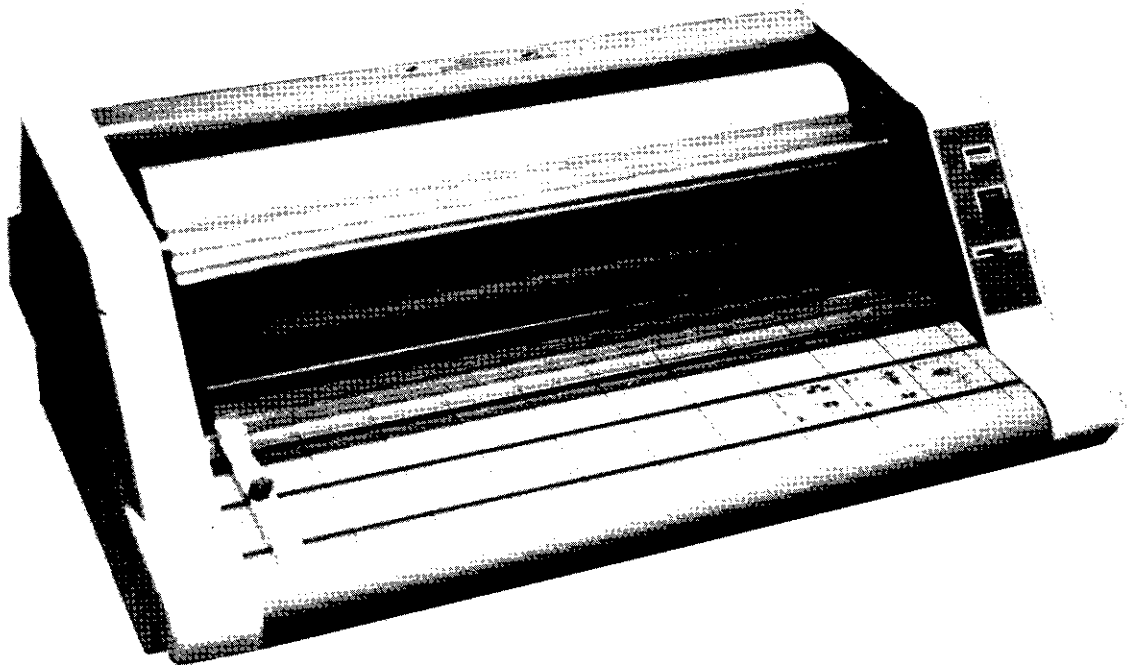


**GBC®** **GBC4250**  
**Laminator**

**Operating Instructions**



**General Binding Corporation**  
Northbrook, IL 60062-4195


UL Listed  
CSA Certified



## TABLE OF CONTENTS


<b><u>SECTION</u></b>	<b><u>PAGE</u></b>
• IMPORTANT SAFETY INSTRUCTIONS	3
• IMPORTANT SAFEGUARDS	3
-GENERAL	3
-ELECTRICAL	4
-SERVICE	5
-SET-UP	5
• SPECIFICATIONS	6
• KNOW YOUR GBC4250 LAMINATOR	6
• FILM LOADING & THREADING	8
-METHOD USING FILM THREADING CARD	10
-METHOD FOR TACKING NEW FILM TO PRE-EXISTING FILM	13
• FILM ALIGNMENT PROCEDURE	15
• FEED TABLE REMOVAL	15
• OPERATING PROCEDURE	15
• SPEED GUIDE AND THE ART OF LAMINATION	17
• FILM TENSION AND ADJUSTMENT	19
• CARING FOR THE GBC4250 LAMINATOR	20
• TROUBLE SHOOTING GUIDE	22
• CLEARING A FILM JAM	23


## IMPORTANT SAFETY INSTRUCTIONS

YOUR SAFETY AS WELL AS THE SAFETY OF OTHERS IS IMPORTANT TO **GBC**® IN THIS INSTRUCTION AND ON THE PRODUCT ARE IMPORTANT SAFETY MESSAGES. READ THESE MESSAGES CAREFULLY.

 THIS, THE SAFETY ALERT SYMBOL, PRECEDES EACH SAFETY MESSAGE IN THIS INSTRUCTION MANUAL. THE SYMBOL INDICATES A POTENTIAL PERSONAL SAFETY HAZARD THAT COULD HURT YOU OR OTHERS, AS WELL AS CAUSE PRODUCT OR PROPERTY DAMAGE.

 **WARNING**  DO NOT ATTEMPT TO SERVICE OR REPAIR THE GBC4250 LAMINATOR OTHER THAN AS INSTRUCTED IN THESE OPERATING INSTRUCTIONS.

 **WARNING** DO NOT CONNECT THE GBC4250 LAMINATOR TO AN ELECTRICAL SUPPLY OR ATTEMPT TO OPERATE THE LAMINATOR UNTIL YOU HAVE COMPLETELY READ THESE INSTRUCTIONS. MAINTAIN THESE INSTRUCTIONS IN A CONVENIENT LOCATION FOR FUTURE REFERENCE.

 **WARNING** TO GUARD AGAINST INJURY, THE FOLLOWING SAFETY PRECAUTIONS MUST BE OBSERVED IN THE INSTALLATION AND USE OF THE LAMINATOR.

 **IMPORTANT SAFEGUARDS**

### GENERAL

Keep hands, long hair, loose clothing and articles, such as necklaces or ties, away from the front (heat) and rear (pull) rollers to avoid entanglement and entrapment.

The heat rollers can operate at temperatures close to 300 °F. Avoid contact with the heat rollers during operation or shortly after power has been removed from the laminator.

Keep hands and fingers away from the path of the sharp film cutter blade located at the area of film exit.

Do not use the laminator for other than its intended purpose.

Do not place the laminator on an unstable cart, stand, or table. An unstable surface may cause the laminator to fall resulting in serious bodily injury. Avoid quick stops, excessive force, and uneven floor surfaces when moving the laminator on a cart or stand.

Do not defeat or remove electrical and mechanical safety equipment such as interlocks, shields and guards.

Do not insert objects unsuitable for lamination or expose the equipment to liquids.

## **ELECTRICAL**

The laminator should be connected only to a source of power as indicated in these instructions and on the serial plate located on the rear of the laminator. Contact an electrician should the attachment plug provided with the laminator not match the receptacles at your location.

