OPERATION MANUAL

Laminator

Mimaki

LA-140W
LA-160W
LA-140W Plus
LA-160W Plus

Mimaki
La-meccanica

LAR-55
LAR-63

OPERATION MANUAL



D203230-21
Original instructions

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FOREWORD

Congratulations on your purchase of LA-140W, 160W, 140W Plus, 160W Plus, LAR-55, 63 laminator. Be sure to read this Operation Manual carefully and fully understand it before using the machine. Also, always keep this Operation Manual at hand and use it.

CAUTION

EXCEPT AS PROVIDED IN THE WARRANTY PROVISIONS OF MIMAKI ENGINEERING CO., LTD., THE COMPANY SHALL NOT BE LIABLE FOR ANY DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, INDIRECT DAMAGES, SPECIAL DAMAGES, OR OTHER FINANCIAL LOSSES) ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT. THE SAME SHALL ALSO APPLY IF MIMAKI IS INFORMED ABOUT THE POSSILILITY OF DAMAGE. AS AN EXAMPLE, MIMAKI WILL NOT ASSUME LIABILITY FOR LOSS OF MEDIA ETC. USING THIS PRODUCT OR INDIRECT LOSS BY CREATED THING ETC. PLEASE BE ADVISED THAT MIMAKIASSUMES NO LIABILITY WHATSOEVER FOR ANY FINANCIAL LOSSES OR LOST PROFITS RESULTING FROM THE USE OF THIS MACHINE, OR FOR ANY CLAIMS MADE BY THIRD PARTIES.

Interference to Televisions and Radios

This machine generates high frequencies while it is in operation. This machine can interfere with the reception of radios and televisions if set up or used under improper conditions. This machine is not guaranteed against any damage to specific-purpose radios and televisions. If this machine seems to be a cause of radio / television reception failure, turn off this machine and check it. If the reception interference disappears when the machine's power is turned off, it is likely that this machine is the cause of the interference. Please try any of the following steps or combining some of them.

- Change the direction of the television set or radio to find the position that does not cause reception failure.
- Move the receiver away from this machine.
- Plug the power cord of this machine into an isolated outlet from power circuits connected to the television set or radio.

Requests

- This Operation Manual explains how to operate and maintain “the laminator LA-140W, 160W, 140W Plus, 160W Plus, LAR-55, 63” (hereafter called this machine).
- Be sure to read this Operation Manual and fully understand it before using the machine. Also, always keep this Operation Manual at hand and use it.
- Please arrange to deliver this Operation Manual to a staff member who uses this machine.
- Although this Operation Manual has been carefully prepared for your easy understanding, please do not hesitate to contact your local distributor if you have any inquiry.
- The contents of this Operation Manual are subject to changes for improvement without notice. Please be advised.
- You can also download the latest version of the Manual from our website.

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For Safe Operation

Symbols

Symbols are used in this Operation Manual for safe operation and to prevent damage to the machine. The indicated symbols differ depending on the contents of the caution. Please understand the meaning of each symbol and use this machine safely and correctly.

Examples of Symbols

Description	
	Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to read it carefully and use the machine properly.
	Failure to observe the instructions given with this symbol can result in injuries to personnel and physical damage.
	Important notes for the use of this machine are given with this symbol. Understand the notes thoroughly to operate the machine properly.
	Convenient information that you need to know is given with this symbol. Understand the notes thoroughly to operate the machine properly.
	Reference pages for related contents are given with this symbol.
	△△ The symbol indicates that the instructions must be observed as strictly as the CAUTION instructions (including DANGER and WARNING instructions). A symbol representing the precaution is shown in the triangle (for example, the symbol shown on the left warns of hazardous voltage).
	⃠ The symbol indicates that the action shown is prohibited. A symbol representing a prohibited action is shown in or near the circle (for example, the symbol shown on the left prohibits disassembly).
	●● The symbol indicates that the action shown must be taken without fail or the instructions must be observed without fail. A symbol representing a particular instruction is shown in the circle (for example, the symbol shown on the left instructs to unplug the cable from the wall outlet).

Warning and Precaution for Use

Warning



- Be careful not to damage, break or modify the power cable. Also do not place any heavy object on, heat, or pull the power cable. Doing so can cause power cable breakage, resulting in fire or electric shock.
- Use this machine with the indicated power specifications. The power supply voltage for this machine is single-phase 100 V, 15 A or less.
- Avoid damp locations when using this machine. Do not splash water onto this machine. It may cause fire, electric shock or malfunction of this machine.



- Use of the machine when it is suffering some problem indicated by the emittance of smoke or unpleasant smell can result in fire or electric shock. Be sure to turn off the power switch immediately and detach the plug from the outlet. Check first to be sure that the machine no longer produces smoke, and contact your local distributor for repair. Repair by customers is dangerous so please never do it.
- Never disassemble or modify this machine. Disassembling or modifying either will result in electric shock or malfunction of this machine.
- Keep fingers and other body parts away from hazardous moving parts.



- Keep children away from this machine.

CAUTIONS and NOTES

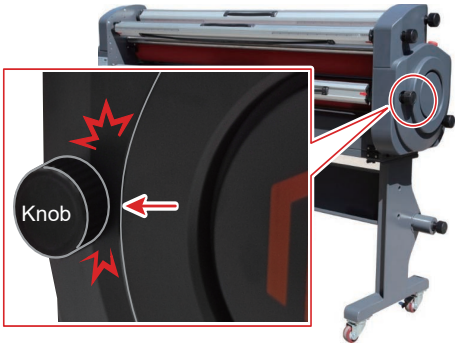
⚠ CAUTION

About Power Cable

- Be careful not to damage, break or modify the power cable. Also do not place any heavy object on, heat, or pull the power cable. Doing so can cause power cable breakage, resulting in fire or electric shock.
- Connect to a socket-outlet with determinate polarity.
- Be sure to connect the power cable to the outlet near this machine, and make sure hat the power cable can be easily removed.

About Moving Part

- Keep your face and hands away from moving parts during operation. You may get your hair caught in the machine or get injuries.
- Wear proper clothes. (Do not wear loose-fit clothes or accessories). Bind a long hair or put it in a hat.
- When turning the tension controller knob, be careful not to get your hand caught in the gap between the knob and the cover.



About the place of use

- Use this machine in an altitude of 2000 m or less.

