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QOMOLANGMA® BRAND FULL-AUTO WIDE FORMAT COLD LAMINATOR, WITH HEAT ASSISTED



FMJ-LITE-170E User Manual

Please read this manual carefully before operation



Add: Room 17-20, F-3M, Building 1, Community 3, Hanwei International Plaza, No.186, Western Road of South 4th Ring Road, Fengtai District, Beijing, China. 100070 Cell Phone: **+86 138 012 487 14** Business Cooperation - info@Sign-in-China.com

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I. Technical Parameter

Specifcation					
Max. Working Width	1700mm(67in)				
Variable Working Speed	0-20m/ min (0- 65.6ft)				
Max. Nip Opening	35mm(1.38in)				
Working Tenp	40°C (104°F)(Default max termp.)				
Alarm Temp	60℃ (140°F)				
Roller Diameter	120mm(4.72in)				
Top Roller Material	Silicon rubber				
Bottom Roller Material	Silicon rubber				
Drive Motor	DC110V /120W				
Heating Power	1300W				
Rated Power	1520W				
Power Requirement	AC110V/50- 60Hz ;AC230V/50 60Hz				
lit up system	Eletrie type				
Forward/Reverne	Yes				
Foot Pedal	Yes				
Auto Rewind Liner Pickup	Yes				
After Laminating Pickup	Yes				
Emergency Stops	Yes				
Machine Size	2120mm * 625mm * 1350mm (83.5in * 24.6in * 53in)				
Net Weight	240kg(5291b)				

II. Installation

2.1 installation precautions

1 Before unpacking, carefully check if there is damage for the packing and machine during transportation.

2 After unpacking, check if the service parts are correct as the packing list.

3 The installing place should be provided enough space for operat ing and free of dust, no vapor, no corrosive gas, no combust ible or explosive substance around. Keep the machine away from wind blowing place, otherwise will affect the roller temperature which might bring the laminat ingquality.

4 After installation, adjust each caster to reach level ground. The casters only be used on



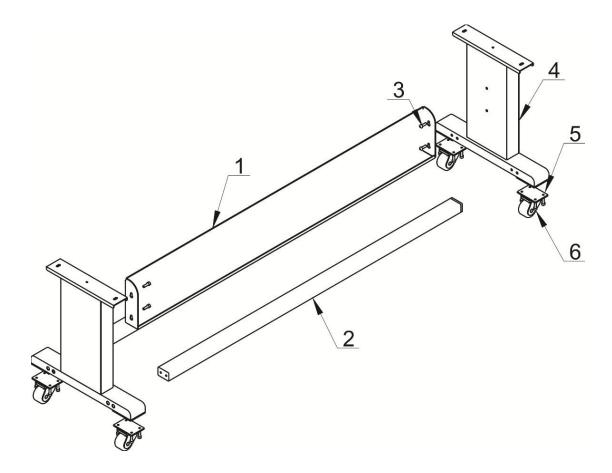


even ground for short distance movement.

Not ice: Please move carefully since it is heavy equipment.

2.2 The stand floor rack assembly

- 1) Take out the parts from the packing.
- 2) Assembling two legs and all shafts according to the picture.
- 3) Install the casters to the left and right leg. (wo caster w/ brake and two w/o brake were installed in a diagonal).



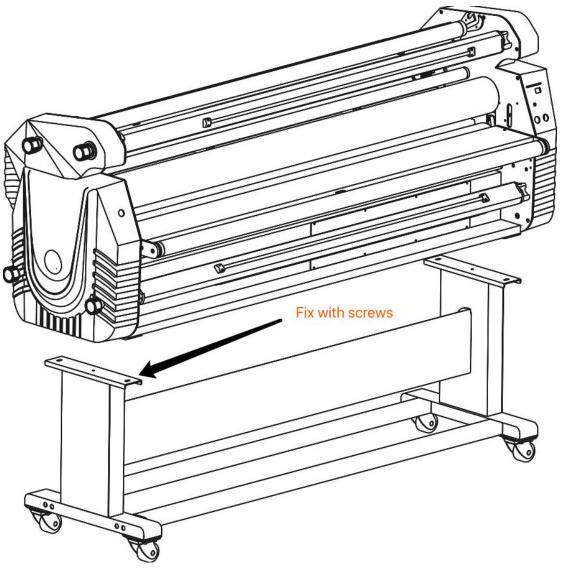
Left and right leg
 Two caster w/ brake, two w/o brake.
 Top shaft.
 Left and right leg
 Two casters w/ brake, two w/o brake.
 M8x16 outer hex screws





2.3 Machine assembly

1) Take out the machine from crate; use 4 of 8x20 screw to connect the machine and shaft followed the picture, be attention the shaft direction.

