perform an initial pull test on the pages of the book however many adhesives may not obtain optimal strength for at least 24 hours

It may be useful to mark the way the book was put into the clamp on several of the first books so that you can identify the source of the problem and the direction

Check the cover to book alignment,

- Check the cover to make sure that the spine is on center
- Check the cover; make sure it is square to the book if askew, adjust the top alignment blocks accordingly (#1-p.6-18).
- Make sure that the entire book block is covered with the cover, use the registration gauge to offset the entire block (#4 p.6-14)
- Trim a book out and make sure all is well

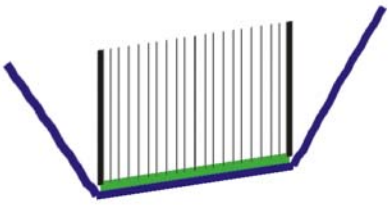
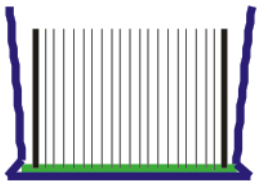
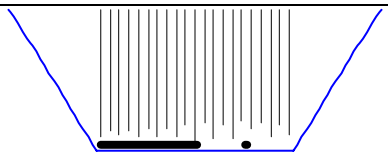
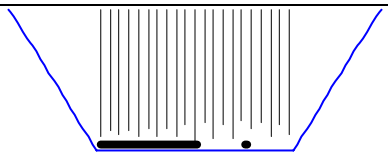
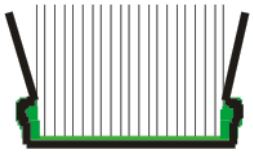
Make sure the glue thickness is sufficient, should be about .025 or appear half the thickness of a penny

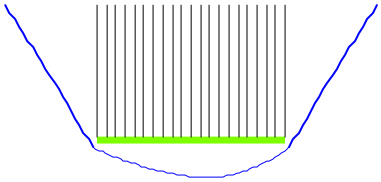
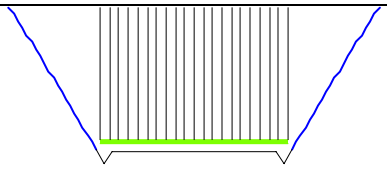
Use the chart on the following two pages to troubleshoot the spine condition and the glue condition

Keep in mind that it is OK to run a book without a cover so that you can inspect the glue layer easier. Often this will help pinpoint the problem quicker

Chapter 8: Troubleshooting:

1: **books spines**

1		Wedge.	Book block slipped in clamp or installed incorrect. Initial height too low. Table not level.
2		Nail head.	Nipping bars too loose, adhesive too thick, Nipping table too high. Severe: nipping bars not closing
3		Waterfall.	Excess glue on Roller, Glue pot set too high.
4		Honeycomb glue film.	Out of glue, not enough glue thickness final nip table height to high.
5		Concave spine.	Stock moving in clamp, Finish height too low. Glue thickness to low
6		Rough edge.	Initial table height too low, excess grinding
7		Uneven glue film.	Glue thickness too thin or out of glue. Roller scraper gap set too large.
8		Mushroom spine.	Finish height too high/too much glue.

9		Wrinkled cover. On the spine only	Initial height too low/finish height too high. Too much glue
10		Cavity spine.	Coated stock slips in clamp, finish height too low/high, initial height too low. Glue thickness to low
11		Round cover.	Insufficient adhesive, cover material too thick, pre-score, finish height too low. Nipping pressure too low
12		Rails or uneven Cover	Covers scored in wrong place
13	 Side View	Adhesive not filling in voids.	Adhesive too thick/old/cold Initial height too low, notching blade too high,
14		Partial cavity spine	Glue level too low, applicator running out of glue.

Chapter 9: Setup and Adjustments

1: Registration Gauge

This registration gauge is for offsetting the book block to the book cover, often times with hard cover books the book is inset from the edge of the book a certain amount E.G. when an 11” paper is used the cover may be 11.5” it will then be necessary to offset the book block by .25”.

2: To Adjust:

Loosen the locking knob, turn the adjustment knob until you get the desired offset.