Notes on Maintenance

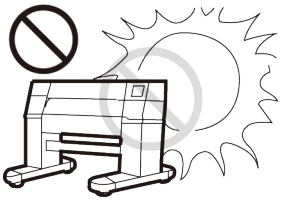
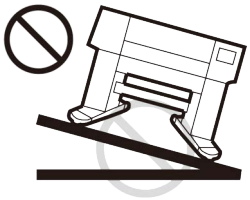
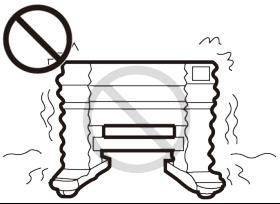
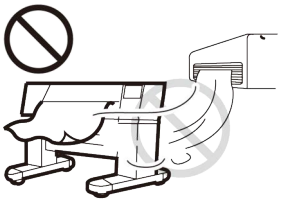
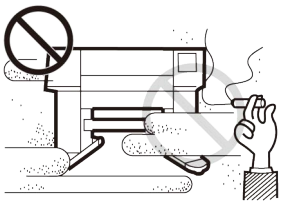
- It is strongly recommended to use the machine in a room that is not dusty.

About the Disposal of This Machine

- Please ask the industrial waste disposal contractor for disposal when disposing of this machine.
- Please process properly according to the local government's local laws.

Installation Precautions

⚠ CAUTION

Exposed to direct sunlight	Out of horizontal
	
Excessive vibration	**Exposed to direct air flow from an air conditioner or similar location**
	
Significant variations in temperature or humidity	**Near where fire is used**
• Use the machine under the following environmental conditions. • Usage environment: 20 to 40 ℃ (68 to 104 °F) 35 to 65 % (Rh)	

Installation

Follow the steps below to install this machine.

Caution

- Since this machine is heavy, please use a forklift when moving.
- Do not place anything on the installation site, and make sure that people do not approach the installation place. It may cause damage to the machine or injury.

1 Unpack the box. Remove all the screws at the bottom of the outer box (marked by the red box) and lift it upward.

- M8 box wrench recommended



2 Check the accessories.

- Accessory list

No.	Name	Number	Note
1	Pedal switch	1	-
2	Spanner	1	13-15
3	Hex wrench	5	3,4,5,6,8mm
4	M8*20 Hexagon socket head bolt	10	Including 2 spares
5	3P-2P adapter	1	Japan only
6	Fuse	2	5A
7	Spring washer M8	10	Including 2 spares
	Flat washer M8	10	Including 2 spares
8	the Operation Manual	1	-

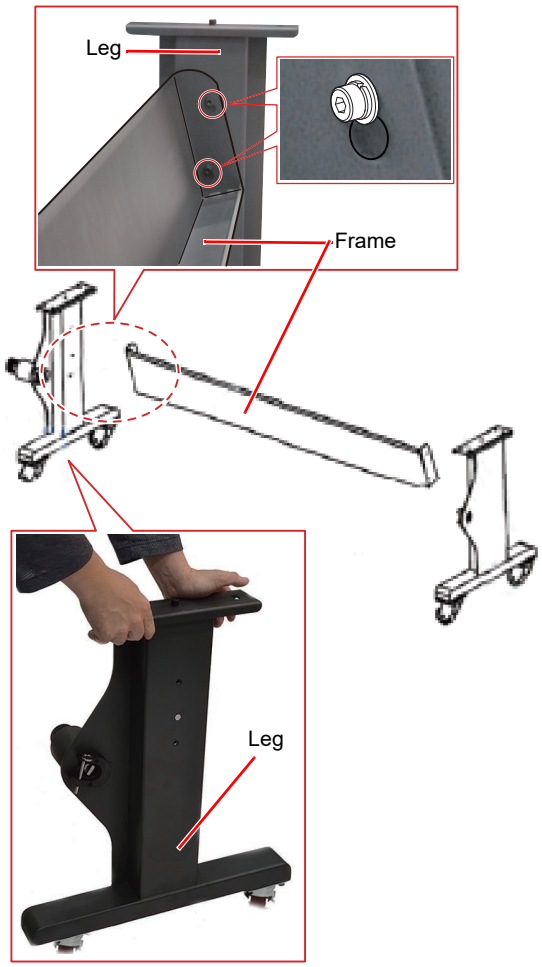
Caution

- The accessories are installed inside the foam material below, so please do not forget to pick them up.



3 Attach the frame to the legs.

- Required parts
  M8*20 Hexagon socket head bolt x4
  Spring washer M8 x4
  Flat washer M8 x4



Caution

- Pay attention to the direction of the frame in the figure.
- When installing the stay, align the labels on the frame and stay.
- It is recommended to use the screwing torque: 8N.m.
  Tighten the screw by hand until it does not turn any more. Then retighten one and a half turns with a hex wrench.

4 Place the main unit on the legs.

- Required parts
  M8*20 Hexagon socket head bolt x4
  Spring washer M8 x4
  Flat washer M8 x4




Rear


Front

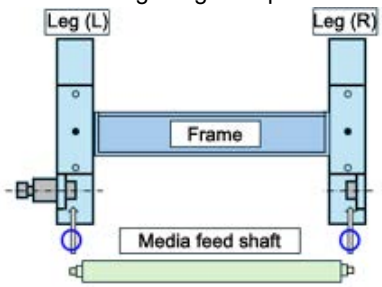
Caution

- Check the orientation of the main unit. The side with the media feed shaft is the front.
- The main unit is heavy, so lift it with at least 8 people.

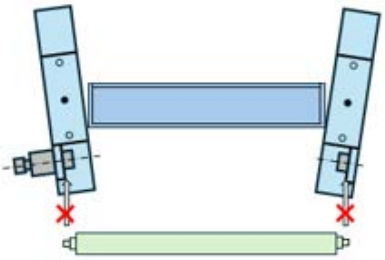
- Leg assembly. Points to note when joining the main unit

(1) Leg assembly: top view

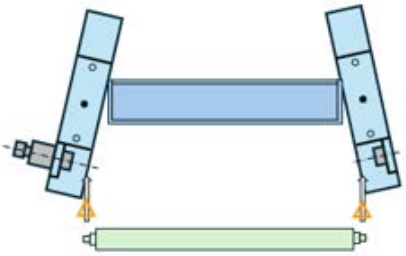
■ The left and right legs are parallel => ○



■ Left and right legs angle outward toward the rear side => ✕ The feed shaft cannot be inserted



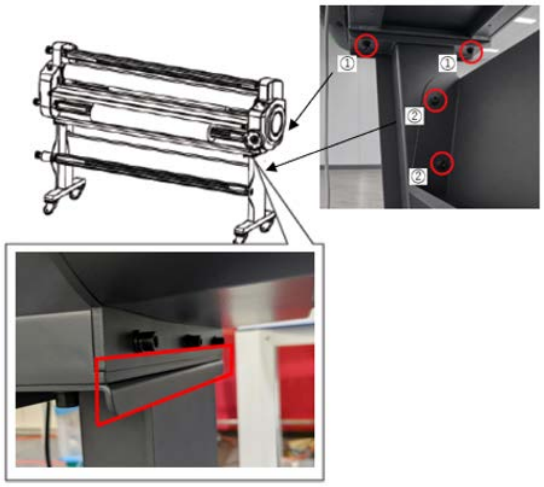
■ Left and right legs angle outward toward the front side => △ The feed shaft has excessive play



(2) When joining the legs to the main unit, align the faces of the main unit frame and the legs to make the left and right legs parallel.
* Perform the face alignment on both sides, one side at a time.

