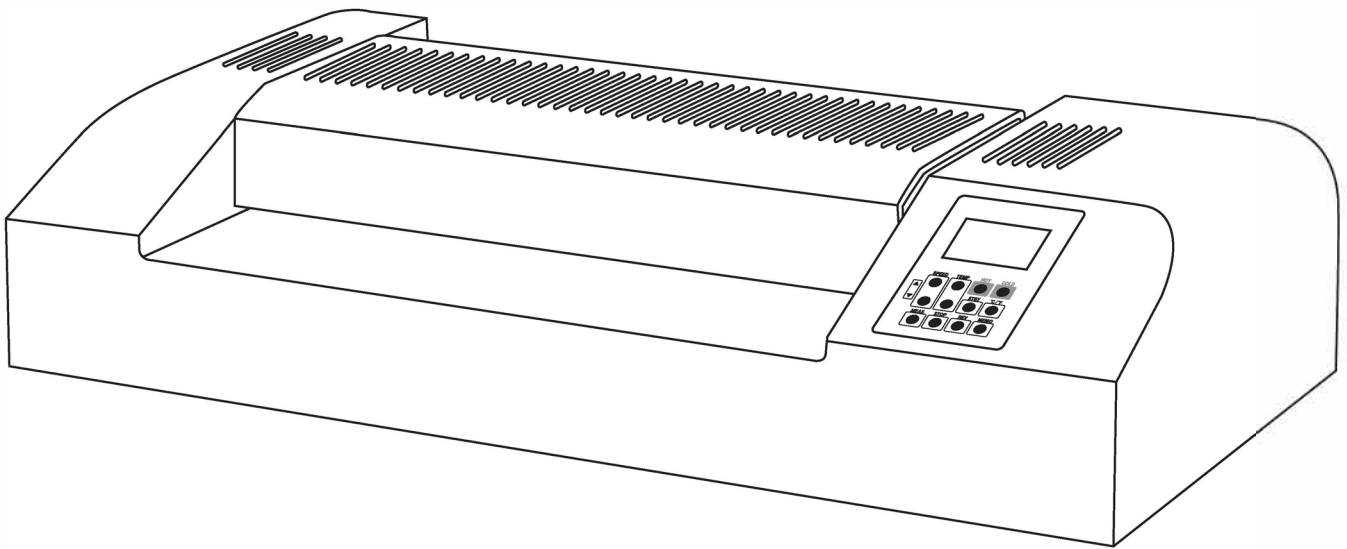


Leon13DX

User Manual



LAMI CORPORATION INC.

Introduction

The **Leon13DX** User Manual will provide necessary information for safe use of this product. Before use, please read through this manual to make sure that it is properly used. Keep this document in a convenient place so that it can be used anytime before or during use.

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Leon13DX

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Before Use

Features

Leon13DX

Main features:

- **Precise temperature control**

Consistent heated rollers assure stable and precise control of the temperature on the roller surface; even for volume production and/or laminating thicker materials. Higher laminating quality can thus be obtained.

- **Uses a six-roll system for high-speed processing**

Two pair of internal heated rollers assure stable heating of laminate films even at high speed processing. The roller provide moderate tension to the film creating an consistent high quality finished output.

- **Temperature and speed setting**

Temperature and speed settings are independently adjustable to ensure optimum laminating conditions for various laminate film thicknesses and material types.

- **LCD user interface for easier operation**











A front-facing LCD operation panel clearly indicates the current settings and controls for changing the settings.

- **Safety**









Includes a COLD button used to cool the laminate rollers after operation: this function is effective for increasing the life of the rollers.

Definition of symbols








This manual uses different precautionary symbols depending on the level of seriousness of injuries, property damages, and those attributing to failure to observe safety instructions/alerts or inadvertent wrong use.

| | |
|---|--|
|  Warning | Failure to follow this warning may lead to serious accidents. |
|  Danger | Failure to follow this warning may lead to death or serious injuries. |
|  Caution | Failure to follow this caution may lead to injuries and/or property damages. |
|  Action or instruction to be performed |  Action forbidden |
|  Remove the power plug from the receptacle |  No disassembly permissible |
|  Roller pinch hazard |  No contact with wet hand permissible |
| |  No splash or soak permissible |

