

duralam[®]

INTEGRA



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INTRODUCTION

The **Duralam Integra** 27" Eco-Load Desktop Laminator

Thank you for your purchase of the Duralam Integra desktop laminator. The Duralam Integra features advanced quartz heating technology and powerful DC motor drive for long term durability. Enjoy the simple design, with effective safety controls to ensure customer satisfaction! We look forward to many years of quality laminating.

SAFETY INFORMATION

Your safety as well as the safety of others is important. In this Instruction manual and on the product, you will find important safety messages regarding the product. Read these messages carefully. Read all of the instructions and save these instructions for later use.

The safety alert symbol precedes each safety message in this instruction manual. The symbol indicates a potential personal safety hazard to you or others, as well as product or property damage.

THE FOLLOWING WARNINGS ARE FOUND UPON THIS PRODUCT:



CRUSH OR BURN HAZARD WARNING

This safety message means that you could be burned and your fingers and hands could be trapped and crushed in the hot rollers. Clothing, jewelry and long hair could be caught in the rollers and pull you into them.



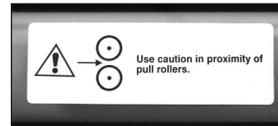
HOT SURFACE

This safety message means that you could get a severe burn if you come in contact with the rollers. Use common sense and keep your distance!



SHARP BLADE

This message means you could cut yourself if you are not careful.



USE CAUTION

This message means you use caution when near pull rollers. Pull rollers can grip and pull in fingers, loose clothing, jewelry etc.



WARNING: the safety alert symbol precedes each safety message in this instruction manual.

The symbol indicates a potential personal safety hazard to you or others, as well as product or property damage.

WARNING: do not attempt to service the or repair the Duralam Integra laminator.

WARNING: do not connect the Duralam Integra laminator to an electrical supply or attempt to operate the laminator until you have completely read these instructions.

Maintain these instructions with the Duralam Integra at all times for operator reference.

WARRANTY

GVDirect™ warrants the Duralam Integra to be free from defects in material and workmanship for a period of 1 year for parts from date of installation. This warranty is the only warranty made by GVDirect and cannot be modified or amended. Labour is covered by the installing dealer for a period of 1 year from date of installation unless agreed to different terms at time of purchase. These agreed terms must be clearly marked on the invoice and are between the installing dealer and customer. GVDirect sole and exclusive liability and the customer's sole and exclusive remedy under this warranty shall be, at GVDirect option, to repair or replace any such defective part or product. These remedies are only available if GVDirect examination of the product discloses to GVDirect satisfaction that such defects actually exist and were not caused by misuse, neglect, attempt to repair, unauthorized alteration or modification, incorrect line voltage, fire, accident, flood or other hazard.

LIMITED WARRANTY

This warranty specifically does not cover damage to the laminating rollers caused by knives, razor blades, other sharp objects, failure caused by adhesives or improper use of the machine. Warranty repair or replacement does not extend the warranty beyond the initial 90 day period from the date of installation.

WARNING - Unauthorized customer alterations will void this warranty.

The warranty made herein is in lieu of all other warranties, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. GVDirect will not be liable for property damage or personal injury (unless primarily caused by its negligence), loss of profit or other incidental or consequential damages arising out of the use or inability to use the equipment.