(1) Loosen the ① 2 main unit fixing screws. (Do not remove the screws.)

(2) Loosen the ② 2 frame fixing screws. (Do not remove the screws.)



(3) Align the faces of the main unit frame and the leg.

(4) Tighten the main unit fixing screw (1). Next, tighten the frame fixing screw (2).

(5) Perform the same procedure on the opposite side.

<Flush alignment between the main unit frame and legs>



(3) Set the media feed shaft in place and insert it. Check that the shaft play is 3 mm or less.



5 **Insert the connector of the pedal switch cable into the inlet on the rear of this unit.**



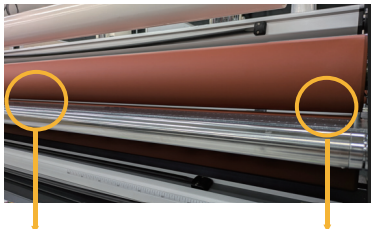
Pedal switch cable

6 **Remove the bracket (red) that secures the silicon roller. To remove the bracket, turn the hand wheel to raise the silicon roller to the top position.**

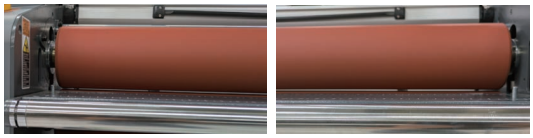


Bracket (red)

7 **Visually inspect the upper and lower silicon rollers to ensure the gap is uniform (the difference between the left and right sides must be 1 mm or less). If the parallelism of upper and lower silicon rollers is visually out of alignment, check the parallelism of the rollers using the following procedure:**



Small gap Large gap



8 **Prepare high-quality paper or copy paper with a basis weight of 70 g/m² (thickness: 0.09–0.1 mm per sheet).**

Caution

- Do not use thick, stiff paper or textured paper, as they may damage the silicon rollers.
- Even though coated paper has a basis weight of 70 g/m², it is still relatively thin. Therefore, it is recommended to measure its thickness before use.

9 **Stack the 10 sheets of 70g paper you have prepared (total thickness: 0.9–1.0 mm) and insert them into the end with the widest gap.**
Lower the upper silicon roller (adjust the height using the hand wheel) until the 10 sheets of 70g paper can be inserted and removed while in contact with the upper and lower rollers.



10 sheets of 70g paper (Thickness: 0.9–1.0 mm) Hand wheel

10 **From the position shown in Step 9, move one sheet of 70g paper (0.09–0.1 mm thick per sheet) to the opposite end.**
As long as it can get to the other end, there's no problem.
If it cannot move to the opposite end, perform a parallelism adjustment.



1 sheet of 70g paper (Thickness: 0.09–0.1 mm) 10 sheets of 70g paper (Thickness: 0.9–1.0 mm)

Caution

- If a visual inspection reveals that the upper and lower silicon rollers are not parallel, adjust their parallelism. (Refer to the maintenance manual for instructions.)

11 Check the operation of the photo cell.



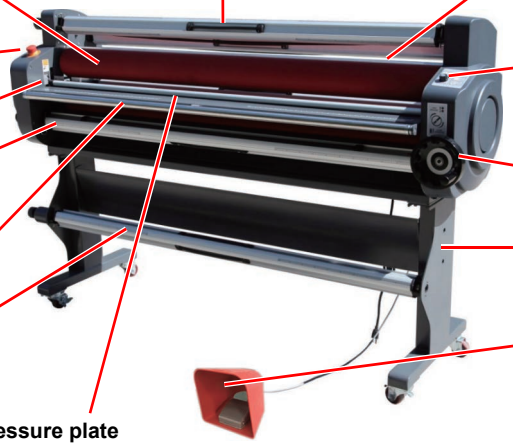


Caution

- If the motor does not operate after turning on the power and pressing the motor key, or if the lower silicon roller does not rotate even after lowering the upper silicon roller and pressing the motor key, there is a possibility that the position of a photo cell has shifted. (As for working methods, refer to the maintenance manual.)

Names of Parts and Functions

Front / Side of the Machine



Upper silicon roller / Lower silicon roller
Laminate with upper and lower roller pressure.

Emergency stop switch
Immediately stop this machine in operation.

Photo cell
An obstacle is detected.

Under film
Feeding shaft

Feeding table
It is a device that keeps the media flat.

Media feed shaft

Release paper take-up shaft

Pressure plate

Film guide
Guide film from film roll to upper roller.

Membrane panel
A panel with operation buttons that make necessary settings for this machine.

Roller hand wheel

Machine table

Pedal switch
The roller of this machine rotates only while stepping on.

Rear of the Machine



Film mounting shaft

Connector for pedal switch
Connect the pedal switch.

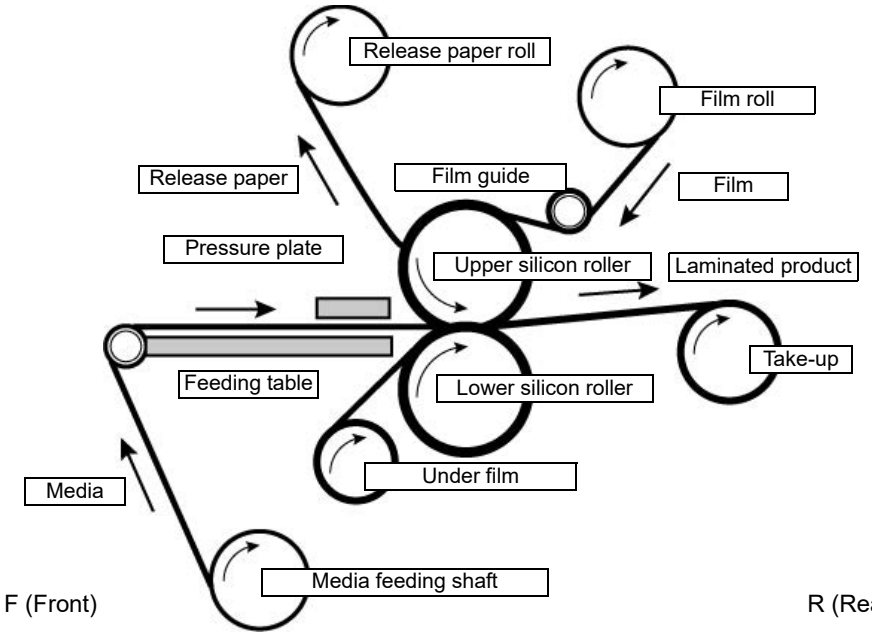
Main power switch
Turn on / off the power of this machine.