Disconnect the attachment plug from the receptacle to which it is connected and maintain the power supply cord in your possession while moving the laminator.

Disconnect the attachment plug from the receptacle when the laminator is not used for extended periods of time.

Do not operate the laminator with a damaged power supply cord or attachment plug, upon occurrence of a malfunction, or after the laminator has been damaged. Contact GBC's Technical Service Department or your dealer/distributor for assistance.

Observe the marked electrical rating on the equipment to avoid overloading the branch circuit (receptacle) to which the laminator is connected.

Disconnect the attachment plug from the receptacle and maintain the power supply cord in your possession when replacing the line fuse. The fuse holder



is located on the rear of the equipment. **Replace fuse only with type specified on fuse rating label located near fuse holder.**

## **SERVICE**

Perform only the routine maintenance referred to in these instructions. **Do not attempt to service or repair the laminator.** Contact GBC's Technical Service department or your dealer/distributor for service or repair.

Disconnect the attachment plug from the receptacle and contact GBC's Technical Service Department or your dealer/distributor when one or more of the following has occurred:

- The power supply cord or attachment plug is damaged.
- Liquid has been spilled into the laminator.
- The laminator is malfunctioning after being mishandled.
- The laminator does not operate as described in these instructions.

## **SET-UP**

**1. Shipping damage should be brought to the immediate attention of the delivering carrier.**

2. Place the GBC4250 laminator on a stable flat surface capable of supporting at least 85 lb. (39 Kg). The surface should be at least 30 inches high to assure comfortable positioning during operation. All four rubber support feet of the laminator shall be positioned completely on the supporting surface. This supporting surface may also be large enough to place the material which is to be laminated.

3. The laminator should be located to allow exiting film to drop freely to the floor. Accumulation of laminate immediately behind the laminator as it exits the equipment may cause the film to wrap around the rear pull rollers, resulting in a "jammed" condition.

4. Avoid locating the laminator near sources of heat or cold. Avoid locating the laminator in the direct path of forced heated or cooled air.

5. Connect the attachment plug provided with the laminator to a suitable grounded outlet only. **Avoid connecting other equipment to the same branch circuit to which the laminator is connected because this may result in nuisance tripping of circuit breakers and blown fuses.**

## SPECIFICATIONS

Operating Speed- 1.5 fpm (45.6 cm) to 10 fpm (3 m)

Dimensions- 32.5 in. (83 cm) wide × 21 in. (53 cm) long × 12 (31 cm) in. high

Weight- 85 lb. (39 kg)

Electrical Requirements- Refer to the Serial Plate located on the rear of the laminator for the specific electrical rating applicable to the provided equipment.

Voltage	115 V~, 60 Hz
Current	12 A
Power	1450 W

## KNOW YOUR GBC4250 LAMINATOR

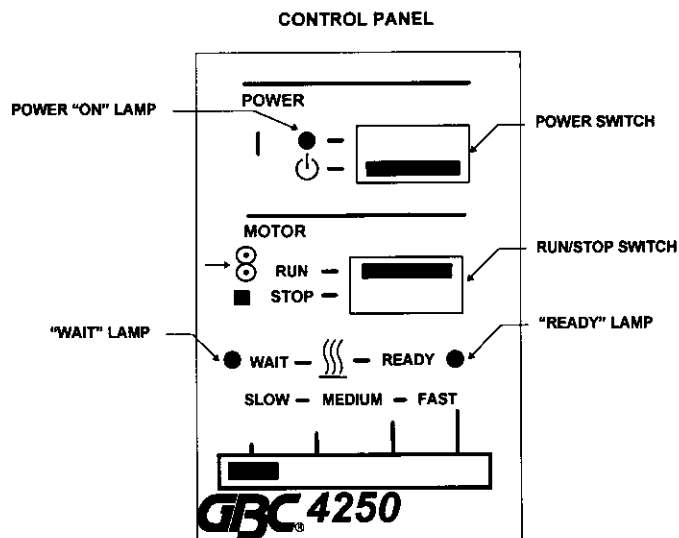



FIGURE 1

A. POWER SWITCH: Use to apply power to the laminator. The green power "ON" lamp, located adjacent to the power switch, will illuminate when the power switch is set at the "On" position, marked

I. Set the power switch at the "Standby" position, marked , to turn the laminator off.

B. RUN/STOP SWITCH:

"Stop" position removes power from the Pull Roller drive motor. Moving the switch to the "Run" position applies power to the drive motor.

C. SPEED CONTROL: Use to control the speed of lamination. The speed is adjustable from the "Slow" setting of 1.5 fpm (0.46 m) to a "Fast" setting of 10 fpm (3 m).

D. "READY" LAMP: Continuously illuminates when the heat rollers are sufficiently hot for the selected speed setting.

E. "WAIT" LAMP: Flashes when the temperature of the heat rollers is insufficient for the selected speed setting. The occurrence of a flashing wait light will be signified by an audible alarm (beep).

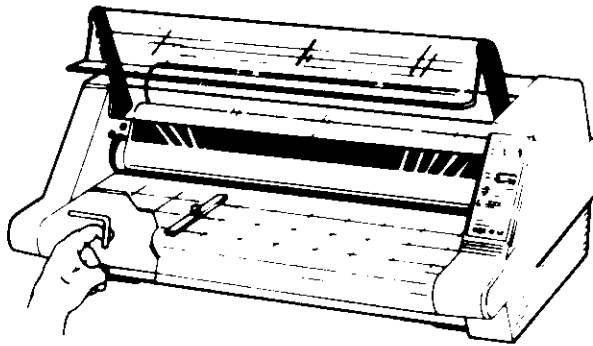


FIGURE 2

F. FEED (SUPPORT) TABLE: The Feed Table is used to position items for lamination. **The laminator will operate only with the Feed Table and Feed Table Latch properly installed.**

G. SAFETY SHIELD: Prevents entanglement, entrapment and inadvertent contact with the heat rollers. **The laminator will operate only when the Safety**

**Shield is located in the full down position. Power to the laminator is removed when the Safety Shield is lifted.**

H. TABLE INTERLOCK LATCH- Used to lock Feed Table into position and activate an interlock. The interlock latch is located at the left underside of the feed table. The table cannot be removed without retracting the latch to the right while lifting the table upwards and away from the laminator. **The laminator will not operate when the feed table is removed and/or the interlock latch is retracted.**

I. FEED GUIDE- The Feed Guide permits aligning the item(s) to be laminated. Reposition the adjustable feed guide by loosening the knob on top of the guide. Slide the Feed Guide to the desired position and tighten the knob to secure the Feed Guide in place. The Feed Guide is used to keep longer items straight. The Feed Guide may also be used to feed small items side by side by positioning the feed guide towards the center of the feed table and placing the smaller items against each side of the Feed Guide as they are being introduced into the nip point of the heat rollers.