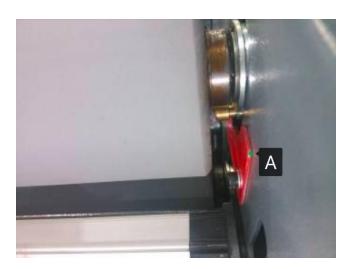


Notice: When moving, touch the bottom plate, don't move the hand wheel, friction wheel and other week position.

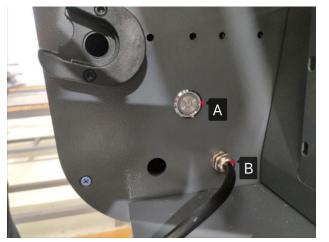
2) Take off the red supporting parts on both end of roller (Refer to A).







3) Connect the foot pedal and wiring as following illustration.



A: Power switch B: Connect ion of foot pedal

4) Turn on the machine, roller is rotating. Make trial laminating if everything is well and check the laminat ion result.

III. Safety Instructions

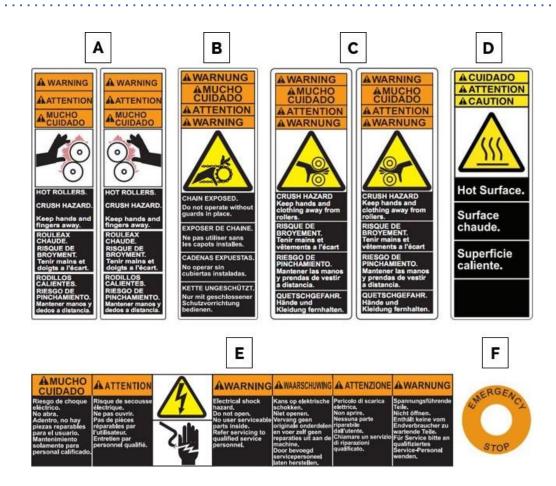
Read the safety instructions and familiarize yourself with the main structure, performance and operat ion measures before start ing the machine. Training and examinat ion is recommended when condit ion requires. In the operat ion and maintenance, please be aware of the warning symbols on the machine and proceed with caut ion to prevent hazards and ensure safety.

3.1. Warning Symbols

Please be aware of the warning symbols below to prevent possible hazards!







- A Hand Anti-hot: The surface of roller could scald your hand or finger, keep away from heat ingroller.
- B. Ant i-chain Prick: Keep your hand away from chain and gear. Your long hair and clothing would be caught in the rollers.
- C. Ant i-hand trapped: this safety not ice means that your fingers and hands could be trapped and crushed in the rollers, clothing and long hair could be caught in the rollers and pull you into them.
- D. Warming: Be attent ion of hightemperature.
- E Ant i-electric shock: This safety not ice means it is high voltage, should be turned off before adjustment.
- F. EMERGENCY SWITCH: In case of emergency, press the red button to shut off the electric





3.2. Safety Parts

Emergency Stop Switch



The machine has one Emergency stop button. When activated the power supply will be cut off immediately. When turned clockwise, the button will disengage automatically and the machine will be restarted. The motor controller will be restarted after turn on the power button on the control panel. Press the Emergency button immediately when the needed. Caution: Emergency button is one of the essential safety parts. Please check its performance regularly.

Note: Please press the switch immediately when you encounter an emergency in the operat ion.

Photocell Safety Switch



The machine has an opt ical safety device at the input side of the nip at the main rollers on the right cabinet. When the signal is interrupted (e.g. by foreign object or hand), the device will be act ivated and the motor will stop so as to prevent hazards caused by interrupt ion of foreign objects. When the motor controller is disabled by the opt ical safety device, it will not be act ivated even the interrupted objects are removed, unless the motoron button on the control panel is pressed.

Caut ion: The opt ical device is inact ivated when the pedal switch is pressed. Optical safety device is one of the essent ial safety parts. Please check its opt ical sensit ivity to ensure safe operat ion.





3.3. CAUTION

1) The mains supply must match the type indicated on the machine identification label (use three-pole plug device. The earth pole may not be altered randomly).

2) Cut the power supply before opening the cabinet in maintenance to prevent electricity shock or injury. Turn off the power supply after the operation.

3) Make sure the power supply cable and/or the extension cable is not blocking your way around the machine, placing under any stuff or driven across by any vehicles.

4) Install the the machine in a dry and well vent ilated environment. Make sure the ground is free of water or moisture. Keep the machine from any inflammable and explosive objects.

5) Do not place any tool or other stuff on the in-feed and out-feed table, such as: screwdriver, screw, nail, nut, ect. They may fall into the rolling rollers and cause damage to the machine.
6) Do not wash the machine with water. This can damage the electrical circuits, cause electrical shock or corrosion.

7) Cleaning by rotating the roller. To prevent from partial damage for the roller, don't clean at single point.

8) Check to see if the power supply cable and the foot pedal connect ion cable are broken on a regular basis to avoid electric shock.





IV. Parts Identification

4.1 Front Views

- 1. Foot wheel
- 2. Print Rolls
- 3. Left cabinet
- 4. Emergency Stop Switch
- 5. In-feed table
- 6. Panel for covering the picture
- 7. Top roller
- 8. Liner paper roller
- 9. Control panel
- 10. Right cabinet



4.2 Back Views



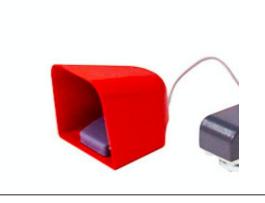
- 1 Support bar
- 2 Film unwind
- 3 Trimmer Cutting Strut
- 4 Media take up roller





4.3 Annotation

Safety foot pedal switch



Foot pedal is another way to control the start and stop roller rotat ing.Step on the foot pedal, press the direct ion button to adjust the speed, then the roller runs, roller stops when loose.

NOTE: The protect sensor can't be used with foot pedal together. Please pay more attention to protect your hand during foot pedal operation. Working table and Pressure board.

Working table and Pressure board



Working table (A) and pressure board (B) are used to put tension on media and parallel with film edge. A and B are moveable. Take off the working table when install/uninstall the media or clean the roller. Take off pressure board when preparing the laminat ing, put it back when preparat ion is ready.





- 1. Press the button to open the plug.
- 2. Hold the middle and lift.
- 3. Hold the middle and pull out.





Assemble the front turntable (Refer to 1.3 section)

Pressure board



Lift and take off the pressure board. Insert screw in the holes of pressure board to put on back.

Top and Bottom Roller



Top and bottom rollers are the key component of the laminator and they directly affects the quality of laminat ing and t itled image. Both top and bottom is silicon roller for this machine. The advantage is good heat ing and acid and alkali resistance, prevent adhesion from cold laminat ing f ilm. The bottom roller is controlled by motor, the top roller rotated by friction.

Notice: Don't put your hand or finger between top and bottom roller, in case, press E-stop.

The Idler bar



The idler bar is used to smooth the film when go through in 'S' direct ion, so the f ilm is as flat as possible between the rollers.

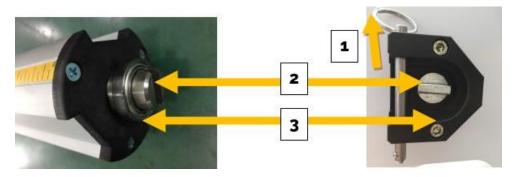




Unwind/rewind shafts



Four shafts for this machine, they are film liner rewinder (A), film unwind shaft (B), media rewinder (C), media unwind shaft (D), they are changeable to each other. It is motorized shaft for film liner rewinder and media rewinder, non-power for film unwind shaft and media unwind shaft. Take off the key from saddles then move out one side of shaft. For assembly, left side first, the driven end of each shaft is slotted to engage a key. Three rubber strips on the shaft to hold the paper tube.



The friction wheel is A, B,CD. Clockwise rotating to increase the friction, anti-clockwise rotating to decrease the friction. Adjust the speed by friction wheel to get good laminating result.

Casters



Total four casters for this machine.

Two of casters (A) can be locked to prevent movement, two casters (B) without brakes.



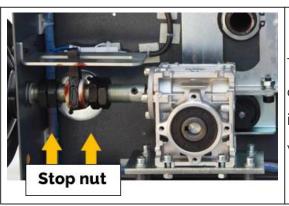


■ Temperature-measuring for Warm series only



The contact temperature detect ion only for Warm series. The contact material is brass. It is sensit ive, small and durable.