Tension knob
Adjust each shaft tension.

Material take-up shaft

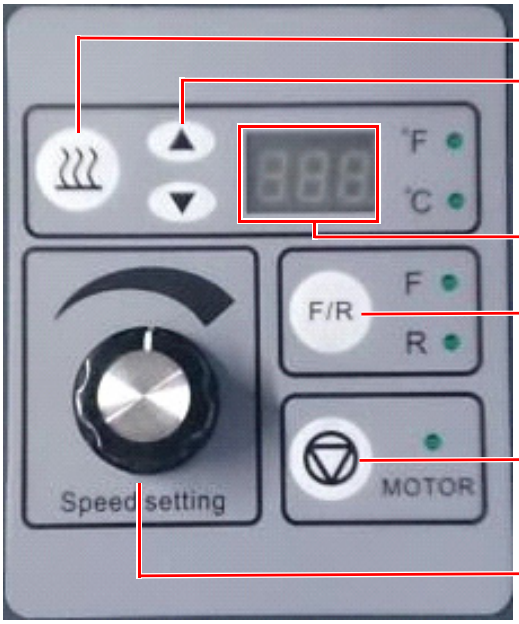
Caster with brake
Easily move the machine by unlocking it. Lock except when moving. (Two diagonal positions)

Overall Structure of the Machine (cross section)

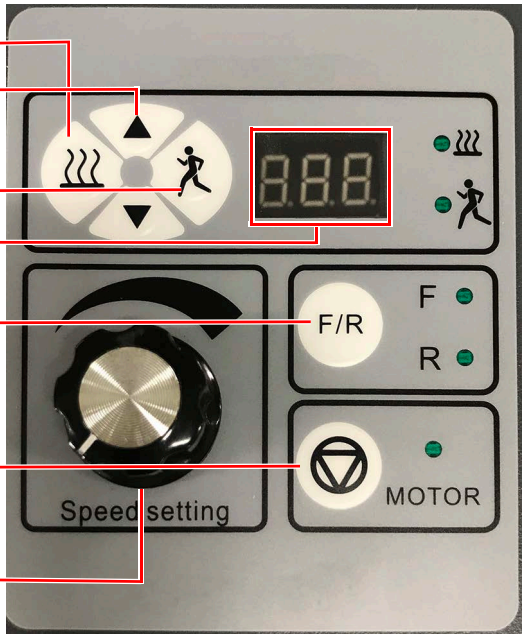


Membrane Panel (Front Right Side)

[LA-140W, 160W, LAR-55, 63]



[LA-140W Plus, 160W Plus]



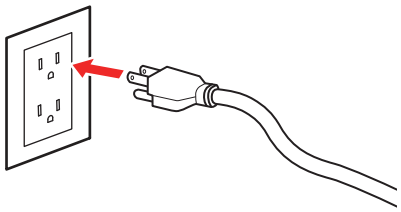
	Name		Function
(1)	Heater key		Turn the heater on oroff. When the counter function is on, a long press to display the temperature.
(2)	Jog key	Heater	Set theheater temperature. It can be set up to 60°C.
		Counter	Set the feed length of the laminator. After laminating the set length, it stops automatically. When set the length to 0, the laminated length is displayed. In this case, it will not stop automatically.
(3)	Counter key		Turn the counter function ON or OFF.
(4)	Display	Heater	Heater temperature is displayed. °F: Fahrenheit display °C: Celsius display (default)
		Counter	The feed length of the laminate is displayed. The display can be switched as follows. M: Metric display (default) F: Inch display (distance unit is feet)
(5)	Lower silicon roller rotation direction key		Change the direction of rotation of the lower silicon roller. F: Forward R: Reversal
(6)	Motor key		Turn the rotation of the lower silicon roller ON or OFF.
(7)	Speed adjustment knob		Set the rotation speed of the lower silicon roller.

Hint! • The actual temperature of the silicon roller is automatically displayed 6 seconds after setting the temperature.

Turning the Power ON / OFF

Power ON

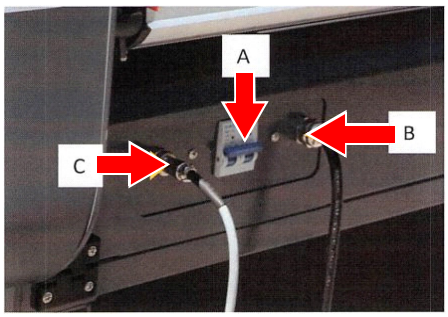
1 **Connect the power cable to the outlet. (Check the voltage)**



Caution

- Be sure to connect it to earth ground. Failure to do so may result in electric shock or damage to the machine.

2 **Make sure the plug of the pedal switch (C in the lower figure) is connected to the connector on the rear of the machine.**



3 **Turn on the power switch. (A in the above figure)**

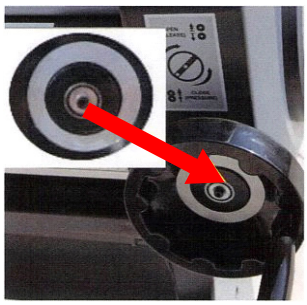
- Raise the switch to turn on the power.

Power OFF

After using the machine, turn off the power with the power switch on the rear of the machine.

1 **Raise the upper roller a few millimeters and separate it from the lower roller.**

- Raise the upper roller to prevent contact with the lower roller, which will prevent deformation of the silicon roller. (Turn the roller hand wheel clockwise to move the upper roller up.)



2 **Lower the power switch and turn off the power.**

Safety Function

This machine has three safety devices that automatically stop the rollers.

● Photo cell

Detect obstacles blocking the light beam and stop the rollers. You can release it by pressing the motor key on the membrane panel.





Caution

- Never look directly into the light from the photo cell. It may cause eye pain and blurred vision.

● Pedal switch



While stepping on the pedal switch, you can drive the roller.
When you release your foot from the pedal switch, the roller automatically stops.

If pedal switch is stepped on while the light beam from the photo cell is not blocked, the silicon roller will rotate at the speed set on the speed adjustment knob of the membrane panel.

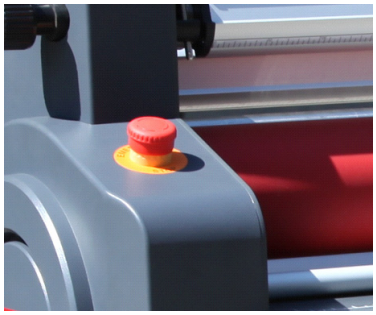
When the pedal switch is stepped on while the light beam from the photo cell is blocked, the silicon roller rotates at the speed of 1 m / min.