3: Nipping Bar replacement:

To switch form hard cover to soft cover (refer to the diagram on page 6-18):

1. Turn on binder allow to heat until ready
2. In manual mode, step the machine until it is over the hard cover table
3. Turn on the stop
4. Turn off the machine
5. Loosen the nipping bars (#4) by removing the nipping bar attachment screws, use 4 mm allen wrench (#6). Never remove the nipping bar guide pins (#5) (the outer most screws that require a 5mm allen wrench to remove)
6. Remove nipping bars by pulling straight up away from the table, the bars will slide off of the guide pins (#5)
7. Install appropriate nipping bars, by sliding the onto the guide pins
8. Replace the nipping bar attachment screws (#6) tighten snug, but not tight
9. cycle the machine and make sure that the bars will open and close freely

4: Troubleshooting nipping bar replacement:

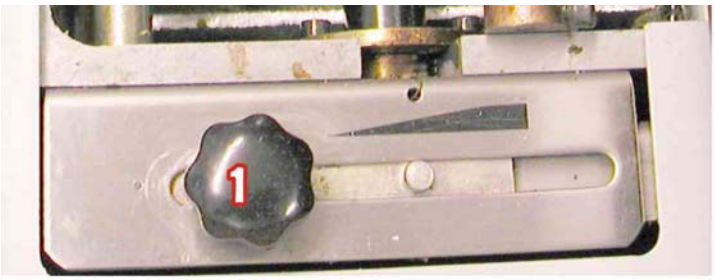
If they do not open, you will have to manually open them, using a large slip joint pliers, on the large gear on the underside of the nipping table. Otherwise, the machine will go into an error mode and fail to operate

If the nipping bars are not tight enough you will have a nail head issue (#2-p.11-27). you may check this by running the book in manual mode without a cover (be careful removing the book as the spine will still be hot) and inspecting the finished spine

5: Glue thickness:

Use this knob (#1-p. 6-17) to change the thickness of glue applied to the spine. The scale to the right is not a literal indication of the thickness but should be used for visual reference an repeatability.

Changing this setting will change the pressure of glue on the spine.



If you can see a cavity in the spine or the spine is not square that is usually an indication that you need more glue.

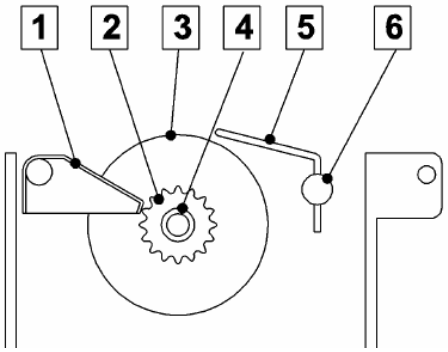
If the glue is squeezed up and out and shows a mushrooming effect and leaks out the area above the nipping bars you need less glue. You may also see a nail head effect.

6: Glue Roller scraper

This scraper (#1) sets the amount of glue supplied to the roller.

- If the gap is set too wide, the roller will run out of glue prematurely.
- If it is too narrow, the roller will not provide enough glue.

Use #7 on page 6-17 to adjust this level. This scraper holds a reserve of glue behind it during operation thus allowing a wide glue level range in the pot. Though these guidelines are somewhat ambiguous, they should be sufficient for a satisfactory result.



7: Glue Ready Light Adjustment:

This prevents the machine from running and damaging the machine or glue pot because of un-melted glue.

The adjustment of the activation point of the ready light is made by the low temperature failsafe control (#H – p.6-16). This temperature is sensed by the capillary bulb in the gluepot (#9 – P.6-17). One must be very careful when adjusting this set point that the machine is never allowed to operate with glue that is solid in the glue pot.

The temperature on this knob is indicated in degrees Celsius (see the conversion in the back of this manual). Do not use the scale on this knob in a literal indication of the temperature but use it as a reference for adjustment.

8: To adjust:

1. Heat the machine up with the STOP switch engaged (pushed in) from a complete "dead cold" start, with a **FULL** glue pot.
2. When all of the glue is completely melted turn the knob until the Heating light comes on,
3. VERY SLOWLY turn the knob until you hear the "click" and the ready light comes on.
4. Allow the machine to cool "dead cold".
5. Re-heat the machine and monitor the glue pot until the ready light comes on.
6. Make sure that the entire amount of adhesive is melted in the glue pot.
7. If not melted then adjust and repeat step 4-7 or start over.

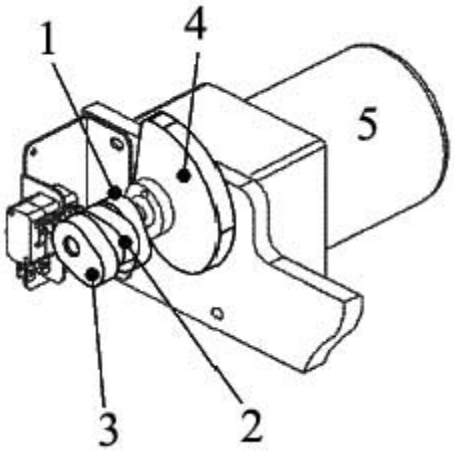
9: Nipping glue thickness:

This is the amount of glue that the machine allows the spine to finish with. In general, Changing this setting will change the amount of glue on the spine (default setting is .025" – about half the thickness of a penny edge).
This adjustment is made with one of the cams on the motor under the nipping table. This setting should be performed by an experience technician, however we will review it as follows.