J. HEAT ROLLERS- Silicone rubber coated aluminum tubes. Used to heat the laminating film and compress the heated film to the items being laminated. Heat is provided by an internal heating element. The Safety Shield causes the rollers to separate for loading new film or close once the laminating film is loaded.

K. IDLER BAR-One provided for each film supply roll. Used to direct the film to the Heat Rollers. Bottom Idler Bar is removable to ease film loading.

**L. PULL ROLLERS-** The set of rollers located at the back of the laminator. These rollers are motor driven. They are used to simultaneously pull the laminate and improve the quality of the laminated item.

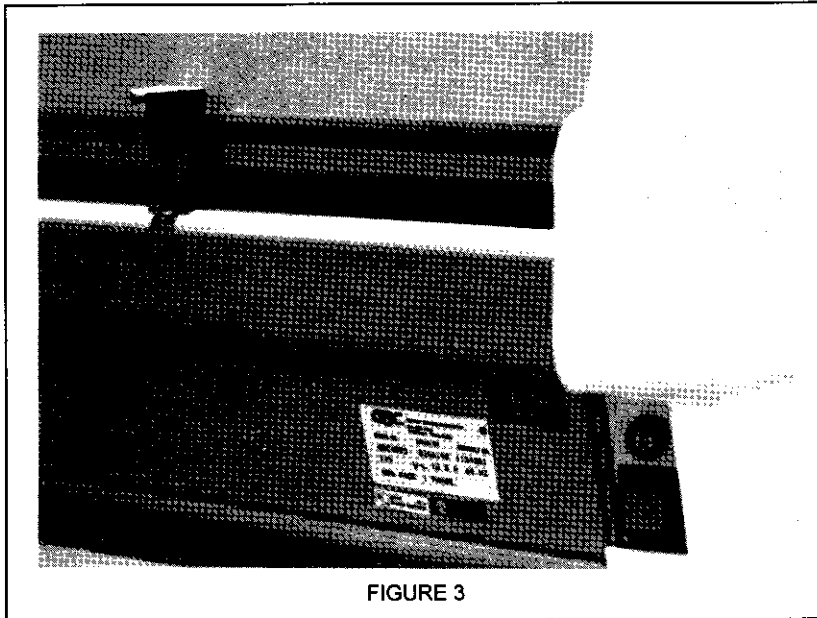


FIGURE 3

**M. FILM CUTTER:** Use to cut the film web at the area at which the web exits the laminator.

**N. REVERSE SWITCH:** Used to facilitate removing a jammed (wrap-up) condition. The pull rollers are caused to rotate in the

reverse direction. The laminating film is pulled back into the laminator when the Reverse Switch is depressed.

**O. LINE FUSE-** Located in the fuse holder which is positioned on the rear of the equipment.

**P. CORE CLIPS-** Mounted on the Supply Roll Shaft. Used to hold the film roll to the supply roll shaft.

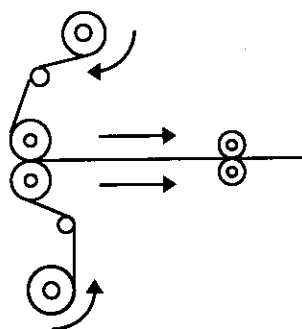
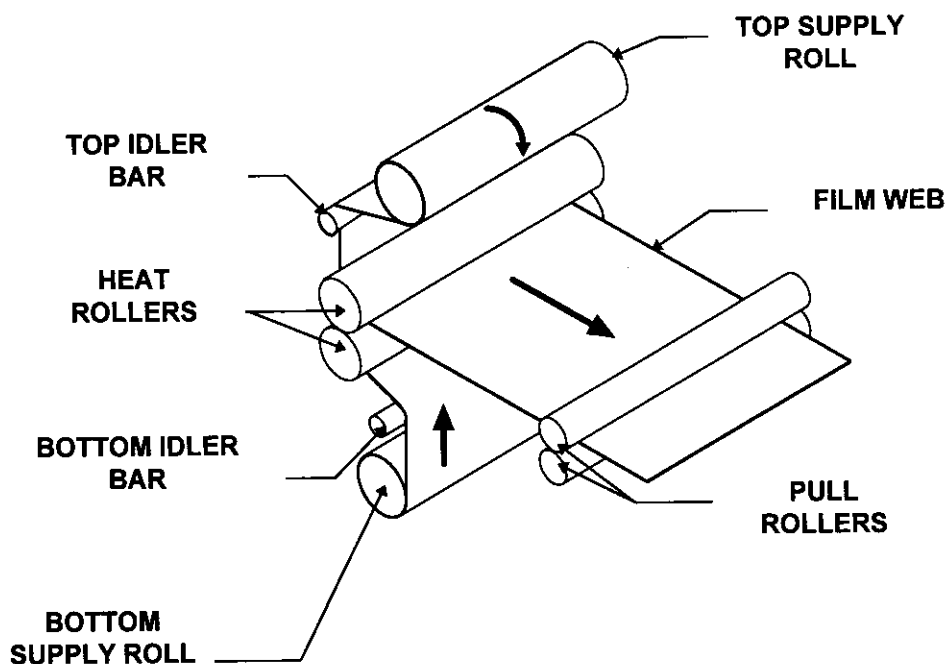
**Q. FILM WEB-** Laminating film loaded into the equipment.

**R. NIP POINT-** The point at which the top and bottom rollers contact. The Nip Point of the heat rollers is the place at which items for lamination are introduced into the laminator.

## FILM LOADING & THREADING

Refer to figure 4 or the film threading diagram located beneath the feed table on the inner side panel of the laminator for illustration of properly loaded film.