Caution

- While stepping on the pedal switch, the safety function by the photo cell is stopped. Please be careful enough that the rotation of the roller does not stop.

● Emergency stop switch

It is on the front left side. Press this button to immediately stop the machine.



How to Reset the Safety Function

When pressing the emergency stop switch, the rollers will not be re-driven.
To reset the safety function, turn the emergency stop switch clockwise to return it to its original position.

Basic Operation

Feed Operation

Caution

- Please carefully check the contents of "Turning the Power ON / OFF" before work.
- Do not touch the upper roller. Roller becomes hot due to set temperature, so there is a risk of burning.

1 Adjust the feeding speed with the speed adjustment knob.

- Set to low when start lamination.

[LA-140W, 160W, LAR-55, 63]



[LA-140W Plus, 160W Plus]



Hint!

- Start at a slow speed and confirm no abnormality in the laminate. After that, gradually increasing the speed makes operation easier.
- If starting with high speed setting, please return to low speed once. Gradually increase the speed as the feeding stabilizes.

Caution

- If you continue the operation at an extremely low speed, the thermal protection function may activate due to motor overheating, causing the operation to stop. Use the machine at a higher speed, as long as it does not compromise processing quality.

2 Press the motor key of the membrane panel to rotate the roller.

- This unit can also be driven with a pedal switch.
- When using the pedal switch, refer to How to Handle a Pedal Switch.

[LA-140W, 160W, LAR-55, 63]



[LA-140W Plus, 160W Plus]



Hint!

- After confirming that the printed matter is correctly laminated, press the motor key to switch to automatic operation.

3 **While the silicon roller is rotating, press the motor key again to stop the machine.**

- The machine can also be stopped with a pedal switch.
- When using the pedal switch, refer to How to Handle the Pedal Switch on page 12.

[LA-140W, 160W, LAR-55, 63] **[LA-140W Plus, 160W Plus]**





Caution

- In emergency, release your foot from the pedal or press the emergency stop switch to stop the machine.

Reverse Feed

Caution

- Reverse feed operates only when the pedal switch is used. It cannot be operated from the membrane panel.

Press the lower silicon roller rotation direction key on the membrane panel. If you turn the motor while the "R" indicator light is on, you can reverse feed.

- Reverse feeding speed is 1 mm / min.
- When the lower silicon roller rotation direction key is pressed again, the roller rotates in the normal direction.

[LA-140W, 160W, LAR-55, 63] **[LA-140W Plus, 160W Plus]**

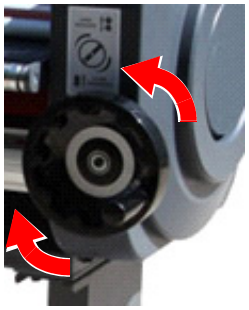




Roller Height and Pressure Adjustment

By raising / lowering the upper roller by manual operation, the height and pressure of the roller can be adjusted.
This allows machining even thick materials. (Maximum thickness: 35 mm)

- Turn the roller hand wheel clockwise to move the upper roller up
- Turn the roller hand wheel counterclockwise to lower the upper roller and pressurize it.



HEATER

1 **Press heating ON / OFF to heat the upper silicon roller heater.**

- Press it again to turn off the roller heater.

[LA-140W, 160W, LAR-55, 63] **[LA-140W Plus, 160W Plus]**





2 **Press the jog key to adjust the temperature of the upper silicon roller.**

- Setting range: Ambient temperature to 60 °C

Important!

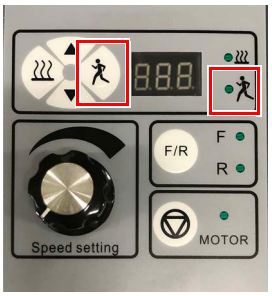
- Depending on the set temperature, it may take time to complete preheating.

Setting feed length (LA-140W Plus, 160W Plus only)

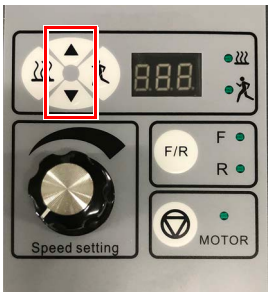
LA-140W Plus, 160W Plus can set the length to be laminated. After laminating to the set length, it stops automatically.

1 **Press the counter key.**

- The counter lamp lights up.



2 **Press the jog key to set the length to be laminated.**



3 **Press the motor key.**

- Start laminating.
- It automatically stops at the set length.



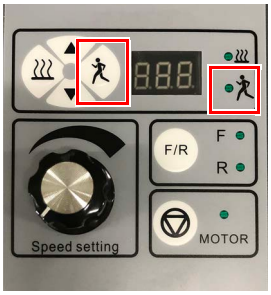
4 **To exit, press the counter key.**

- The counter lamp turns off.

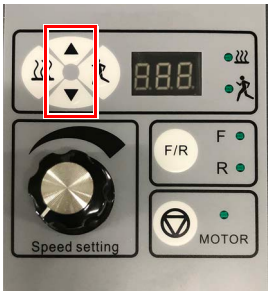
Measure the length of the laminate (LA-140W Plus, 160W Plus only)

1 **Press the counter key.**

- The counter lamp lights up.



2 **Press the jog key to set the length of the laminate to 0.**



3 **Press the motor key.**

- Start lamination and measure the feed length.
- The measured length is displayed on the display.



4 **To stop, press the motor key.**

Hint! • To start the next operation, press the motor key again. The display will show 0 and start measurement.

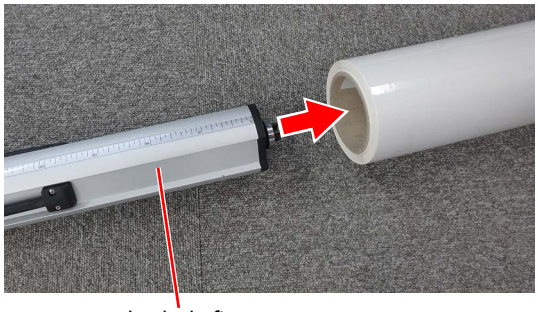
5 **To exit, press the counter key.**

- The counter lamp turns off.
- The current laminate length on the display flashes.