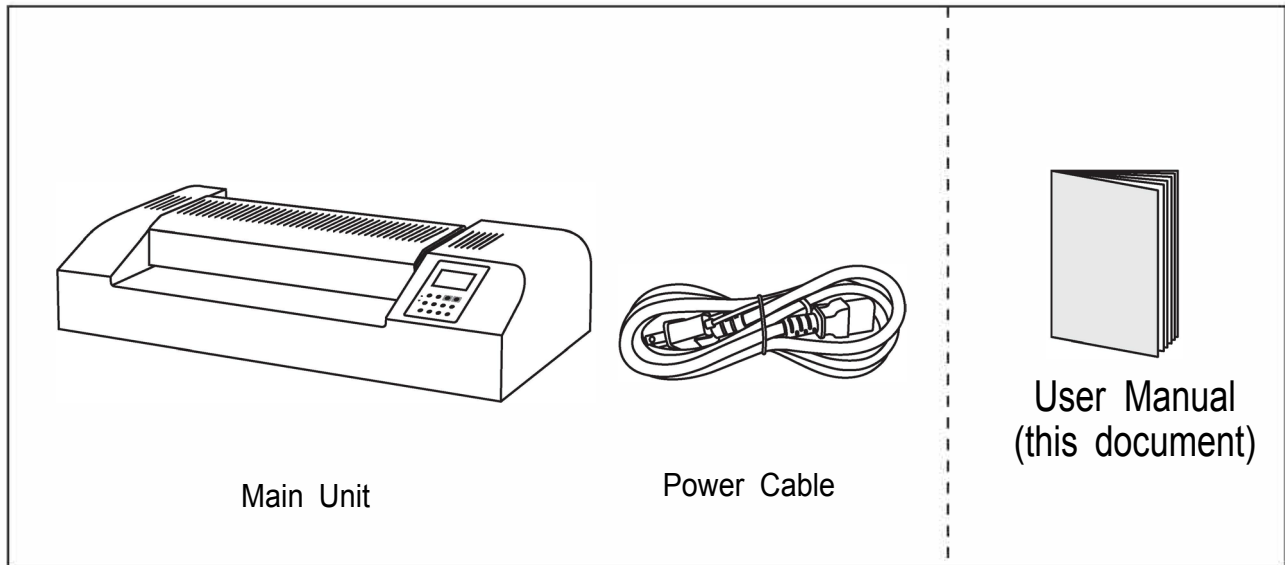
Warning

| | |
|---|--|
|  | <p>To remove the plug from the receptacle, hold the plug housing. Do not use other power ratings than that specified. No multiple connections from a single receptacle are permissible. Make sure that the power plug is inserted to the deepest position.</p> |
|  | <p>Do not use damaged power cords. Electric shock or fire may otherwise occur. To handle a power cord, follow the precautions shown below.</p> |
|  | <ul style="list-style-type: none"> ✓ Do not modify power cords. ✓ Do not subject the cord to heavy loads. ✓ Avoid excessive bend. Twist. Or pull. ✓ Avoid placing the power cord near heating elements or apparatuses. <p>* If the power cord fails. Contact your dealer.</p> |
|  | <p>Clean the power plug periodically. Remove the power plug from the receptacle and clean the root part of and between the electrodes (blades).</p> |
|  | <p>Avoid high temperature or humid, ill-ventilated, or dusty environment.</p> |
|  | <p>Do not leave metallic things, flammables, or liquid in the equipment. Do not place flammables on the equipment. Do not drop the equipment.</p> |
|  | <p>No dismantling or modification permissible.</p> |
|  | <p>Do not use the equipment when it is abnormal e.g. smoking or smelling. The equipment may otherwise cause electric shock or fire to occur. Immediately turn off the power switch and disconnect the power plug. Contact the seller or our company. For reason of safety, no repair by the customer is permissible.</p> |





Caution

| | |
|---|---|
|  | <p>For long disuse. Remove the power plug from the receptacle.</p> |
|  | <p>Do not use wet hand to remove or insert the plug.</p> |
|  | <p>Before power connection, ground connection should be made. To remove the ground make sure that the power connection is already removed.</p> |
|  | <p>Do not install or store the equipment in such a place that can be accessed by children. Avoid unstable (shaking or inclined) floor. The equipment may otherwise fall or tumble down, leading to injury.</p> |
| | <p>Do not ride on or place a heavy material on the equipment.</p> |
|  | <p>During the machine's operation or your action for inserting a film, your accessories such as necktie and necklace or hair may be caught in the rollers assembly, leading to exposing you to great danger.</p> |
| | <p>Glue or other contaminants on the surface of the laminate rollers should be removed. Wipe with a well-squeezed, neutral detergent soaked cloth. * Do not use solvent (benzene). thinner, brush. etc.</p> |
|  | <p>When not in use, keep the upper roller of the laminate roller assembly at the raised position. Leaving the pair of upper and lower rollers in contact with each other may lead to the deformation of the rubber rollers at the contact part.</p> |
| | <p>Avoid direct sunlight. The rollers are made of rubber and may otherwise be degraded quickly. When not in use, cover the equipment to prevent it from being directly exposed to the sun or fluorescent light.</p> |
|  | <p>To move the equipment, turn off the power switch and remove the power plug from the receptacle.</p> |

The following accessories and documents are contained in the package.
If some of them are missing, contact our sales office or seller.



Label list

| | | |
|--|--|--|
| <p>▼ Rating label</p>  | <p>▼ Warning label</p>  | <p>▼ Caution label</p>  |
| <p>▼ Earth label</p> <p>ご使用の際は必ずアース接続を行ってください Be sure to be ground connected</p>  | | |

You should install equipment where:

- **Flat, stable floor**

Inclined or unstable floor may cause the equipment not to work correctly, leading to poor quality lamination.

- **Dedicated use of power receptacle**

Use a receptacle that can be used exclusively for the equipment. Do not use power other than the rating of voltage specified in this User Manual. Ground the equipment, and insert a circuit breaker between the equipment and mains power supply.

- **Ample space for the operation**

of setting up laminate film and materials and taking the laminated product out of the equipment.

- **Dry, well-ventilated area**

Humid environment may cause short-circuit or other failures to occur.

Avoid installing the equipment outdoors, or other locations where the environment can be considered outdoor, or indoor space subject to direct sunlight or direct exposure to air conditioner's air flow.