**THREADING DIAGRAM  
LAMINATOR SIDE VIEW**

**LAMINATOR ISOMETRIC VIEW**

**FIGURE 4**

The top and bottom rolls of laminating film must be of the same width and must be present simultaneously. A small amount of adhesive will "squeeze out" during lamination. Hardened adhesive deposited on the rollers may damage the heat rollers. Rotate the rollers at the "Slow" speed setting only to avoid damaging the rollers, when the laminator has not achieved full operating temperature as indicated by a flashing Wait lamp. Refer to the section entitled CARING FOR THE GBC4250 LAMINATOR for instructions regarding removal of the accumulated adhesive.

Adhesive will deposit on the heat rollers if either only one roll of film is used, different widths of film are used simultaneously, or either roll is loaded with the adhesive side contacting the heat rollers. Refer to the section entitled CARING FOR THE GBC4250 LAMINATOR for instructions regarding removal of accumulated adhesive.

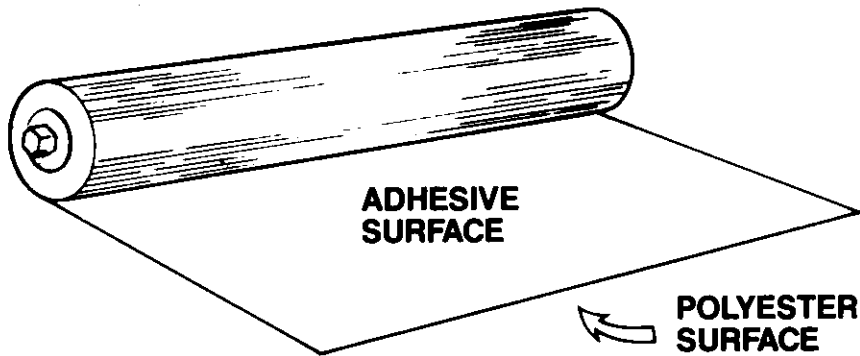



FIGURE 5

The adhesive side of the film is on the inner surface of the web (see figure 5). The shiny side of clear film must contact the heat rollers. The dull side of clear film contains the adhesive. Use extreme caution when loading delustered (matte) film because both sides appear dull.

Always change the top and bottom supply rolls at the same time. Near the end of each roll of GBC laminating film is a label stating "Warning-End of Roll." The appearance of this label on either the top or bottom roll requires that new rolls of laminating film be installed as soon as the item presently being laminated completely exits the rear of the laminator. Do not introduce any additional items into the laminator when the warning label appears on either the top or bottom roll.

### Method Using Film Threading Card

The following procedure uses the film threading card provided with new rolls of GBC film. The laminator should be cooled to touch before proceeding.

1. Set the ON/STANDBY switch in the Standby  position. Remove feed table.
2. Cut remaining top and bottom film webs between supply rolls and heat rollers. **Be careful not to cut the heat rollers.**
3. Raise shield to upright position.

4. Do not allow remaining film to pass through the laminator if there is any exposed liquefied or tacky adhesive. **Liquefied or tacky adhesive will deposit on heat rolls if the following procedure is not observed.** Reinstall the feed table. Place overlapping sheets of clean, white paper across the full width of the feed table. Lower the shield. Position the ON/STANDBY switch in the "On", denoted **I**, position. Set the Speed Control at "Slow". Position the RUN/STOP switch at the "Run" position. Slide all sheets of paper into the heat rollers' nip point until they are grasped by the laminate and passed completely through the laminator with the remaining film. **Be certain that there is no exposed adhesive contacting the rollers and that the paper and film completely exit the laminator.**

5. Set the ON/STANDBY switch in the "Standby"  position.

6. Lift shield to full upright position.

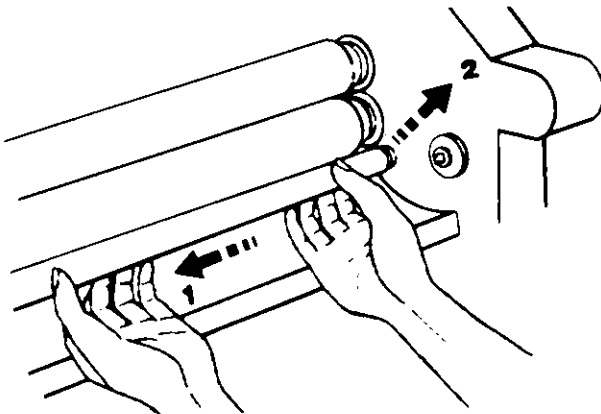


FIGURE 6

7. Remove feed table and bottom film guide (see figure 6).

8. Remove bottom supply roll from laminator and remove film roll core from supply roll shaft. Observe that both core clips are still located on the supply roll shaft. Check removed core if either core clip is missing.

9. Slide new film roll on supply roll shaft. Compare film roll orientation

of newly installed roll with threading diagram or threading label located on laminator.

10. Replace bottom supply roll. Newly installed roll must unroll in same direction as shown on threading diagram or threading label located on laminator.

11. Unroll 2 ft. (61 cm) of film. Pull film upward past heat rollers and drape over top Idler Bar.

12. Replace bottom film guide.

13. Remove top supply roll from laminator and remove film roll core from supply roll shaft. Observe that both core clips are still located on the supply roll shaft. Check removed core if either core clip is missing.

14. Slide new film roll on supply roll shaft. Compare film roll orientation of newly installed roll with threading diagram (figure 4) or threading label located on laminator.

15. Replace top supply roll. Newly installed roll must unroll in same direction as shown on threading diagram or threading label located on laminator.