Setting the Film

Set Media and Film on Lock Shaft

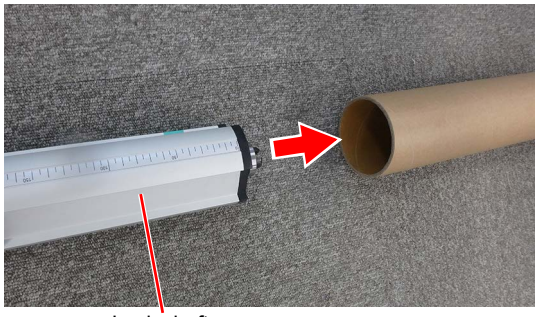
1 **Place the lock shaft in the paper tube of the film roll / the paper tube of the media roll / the paper tube of the under film.**



Lock shaft

Important!
- The diameter of the paper tube that can be used is 76 mm (3 inches).
- Before inserting the shaft into the paper tube, wipe the rubber string of the shaft with water.

2 **Put the lock shaft in the take-up paper tubes for releasing paper / product.**

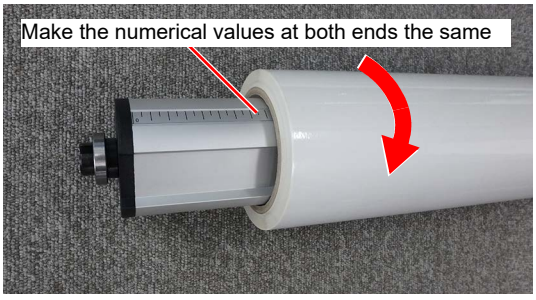


Lock shaft

Important!
- The diameter of the paper tube that can be used is 76 mm (3 inches).

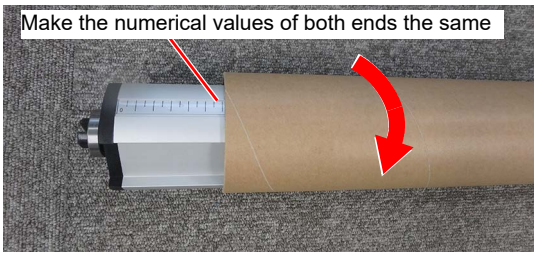
3 **Move and adjust the film roll and media roll to the center of the shaft.**

- Please adjust the position of the film roll with the gauge at both ends of the shaft as a guide.
- Firmly twist the paper tube firmly so that the paper tube is locked to the shaft.
- To remove the media roll (paper tube), twist and slide the paper tube and the shaft.



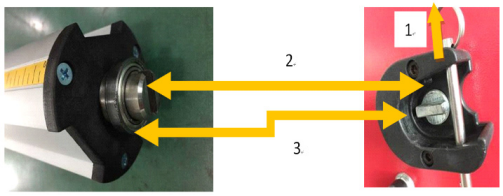
4 **Move and adjust the take-up paper tube to the center of the shaft.**

- Please adjust the position of the film roll with the gauge at both ends of the shaft as a guide.
- Firmly twist the paper tube firmly so that the paper tube is locked to the shaft.



5 **Set the shaft (for LA-140W, 160W, 140W Plus, and 160W Plus).**

- Remove the pins from the shaft saddles at both left and right ends.
- First, set so that the "-" shaped groove at the shaft tip is aligned with the "-" shaped protrusion in the shaft saddle.
- Set the opposite side of the shaft in the shaft saddle.
- Insert the pin in the shaft saddle.



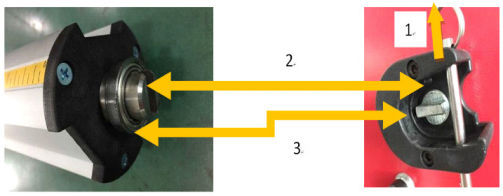
Caution
- Do not pull the black rubber tube attached to the lock shaft by hand.

6 **Set the shaft (for LAR-55 and 63).**

- Remove the pins from the shaft saddles at both left and right ends.
- Set the left end of the shaft by pushing it into the left shaft saddle.



- Set the right end of the shaft in the right shaft saddle.
- Rotate the shaft and make sure it is locked in the shaft saddle.
- Insert the pin in the shaft saddle.



Caution

- Do not pull the black rubber tube attached to the lock shaft by hand.
- When setting the shaft, be sure to hold the lock shaft, not the media roll.



Method of Setting Media and Film (Using under Film)

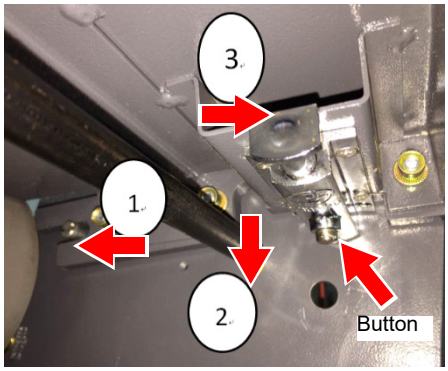
1 As shown in the figure of the machine structure, set each shaft to the machine.

Caution

- Make sure the adhesive side of the film is on the user side (front side).

2 Remove the feeding table.

- Turn the roller hand wheel clockwise to raise the upper roller to its highest position.
- Press the button below the feeding table.
- While holding the center of the feeding table, pull it toward you, lift it up and remove it.



3 Heat the upper silicon roller.

(1) Press the lower silicon roller rotation direction key on the membrane panel and set it to "F" (clockwise).
(2) Turn the speed adjustment knob all the way to the left to make it to the minimum speed.
(3) Press the motor key.
(4) With the speed adjustment knob, increase the speed to low speed.
(5) Press the heater key, and set the temperature to the target temperature with the jog key,
- heating of the upper silicon roller starts.

Caution

- For lamination work at low temperature, normally set the temperature to 30 ℃ ~ 40 ℃ .
- After reaching the set temperature, turn OFF the motor key.
- If you do not use the heating function, skip this step.

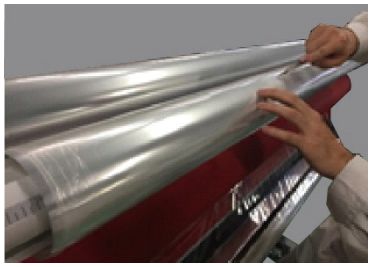
4 Set the under film.

- As shown in the cross section, let the under film pass through the gap between the upper and lower silicon rollers.
- Retain from the rear side of the machine while maintaining a constant tension, and fix it to three points (left, center, right) of the material take-up shaft with tape.



5 Peel off the release paper from the film.

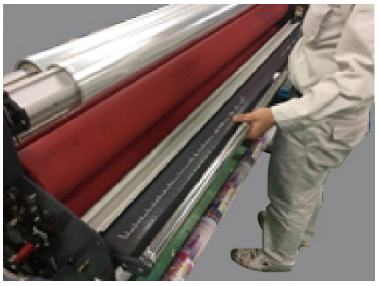
- Fix the release paper in 3 places on the release paper tube as shown in the figure of the machine structure (cross section), and then make a 2 or 3 turn by hand.
- Cut the film with a cutter at an appropriate place, and pull out the surface with adhesive.