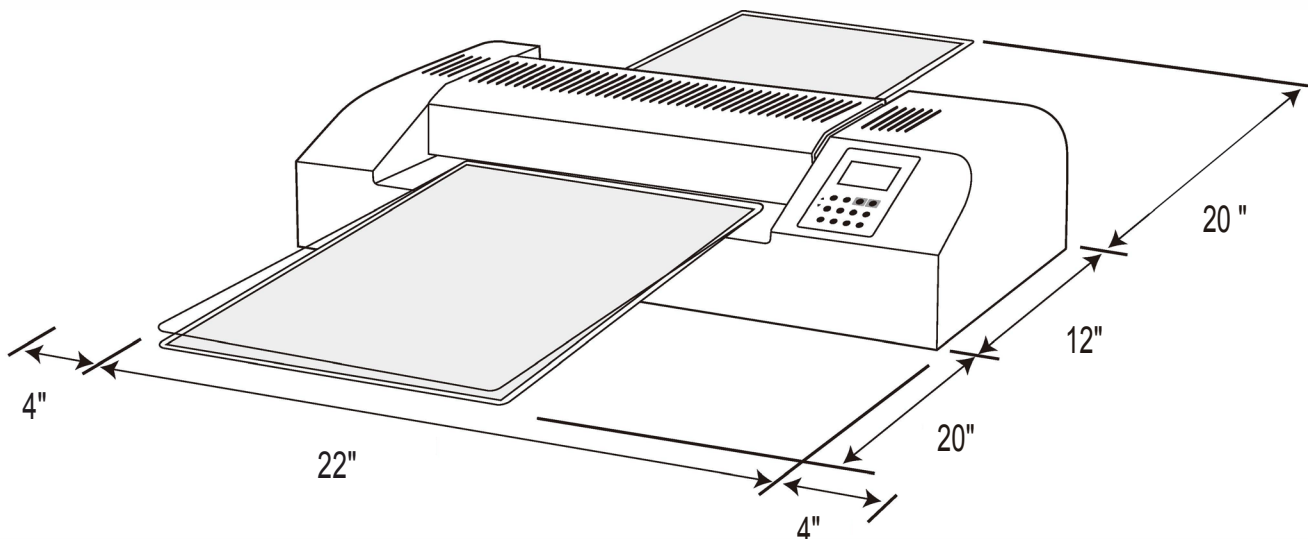
Temperature : 50° - 90° F

Humidity: 20 - 60%

➤ Even in the case of satisfactory location that can satisfy the conditions shown above, the equipment may not work properly dependent on the type and nature of the laminate films and material to be laminated. The operating environment should be appropriate for the laminate films and material used.

- **Operability**

For convenience of normal use and maintenance, there should be the following space around the equipment.



- Front: at least 20" (for laminating 11" x 17" papers)
- Rear: at least 20" (for laminating 11" x 17" papers)
- Both sides: at least 4"

To move or store the equipment, use the following instructions and cautions.

Transportation

1. Make sure that the roller temperature has decreased enough to turn power off.
2. Turn power off.
3. Remove the power plug from the wall outlet and then disconnect the power cord from the equipment.
4. Hold the equipment firmly and move with both hands.
 - * CAUTION, the bottom part of the equipment may still be hot. Check temperature.
5. See page 5 instructions for installation.

Storage

1. Make sure roller temperature has decreased enough to turn power off.
2. Turn power off.
3. Remove the power plug from the wall outlet and then disconnect the power cord from the equipment.
4. Make sure that the equipment has been cooled to the room temperature.
 - *Cover the equipment or store it in a box to prevent getting dust into the equipment. Before covering, make sure that the equipment has been cooled to the room temperature.

Parts Description

Front view

Leon13DX

Top cover

Transparent top cover. (removable)