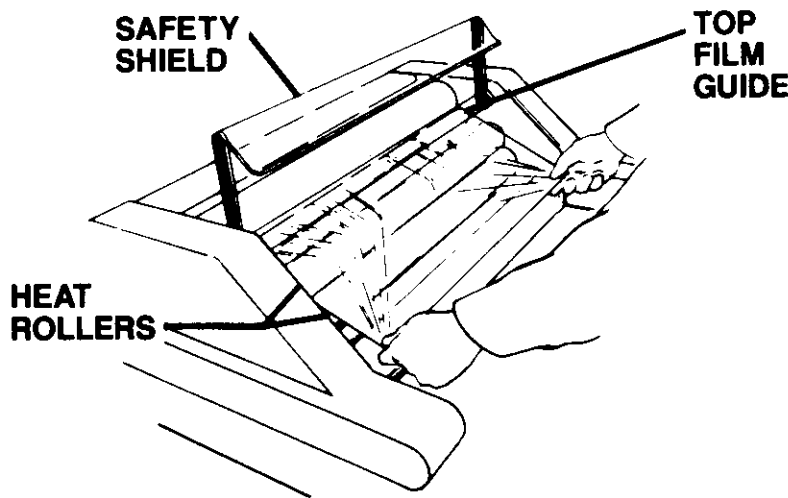


FIGURE 7

16. Unroll 2 ft. (61 cm) of film. Place film over top film guide covered with film from step 11 (see figure 7).

17. Place threading card against film at nip point of upper and lower heat rollers. Push threading card into the nip point of the heat rollers. Continue pushing the threading card until the leading edge of the card contacts the nip point of the pull rollers (see figure 8).

18. Lower the shield to full down position.

19. Install feed table. Verify Feed Table Latch has penetrated side plate. Threading card shall be resting on top surface of feed table.

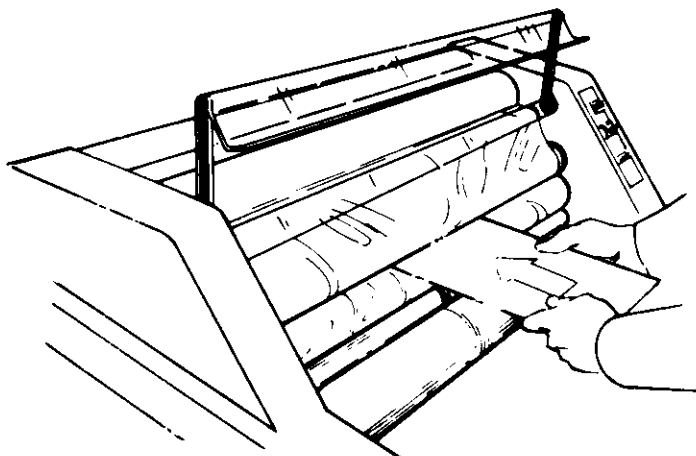



FIGURE 8

20. Position motor speed control at slowest setting. Position ON/STANDBY switch to "On" setting. Position motor RUN/STOP switch to "Run" setting.

21. Watch leading edge of threading card to assure that it engages nip point of top and bottom

pull rollers and is advancing through the laminator. Speed may be increased to expedite operation. Set motor RUN/STOP switch to "Stop" once threading card has completely exited laminator.

22. Check film alignment. See section entitled Film Alignment Procedure for instructions if installed film needs alignment.

 **CAUTION** THE FOLLOWING PROCEDURE IS PERFORMED WHILE THE LAMINATOR IS HOT. USE EXTREME CAUTION. AVOID CONTACT WITH THE HEAT ROLLERS.

### **Method For Tacking New Film to Pre-existing Film**

The following describes a method for loading film whereby the pre-existing film present on the heat rollers may be used in place of the threading card to draw the new film through the laminator. The adhesive of the pre-existing film must be tacky or liquefied. Leading edges of the new film will be overlapped onto pre-existing film. The tacky adhesive of the old film will adhere to the leading edges of the new film. The pre-existing film and the new film will be simultaneously drawn through the laminator.

1. Position the ON/STANDBY switch to the "Standby" setting. Remove feed table.
2. Cut remaining top and bottom film webs between supply rolls and heat rollers.
3. Raise shield to full upright position.
4. Do not allow adhesive side of pre-existing film to contact heat or pull rollers. Liquefied or tacky adhesive deposited on heat or pull rollers will require the rollers to be cleaned per the section entitled Caring for the GBC4250 Laminator.
5. Remove feed table and bottom film guide (see figure 6).
6. Remove bottom supply roll from laminator and remove film roll core from supply roll shaft. Observe that both core clips are still located on the supply roll shaft. Check removed core if either core clip is missing.
7. Slide new film roll onto supply roll shaft. Compare film roll orientation of newly installed roll with threading diagram (figure 4) or threading label located on laminator.

8. Place the roll of film on a clean stable surface in front of the laminator. The roll of film must be positioned to unroll in same direction as shown on threading diagram (figure 4) or threading label located on laminator.

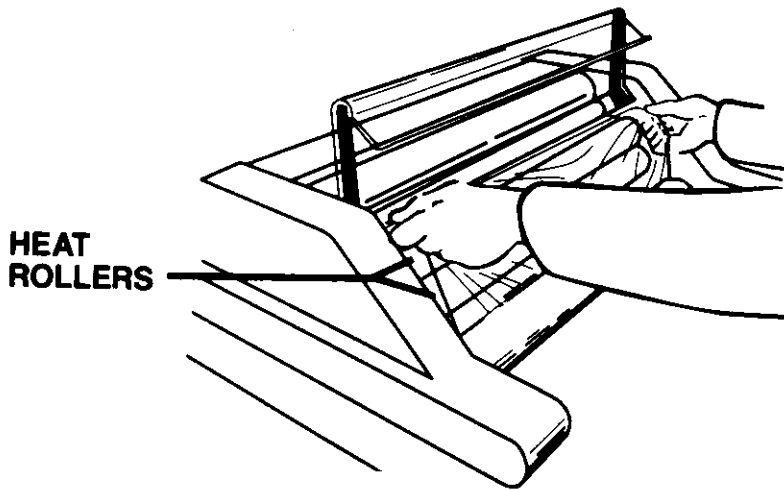


FIGURE 9

9. Unroll enough film to contact and completely cover the pre-existing film laying on the bottom heat roller. Lay the leading edge of film on the tacky edge of the pre-existing film (see figure 9).

10. Replace bottom film guide.

11. Install the bottom supply roll.

12. Remove top supply roll from laminator and remove film roll core from supply roll shaft. Observe that both core clips are still located on the supply roll shaft. Check removed core if either core clip is missing.

13. Slide new film roll onto supply roll shaft. Compare film roll orientation of newly installed roll with threading diagram (figure 4) or threading label located on laminator.