- Turn off the power to the binder, unplug, allow to cool.
- If it is impossible to allow the machine to cool to perform this procedure, wear full body protection from burns in the case that the hot glue from the glue pot is dripped on you.
- Remove the top panel from inside the right side cabinet.
- You will see a motor with 3-6 cams on the shaft; this motor and cams mechanically activate snap switches when lifting the table. The placement of the cams on the shaft changes the point at which the switch is activated (sooner or

later) and subsequently the logic board shuts off the motor and the nipping table rests at its final height

- If necessary rotate the entire motor shaft and cam conglomerate to gain access to the screw heads.
- To change the height of the table the 3 mm screw that fixes these cams must be loosened just enough to turn it, turn the cam and then tightened, then check bind quality.
  - Adjust the cam clockwise to increase the glue thickness.
  - Adjust the cam counterclockwise to decrease the glue thickness.
- Use the following diagram as a reference to the instruction.



#	Name	Function
1	Cam # 1	This cam sets the home (down) position do not adjust
2	Cam #2	This cam sets the finish position of the book adjust this to change the thickness of the glue if you have a hard cover/ soft cover switch this corresponds to the hard cover thickness
3	Cam #3	This cam sets the initial position. This cam sets the amount that is removed from the spine by the grinder.
	Additional cams	The next cam in line (#4) is the one that sets the final glue thickness for soft covers the last cam is unused
4	Lift cam	This cam actually lifts the nipping table.
5	Nip table lift motor	Gear reduction motor for lifting the nipping table

- To verify the above open the service panel by removing the 3 screws.
- Turn on the machine, engage the e-stop.
- Make sure the nipping table is in its home or down position, if not you may manually rotate it with the machine unplugged.
- Use a pencil (eraser side) to manually engage the switches one at a time.
- Have someone watch the logic board (f-p.6-16) and take note of the lights as they light they will correspond to the switches as they are activated, check your findings against the above list. Keep in mind that you will have to switch the hard cover / soft cover switch (#2-P.6-15) in order to record the corresponding cam (If applicable).
- If the cam is adjusted too far, and the initial height cam (#3) is engaged before or during the finish height cam (#2 or #4) the machine will err or the program will fail.

10: Hard cover table:

The function of this table is for insertion of the end leafs.
The height is adjustable however; it is unlikely it will need to be adjusted unless the grinding head is adjusted.

To adjust, use the screws located in the corners of the board to raise or lower it, each complete revolution results in the table moving .050” (about the thickness of a penny).

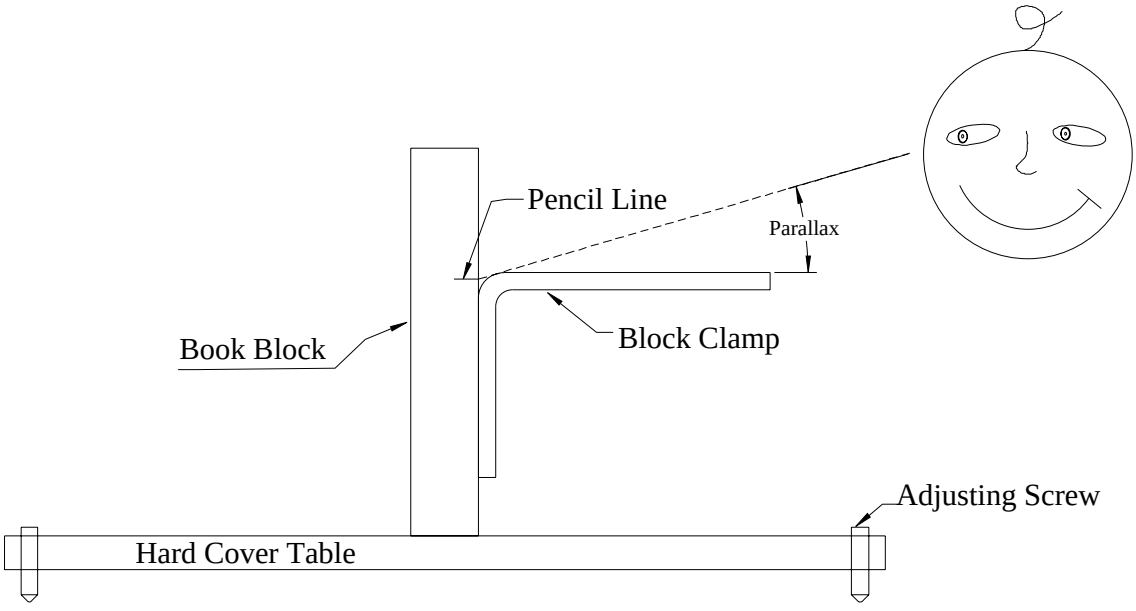
Start with the table lowered, step a book that is about 1” thick, with the grinder on, through the machine until it is over the hard cover table.