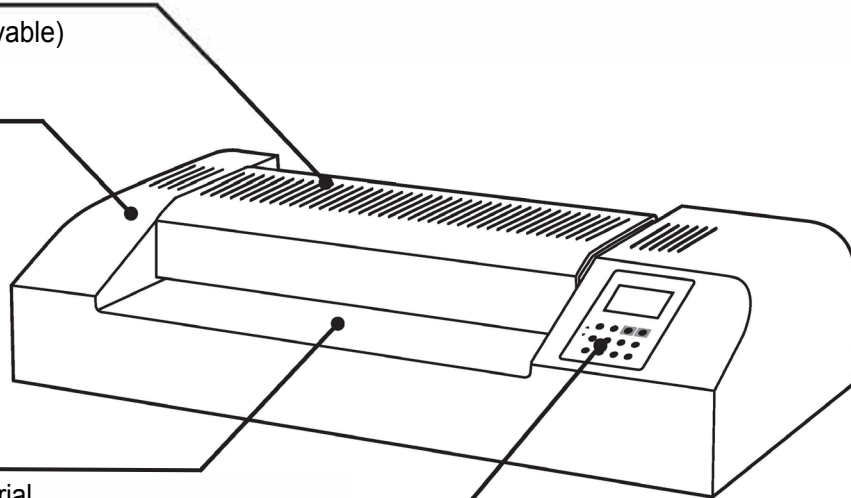
Main unit cover

Inlet

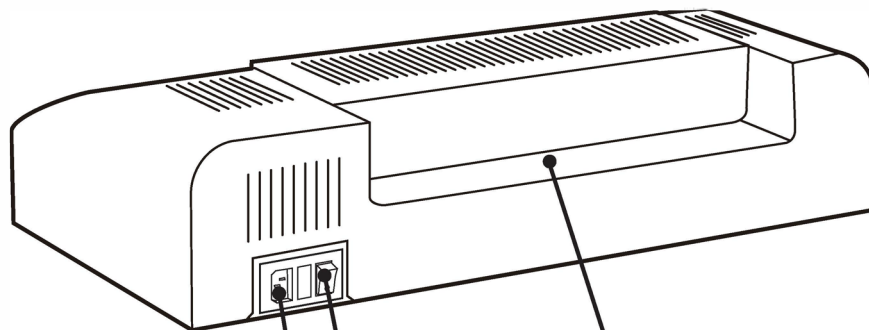
Insert laminate film and material

Operation panel

Temperature and speed settings are indicated on LCD panel



Rear view



Power Switch

Power on/off switch

Power plug connector

Insert the power plug

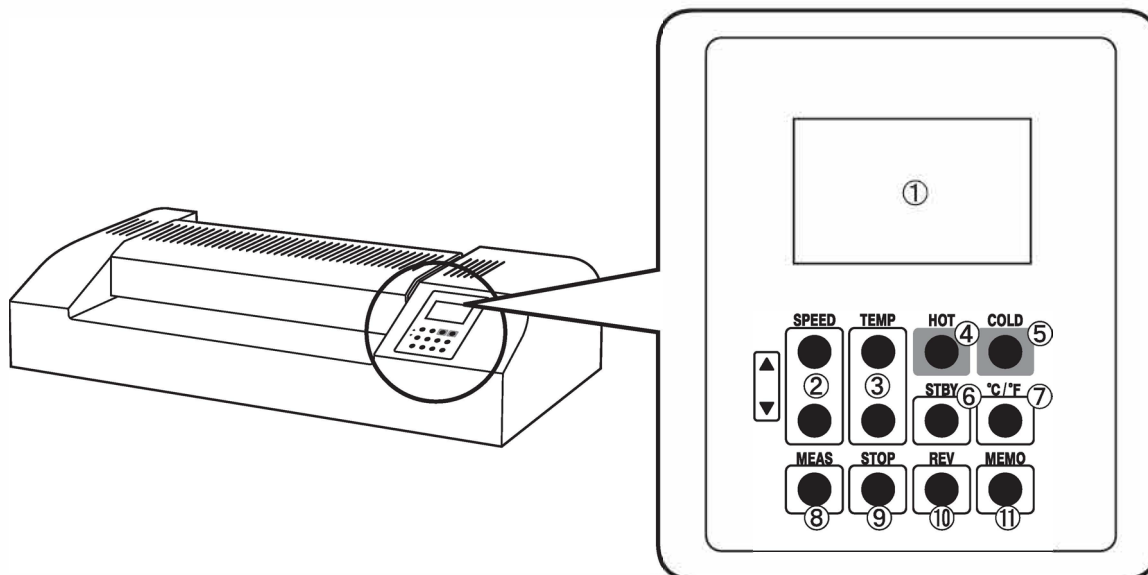
Material outlet

Material laminate will be discharged

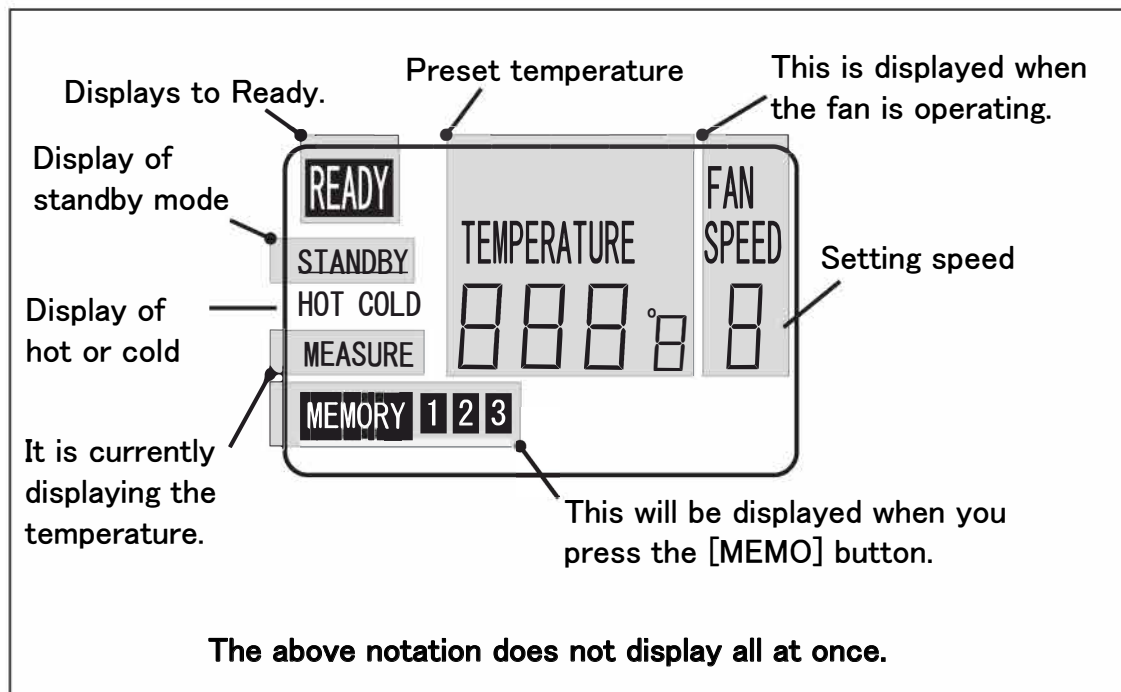
Operation Panel

How to use the control panel

Leon13DX



① **LCD panel:** Temperature setting, speed setting, fan status, and displays current state of the roller. When an error is displayed on the LCD panel in use, make note of the contents, and please contact your dealer immediately.



- ② **Speed control:** Speed controlled with up and down buttons.
- ③ **Temperature control:** Temperature controlled with up and down buttons.
- ④ **HOT button:** Switches to the HOT mode, 212 degree temperature is set to speed 6 when you press the button to start the warm-up. Beep will sound when temperature is set at 212 degrees.

- ⑤ **COLD button:** Switches to the COLD mode, roller heating stops, speed is set to 5.
- ⑥ **STBY button:** Enters the standby state, the roller temperature will be 80 degrees.
- ⑦ **Celsius/Fahrenheit switch button:** Switches between Celsius or Fahrenheit degree readings.
- ⑧ **MEAS button:** Displays the current roller temperature.
- ⑨ **Stop button:** Temporarily stops the roller. When using HOT mode roller damage may occur if not cooled down, use stop button to stop the roller to cool down and avoid damage. **Do not use the stop button to stop the roller for an extended amount of time.**
- ⑩ **REV button:** Reverses rotation of the roller.
- ⑪ **MEMO button:** Access settings that are registered in machine.