EXCLUSIONS TO THE WARRANTY

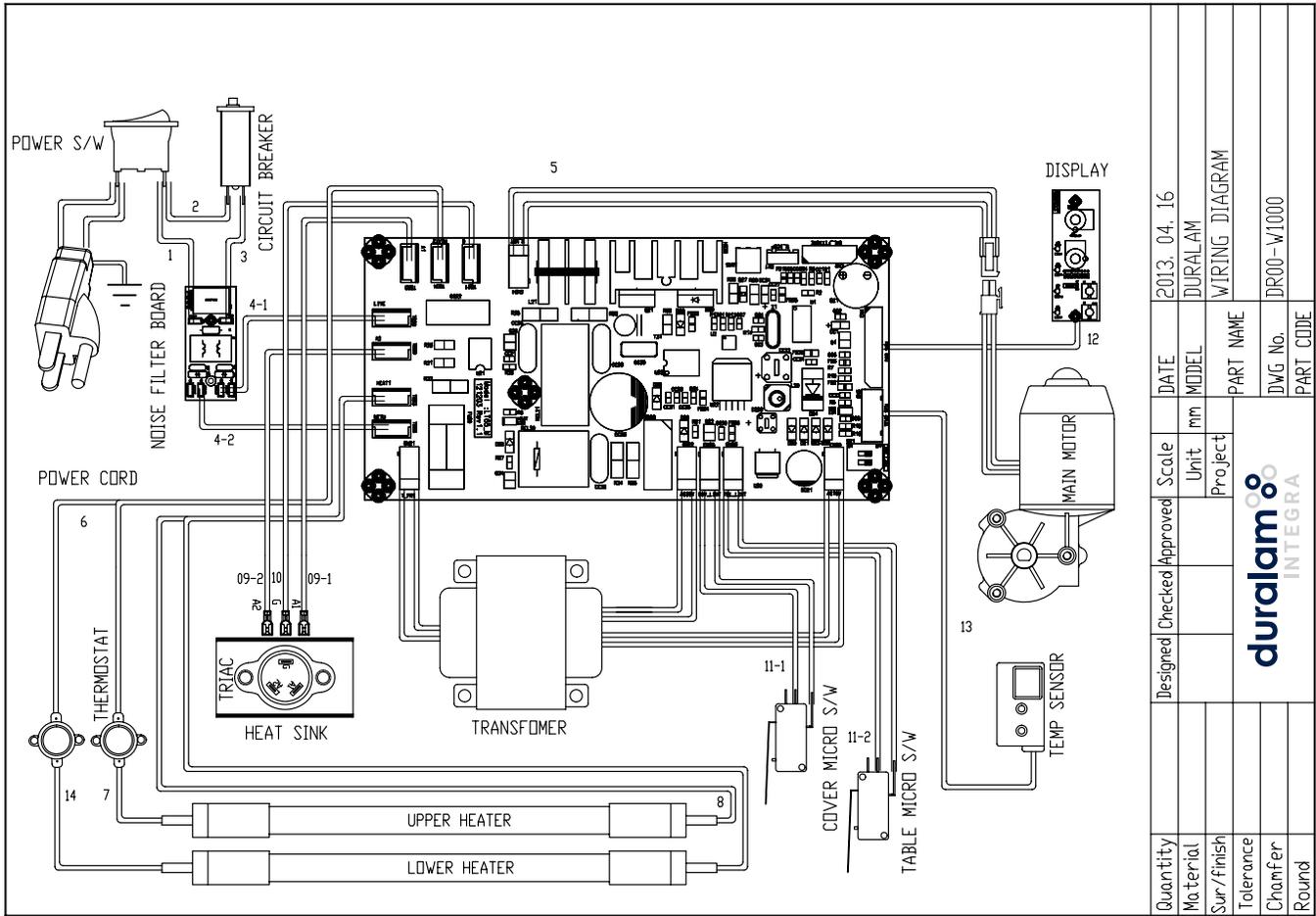
This warranty specifically does not cover:

1. Damage to the laminating rollers caused by knives, razor blades, other sharp objects or failure caused by adhesives.
2. Damage to the machine caused by lifting, tilting and/or any attempt to position the machine other than rolling on the installed castors on even surfaces.
3. Improper use of the machine.
4. Damage due from unqualified person(s) servicing the machine. **QUALIFIED:** Any person(s) trained by GVDirect to perform service related work on such equipment.

ELECTRICAL SCHEMATICS



Electrical Schematics (120 Volt)



Quantity	Designed	Checked	Approved	Scale	Date	2013. 04. 16
Material				Unit	MODEL	DURALAM
Sur/finish				Project	PART NAME	WIRING DIAGRAM
Tolerance					DWG No.	DR00-W1000
Chamfer					PART CODE	
Round						



SPECIFICATIONS

ITEMS	SPECIFICATIONS
Power Requirement	AC 120V 60Hz
Power Consumption	1440W/12A
Dimension (WxLxH)	920mm x 470mm x 304.8mm (36.2"x18.5"x12")
Warm-Up Time (mins.)	6
Max. Laminating Width	685mm (27")
Laminating Film Thickness	1.2 mil - 5 mil
Weight	36kg (80lbs)
Heating System	Infrared Heater
Temperature Adjustment System	Variable 0° - 150°C (0°-300°F)
Temperature Control System	Infrared System
Speed Control System	Variable 0.3m - 1.52m /minute (1' - 5' /minute)
Main Motor	DC Geared Motor

NOTE: The design / specifications of the machine could be changed for improvement without any prior notice

INSTALLATION

NOTE: Immediately check for shipping damage and report to shipping company.

HEAVY! Use two people to carefully lift laminator from box.

Place laminator on stable surface capable of supporting 150 lbs. The surface should be at least 30" high for ergonomic work position (TechnOkart Recommended).

NOTE: Exit position of laminate should be clear to allow film to drop to floor after lamination process.

POWER CONNECTION: Use only suitable grounded outlet. Ensure dedicated 110 volt/15amp circuit. Avoid other equipment on same circuit to prevent nuisance fuse or circuit breaker tripping.

EXAMPLE: photocopier with laminator on same circuit will cause problems!

CONTROLS AND FEATURES



MAIN POWER SWITCH

- Located at the back of laminator
- Move switch to ON (I) position to turn main power on
- Move switch to OFF (O) position to turn main power off

CONTROL PANEL



GREEN “READY” LED is on when roller temperature is ready. Flashes if roller temperature is too hot.

“AUTO-OFF” LED lights when laminator automatically switches into this mode after 60 minutes of non-use. **NOTE:** 3 hours or bypass settings can be set by trained technicians. **NOTE:** Auto-off feature only works when laminator is set at 80 degrees Celsius or higher.

Turn dial to **ADJUST ROLLER TEMPERATURE** to desired setting. Refer to film manufacturer for correct settings. **NOTE:** Most films run well at top heat setting. If low melt film is used a lower setting may be required.

Red “Power” LED is on when laminator is plugged in and main ON / OFF switch is in the “ON” (I) position.

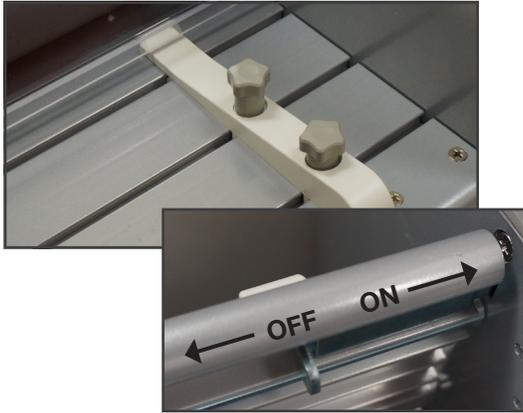
SPEED - Turn dial to adjust roller speed.

RUN - Activates rollers.

STOP - Stops rollers.

REVERSE - Press once to stop rollers. Press and hold to reverse rollers to clear out jams. **NOTE:** Safety Back-up Beeper sounds when reversing.

CONTROLS AND FEATURES



FEED TABLE WITH SAFETY INTERLOCK

- Used to position items for lamination
- Adjustable guide permits visual feeding
- Table safety interlock must be latched for operation



SAFETY SHIELD WITH SAFETY INTERLOCK

- Clear plastic flip shield protects operator
- When lifted, shield interlock stops motor drive
- Move shield to down position and press run to resume



FILM MANDREL

- Mandrel holds the roll of laminate
- Grippers keep roll securely fastened on mandrel
- Up to 1000' rolls of 1" core 1.7 mil film can be fitted



FILM TENSION CONTROL

- To increase and decrease laminate film tension

CONTROLS AND FEATURES



HEAT ROLLERS

- Silicone rubber coated rollers have infrared heaters enclosed
- Laminate film is heated and glue activates as film travels over rollers
- Pressure is applied between rollers for beautiful lamination results



PULL ROLLERS

- Pull rollers run simultaneously with heat rollers to pull lamination to web exit position



REAR SLITTER

- Spring loaded cutter retracts for safety
- Used to cut lamination web at exit position



CAUTION: Do not reach over the laminator to operate the film cutter.



CIRCUIT BREAKER

- Electrical safety device
- Press to reset



WARNING: If the breaker trips a second time after being reset, contact your authorized dealer for service.

CONTROLS AND FEATURES



FIGURE 1

STAND-BY FUNCTION

The Duralam Integra is equipped with stand-by function which will be activated with Set Temperature set above 80 C and main drive motor in “off mode”. The standard setting from factory is 1 hour of non-use and laminator will go into “stand-by”. There is an option to change this setting to 3 hours of non-use before laminator will go into stand-by mode or totally bypass this feature.

To change this setting a technician will be required to do the following:

1. Unplug Laminator
2. Remove side cover on control side
3. Locate main PCB (Figure 1)
4. Locate two small dip switches on bottom left side of PCB
5. Adjust switches as per FIGURES 2, 3 and 4.



FIGURE 2 (Standard Setting: 1 Hour Standby)



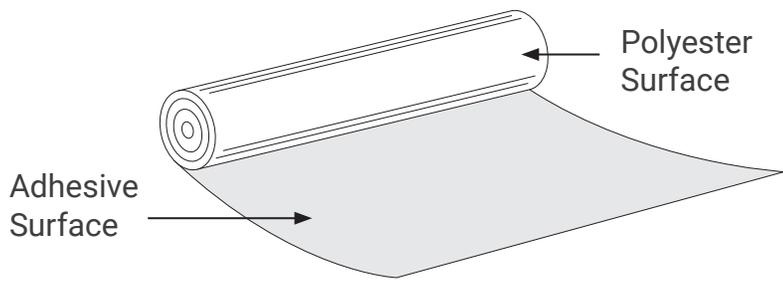
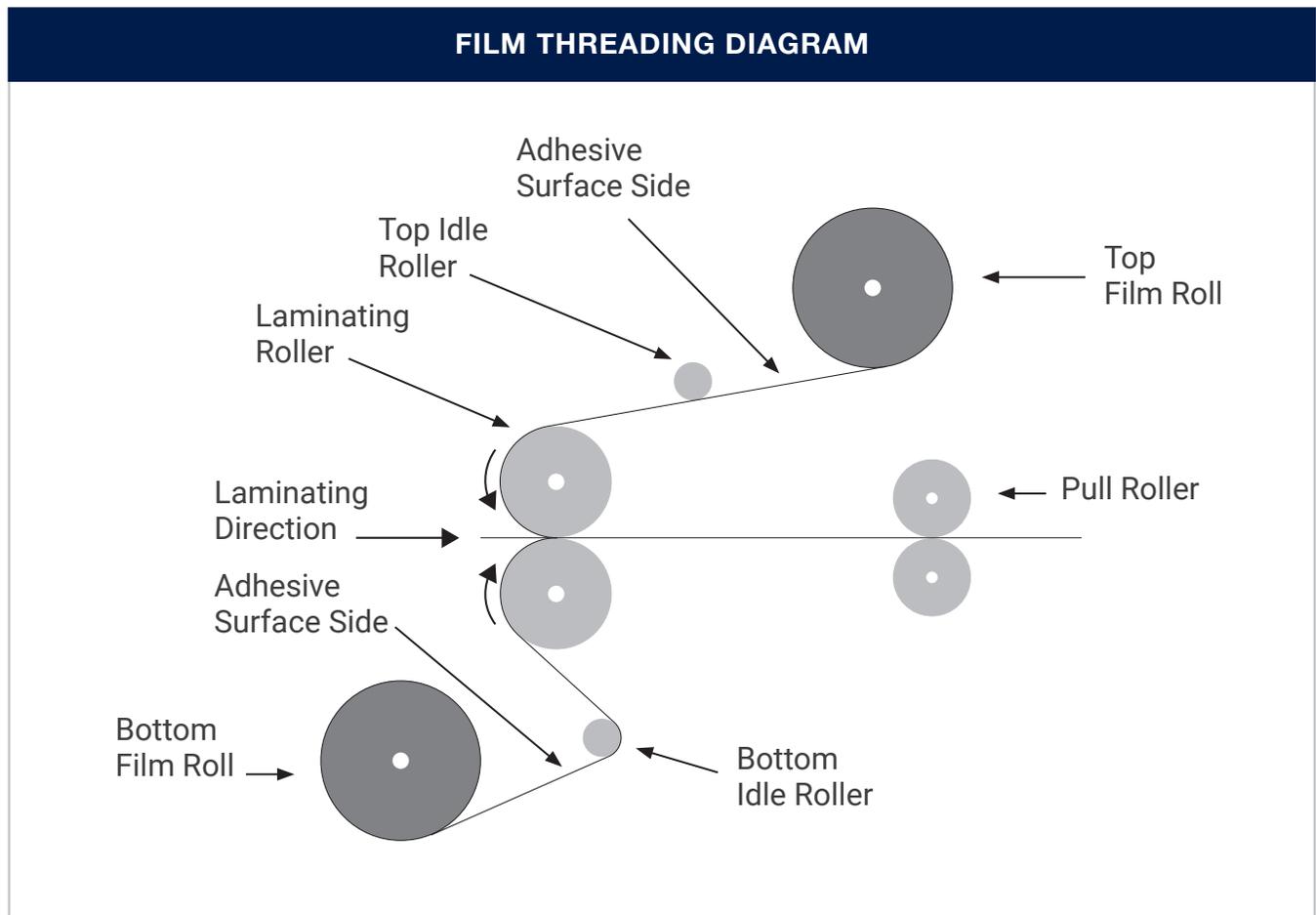
FIGURE 3 (Extended Setting: 3 Hour Standby)



FIGURE 4 (Bypass Standby)

OPERATING

FILM LOADING



NOTE: Adhesive never touches roller. Polyester surface always touches roller.

OPERATING

FILM LOADING Continued



FIGURE 1

STEP 1 - REMOVE FEED TRAY

- Lift safety shield
- Slide safety interlock latch on bottom right side of feed tray (Refer to Figure 1)
- Lift and pull feed tray out



FIGURE 2

STEP 2 - LIFT BOTTOM FILM MANDREL OUT OF LAMINATOR

- Lift right side of mandrel first and slide mandrel right until left side comes out of the hex head (Refer to Figure 2 and 9)



FIGURE 3

STEP 3 - SLIDE SPENT FILM OFF MANDREL

- Remove left side gripper by loosening thumb screw. (Refer to Figure 6)



FIGURE 4

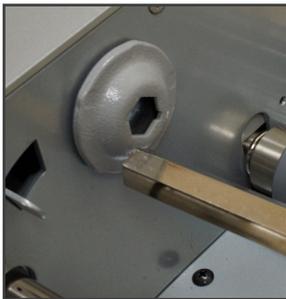


FIGURE 5



FIGURE 6

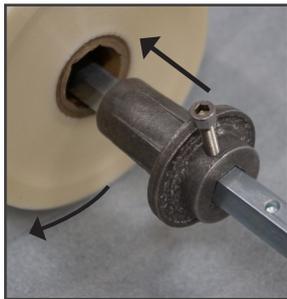


FIGURE 7

OPERATING

FILM LOADING Continued

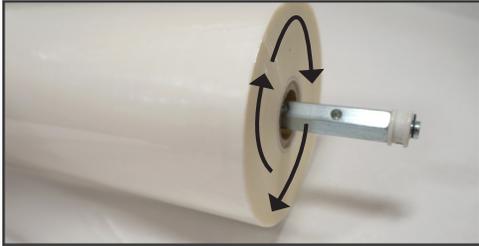


FIGURE 8 (Direction of film winding for TOP ROLL. Film gripper is removed for clarity.)

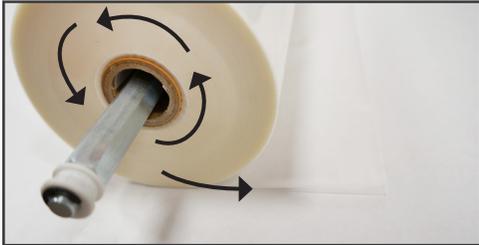


FIGURE 9 (Direction of film winding for BOTTOM ROLL. Film gripper is removed for clarity.)



FIGURE 10 (film gripper installed)



FIGURE 11 (left side film gripper installed)

STEP 4 - NEW FILM LOADING

- Carefully note which way adhesive is wound on new roll of laminate film. 1" core laminate is normally wound with adhesive in. Loading the film backwards will result in the hot rollers getting glued up and a jam will occur. This is easily avoided by taking extra care when threading laminate. Look closely at the pictures below and note how the film is threaded.

OPERATING

FILM LOADING Continued



FIGURE 12



FIGURE 13



FIGURE 14

STEP 5 - FILM THREADING

- Pull top film under top idle roller and hang loosely over heat rollers (Refer to Figures 12-14 and Diagram 14a)

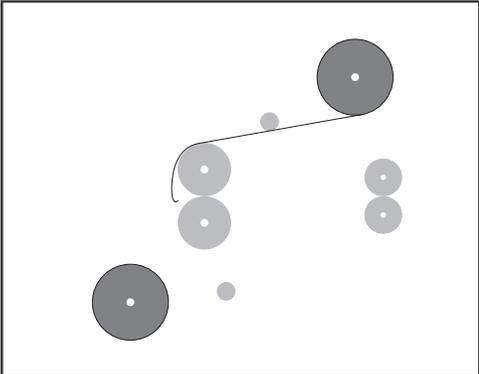


FIGURE 14A (Pull top film under top idle roller)

OPERATING

FILM LOADING Continued



FIGURE 15 (Slide bottom idle bar down slot to loading position)



FIGURE 16 (Pull bottom film under idle bar and drape over top film)

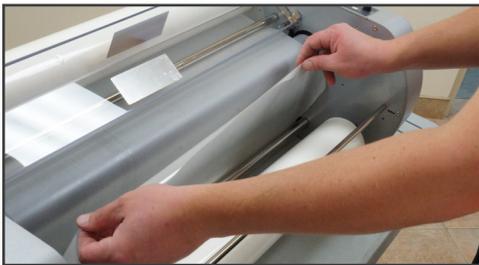


FIGURE 17 (Apply tape to film to hold film together)



FIGURE 19 (Push idle bar to run position)

STEP 5 - FILM THREADING Continued

- Pull bottom film under bottom idler bar and up over heat rollers and tape together. Move bottom idle bar up slot to run position (Refer to Figures 15-17, Diagram 17a, Figures 18-20).

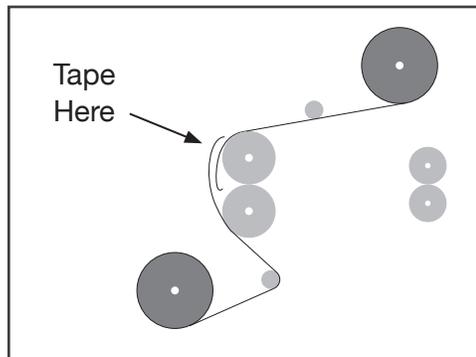


FIGURE 17A (Pull top film under top idle roller then pull bottom film under bottom idler)



FIGURE 18



FIGURE 20 (Idle bar shown in run position)

OPERATING

FILM LOADING Continued



FIGURE 21

STEP 6

- Reinstall feed tray (Refer to Figure 21)
- Latch safety interlock on feed tray (Refer to Figure 22)
- Move safety shield to down position



FIGURE 22 (Latch safety interlock on feed tray)

OPERATING

FILM LOADING Continued

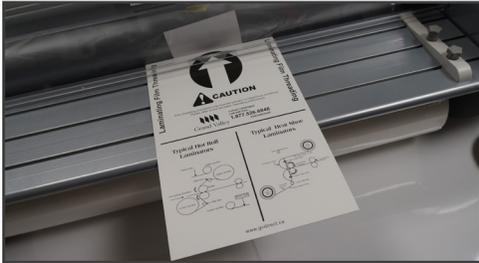


FIGURE 23 (Threading card pushes film into nip of rollers)



FIGURE 24



FIGURE 25
(Film moving slowly towards pull rollers)



FIGURE 26 (Threading card starting to exit pull rollers)

STEP 7 - THREADING CARD

- Use threading card to push film into nip of heat rollers (Refer to Figure 23)
- Press RUN
- Monitor film as it passes through laminator. Film goes into back pull rollers and exits. (Refer to Figure 24)
- Turn heat to correct setting. Wait for Green "Ready" LED to light up indicating completion. Laminator is ready to go! (Refer to Figure 25)

NOTE: Monitor threading card closely as it passes through laminator. Threading card may curl up and not go into pull rollers. Stop laminator if this condition occurs. Use extra threading card to push film down to ensure safe entry into pull rollers



FIGURE 27 (Film is now loaded and exiting the laminator. Wrinkles will slowly disappear as film aligns itself.)

OPERATING

HEAT SETTINGS

Lamination film vary widely from supplier to supplier. Some low cost films require slow speeds and high temperature to ensure proper lamination. High quality films such as GVDirect brand use lower melt adhesives which allows faster output at lower temperature and less smell.

Your first source of information should be your film supplier.

As a general guide, school grade (high melt) films operate at 270°F - 310°F. Premium printer grade films operate from 210°F - 310°F. Thicker items require more heat.

How do you know if the laminator is set hot enough?

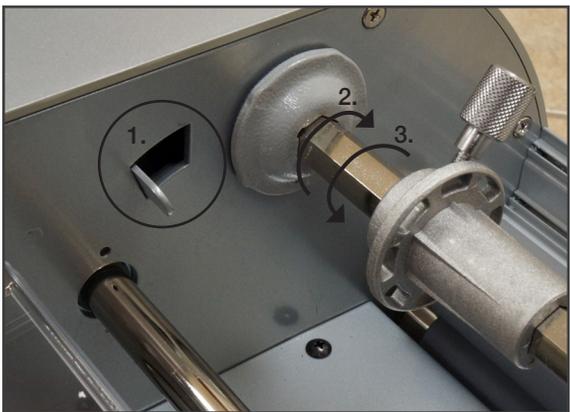
Check the output to see if it is adhering properly. Does the film show a haze appearance? Turn up the heat. Does the film bubble and fall off? Turn up the heat.

How do you know if laminator is set too hot?

Is the film smoking? Does the laminated paper look very wavy after lamination? Does it look like the print is melting? If you answered "Yes", turn down the temperature.

SPEED

Adjust speed to what is comfortable for operator. When laminating thicker card stock or multi-layers, run laminator under 1/2 speed. If film is not adhering properly, slow down and also turn heat up.



1. Slide and Hold Tension Lock
2. Tighten Tension
3. Loosen Tension

TENSION CONTROL

Film tension control is used to keep laminate film wrinkle free and laying flat. If output is curling up, the top tension control can be loosened, or bottom can be tightened.

To adjust tension: Slide tension lever forward and turn roll clockwise to tighten and counter-clockwise to loosen. Both top and bottom mandrels have tension control located on left side frame of laminator near mandrel shaft.

MAINTENANCE

CLEANING ROLLERS

It is normal for some glue to squeeze out of ends of film and build up on rollers. This is easily removed using a laminator cleaning kit. (Ask your supplier for a cleaning kit - a low cost tool!). Laminator cleaning kit includes a rubber glue remover block and scrubby to remove loosened glue.



FIGURE 29

STEP 1

- Remove film from laminator

STEP 2

- Turn heat dial to low setting and use rubber block to briskly rub glue build-up. Glue will peel off roller. (Refer to Figure 29)



FIGURE 30

STEP 3

- Wet scrubby and wring out all the water so it is just damp
- Use scrubby to wipe glue off roller (Refer to Figure 30)

NOTE: Normally this can take about 10-15 minutes as the laminator has to be turned on 3 or 4 times and rollers have to be advanced to clean all the glue off.

CLEANING BODY/COVER

Laminator should be regularly cleaned with damp cloth and Windex spray or similar to keep laminator looking new for many years.

MAINTENANCE

CLEARING A FILM JAM (Wrap-up)

HELP! Film jams do occur! (Refer to Figure 31) The Duralam Integra is uniquely designed to make it easy to clear jams. The bottom of the laminator is open frame design to allow excellent access to rollers to clean them. What is the best way to clear a jam? Follow these simple steps:



FIGURE 31



FIGURE 32 (Top roll cutting film)



FIGURE 33 (Bottom roll film removal)



FIGURE 34

STEP 1

- Use scissors to carefully remove top and bottom film. (Refer to Figure 32 & 33)

STEP 2

- Lift off top and bottom film mandrels to ensure easy access. (Refer to Figure 34)

MAINTENANCE

CLEARING A FILM JAM (Wrap-up) Continued



FIGURE 35 (Bottom roll film removal)

STEP 3

- Use scissors to carefully cut film between front and back rollers (Refer to Figure 35)



FIGURE 36

STEP 4

- Reverse laminator and back out film wrap-up (Refer to Figure 36 & 37)



FIGURE 37

STEP 5

- Check rollers for glue build-up and clean

STEP 6

- Reload Film

MAINTENANCE

WHAT CAUSES A FILM JAM?

And what should I do to stop this from happening?

PROPER TRAINING and an **ATTENTIVE OPERATOR** is the best solution. Always monitor film as it is coming out of the laminator. A good operator will see the film bunching up at the back of the laminator and they will take corrective actions to stop this from causing a wrap-around.

Is the laminator correctly placed?

If the laminator is placed too high the operator will have difficulty monitoring the output. Ensure the laminator is at the correct height so operator can easily see the machine.

Some locations set-up the laminator without any clearance at back of laminator. This can cause a wrap-up because film can't fall to the floor. Ensure laminator is on a proper table with lots of room behind laminator.

Film jams can be caused by static build-up. Certain times of the year static is higher due to weather factors. Plastic rolls have a high static factor and using some simple tools can help. Sometimes an oversized bulldog paper clip attached to the film as it exits the laminator can help to pull the film down away from the rollers. Anti-static tinsel can also be used (Ask your dealer for a roll of anti-static tinsel) Attach tinsel to back of laminator to help remove static which makes film drop away from rollers.

TROUBLESHOOTING GUIDE

PROBLEM	TROUBLESHOOTING STEPS
Laminator won't turn on	<ol style="list-style-type: none"> 1. Check main power supply at wall outlet to make sure there is power 2. Check main on/off button to ensure it is actually turned to "on" position 3. Check breaker trip fuse located near on/off switch at back of laminator Call for service technician to repair.
Laminator won't heat	<ol style="list-style-type: none"> 1. Check on/off power switch – make sure laminator is turned on and there is power to laminator 2. Check temperature control dial on control pad. Is it at correct setting? Call for service technician to repair.
Laminator heat rolls won't turn	<ol style="list-style-type: none"> 1. Is safety shield lowered? 2. Is feed tray latch activated? Call for service technician to repair.
Laminate not sticking	Refer to "HEAT SETTINGS" and "SPEED SETTINGS" on page 24.
Paper turning black after lamination	Thermal paper does not work in a laminator. Some calculators and fax machines etc... use thermal paper. Heat lamination will turn the paper black and destroy the printing. Do not use thermal paper with heat lamination.
Film jam	Refer to "CLEARING A FILM JAM (Wrap-up)" on pages 26-28.
Wrinkly output	<p>Is the film tension too loose? Turn the top and bottom film rolls by hand and see if they are loose turning. If tension is loose the film will not pull tight across heat rollers causing wrinkles. Tighten tension control.</p> <p>Refer to "TENSION CONTROL" on page 24.</p> <p>Thin papers such as newspaper can wrinkle because the paper already has folds and it is very thin. We do not recommend laminating archival type documents because it may wrinkle and can't be replaced.</p>
Film not sealing on the edges	<p>This may be caused by the paper being very thick and the rollers cannot squeeze the edges proper. Use thinner paper if this is a problem. Some users will laminate multiple layers of paper in one pass. This is okay to do but the edge might not be perfectly sealed.</p> <p>Check for excess glue build-up on the roller edges. Refer to "CLEANING ROLLERS" on pag 25.</p> <p>If the paper is normal thickness and the edge is not sealing check the roller gap. Look carefully between the rollers and see if you can see light between them. The roller pressure may be out of adjustment and require service from your local authorized dealer.</p>

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GVDIRECT

Finish Well

gvdirect.com