Use a flashlight to determine how much the table needs to be raised.

Step the carriage home and adjust the table accordingly.

When the table is very close step a book to the hard cover table position, using a pencil draw a line on the paper just at the top of the book block clamp.

Move your head down until your perspective “sees” the line just at the top of the clamp. Watch this line intently and carefully and open the clamp just enough to release the book. If the line lifts when the clamp is opened the table must be lowered. If the line lowers when the clamp is opened, the table must be raised. If the book (line) tilts or twists when it is opened, the table must be adjusted accordingly.



Make these adjustments until the book DOES NOT move when the clamp is opened.

11: Milling Notcher:

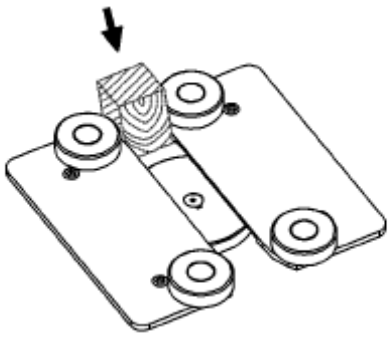
This notcher is located in the milling head its purpose is to help prepare the spine for adhesive. This notcher significantly increases the strength of the bind.

12: Adjustment / Replacement / Removal

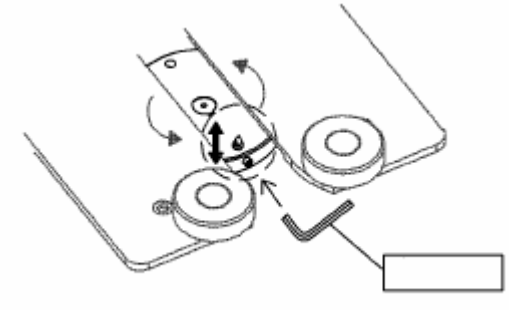
The notching tooth is adjustable or replaceable.
It may be necessary to install a different notching tooth depending on the stock used and the effect desired.

Adjust or replace the blade,

1. Turn power off to the machine, unplug.
2. Insert a block of wood 1-1/2 – 2” thick or other material between the milling cover as shown. The shipping brackets that hold up the nipping table for shipping work great for this.



3. Turn the mill until the notching tooth is accessible, wear thick leather gloves to protect your hands from the sharp milling teeth.
4. Using a caliper, or depth gauge that is accurate to 1/1000 carefully measure the height of the tip of the notching tooth, record this amount.
5. Using a 3mm wrench loosen the notching tooth screw just enough that the blade may be moved. Be very careful, the tooth will drop through the bottom of the milling head and be lost.



6. It may help to place something under the milling head to catch the notcher if it falls out, you will also need to use an Allen wrench to push the tooth up from the bottom.
7. Adjust or replace the notching tooth as necessary. It is usually easier to start with the notching set up higher and adjust it down.
8. Tighten the hold down screw.
9. With a protected hand rotate the milling head and watch the tooth as it nears the safety shield, make sure that there is plenty of clearance. If not, shim the safety shield covers by removing the two attachment screws and installing shims under shield below the area of the screws.
10. Remove the block installed in step 2.
11. Open one cover by hand and rotate the mill with a protected, gloved hand make sure that the notcher does not contact the safety shield check the other safety shield in the same manor. Shim the shields as necessary.
12. Plug in the machine and ready it.
13. Run the machine through a dry run to see if the tooth hits the covers during operation; be ready to turn off the milling switch.
14. Test a book, to see the prepared spin, step the machine in manual then remove the book when it is above the hard cover table and inspect.

To calculate the amount of notch, measure from the head base, the height of the milling teeth, subtract this amount from the height of the notching tooth.

13: Notcher Installation

When installing a notcher, if it is directional like the factory notcher, make sure the high end or the cutting side faces the book (the mill rotates clockwise).

!!! NEVER operate the machine without all safety shield in place !!!

Do not adjust the milling head assembly if the milling head screw (5mm head not 3mm) is ever moved it will require an extensive and time consuming (several hours) system recalibration

Chapter 10: Resources / Appendix

1: Conversion Tables:

a: Temperature: Celsius to Fahrenheit

Celsius / Fahrenheit		Celsius / Fahrenheit		Celsius / Fahrenheit	
38	100	114	237	190	374
40	104	116	241	192	378
42	108	118	244	194	381
44	111	120	248	196	385
46	115	122	252	198	388
48	118	124	255	200	392
50	122	126	259	202	396
52	126	128	262	204	399
54	129	130	266	206	403
56	133	132	270	208	406
58	136	134	273	210	410
60	140	136	277	212	414
62	144	138	280	214	417
64	147	140	284	216	421
66	151	142	288	218	424
68	154	144	291	220	428
70	158	146	295	222	432
72	162	148	298	224	435
74	165	150	302	226	439
76	169	152	306	228	442
78	172	154	309	230	446
80	176	156	313	232	450
82	180	158	316	234	453
84	183	160	320	236	457
86	187	162	324	238	460
88	190	164	327	240	464
90	194	166	331	242	468
92	198	168	334	244	471
94	201	170	338	246	475
96	205	172	342	248	478
98	208	174	345	250	482
100	212	176	349	252	486
102	216	178	352	254	489
104	219	180	356	256	493
106	223	182	360	258	496
108	226	184	363	260	500
110	230	186	367	262	504
112	234	188	370	264	507

Chapter 11: Warranty

1: THE WARRANTY

Professional Laminating Systems Inc. (referred to as “Pro-Lam”) warrants this Binder free from defects in material and/or workmanship for a period of 90 days from the date of its original purchase for use.

This warranty does not cover damage or failure caused by or attributable to Acts of God, abuse, misuse, Improper or abnormal usage, faulty installation improper maintenance lightening of other incidence of excess or abnormal voltage.

Pro-lam is not responsible or liable for indirect, special, or consequential damages arising out of or in connection with the use or performance of the product or other damages with respect to loss of property, loss of revenue or profit, or cost of removal, installation of reinstallation

In the event of a defect in a material or workmanship during the warranty period Pro-Lam and/or its authorized dealer, will repair or replace (at its option) your binder under the conditions of this Warranty. Pro-Lam will do so at its expense for the cost of materials but not for shipping and delivery charges.

2: LIMITATIONS, EXCLUSIONS AND OTHER RIGHTS:

. Pro-Lam disclaims liability for implied warranties of merchantability, fitness for any particular purpose, or otherwise, after the terms of this warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

3: CLAIM PROCEDURE

If you discover a defect or malfunction during the period to which this warranty applies, you must follow this procedure:

- Contact the Pro-Lam Dealer from whom the binder was purchased and they will handle your warranty issues for you.

- Or, contact Pro-Lam 1806 hwy. 93 Hamilton MT 59840 or fax 406-363-1690 and explain the reason why you believe there is a defect or malfunction in the binder including the date and conditions under which the defect or malfunction occurred.

- Include in your letter a copy of the sales slip or other proof of date or purchase of the binder

Upon receipt of your letter, Pro-Lam or the said distributor will make a preliminary determination of its responsibility to repair or replace under this Warranty.

If Pro-Lam denies responsibility, it will explain its decision in writing. You may then submit new or additional facts or request information on repair of the binder at your own expense.

If Pro-Lam accepts responsibility, it will notify you in writing to bring or ship, at your expense, the binder to Pro-Lam. Optionally, the customer or Pro-lam may also choose to send the part to the location of the machine for on-site service by either the customer or the dealer

When Pro-Lam receives the binder (under no conditions is Pro-Lam responsible for damage in transit), it may then determine upon inspection that this warranty does or does not apply.

If the warranty does not apply, you will be told the reason and the cost to you of repair and return. You must then authorize Pro-Lam or the said distributor to make the repairs and/or return the binder to you.

Include with your authorization a credit card, purchase order, bank check or money order to cover all costs. (Please note: personal checks must clear the bank before the repairs are begun.) If you fail to, do so within sixty (60) days of Pro-Lam’s notice to you, Pro-Lam is free to return the binder to you C.O.D. for you to pay the shipping cost on delivery.

If you fail to pay C.O.D. charges and the binder is returned to Pro-Lam, we will then dispose of it.