- 1: 248°F speed 7
- 2: 266°F speed 5
- 3: 284°F speed 3

If the current temperature is low, the roller does not rotate to warm.

caution

Do not change the settings during processing. Setting changes will result in non-uniform lamination and the possibility of defective feed-through processing.

Before You Start

Laminate film - structure and thickness

Leon13DX

There are two types of laminate film - roll and pack.

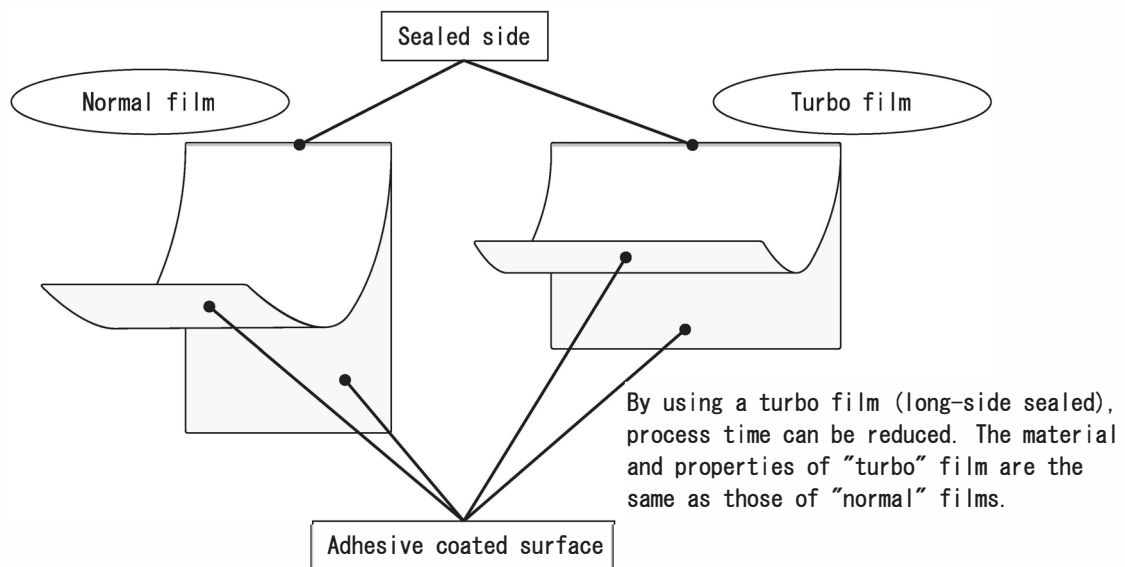
This machine (**Leon13DX**) uses "pack" type film.

This machine is **does not use roll film**.

Structure

A pack type laminate film consists of two sheets sealed (connected) together at one side (edge) only, with adhesive coated between the two sheets. When the film moves through the laminator, the adhesive coated inside will be heated, which results in adhesion between the two sheets.

The side (edge) on which the two sheets are sealed (connected) is normally the shorter side, but films with a sealed edge at the longer side are also available (long-side sealed/turbo film).



! Caution

- To insert a laminate film (pair of two sheets) into the laminator, orient it so that the **sealed edge leads** (enters first). Reverse orientation may cause the film to wind round the roller, leading to machine failure.

Film Thickness

Thickness is indicated by one paired film set. Total thickness includes film set and material thickness.

Approximate total thickness:

5 mil (upper sheet) + Material thickness + 5 mil (lower sheet)

Available laminate film sheet thickness:

3 mil 5 mil 7 mil 10 mil

Appropriate thickness can be chosen depending on the use of the project.
For example, food menus and POPs normally use 5 mil thick films.

What can be laminated?

Leon13DX

Types of materials that can be laminated depend on the type of laminator used. The **Leon13DX**, uses an internal heating structure of laminate rollers, that can also laminate photographs and color prints, but cannot laminate the following material.

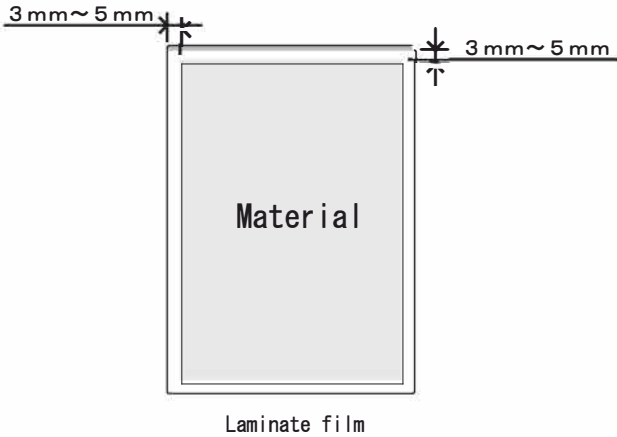
- Written in crayon (some types of crayon may be liquefied by heating)
- Heat sensitive paper (the hot rollers may discolor the paper)
- Pressure sensitive paper (the roller pressures may discolor the paper)
- Other materials subject to deformation or break due to heat or pressure
- Materials other than paper (possible cause of mechanical damage)

Notes for use of laminate film

- Do not store or place in high temperature or humid environment.
- Store in a box.
- Use laminate films applicable for the equipment.
- If you find film is defective, do not use it. Contact the seller.
(Using defective film may cause permanent damage and the equipment to fail)

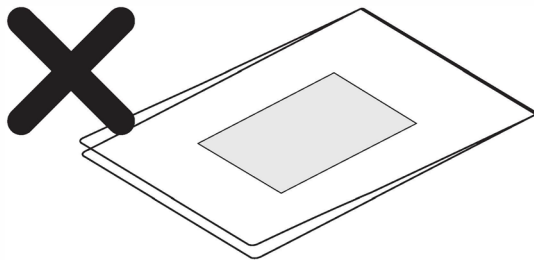
Leon13DX can use laminate films ranging from card size (4") to 11" x 17" size (See Page 5). Using other films may lead to poor lamination quality or failure of the equipment. Follow the instructions shown below.