Pressure limit



This device limits the space of pressure plate. In order to protect speed controller, the hand crank is not able to use when reach the limit space which means max roller pressure.

Note: It is a default posit ion, do not adjust

Heater for Warm series only



One 1300W stainless heater inside the roller, don't touch the connection end in case of electric shock.

NOTICE: Check the nuts periodically, if it is loose, fasten it in t ime to avoid the components broken. Power off when changing the heater.





Drive system

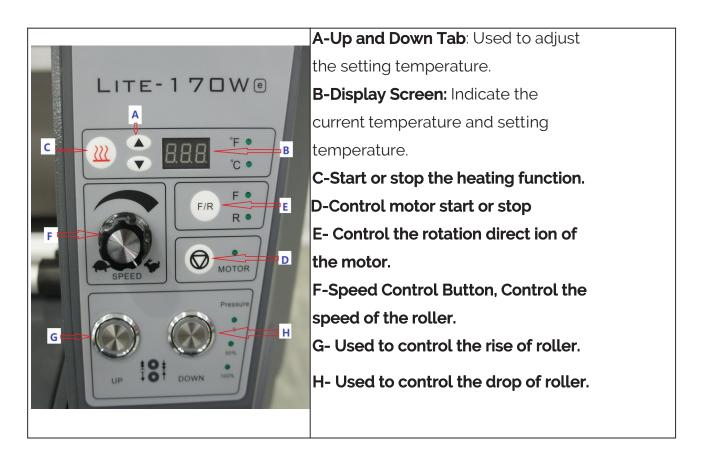


Film unwind drive liner take up through the sprocket wheel. The running speed is different because the number of teeth of the two sprockets is different, you can adjust the twobrake tension knob to change the speed ratio.

Motor drive roller and media take up through the sprocket wheel.

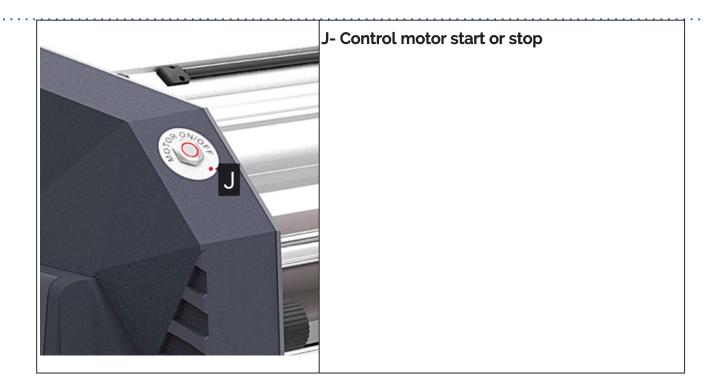
Control Panel

1) E series -Electric lift up type

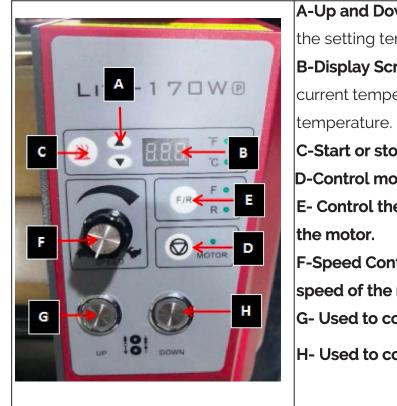








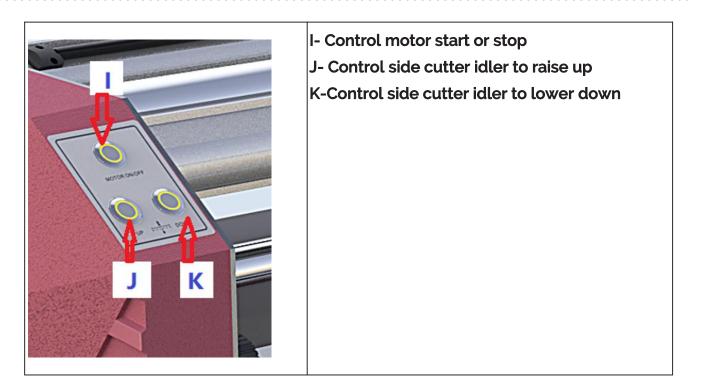
2) P series -Pneumatic lift up type



A-Up and Down Tab: Used to adjust the setting temperature.
B-Display Screen: Indicate the current temperature and setting temperature.
C-Start or stop the heating function.
D-Control motor start or stop
E- Control the rotation direct ion of the motor.
F-Speed Control Button, Control the speed of the roller.
G- Used to control the rise of roller.
H- Used to control the drop of roller.