14. Replace top supply roll. Newly installed roll must unroll in same direction as shown on threading diagram (figure 4) or threading label located on laminator.

15. Unroll enough film to contact and completely cover the pre-existing film laying on the top heat roller. Lay the leading edge of film on the tacky edge of the pre-existing film.

16. Lower the shield to full down position. Install feed table.

17. Set motor speed control at slowest setting. Position ON/STANDBY switch to "On" | setting. Set motor RUN/STOP switch to "Run" setting.


18. Observe the film as it is pulled through the laminator to assure that the remaining pre-existing film and the new film are advancing concurrently. Any

separation between the pre-existing and newly installed film requires that the motor be immediately stopped and the situation corrected to assure that the pre-existing and new films are passed through concurrently.

19. Set the motor RUN/STOP switch to the "Stop" position once the installed film is completely exiting the laminator.

20. Check film alignment. See section entitled Film Alignment Procedure for instructions if installed film needs alignment.

### **FILM ALIGNMENT PROCEDURE**


Review alignment of left and right edges of the top and bottom film rolls. Set the ON/STANDBY switch to the "Standby"  position if re-alignment is necessary. Adjust alignment by repositioning the metal disc on either film supply roll shaft. Use the allen wrench (3/32 in.) supplied with the laminator to loosen the set screw of either metal disk. Slide the disc and the film roll along the shaft until they are aligned with the film roll on the other shaft. Lock the disc into position by tightening the loosened set screw with the allen wrench.

### **FEED TABLE REMOVAL**

Refer to figure 2 and the following procedure to remove the feed table:

1. Lift the shield to its upright position.
2. Slide the Feed Table Latch to the right.
3. Lift the table upwards and away from the laminator.

### **OPERATING PROCEDURE**

The speed setting may be positioned at the "Fast" setting when the laminator will be used within a short period of time. To conserve energy, the speed setting may be positioned at "Slow" when it is expected the laminator will not be used for longer periods of time. It is recommended the ON/STANDBY switch be set at the Standby  when not operated for long periods of time.

1. Lower the Safety Shield to its full down position.
2. Check that the Feed Table latch is penetrating the left hand side plate.


3. Place the motor RUN/STOP switch in the "Stop" position.
4. Position the Speed Control to the desired setting. Set the control to the "Fast" setting for faster warm-up.
5. Set the ON/STANDBY switch to "On" **I**.
6. **Do not begin laminating until the "Wait" light stops flashing and the "Ready" light has illuminated.** The normal warm-up time, signified by the Ready lamp illuminating, is approximately 17 minutes with the Speed Control positioned at the "Fast" setting.
7. Reposition the Speed Control at the desired setting if initially adjusted to "Fast" to minimize warm-up time. Adjusting the Speed Control to a higher setting during lamination may cause the Wait lamp to illuminate and flash. Either reposition the Speed Control to a slower setting or discontinue laminating, both until the Ready lamp illuminates, should the Wait lamp flash while laminating
8. Position the item(s) to be laminated on the Feed Table.
9. Position the RUN/STOP switch to "Run". The rear pull rollers will rotate. **The heat rollers will not rotate unless film has been loaded into the laminator.**
10. Push the item(s) to be laminated into nip point of the heat rollers. The item(s) will be grasped by the heat rollers and drawn into the laminator. Additional items may be laminated without stopping and restarting the equipment.
11. Should a jam occur, stop the laminator by moving the RUN/STOP switch to the "Stop" position. Refer to the section entitled Clearing a Film Jam (wrap-up) for specific instructions.
12. Stop the laminator once all laminated items completely exit the rear of the laminator.

**CAUTION**

**Do not reach over the laminator to operate the film cutter.**

13. The Film Cutter may be used to separate the laminated items from the film web. Position the cutter at either side of the laminator, depress the cutter's handle while sliding the cutter across the film web.



14. Allow the laminator to remain powered if it is anticipated that the laminator will be used within a short period of time. It is recommended that the ON/STANDBY switch be positioned at "Standby"  when the laminator will not be used for longer periods. The Safety Shield may be left in an upright position when the laminator will remain unused for an extended period. Placing the shield upright will prevent developing a flat spot on the heat rollers.

The attachment plug may be disconnected from the receptacle when the laminator will not be used for long periods of time.

## **SPEED GUIDE AND THE ART OF LAMINATION**

**Do not attempt to laminate abrasive materials or metal objects such as staples, paper clips, and glitter because the heat or pull rollers may be damaged.**

**Do not force items into the nip point of the heat rollers. An item that is not easily drawn into the laminator by the heat rollers is probably too thick to laminate.**

**Wrinkles may result if an attempt is made to reposition an item once it has been grasped by the heat rollers.**

**Do not stop the laminator before an item has completely exited. Even a momentary stop will cause a mark on the laminated item.**

Good, consistent lamination is a result of combining proper temperature with dwell time (time that the material to be laminated is compressed between the heat rollers). Dwell time is adjusted via the SPEED CONTROL. When the SPEED CONTROL is adjusted the laminator automatically sets the appropriate operating temperature.

As a general rule, thicker items and thicker film need to be run at slower speeds because they cause more heat to be extracted from the heat rollers. Setting the SPEED CONTROL at slower settings causes the temperature of the heat rollers to be higher and the dwell time to be longer, thus allowing proper lamination of thick items. Thinner items, such as standard copier paper and tissue paper extract less heat from the rollers and may be laminated at faster speeds.

The Wait lamp may illuminate and flash if the SPEED CONTROL is set too fast for the material and film being laminated. Either reposition the SPEED

CONTROL to a slower setting or move the RUN/STOP switch to the "Stop" position until the Ready lamp illuminates.

More thorough heating of the heat rollers is achieved by allowing the motor to remain off for longer periods of time. Operation of the laminator in the Standby mode for thirty or more minutes may necessitate positioning the SPEED CONTROL at or near the medium speed setting. For example, satisfactory lamination quality is achieved using a single glossy poster laminated at slow speed immediately after the Ready lamp has illuminated at initial warm-up. The same poster's ink may fade if immediately laminated after the laminator were operated in the "idle" mode (power on, motor off) for thirty or more minutes. Acceptable lamination can be achieved by increasing the SPEED CONTROL setting which decreases the dwell time.

Operating the laminator in the "idle" mode (power on, motor off) for longer periods of time facilitates continuous lamination of thick items. If several thick items are to be laminated, it is recommended that the laminator remain in "idle" mode for thirty minutes to attain maximum operating temperatures.

A simple method of checking whether or not the equipment is sufficiently heated to laminate a particular material is to laminate test (scrap) material of the same or similar type prior to feeding the material to be laminated. This procedure is also recommended because rotating the heat rollers prior to lamination will more evenly distribute the heat.

The following chart provides general guidelines for proper settings to use for certain materials and laminating film combinations. **This chart is only a general guide. Different settings may be suitable as the warm up time, lamination time and materials change.**

Material	Film	
	1.5 Mil (.0015")	3 Mil (.0030")
Newspaper 20 lb. Copier Paper Magazine Stock Tissue Stock	Fast	Slow-Medium*
Construction Paper Posters	Medium	Slow
Index Cards File Folders Poster Board	Slow	Slow

\*Slow-Medium indicates a SPEED CONTROL setting approximately midway between "slow" and "medium".

## FILM TENSION ADJUSTMENT

Proper tension is the minimum amount required to eliminate wrinkles in the finished laminated item. The film tension is set at the factory. Periodic adjustment should not be necessary unless other than 1.5 mil GBC film is used or the lamination is exhibiting unsatisfactory. Film tension may be checked periodically to assure that adjustment is not required.

The film should be taut. An adjusted roll of film should not require excessive force to turn by hand. Film tension should be enough to introduce a minor amount of drag as the film unrolls. Under- or over-tightening will introduce wrinkles or incomplete adhesion on laminated items.

Too little tension causes wrinkles in the finished laminated item. Too much tension causes film to stretch. The top and bottom rolls should be adjusted to exhibit equivalent tension.

Uneven tension between the top and bottom rolls can cause the laminated product to curl. Upward curl indicates greater tension on the top roll. Downward curl indicates greater tension on the bottom roll. Over-tightening may cause slippage of motor clutch.

1. Unroll 2 ft. of film on the bottom roll of film.

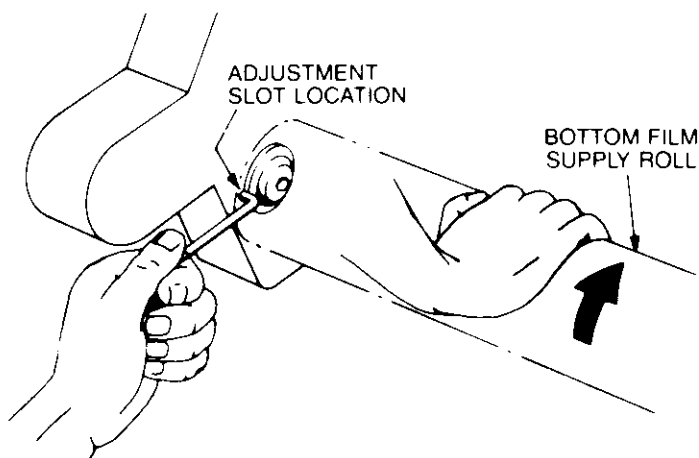


FIGURE 10

2. Insert the allen (hex-head) wrench provided with the laminator into adjustment hole as shown in figure 10.

3. Rotate film roll until wrench engages internal brake mechanism. While holding the allen wrench in place, rotate film roll in direction of arrow of figure 10 to increase tension.

4. Remove allen wrench.

5. Check brake tension setting by rotating the film in the direction of normal rotation. Resistance to rotation should be slight, not forced.

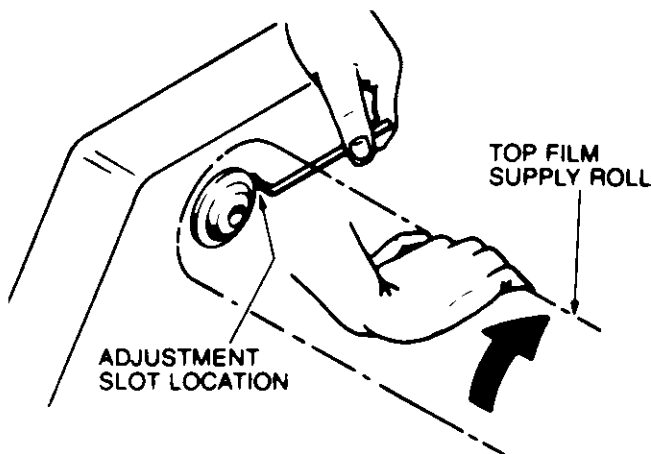


FIGURE 11

6. Insert the allen wrench provided with the laminator into adjustment hole of the top film roll (see figure 11).

7. Rotate film roll until wrench engages internal brake mechanism. While holding the allen wrench in place, rotate film roll in direction of arrow of figure 11 to increase tension.

8. Check brake tension setting by rotating the film in the direction of normal rotation. Resistance to rotation should be slight, not forced.

9. Laminate some test samples to check film tension. Readjust as necessary.

### CARING FOR THE GBC4250 LAMINATOR

GBC offers a Cleaning Kit as well as Extended Maintenance Agreements. Contact your GBC Service Representative or your dealer/distributor for additional information.

The only maintenance required is to periodically clean the heat rollers. The following procedure will help to keep the heat rollers free of adhesive that has been deposited along the edge of the laminating film. Proper alignment of the top and bottom rolls of laminating film will minimize the amount of adhesive deposited.

**! CAUTION** THE FOLLOWING PROCEDURE IS PERFORMED WHILE THE LAMINATOR IS HOT. USE EXTREME CAUTION.

- Never clean rollers with sharp or pointed objects.
- Do not apply any cleaning fluids or solvents to the rollers.
- Hardened adhesive deposited on the rollers may cause damage. Rotate the rollers at the "Slow" speed setting only to avoid damaging the rollers.

**-Do not attempt to laminate adhesives which are marked "Flammable."**

-Do not laminate glitter and/or sharp metallic objects. Damage to the heat rollers may result.


1. Remove the film from the laminator following the procedure outlined in steps 1 through 4 of the section entitled LOADING AND THREADING FILM, Method Using Film Threading Card.

2. Set the Motor Run switch to the "Stop" position.

3. Set the Speed Control at the "Fast" position.

4. Set the ON/STANDBY switch to the "On"  position.

5. Allow the laminator to heat until the Ready lamp illuminates.

6. Set the ON/STANDBY switch to the "Standby"  position and disconnect the attachment plug from the receptacle.

7. Remove the top roll of film.

8. Place the safety shield in its full upright position.

9. Remove the feed table.

10. Rub the top and bottom heat rollers with a mildly abrasive pad, such as a 3M™ Scotch Brite™ pad. Rotate the rollers using the pad to avoid direct contact.

11. Install the feed table.

12. Lower the safety shield.

13. Follow the procedure entitled FILM LOADING AND THREADING, Method Using Film Threading Card.

## TROUBLE SHOOTING GUIDE

<b><u>SYMPTOM</u></b>	<b><u>POSSIBLE CAUSE</u></b>	<b><u>CORRECTIVE ACTION</u></b>
Power "On" lamp does not illuminate when ON/STANDBY switch is in "On" I position.	Laminator not connected to electrical supply.	Insert attachment plug into receptacle
	Safety shield not in full down position.	Push downward on shield.
	Feed table Latch not properly positioned.	Reposition latch to penetrate side plate engaging interlock switch.
Heat rollers do not rotate.	Line fuse "blown".	Replace fuse.
	Film not loaded.	Load film per directions in section entitled "LOADING AND THREADING LAMINATING FILM."
Laminated item exhibits curling.	Motor RUN/STOP switch in "Stop" position.	Set motor RUN/STOP switch in "Run" position.
	Tension on top and bottom film rolls is unequal.	Adjust tension per section entitled <u>FILM TENSION ADJUSTMENT</u> .
Laminated item exhibits wrinkling.	Tension on top and/or bottom film roll(s) is set too high.	Adjust tension per section entitled <u>FILM TENSION ADJUSTMENT</u> .
	Tension on top and/or bottom film roll(s) is set to low.	Adjust tension per section entitled <u>FILM TENSION ADJUSTMENT</u> .
	Pressure between heat rollers inadequate.	Safety shield not fully lowered. Push downward on shield.
	Speed setting too slow.	Position SPEED CONTROL at higher setting.

## TROUBLE SHOOTING GUIDE (CONT.)

Adhesive deposited on heat rollers.	Top and bottom film webs not aligned.	Align film webs per step number 17 outlined in section entitled <u>LOADING AND THREADING LAMINATING FILM</u> .
	Laminate improperly loaded.	Adhesive (matte) side of laminating film must be facing away from heat roll surface. Load film per procedure outlined in section entitled <u>LOADING AND THREADING LAMINATING FILM</u> .
Unsatisfactory adhesion of laminate.	Speed setting too fast for type of material being laminated.	Lower speed by positioning SPEED CONTROL at lower setting.
	Pressure between rollers inadequate. Laminated item is too thick.	Safety shield not in fully lowered position. Push downward on shield. Maximum material thickness shall be 1/16 " (2 mm).
	Insufficient heat.	"Ready" lamp must be illuminated.
	Laminate improperly loaded.	Adhesive (matte) side of laminating film must be facing away from heat roll surface.
	Heat rollers require cleaning	Clean heat rollers per procedure described in section entitled <u>CARING FOR THE GBC4250 LAMINATOR</u> .
	Laminated item unsuitable for adhesion.	Item undergoing lamination may be dirty and require cleaning or may have non-porous surface that is extremely difficult to laminate.

## Clearing a Film Jam (Wrap-Up)

Film jamming (wrap-up) may occur if the film is loaded improperly or if the area at which film exits the equipment is blocked. The film, when jammed, has usually wrapped around the upper or lower rear pull rollers. To clear a jam, it is necessary to cause the rear pull rollers to rotate in the reverse

direction. The REVERSE SWITCH located on the rear of the laminator at the lower left (facing the back of the laminator) will cause the pull rollers to rotate in the reverse direction when used as follows:

1. Immediately stop the laminator by setting the RUN/STOP switch to the "Stop" position.
2. Set the Speed Control to the "Slow" setting.
3. Position yourself at the rear of the laminator. **Do not reach over the laminator to perform the following.** Depress the REVERSE SWITCH (see figure 3) while firmly pulling on the film that has exited the laminator. Continue pulling on the film until it completely unwinds off the pull roller(s).
4. Once completely unwound, the film momentarily tensions as it begins to wind, in the opposite direction, on the pull rolls. Immediately release the reverse switch to prevent the film from winding on the pull rollers.
5. Return to the front of the laminator.
6. Set the motor RUN/STOP switch to "Run". Observe the film to assure that the film is now proceeding to exit the laminator.

 **CAUTION** THE FOLLOWING PROCEDURE REQUIRES TWO PEOPLE.

 **CAUTION** THE FOLLOWING PROCEDURE MAY BE PERFORMED WHILE THE LAMINATOR IS HOT. USE EXTREME CAUTION.

An excessive wrap-up whereby the film is wrapped around the pull rollers and does not extend out the rear of the machine will require the following procedure to be followed:

1. Set the RUN/STOP switch to the "Stop" position.
2. Set the SPEED CONTROL to the "Slow" position.
3. Set the ON/STANDBY switch to "On" I.



4. Cut the top web of film between the film roll and the top idler bar. Remove the top roll of film.
5. Remove the bottom roll of film. Cut the bottom web between film roll and the bottom idler bar.
6. Standing in front of the laminator, reach into the open area on top of the laminator. Grasp the two sides of the film web spanning the area between the heat and pull rollers. Avoid contacting the heat rollers.
6. The second individual should depress the REVERSE SWITCH to cause the pull rollers to rotate in a reverse direction while the first individual grasping the film pulls the film towards the front of the equipment.
7. Discontinue depressing the REVERSE SWITCH once the film has unwrapped completely off the pull rollers.
8. Repeat steps 5, 6 and 7 as necessary.
9. Advance the unwound film completely through the laminator by setting the RUN/STOP switch to the "Run" position. Refer to step 4 in the section entitled FILM LOADING & THREADING: Method Using Film Threading Card, for a procedure to prevent exposed liquefied or tacky adhesive from contacting the heat or pull rollers.
10. Reinstall the top and bottom film rolls per the section entitled FILM LOADING & THREADING.