- Films sizes smaller than a 4" card size may cause difficulty when feeding through laminator, possible jamming and damage to the equipment.

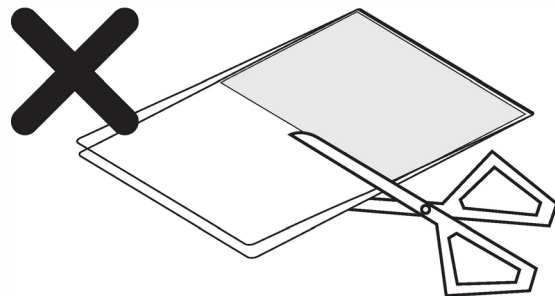


- Use a larger size laminate film than the material to give a margin at every side.
- The margin should be 3 to 5 mm at every side.

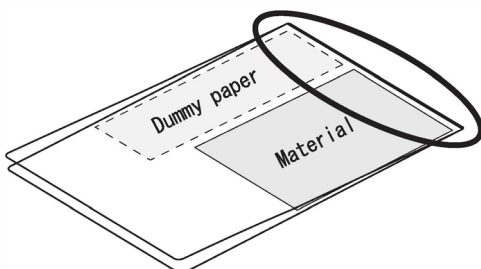
Avoid the following use



Small material centered in the film could lead to jamming.



Cutting film could lead to jamming. If you need to cut the film, do it after lamination.



To laminate small materials, position as close to the sealed side (edge) of the laminate film as possible. If the material is too small to occupy a sufficient length of the sealed edge, insert a dummy paper next to the material.

Lamination

Operating steps

Leon13DX

Lamination process should use the following steps.

Preparation for the equipment

1. Turn on the power switch.
2. Set the roller heating temperature.
3. Start heating. Check that the roller surface reaches the target temperature.

Set the laminate speed

| Film Thickness | Thickness of material | Temperature | Speed |
|----------------|---------------------------------------|-------------|-------|
| 3 mil | Thin (about 20 lb.: e.g. copy paper) | 212 °F | 6 ~ 7 |
| | Medium (about 32 lb.: e.g. catalog) | 212 °F | 6 ~ 7 |
| | Thick (about 60 lb.: e.g. food menu) | 250 °F | 3 ~ 5 |
| 5 mil | Thin (about 20 lb.: e.g. copy paper) | 212 °F | 5 ~ 6 |
| | Medium (about 32 lb.: e.g. catalogue) | 230 °F | 3 ~ 5 |
| | Thick (about 60 lb.: e.g. food menu) | 250 °F | 2 ~ 4 |
| 7 mil | Thin (about 20 lb.: e.g. copy paper) | 230 °F | 3 ~ 4 |
| | Medium (about 32 lb.: e.g. catalogue) | 265 °F | 4 ~ 5 |
| | Thick (about 60 lb.: e.g. food menu) | 285 °F | 3 |
| 10 mil | Thin (about 20 lb.: e.g. copy paper) | 250 °F | 3 ~ 4 |
| | Medium (about 32 lb.: e.g. catalogue) | 285 °F | 4 ~ 5 |
| | Thick (about 60 lb.: e.g. food menu) | 285 °F | 2 |

This table is for reference only. The actual setting of these parameters should be determined case by case depending on the material to be laminated.

To determine setting the temperature and speed parameters appropriate for the material to be laminated. See following pages.

Preparation for material to be laminated

1. Check the material size.
2. Select laminate film sheets appropriate for the material.
3. Insert the material between the laminate film sheets.

Lamination

Make sure you test the process then proceed with lamination.

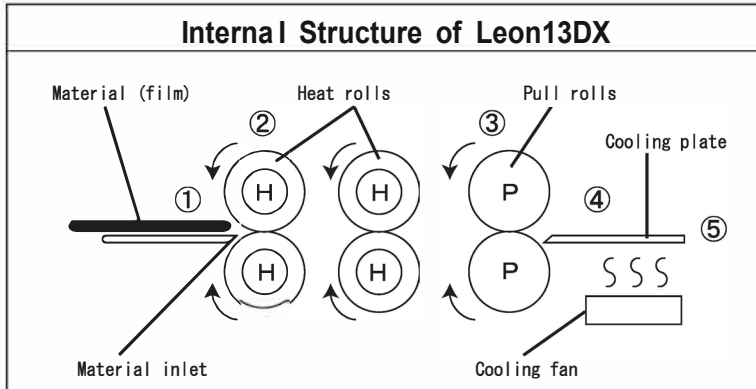
1. The sealed side should lead.
2. Since the laminated material is hot, please be careful when handling.
3. Please lie laminated materials on a flat surface until the heat cools down.

End of operation

Ending the operation by immediately turning off the power switch may lead to the failure or damage of the laminate rollers. To avoid this, cool down the laminate rollers using the (COLD) button and then switch off the power.

For Reference

Temperature and speed settings are important for achieving high quality lamination as well as the recommended values of these two parameters shown in the table in Page 13. The following instructions are useful for quality output and operation.