• TEMPERATURE SET

Press the temperature up/down key to fix setting temperature and it will show the actual temperature after 6 seconds setting.

• Parameter setting

Press and hold: "C" for 3 second to enter in the parameter setting. Press "C" to show D-1, D-2, D-3, D-4 in order, and it means finish once display END. Press up and down button to regulate the value of specification, if the buttons are not pressed in 1 minute, the specification setting state will be automatically ended.

Mode	Description	Range	Default
D-1	Temp calibration	-50-50°C	0°C
D-2	Max temp alarm	10-170°C	60°C
D-3	Max temp	10-150°C	40°C
D-4	Temp unit	0-Celsius、1-Fahrenheit	0
END	FINISH		

Notes:

• The specificat ions are set when shipped from the factory. Do not change the specifications at random.





V. USAGE OF MACHINE

Power Connection

- **Power cable:** It was installed the standard power supply plug, before plug in, please check your power supply voltage is same as the machine's rated operating voltage, also should verify the access to the socket is in requirements, and have a good grounding, and the capacity is large enough.
- Main switch: It is installed in the rear of machine (Cold series is the rocker switch, and Warm series is the air brake switch), the switch has two posit ions, up to open, down to close.

Foot pedal

Foot pedal is another way to control the start and stop roller rotating. Step on the foot pedal, press the direct ion button to adjust the speed, then the roller runs, roller stops when loose. Plug in and lock the screw before using

Note: The protect sensor can't be used with foot pedal together.

Emergency button

In case of emergency, press the red button to shut off the electric, roller stopped. Turn the button clockwise, the button will rise up automatically. Press "on" from control panel, the roller can start to rotate. The emergency stop button is an important safety features, check its function periodically.

Roller Up / Down

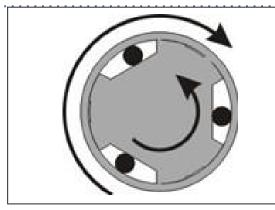
OE series -Electric lift up type: Power on motor, Press UP button to lift up top roller and press DOWN button to lower it.

P series -Pneumatic lift up type: Turn on the power supply and connect the air compressor, Press UP button to lift up top roller and press DOWN button to lower it.

Function shaft Installation and using







Easy install and dismantle shaft by aligning the "I" bracket (see 4.3). Three rubber straps on each shaft used to fasten the paper tube. Put 3" tube on the shaft, then rotate the paper tube to fix it on the shaft.

Friction pad checking and replacement

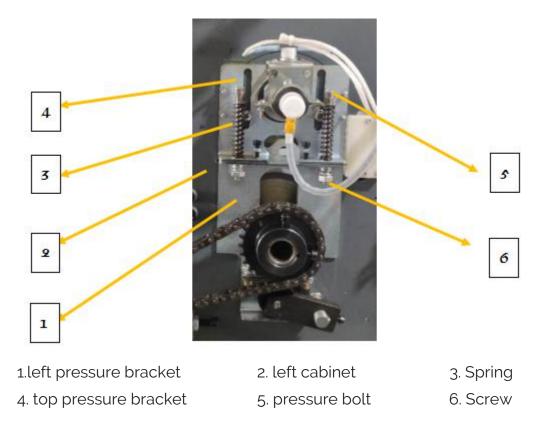
Check and replace the frict ion pad in period, it is consumable parts.

- Friction system for media unwind: it is combined by bracket, metal friction pad, fiber frict ion pad, spring, spring bracket and black handle. Adjust pressure on spring by rotat ing the handle. When the shaft rotat ing, the key connects fiber frict ion pad and bracket to create friction, the shaft rotating controlled by friction. The friction pad create frict ion, the frict ion pad will be wear and tear during using. Replace the frict ion pad when frict ion disappeared.
- Ways to replace: take off the handle, spring, fiber friction pad, metal friction pad, then change a new metal friction pad.
- Friction system of media rewind: it is combined by bracket, metal frict ion pad, fiber frict ion pad, spring, spring bracket and black handle. Adjust pressure on spring by rotat ing the handle. When the shaft rotat ing, the key connects fiber frict ion pad and bracket to create frict ion, the shaft rotat ing controlled by frict ion. The rewind shaft controlled by motor, at the same time, rewind sprocket driven by friction rotation. When the shaft rotat ing controlled by frict ion rotation. When the shaft rotat ing controlled by frict ion. The rewind shaft shaft rotat ing controlled by frict ion. The frict ion pad and bracket to create friction, the shaft rotat ing controlled by frict ion. The frict ion pad and bracket to create friction, the shaft rotat ing controlled by frict ion. The frict ion pad create frict ion, the frict ion pad will be wear and tear during using. Replace the friction pad when friction disappeared.
 - ♦ Ways to replace: take off the handle, spring, fiber frict ion pad, metal frict ion pad, then change a new metal friction pad.
 - Friction system for film unwind: it is combined by bracket, metal friction pad, fiber friction pad, spring, spring bracket and black handle. Adjust pressure on spring by rotat ing the handle. When the shaft rotat ing, the key connects fiber frict ion pad





- and bracket to create frict ion, the shaft rotating controlled by frict ion. The friction pad create friction, the friction pad will be wear and tear during using. Replace the friction pad when friction disappeared.
- Ways to replace: take off the handle, spring, fiber frict ion pad, metal frict ion pad, then change a new metal friction pad.
- Friction system for liner rewind: it is combined by bracket, metal frict ion pad, fiber frict ion pad, spring, spring bracket and black handle. Adjust pressure on spring by rotat ing the handle. When the shaft rotat ing, the key connects fiber frict ion pad and bracket to create friction, the shaft rotating controlled by friction. The friction pad create frict ion, the frict ion pad will be wear and tear during using. Replace the frict ion pad when frict ion disappeared.
- Ways to replace: take off the handle, spring, fiber friction pad, metal friction pad, then change a new metal frict ion pad.



> Check and adjustment of parallel adjustment and pressure balance

Top and bottom rollers are the key component of the laminator and they directly affect the





quality of laminating and titled image. The rollers are parallel before shipment. The roller will be unparalleled due to the shaking in transportat ion. Following below step to adjust the roller parallelism.

> ARoller pressure adjustment

The unbalance pressure for top and bottom roller may cause the t ilted and wrinkling problem, The method of adjust ing:

1) Take a record for the tilted side. Turn off the machine and take off the side cover.

NOTES: The quantity of components in left side cover is less than right side cover. To avoid components damage by inappropriate operation, check the left side cover in priority.

The bolts connect the left bracket and top bracket with spring and nuts on the top. The top nut is welded with top bracket, the bottom nuts can be adjustable.

2) When the image is t ilted on left side, the left side pressure must be bigger than right side. Adjust the bolts to reduce the pressure. It should be possible to keep same

adjustment for bolts on both side.

NOTES: Measure the length for two springs and keep the same height.

When the image is t ilted on right side, the left side pressure must be smaller than right side. Adjust the bolts to increase the pressure.

NOTES: Check the spring changes when put max pressure on the machine after adjustment. If no change, it will cause the spring damage during laminating. If no extra space to adjust on left side spring, please try to adjust on right side.

- 4 After adjustment, fasten the nuts.
- 5 Put on the left side cover.

Adjustment principle: if the image is off-tracking to the left side, the pressure of the left side is higher than the right side. Loosen the spring on the left side to reduce its deflection.





> ROLLER PARALLELISM ADJUSTMENT

The gap is 1-2mm between bottom and top roller, if the gap isn't the same, take a record for the smaller gap side. Make the hand wheel feel loose, turn off the machine, open the left(right) side cover. Loosen the nuts, adjust the location of the bolts until the roller is parallel. At last, put on the left side cover.

NOTE: The roller is parallel before shipment. The roller parallel can't be changed. Pressure should be adjusted first when have the tilted problem. Only adjust the bolt when the roller isn't parallel. Roller pressure should be adjusted accordingly after change the bolt.



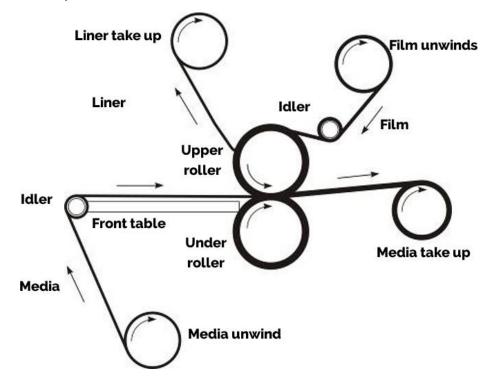
Tools: 5mm inner hexagon spanner, 8mm wrench.





VI. Laminating Process

6.1 Lamination Principles



6.2 Operation

Laminat ion is an experienced and more technical work. Starters should be under guidance of an experienced technician. Following is laminat ing instruct ion.

- 1. Rise the top roller and take off the pressure board.
- 2. Turn on the machine, press running switch, speed at 1.
- 3. Turn on heating, the set up temperature is 40°C (104°F) for cold lamination film. Turn off the roller rotat ing when reach the temperature.
- 4. Put the film roll on the shaft, insert the shaft to side bracket. Pull out several meters by hand and make sure some tension on the shaft. Adjust the friction by side wheel if needed.
- 5. Wrap the film around roller and idler bar according to the diagram. Be careful that the film should be with tension on and even.
- 6. Slit the film to separate with liner at suitable place, and reveal the liner to put it on the film rewind shaft.



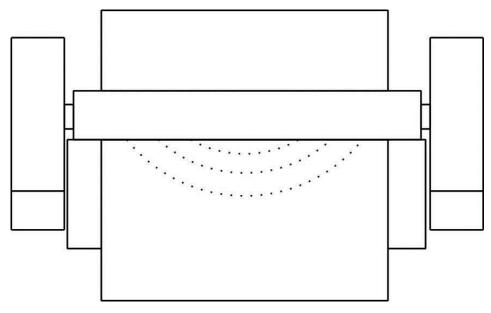


- 7. put the media on the shaft and adjust the frict ion. Insert the media in space between rollers. Be noted that the media should be even on the working table, media edge align with film edge to avoid walking deviation. (always operated by foot pedal).
- 8. Put the pressure plate in stable laminat ing process, put on the switch, put the laminated media on the shaft, adjust the friction to make automatically take up.

Note: the laminating performance is related to the friction adjustment of all shaft.

6.3 Notes for Operation

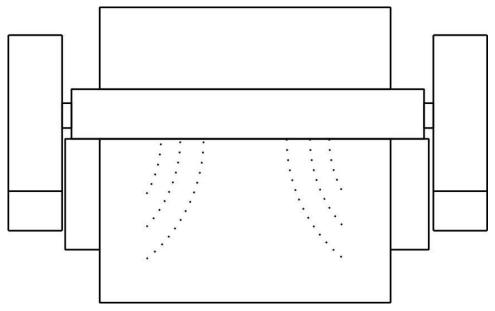
- 1. Place the laminator on a stable flat surface with good ventilation. Don't put much staff around the machine to avoid the necessary problem.
- 2. The power cord not allow to put on ground nor with object ontop.
- 3. Make sure suitable friction on all shafts. Adjust the friction of liner rewinder to separate the film.
- 4. Keep the edge flat of media and film roll.
- 5. don't run so fast at the beginning. Increase the speed when everything is running well.
- 6. make sure the media is dry to guarantee the laminating result.
- 7. The "U" shape reflects normal pressure, if the "U" is too big, decrease the pressure to get good laminat ing result.







8. For the issue in above picture indicates the pressure is too small, please increase pressure to improve



- 9. If the image is off-tracking on the left right of the machine, it indicates the pressure on the left side is higher than that on the right side, please decrease the pressure (see chapter 4).
- 10. No need heating for cold lamination film. If your working condition is lower than 10°C (50°F), please heat to 40°C (104°F) to get satisfied performance.

VII. Problems and Solutions

First of all, please check if any destroy parts on your machine, if so, repair the broken part then run the machine.

Trouble	Reason	Solution
		Check the plug to ensure connect ion.
Although the main is plugged in and the power-on button is pressed, the		Check the voltage of the main to ensure its adapt ion to the machine.
LED does not light up.	Emergency stop is not switched on.	Turn on the emergency stop.
		Check the fuse to ensure it is not damage.
The power is connected; air break is turned on but trip.	The heater in the top roller is damaged which leads to short circuit.	Check and replace a heater.





The motor can not be started.	The speed controller fails.	Replace a speed controller.
The motor runs fast and its speed can not be controlled.	Potent iometer fails.	Replace a potent iometer.
The rotat ion of the rollers stops from t ime to t ime.	The chains are too loose.	Tighten the chains.
The film peeling-off separat ion point is too high.		Reduce its damping by turning its tension control knob.
The film peeling-off separat ion point is too low.		Increase its damping by turning its tension control knob.
The cold laminat ion film separated from its liner paper has diagonal lines.	The pressure on the two sides of the film is imbalanced.	Smooth the film by hand.
The image on the in-feed table has U-shape lines.	The pressure between the rollers is too much.	Reduce the pressure and use top plate to press it.
The image on the in-feed table has splay lines.	The pressure between the rollers is too less.	Increase its pressure.
The image is off-tracking.	, , , , , , , , , , , , , , , , , , ,	Refer to the Sect ion of Align the main rollers.

VIII. Maintenance

- 1. Only experienced operator could open the cabinet, be noted following measures;
- 2. Don't use abrasive cleaner to clean the machine surface.
- 3. Check the rotation parts regularly and fill high-temperature grease to lubricate the two bearings of heat ing rollers.
- 4. Do not wash the machine with water. This can damage the electrical circuits, cause electrical shock or corrosion.
- 5. During maintenance, don't run the machine
- 6. During maintenance, don't change, move and dismantle the safety parts. Make sure the safety parts before using.
- 7. Cut the power supply before dismantling and assembly.

8.1 Maintenance of rollers

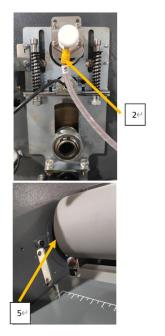
The main rollers are the crucial parts of the machine. They directly relate to the output quality of lamination. Please make maintenance regularly.

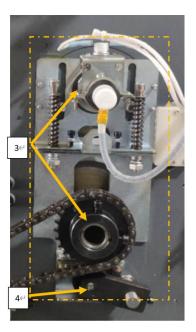
- 1 Lift the upper rollers after work to prevent deformation of rollers.
- 2 Make sure the knife or sharp items will not scratch the rollers. Lift the





- 3 To extend the lifetime of the rollers, please ensure the rollers are clean. please remove the adhesive residue by a piece of flannelette with alcohol, detergent or eraser.
- 4 Please remove the adhesive residue by a piece of flannelette with alcohol, detergent or eraser.
 - Stop heat ing when wiping rollers and be sure that temperature is less than 40°C (104°F).
 - Gently wipe the rotat ing rollers, and avoid concentrat ion of wiping one point to prevent part ialdamage roller surface.
 - Clean up the residual glue on the rollers, otherwise, it will affect the effect of laminating.
- > Roller replacement
- 1. Open cabinet on both sides;
- 2. Remove the heater wiring, the machine should be power off first;
- 3. Remove the gear;
- 4. Remove the ent ire block bearing set and heater;
- 5. Remove the collars on left cabinet;
- 6. Take off the roller;
- 7. Install new roller;
- 8. Repeat the previous step to install machine.









8.2 Cleaning

- 1 To extend the lifet ime of the machines, please ensure the machine are clean.
- 2 Make sure environment clean and keep away from obstacles.

8.3 Checking

In order to ensure your safety, please check the safety of the machine regularly. If you find failures in the check, please refer to the sect ion of Trouble shoot ing and solut ion. If you need to reset the pressure, please refer to the sect ion of Pressure sett ing.

8.3.1 Visual Checking

Visual checking prior to maintenance.

- 1. power supple cable undamaged.
- 2. Caster is stable.
- 3. Any damage on machine

8.3.2 Safety Parts Checking

- Emergency switch
- 1 Turn on machine
- 2. press the emergency switch, machine stop or not
- 3. Turn on machine when emergency switch is on
- 4. Release the emergency switch, turn on and start to run machine.

Photocell checking

- 1. turn on the machine
- 2. roller rotating
- 3. hide the photocell, check roller rotating or not
- 4. move the obstacle, check roller rotat ing ornot.

Caution: When use the pedal switch, the optical switch does not work.

Attention!

Through poor condit ions of the electrical MAINS, shortly voltage drops can appear when starting the EQUIPMENT. This can influence other equipment (eg. Blinking of a lamp). If the MAINS-IMPEDANCE Zmax<0.300 OHM, such disturbances are not expected. (In case of need, you may contact you local supply authority for further informat ion.)



.

We are looking for distributor, please ask us for better offer! Samples are available.



WARRANTY CARD

MODEL	LOT #	
BUYER	DATE	
SELLER	TEL	

Notes

i. The warranty card should be filled by seller and kept by buyer. Alterations are prohibited.

- ii. The guarantee period is two years. The repair is free of charge within 6 months and will be charged with material and labor cost after 6 months.
- iii. No free repair is available for any damages caused by the improper use.



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