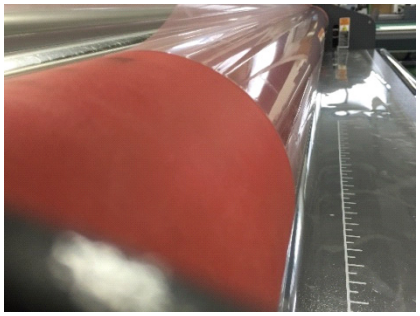
6 Return the feeding table and remove the pressure plate.

(1) While holding the center part of the feeding table, insert it obliquely into the machine so that it fits the groove of the both ends and the positioning pins near the both ends of the lower silicon roller.
(2) Press the button under the feeding table to secure it to the machine.
(3) Remove the pressure plate from the feeding table.



7 Set the film.

(1) Pull out the film peeled off from the release paper to an appropriate length in the front direction.
(2) Place the back side of the film on the upper silicon roller without gaps.
(3) Place the lower film in the gap between the upper and lower silicon rollers and set it at the position contacting the upper and lower silicon rollers.
(4) Turn the hand wheel to lower the upper silicon roller.



Caution

• Please put the film adhesive side outward.

• Pass the double-sided adhesive sheet through the black separation bar and peel off the release paper. After positioning, paste the media onto the lamination film.

8 Paste the media on the adhesive side of the film and feed the media.

(1) Pull the media in parallel from the media roll and paste it on the adhesive surface of the film while maintaining a constant tension.
(2) Feed media at low speed with pedal switch or motor key.



● To feed the tip of the media with the motor key.

(1) Turn the speed adjustment knob counter-clockwise to set it to the minimum speed (0 mm / min).
(2) Press the motor key.
(3) Turn the speed adjustment knob clockwise to adjust the speed to a lower speed, and feed the tip of the media.

9 Fix the tip of the laminated product to the paper tube of the material take-up shaft.

• Maintaining constant tension and fix the tape with 3 points (left, center, right).



Caution

• If necessary, cut the end of the laminated product at an appropriate place and then fix it to the paper tube of the material take-up shaft.

10 **If there is no meandering or abnormality in the media, return the pressure plate, increase the speed with the speed adjustment knob, and shorten the working time.**

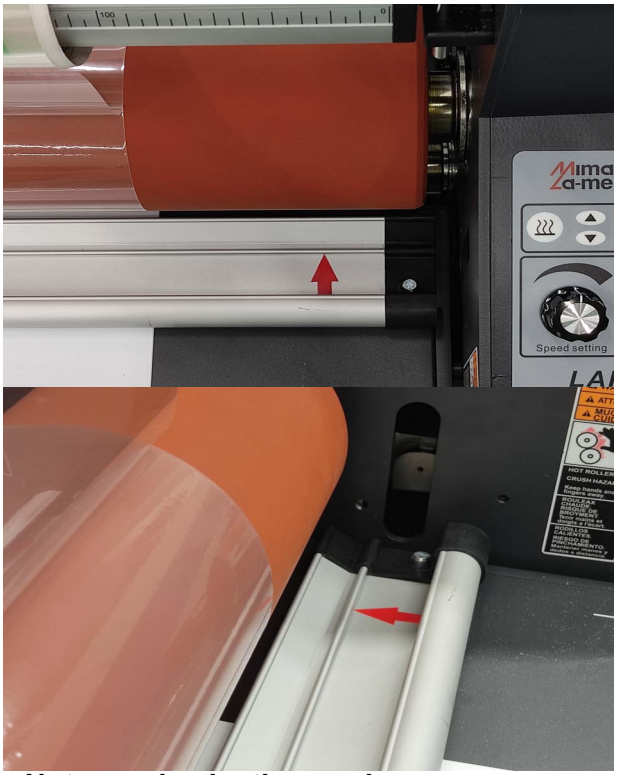


Attach the pressure plate with the rounded side facing your side.



If the direction is opposite, the photo cell may detect it as an obstacle.

Make sure that the arrow points in the same direction as the media feed.



Notes on lamination work

- When pasting media to the film adhesion surface, paste it so that the edge of the media and the edge of the film are parallel.
- Apply appropriate tension to the media and film surface during laminating. Manage the tension with the tension knob.
- Installation condition of this machine: Flat place, no foreign substances around, and dry place.
- Do not place the cable of this machine in the aisle.
- Dry the surface of the media before starting the laminating operation.
- The width of the under film should be wider than the width of the film.
- If the media meanders, first check the method of media setting and if there is no problem, check the parallelism of the upper and lower silicon rollers.

Daily Maintenance

Be sure to conduct maintenance for the machine according to the operation frequency or periodically in order to use the machine for a long time while maintaining accuracy of the machine.

Cleaning precautions

Pay attention to the following items when maintaining this machine.

- Never disassemble this machine. It may cause electric shock or damage.
  Also, please turn off the power switch and unplug the power cable before cleaning. It may cause unexpected accidents.
- Prevent moisture from entering this machine. If the inside gets wet, it may cause electric shock and damage.

Maintenance

Clean the machine with the following frequency.

- When cleaning the silicon rollers, turn off the power supply, raise the upper silicon roller, and remove the feeding table.
- Clean the silicon rollers after the temperature has fallen sufficiently after turning off the power supply.
- When turning off the power of this machine and do not use for a long time, please do not leave the pressure of the rollers applied. Contact lines may be generated after lamination.
- Two silicon rollers are important parts of the laminator.
  Please do maintenance properly on a regular basis in order to use it for a long time.

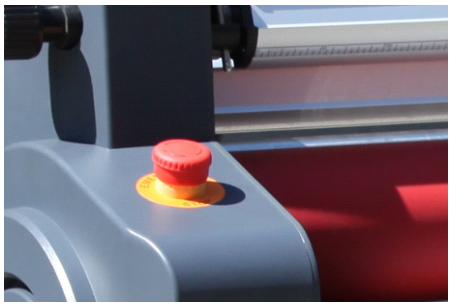
Cause	Cleaning place	Method
Immediate	Adhesion of ink and paste to the upper, lower silicon roller and feeding table	• Wash with neutral detergent diluted with water. • Organic solvents (alcohol, white gasoline, thinner, etc.) can not be used.
Once a week	Upper and lower silicon rollers	
	Feeding table	

Safety Test

Emergency stop switch

Confirm once every week that the emergency stop switch is normal.

(1) Rotate the upper and lower silicon rollers together.
(2) Press the emergency stop switch.
(3) Check that the upper and lower silicon rollers stop.



Daily Maintenance and Precautions

- Never use abrasive-containing detergent.
- Periodically apply lubricant to rotating parts and parts with friction action. Apply heat resistant lubricant to parts to be heated.
- Be careful not to let water enter absolutely inside the machine.
- Keep the power OFF while performing maintenance work.

About silicon rollers

- Silicon rollers are the most important parts of this machine and directly affect the quality of laminated products. Handle the silicon rollers carefully during operation and clean regularly.
- After lamination work, please raise the upper silicon roller. Please release pressurization so that upper and lower silicon rollers do not squeeze for a long time except during work.
- Be careful not to damage the silicon rollers with a cutter, etc.
- During the lamination process, the adhesive on the film surface may adhere to the silicon rollersr, so after the lamination operation, clean the surface with a waste with diluted neutral detergent. In that case, never use strong volatile solvent such as thinner and benzine, etc. Also, do not use gasoline absolutely.
- Do not wipe while rotating the silicon rollers. Also, do not wipe only one place. Partial damage may occur to the silicon roller surface.
- If glue or foreign matter adheres to the lower silicon roller, please clean immediately.
- When cleaning, turn off the heater and check that the silicon rollers have reached 40°C or lower.

Daily inspection

- Check that the power cable is correctly inserted and that there is no damage.
- Check that the caster lock functions normally.
- Visually inspect the appearance of this machine (including the roller surface) and check for damaged parts.
- Check whether the photo cell operates normally. (Rotation of the silicon rollersstops when light is blocked by foreign matter. Removing a foreign matter resumes rotation.)

Inspection of photo cell

1) Start up normally.
2) Rotate thesilicon rollers.
3) Block the light to the photo cell and check if the silicon rollers stop.
4) Remove the object that shields the light and press the motor key to check if they rotate.

Hint! • Be aware that the photo cell does not function while operating with the pedal switch.

Troubleshooting

Please check it again before deciding it is faulty. If the problem is still not solved after troubleshooting, contact your local distributor or our sales office.

Power does not turn on

any of the reasons for not turning on the power are due to improper connection of the power cable. Check that the power cable is connected properly.

Cause	Solution
The power cable is not inserted correctly.	Reconnect the power cable.
Voltage does not match.	Check the rated voltage of this machine and insert it into an outlet of a suitable voltage.
The emergency stop switch is not reset.	Reset the emergency stop switch.

Motor does not rotate

The following describes how to deal with the case where the motor does not rotate. Take measures according to the cause.

Cause	Solution
The photo cell is blocked by an obstacle or the photo cell is broken.	Check the direction of the media pressure plate according to P16. Remove obstacles. If the photo cell is damaged, replace it.
The emergency stop switch is not reset.	Reset the emergency stop switch.

Motor rotation speed is too fast, but speed can not be adjusted

The following describes how to deal with the case where the motor rotation speed is too fast, but speed can not be adjusted. Take measures according to the cause.

Cause	Solution
The potentiometer is faulty.	Replace the potentiometer.

The media meanders

The following describes how to deal with the a meandering media during the laminating operation. Take measures according to the cause.

Cause	Solution
The pressure between the silicon rollers is uneven. Or the silicon rollers are not parallel.	Adjust the machine.

The media feed amount is not counted

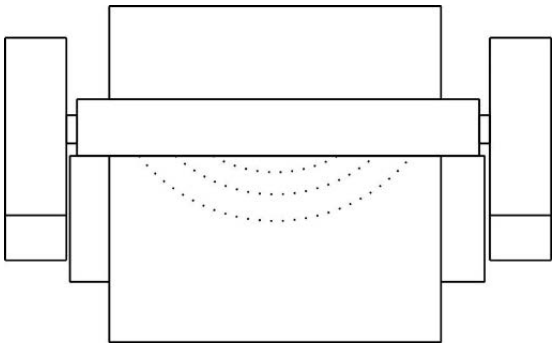
The following describes how to deal when he media feed amount is not measured and the measured value is not shown on the display. Take measures according to the cause.

Cause	Solution
Counter sensor is broken.	Replace the counter sensor.
Counter sensor is out of position.	Adjust the counter sensor.

A U-shaped wrinkle can be made on the media during the laminating operation

The following describes how to deal with a U-shaped wrinkle on the media during the laminating operation. Take measures according to the cause.

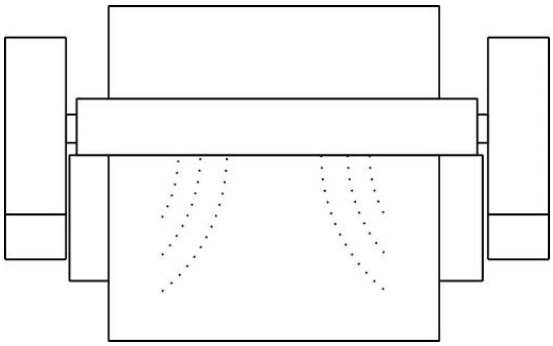
Cause	Solution
Pressure between the silicon rollers is too high.	With the tension knob, lower the silicon roller pressure.



Inverted v shape wrinkles in the media during laminating

The following describes how to deal with an inverted v shape wrinkles on the media during the laminating operation. Take measures according to the cause.

Cause	Solution
Pressure between the silicon rollers is too low.	With the tension knob, increase the silicon roller pressure.



Specifications

Item		LA-160W	LA-140W	LA-160W Plus	LA-140W Plus	LAR-63	LAR-63(JP)	LAR55
Maximum processing width		1580 mm	1380 mm	1580 mm	1380 mm	1580 mm	1580mm	1380 mm
Processing thickness		35 mm						
Processing temperature		From room temperature to 60°C						
Processing speed		0 to 7500 mm / min						
Silicon rubber roller diameter		120 mm						
Number of silicon rubber rollers		2						
Included shafts		3-inch x 5 shafts				3-inch x 4 shafts	3-inch x 5 shafts	
Mounting method for the included shafts		Drive unit shaft insertion method				One-touch shaft mounting method		
Pedal switch		One						
Power supply		100 V /120V/230V, 50/60 Hz						
Rated current		15 A						
Preheating time		About 30 minutes						
Dimensions		2000 x 550 x 1280 mm	1830 x 550 x 1280 mm	2000 x 550 x 1280 mm	1830 x 550 x 1280 mm	2000 x 550 x 1280 mm		1830 x 550 x 1280 mm
Weight (NW / GW)		205 kg / 245 kg	185 kg / 220 kg	205 kg / 245 kg	185 kg / 220 kg	205 kg / 245 kg		185 kg / 220 kg
Length indicator	Count up	-		0 -> 999 (Max) m		-		
	Count down	-		200 (Max) -> 0 m		-		

Note: If this machine is used under 100V/50Hz voltage conditions, the processing speed will decrease. Please be advised.

MEMO

LA-140W, 160W, 140W Plus, 160W Plus, LAR-55, 63 Operation Manual

November, 2026

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