Flow of Material/Film

- ① Insert film and material into the inlet.
- ② The film and material passes through two pairs of rollers that have been heated by internal heater. The rollers surface temperature is approximately the same as the target temperature you specified via the operation panel. The heat transmitted from the rollers melts the adhesive-coated surface on the inside of the films, resulting in adhesion between the two film sheets and the material.
- ③ The film and material then passes through a pair of pull rollers. The rollers gently pull the set of film and material through while cooling the laminated material.
- ④ The film and material is further cooled by the cooling fan and cooling plate.
- ⑤ The film and material is discharged out.

Points

When passing through the heat rollers, the laminate film will be softened by the heat given from the rollers. Excessive heat may cause the film to wind round the rollers.

Adjust for thinner materials

Thinner materials and/or laminate films do not need as much heat as thicker ones, so speed should be increased or the roller surface temperature should be decreased to prevent jamming or poor quality output.

Adjust for thicker materials

By contrast, thicker material and/or laminate film needs higher heat, which means that a high speed may lead to insufficient melt of the adhesive and result in a opaque-looking finish. In this case, the speed should be decreased or the roller surface temperature should be increased to prevent poor quality output or jamming.

Based on the guide shown in the table in Page 13, appropriate temperature and speed settings should be determined dependent of the material to be laminated.

Maintenance

Cleaning of Rollers

Leon13DX

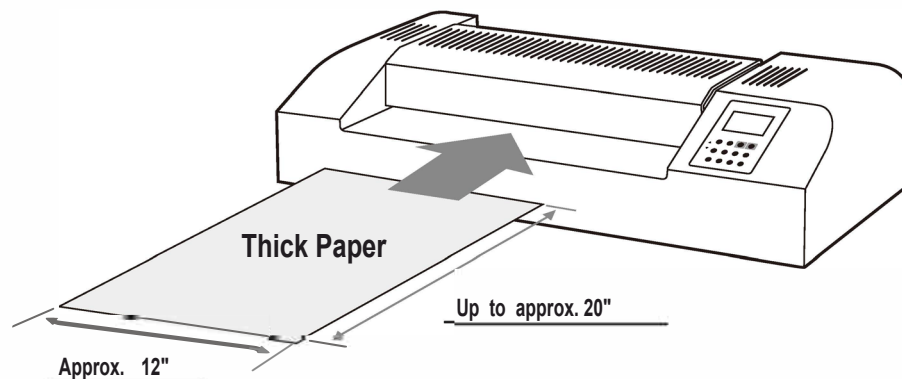
The Leon13DX comprises six roller assemblies. They should be periodically cleaned to ensure proper performance and high quality lamination. The cleaning intervals should be determined based on the operating demand of the equipment.

Cleaning method

- ✓ Prepare a thick paper e.g. drawing paper (note: some of the pack type laminate films manufactured contain cleaning papers applicable for this purpose).
- ✓ The paper should have a size of 12" x 12" to 20", and the thickness should be 60 to 80 lb.
- ✓ Set the laminate temperature to 212 to 248°F.
- ✓ When the temperature rises to the specified value, set the speed to [1] or [2].
- ✓ Insert the paper into the equipment through the laminate film/material inlet.
- ✓ Stains, including adhesive residues, left sticking to the surface of the rollers will be transferred to the paper.
- ✓ Repeat the above steps two or three times.
- ✓ To ensure higher cleaning effectiveness, cleaning should be performed at intervals of every 100 to 200 laminate films processed.
 - * Stained papers or paper thicker than 1/8" should not be used. The equipment may be damaged.
 - * No liquid cleaners/detergents or abrasive cleaners are acceptable for cleaning the rollers or unit main body which could result in permanent damage to the equipment.

Temperature Setting: 212°F

Speed Setting: [1] or [2]



Troubleshooting

Equipment cannot be powered or operated **Leon13DX**

- **Check the power plug connection and power switch**

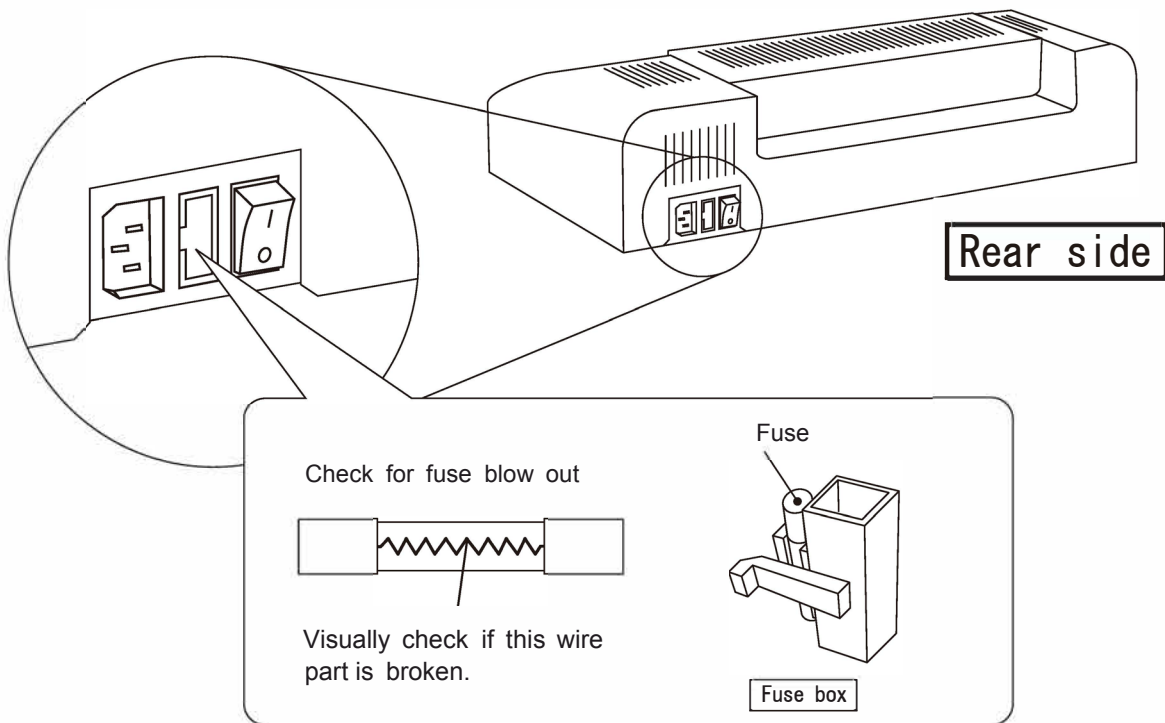
The equipment uses **115V**. Check that the power cord is properly connected to the wall outlet. Check that the power cord is properly connected to the power socket on the rear side of the equipment. Check that the power switch located on the rear side of the equipment is turned on. Damaged power cords should be replaced. Contact your dealer.

- **Check the fuse**

The fuse box is located on the rear side of the equipment. Check whether the fuse is blown out.

Using a minus (-) screwdriver, open the fuse box.

Check if the working fuse (located front) is blown out (broken). If so, replace the fuse with the spare. Then power on again.



- **Check if large loads such as heaters and projectors are being used near the equipment, or if a long power cord is being used for powering the equipment.**

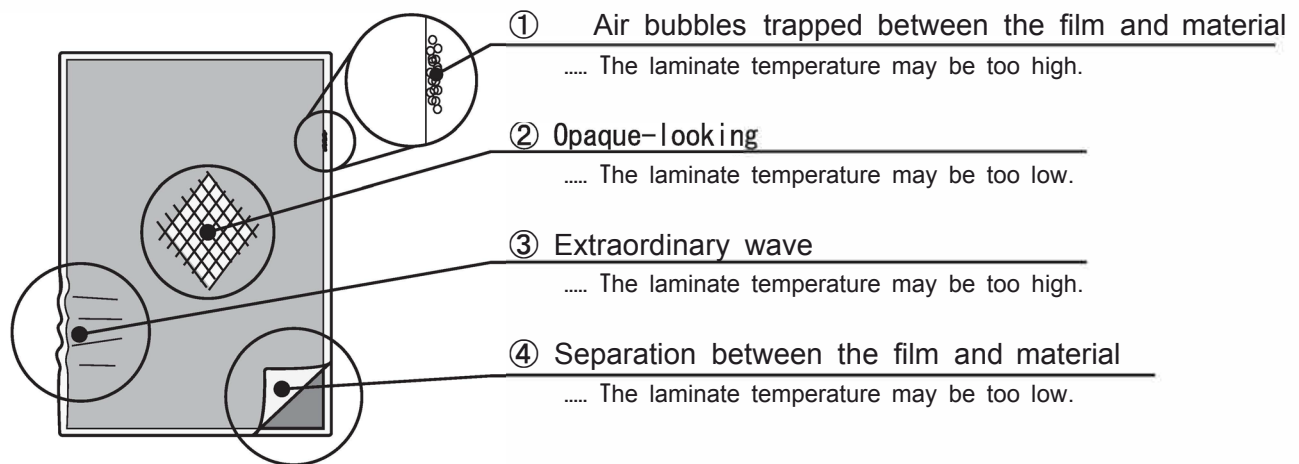
Disconnect loads from the power supply and if connected to the equipment. Remove the long cord and replace with shorter cord.

- **Abnormal motor noise**

Possible causes include damaged gears and loosened screws. Contact your dealer.

● Check the temperature and speed setting

See Page 13 to check whether the temperature and speed are set correctly per the laminate film and material used. Improper settings may result in poor quality of lamination, as shown below.



Laminate temperature too low

With too low laminate temperature, the adhesive may not melt well, which results in opaque-looking finish and/or separation of the film from the material. Slightly increase the temperature or decrease the laminate speed to give sufficient heat to the film/material to ensure an appropriate level of melting of the adhesive.

- ✓ You cannot rework the laminated material.
- ✓ Increase or decrease the temperature in steps of 40°F.
- ✓ If the trouble persists, there may be some other causes. Contact your dealer.

Laminate temperature too high

With too high laminate temperature, the adhesive may boil and bubble and the film may be softened and waved. Slightly decrease the temperature or increase the laminate speed to reduce heat to the film/material.

- ✓ You cannot rework the laminated material.
- ✓ Increase or decrease the temperature in steps of 40°F.
- ✓ If the trouble persists, there may be some other causes. Contact your dealer.

Material will not laminate

● Too thick material?

Inserting a material too thick may lead to the roller's incapability to rotate, and failure of the equipment.

Do not insert materials thicker than the maximum allowable thickness.

If it has been set to [0], correct the setting.

● Film or material jamming in the rollers?

If the material is left in the entrance, remove it by using [REVERSE] button. Take care not to pull the material too strongly. The equipment may otherwise be damaged. If the material is not left in the entrance, contact your dealer.

| | |
|-----------------------------------|-----------------------------|
| Maximum Laminate Width | 12.5" |
| Maximum Laminate Thickness | 10 mil |
| Laminate Speed | MAXIMUM: 4.5 ft./minute |
| Laminate Temperature | Room Temperature to 284°F |
| Heating System | Internal Heating of Rollers |
| Power | 115V |
| Maximum Power Consumption | 1150 W |
| Dimensions | 22" x 11" x 5" |
| Weight | 30 lbs. |
| Warm Up Time | About 5 minutes |

Please note that for product improvement
We may change the contents of this manual without notification

Contact:

