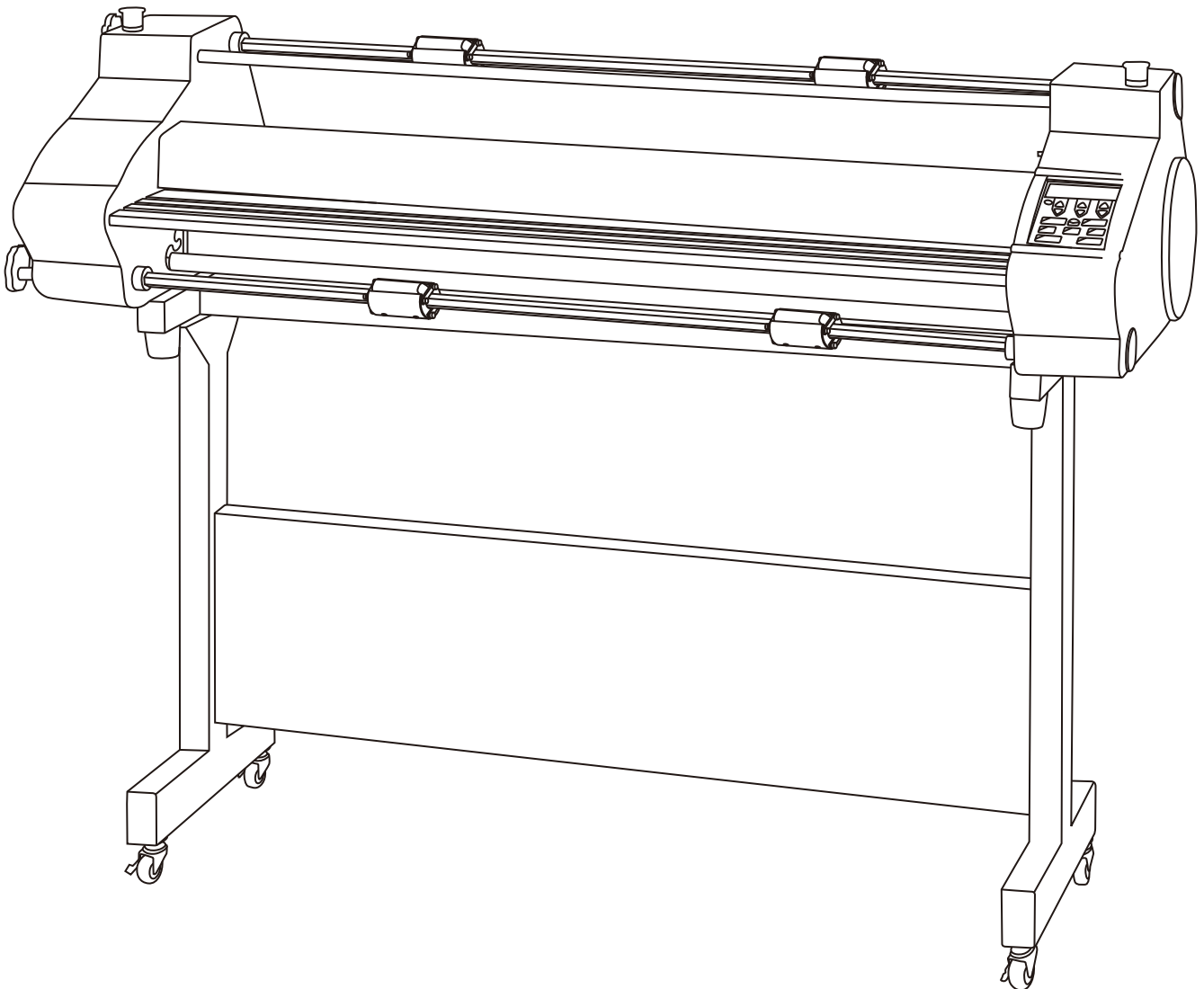


# IRIS-44LK

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## Instruction Manual



**LAMI CORPORATION INC.**

## Introduction

Thank you for purchasing our 【 **IRIS-44LK** 】

This instruction manual is to give you information necessary for safe use of this product.

Before use, read through this manual to make sure that it is properly used.

Maintain this document so that it can be used anytime before or during using the equipment.

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## Before Use

Before use, read through this manual.  
Maintain this manual available for your reading anytime you need.

## Definition of Symbols

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

 <b>Warning</b>	Failure to follow this warning may lead to serious accidents.
 <b>Danger</b>	Failure to follow this warning may lead to death or serious injuries.
 <b>Caution</b>	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

## Installation Precautions

### Warning

**To install the equipment, avoid high temperature, humid, ill-ventilated, and dusty environment.**

The equipment may otherwise cause fire or electric shock to occur.  
To make sure that the equipment works properly for high-quality laminating process, dusty or humid environment should be avoided.

**Do not cover the ventilation opening on the equipment.**

The equipment may otherwise accumulate heat and cause fire to occur.

Do not install the equipment where:

- Sufficient ventilation cannot be maintained e.g. in a narrow, enclosed space,
- On a carpet or mattress,
- On a combustible material e.g. paper and newspaper, or
- Flammable, explosive, or toxic gas can generate.

To install the equipment along a wall, 50 cm or larger distance should be provided between the equipment and wall.

**Direct exposure of the equipment to air conditioner's airflow should be avoided.**

**Direct exposure of the equipment to sunbeams should be avoided.**

### Caution

**Unstable installation ( e.g. on a shaking table or inclined floor) should be avoided.**

The equipment may otherwise fall or tumble down, leading to injuries.

## Installation Recommendations

You can install the equipment where:

- **Flat, stable floor**

Inclined or unstable floor may cause the equipment not to work correctly, e.g. failure of the material conveying function or other unforeseeable damages or injuries may occur.

- **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 instruction manual. Ground the equipment, and insert a circuit breaker between the equipment and mains power supply.

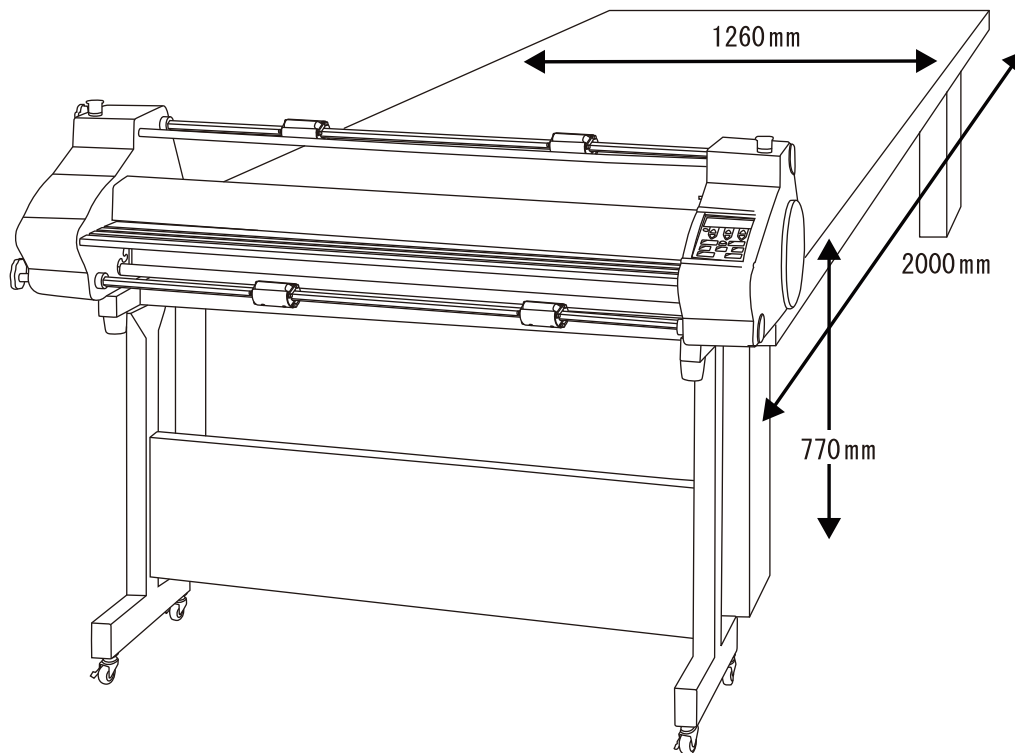
- **Dry, well-ventilated area**

Humid environment may cause short-circuit or other failures to occur. Avoid installing the equipment outdoors, or at other locations where the environment can be considered outdoor, or indoor space subject to direct sunbeams or direct exposure to air conditioner's airflow.

- **Operability**






For operator's convenience, there should be an ample space around the equipment. Do not place the equipment close to wall. Wherever possible, there should be a passage space that is wide enough to allow the operators to access to or walk through around the equipment.

If you have a table located behind the equipment, it can be used for cutting material, which leads to higher operating efficiency.












Recommendable size of the table shown above:  
(W) 1260 mm × (D) 2000 mm × (H) 770 mm

## Meaning of Safety Labels

	<b>No disassembly permissible</b> High voltage exists in the equipment. To avoid danger of electric shock, never dismount the cover.
	<b>Knife dangerous!</b> Be careful when using a knife.
	<b>Pinch hazard</b> Do not touch the rolls when the equipment is in operation. During “hot” mode operation, the rolls have been heated so highly that you may burn your hand. During roll rotation, your hand, hair, accessory, or necktie may be caught in the rolls assembly. Keep these things away from the rolls.
	<b>Emergency stop button</b> Pressing this button will stop the equipment.
	<b>Tension control</b> The material as processed may have been warped up or down. To avoid this, you can adjust the brake using this button. * Do not tight the brake too much. The material may otherwise be wrinkled.

## Precautions for Use

 <b>Warning</b>	
	<b>Do not use the equipment when it is abnormal e.g. smoking or smelling.</b> 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.
	<b>No dismantling or modification permissible</b> You may otherwise be exposed to danger of injuries, electric shock, or fire. While heating, do not touch the heated roll to avoid burn. Moreover, the roller assembly can expose you to pinch hazard.
	<b>Do not leave metallic things, flammables, or liquid in the equipment. Do not place flammables on the equipment. Do not drop the equipment.</b> Electric shock or fire may otherwise occur. If a foreign matter or liquid enters in the equipment, immediately turn off the power and disconnect the power plug. Then contact the seller or our company.
	<b>Avoid high temperature or humid, ill-ventilated, or dusty environment.</b> Smoking, electric shock, or fire may otherwise occur.
 <b>Caution</b>	
	<b>Do not install or store the equipment in such a place that can be accessed by children. Avoid unstable (shaking or inclined) floor.</b> The equipment may otherwise fall or tumble down, leading to injury.
	<b>Avoid vibratory environment e.g. a place subject to vibration due to the operation of other machines.</b> Fall may otherwise occur, leading to injury.
	<b>Do not ride on or place a heavy material on the equipment.</b> Where children can come close to the equipment, give the greatest care to avoid their exposure to danger of burn due to the heated roller, or injury due to tumbling down or mechanical failure of the equipment.

## Notes for Power Source

### Warning



For long disuse, remove the power plug from the receptacle.



Clean the power plug periodically. Remove the power plug from the receptacle, and clean the root part of and between the electrodes (blades).

Leaving the power plug inserted in the receptacle for long may result in the accumulation of dust on the surface of the electrodes, which may lead to short-circuit and fire.



To remove the plug from the receptacle, hold the plug housing.

Pulling the plug/cable assembly by holding the cable part may damage the cable, leading to electric shock or fire hazard.



Do not use other specifications than the power source voltage specified (single phase, 230V).

Electric shock or fire may otherwise occur.



Do not use wet hand to remove or insert the plug.

You may otherwise be exposed to danger of electric shock.



Do not use damaged power cables.

Electric shock or fire may otherwise occur. To handle a power cord, follow the precautions shown below.

- Do not modify power cables.
- Do not subject the cable to heavy loads.
- Avoid excessive bend, twist, or pull.
- Avoid placing the power cable near heating elements or apparatuses.

\* If the power cable damages, contact the seller or our company.



No multiple connections from a single receptacle are permissible.

Fire may otherwise occur. The power plug should be directly connected to a wall outlet (230VAC) not via a multiple tap.



Handle the power plug with great care.

Improper handling may lead to fire. Follow the precautions shown below.

- Check that the power plug is not contaminated with dust or other foreign matters.
- Make sure that the power plug is inserted to the deepest position.
- Before power connection, ground connection should be made. To remove ground connection, make sure that the power connection is already removed.

### Caution



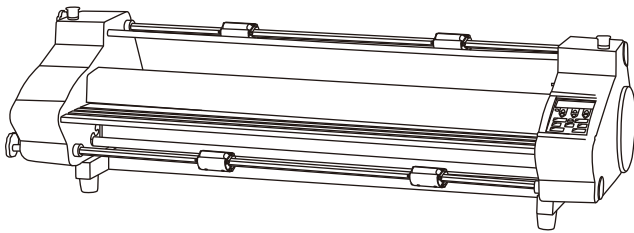
To move the equipment, turn off the power switch and remove the power plug from the receptacle.

## Features

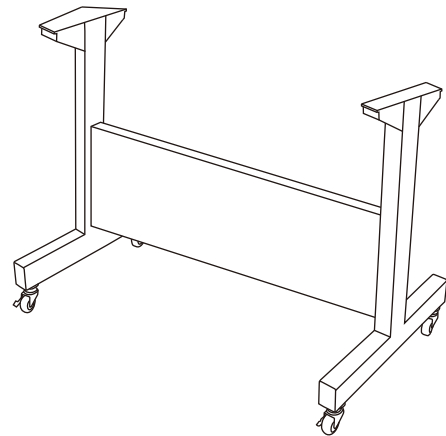
- Temperature regulation using an IR sensor and microcomputer
- Motor-operated roll-to-roll clearance (roller pressure) adjustment
- Laminating speed is adjustable stepwise
- Multi-function foot switch (start/stop, normal/reverse rotation, and roller up/down)
- Transparent safety cover
- A safety switch to interlock the operation of the equipment so that it will be automatically stopped when the safety cover or front guide table is not in place
- A smart waiting mode that can reduce waiting time and power consumption
- Powerful cooling system
- A memory capable of storing max. 10 programs

## Accessories

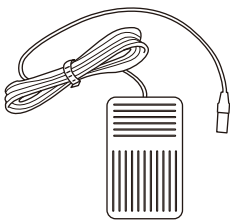
The following accessories and documents are contained in the package.  
Unpack the equipment and check that all of them are contained. If some of them are missing, contact our sales office or seller.



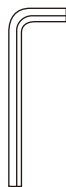
IRIS-44LK Main Unit  
(2inch paper core holder x 4)



Stand (to be assembled by the customer)



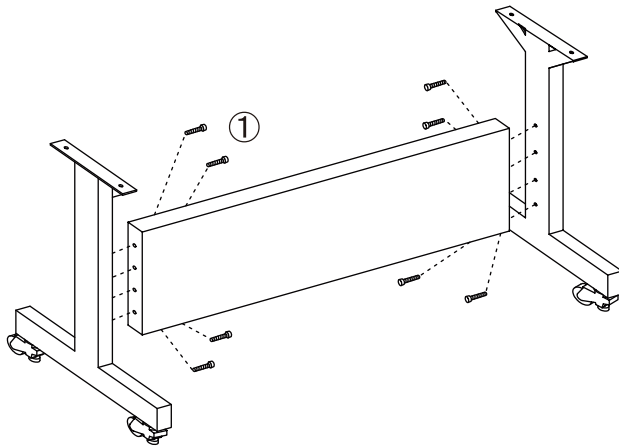
Foot Switch



Hexagonal Wrench  
(small:for paper core holder)  
(large:for stand)

## Assembly

### How to assemble the stand



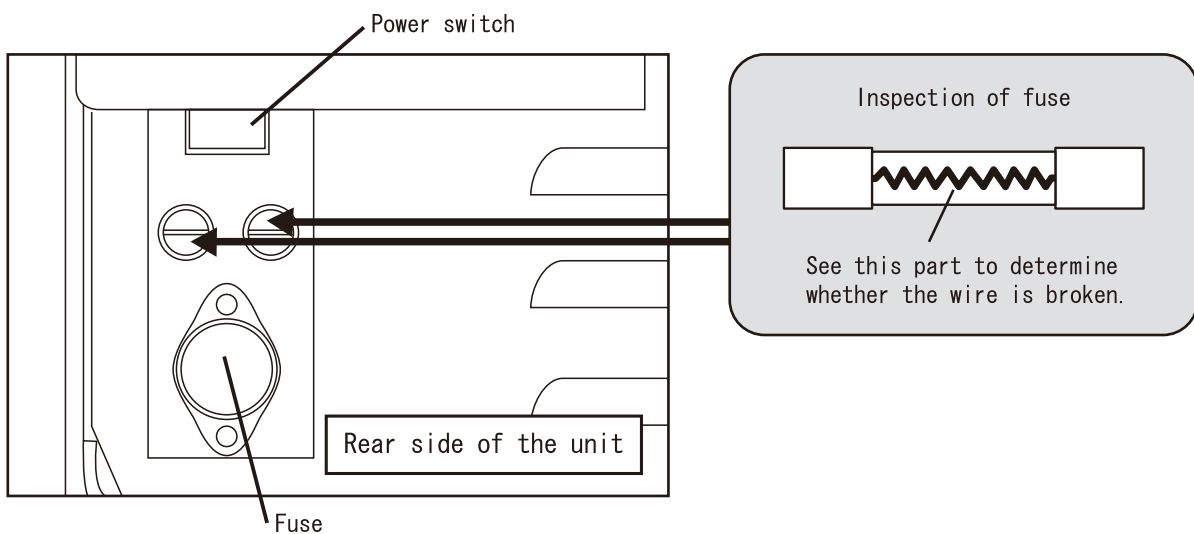
① Bolt ( M6 ) ( 4 x 2 )

Stand is collapsible.

Attach the bolts from back side of the machines with hexagonal wrench.

### How to install the fuse

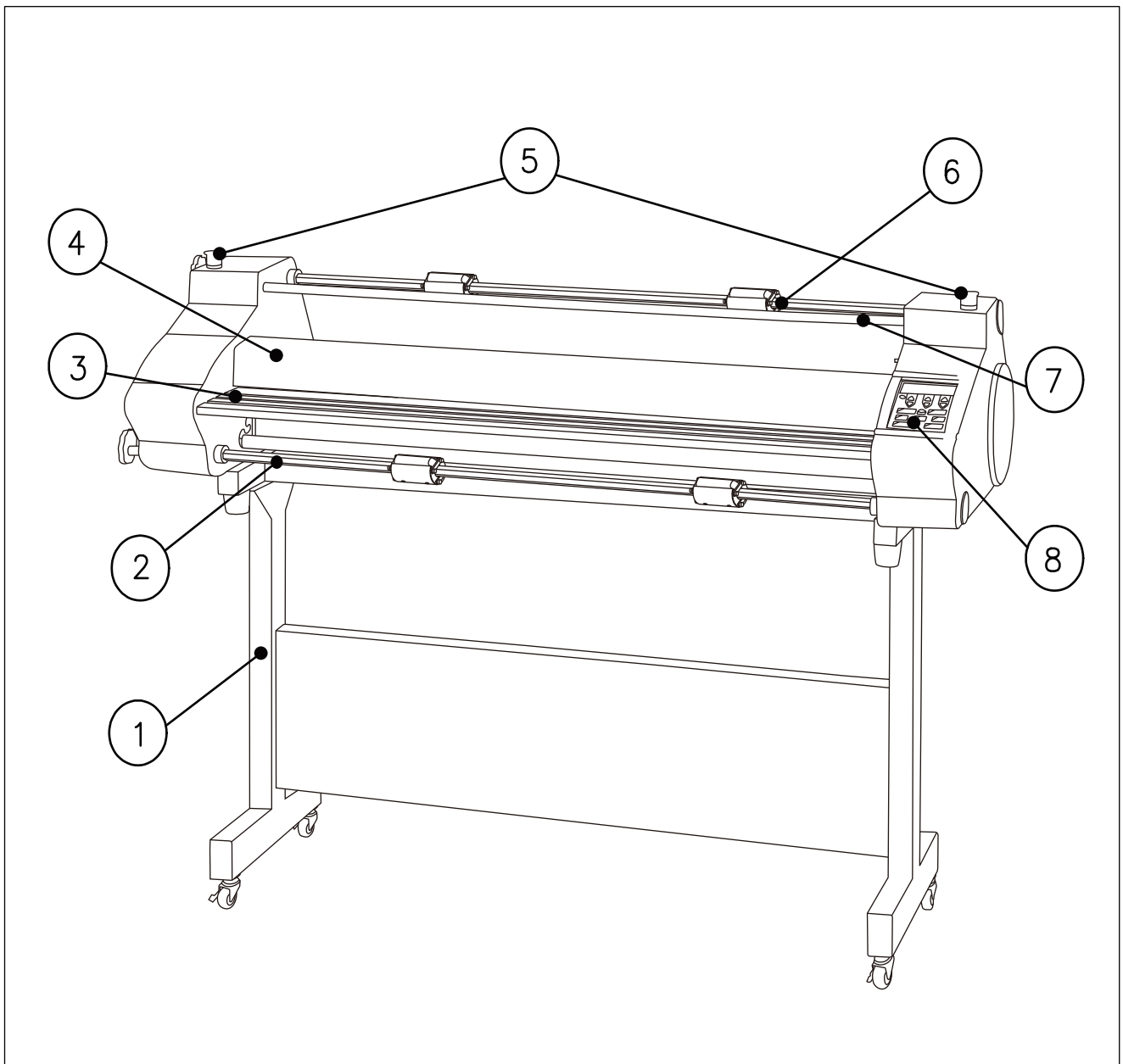
Three fuses are located near the power switch on the rear side of the unit. Remove the fuse using e.g. a minus-head screwdriver, and check whether the fuse is blown off (broken). If broken, replace with a new one and turn on the power again.





## Parts Description

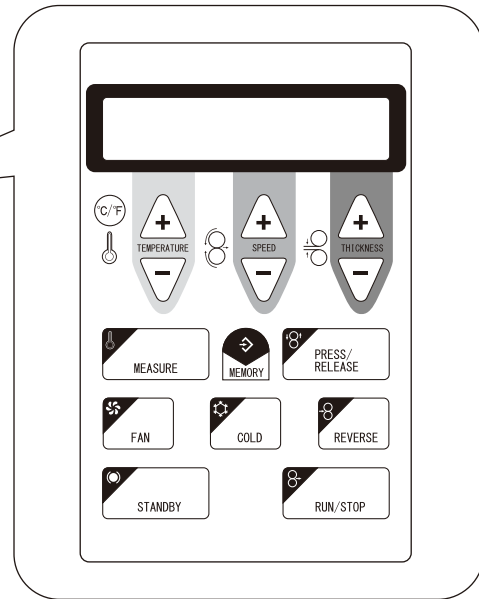
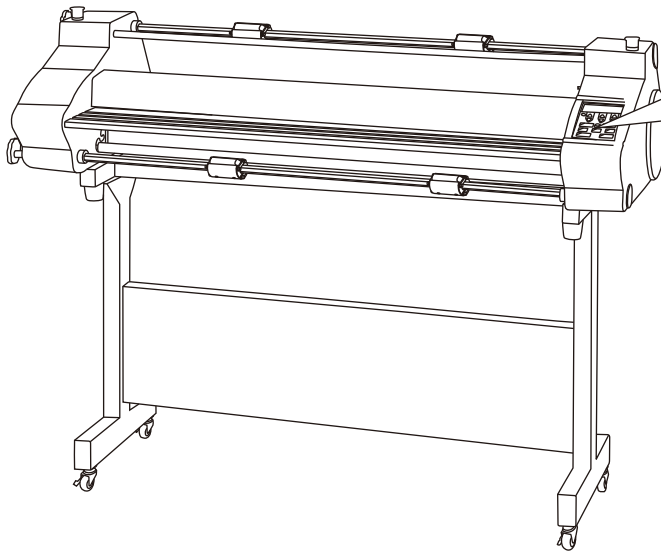
### IRIS-44LK Main Unit



- |                         |  |
|-------------------------|--|
| ① Stand                 | ② Film Shaft (Under) + Paper tube holder |
| ③ Front guide table     | ④ Clear cover                            |
| ⑤ Emergency stop button | ⑥ Film Shaft (Upper) + Paper tube holder |
| ⑦ Tension roll          | ⑧ Operation panel                        |

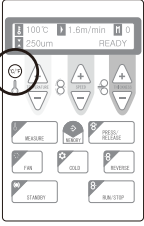






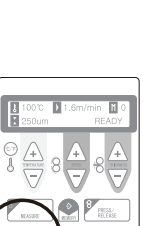
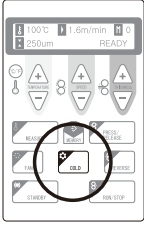

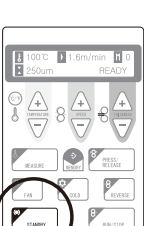

# IRIS-44LK

## Operation Panel



LCD display	
<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Temperature setting</p> </div> <div style="text-align: center;"> <p>Speed</p> </div> <div style="text-align: center;"> <p>Program no. in the memory</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;"> <p>Thickness indicator</p> </div> <div style="text-align: center;"> <p>Present operating status</p> </div> </div>	
<b>READY</b> Lit when the roll surface reaches the specified temperature.	<b>SENS</b> Lit when the temperature sensor fails.
<b>RUN</b> Lit when laminating process is in operation on condition that the roll temperature is within $\pm 12^{\circ}\text{C}$ of the specified temperature.	<b>OVER</b> Lit when the roll interior is overheated.
<b>LOWTEMP</b> Lit when the roll temperature decreases to lower than $12^{\circ}\text{C}$ below the specified temperature during laminating process in operation.	<b>ERROR</b> Lit when the temperature sensor fails or the roll overheats to $200^{\circ}\text{C}$ . Press [MEASURE] to determine which of the errors has occurred. If the temperature sensor fails, [SENS] will appear. If overheat occurs, [OVER] will appear. If the temperature sensor fails, immediately turn off the power. Overheat will cause the heater to automatically turn off, audible alarm to be generated, and the cooling fan to start. If the overheat persists, the power will be turned off and [CHECK ME] will appear on the LCD. Contact the seller or our company.
<b>WAIT</b> This is to advise you to wait until the roll reaches the specified temperature.	
<b>TABLE</b> Lit when the front guide table is not in place. You must set the guide table to the correct position.	
<b>COVER</b> Lit when the safety cover is open or not in place. In this condition, any of the functions including the heater cannot operate. You must set the cover and close it. <ul style="list-style-type: none"> <li>* Even with the cover open or not in place, the rolls can rotate in either normal or reverse direction, and move up/down.</li> <li>* With [COVER] lamp lit, the heater will be turned off. To resume the heater, press the temperature setting button.</li> </ul>	<b>EMERGENCY</b> Pressing the emergency stop button will indicate [EMERGENCY] on the LCD. All the functions including the heater will stop. Turning the button clockwise will reinstate the normal operation of the equipment. With [EMERGENCY] indicated on the LCD, no operations except normal/reverse rotation or raising/lowering of the roll are possible. <ul style="list-style-type: none"> <li>* With [EMERGENCY] lamp lit, the heater will be turned off. To resume the heater, press the temperature setting button.</li> </ul>

## Controls on the operation panel

 <p><b>[ °C/°F ] button</b> Switches the temperature unit between Celsius (°C) and Fahrenheit (°F)</p>	 <p><b>[ TEMPERATURE ] button</b> In HOT or COLD mode, use the following temperature range.  HOT mode: 80 to 140°C COLD mode: 30 to 50°C</p>
 <p><b>[ SPEED ] button</b> In HOT or COLD mode, use the following range.  HOT mode : 0.5 to 3.0 m/min COLD mode: 0.5 to 1.3 m/min</p>	 <p><b>[ THICKNESS ] button</b> The roll-to-roll clearance is adjustable between 60μ and 4 mm.</p>
 <p><b>[ MEASURE ] button</b> Indicates the current temperature of the roll. If the temperature sensor fails, [SENS] lamp is lit on the LCD. If the roll interior overheats, [OVER] lamp is lit.</p>	 <p><b>[ MEMORY ] button</b> Up to 10 programs can be stored in the memory. Keeping the button depressed longer will blink the number appearing on the upper right corner of the LCD panel. After choosing a program number, enter temperature, speed, and thickness data. Then press the button longer again. The program has now been saved.  To call a program that has been stored, press this button short.  * During operation using a program, switching to other program is impermissible.</p>
 <p><b>[ PRESS/RELEASE ] button</b> The button lamp is lit when the roll is at the upper or lower stop position. Pressing this button when the roll is at the lower stop position will change the moving direction to upward. Pressing this button when the roll is at the lower stop position will move down the roll to the specified position.  * Automatically sets to a desired roll pressure when lowering the roll. During the laminating process in operation, you can change the roll pressure but cannot move up/down the roll.</p>	 <p><b>[ FAN ] button</b> In HOT mode or during the heater in operation, the cooling fan is forced to operate with this button lamp lit. However, pressing this button during fan operation will stop it.</p>
 <p><b>[ COLD ] button</b> To switch between HOT and COLD modes, press this button. This button/lamp is lit when COLD mode is selected.</p>	 <p><b>[ REVERSE ] button</b> Only while this button is depressed, the roll rotates reversely.</p>
 <p><b>[ STANDBY ] button</b> Pressing this button will cause the equipment to enter into standby mode. In the standby mode, the following temperature is maintained while the main motor and fan motor are kept at rest.  Hot mode : 70°C Cold mode: 30°C  To cancel the standby mode, press any button other than the standby mode button.</p>	 <p><b>[ RUN/STOP ] button</b> Pressing this button short will cause the roll to start rotation in the normal direction. Pressing this button again will stop the roll.  Keeping this button depressed longer will call a different roll operation mode where it rotates only while the button is depressed.</p>

## Caution

- This equipment is available for material thickness (sum of the film and material) between  $60\mu$  and 4 mm. Do not use this equipment for larger thickness.
- For the following cases, the heater will stop.
  - [OFF] shown in the temperature indicator
  - The emergency stop switch is pressed.
  - The front guide table or safety cover is not in place. To resume the heater, set the table and cover in place and press the temperature setting button.
- Simultaneous pressing of two or more buttons will not activate any of your intended operations.

## Foot switch

The equipment can be operated also by using the foot switch. Note that the foot switch gives different commands dependent of your short or long pressing action.

- : Short-pressing when the roll is at rest will start its rotation in the normal direction.
- : Long-pressing when the roll is at rest will cause it to rotate only during the switch depressed.
- : Short-pressing when the roll is rotating will stop it.
- ■ : Short-pressing and then long-pressing when the roll is at rest will start its rotation in the reverse direction and continue to rotate only while the switch is depressed.
- ● : Short-pressing two times when the roll is at rest will move it up.
- ● : Short-pressing two times when the roll is at rest at the raised position will move it down.

## Before Start Laminating

### Laminate film

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

This machine (IRIS-44LK) uses “roll film.”

\* This machine is unavailable for pack type films.

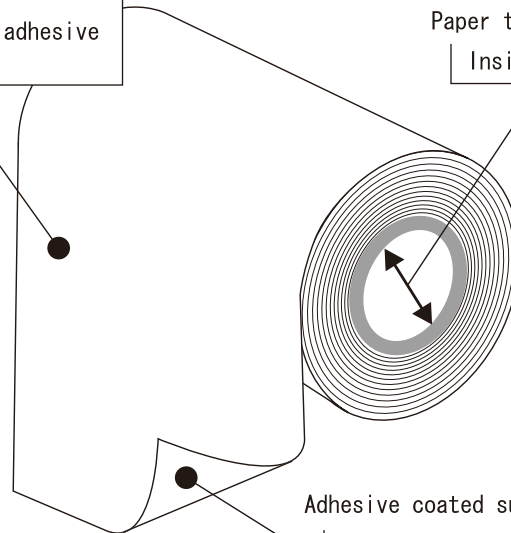
<b>Thickness (<math>\mu</math>)</b>	Thickness of laminate film depends on use. This machine can handle various thicknesses including 32 $\mu$ , 80 $\mu$ , 100 $\mu$ , 150 $\mu$ , 200 $\mu$ , 250 $\mu$
<b>Paper tube size (inside diameter)</b>	Laminating machine manufacturers use different paper tube sizes (e.g. 1 inch (about 26 mm), 2 inches (about 58 mm), and 3 inches (about 77 mm)) depending on their design and structural requirements/goals. * This machine cannot use 1-inch paper tube.
<b>Adhesive coated surface (inside or outside)</b>	Adhesive coated surface of a laminate film can be either the inside or outside surface of the film. <b>⚠ Caution</b> Setting a film in wrong orientation may cause the adhesive coated surface to face to the roll surface, which leads to its damage.

Adhesive coated surface facing outside

This is a rolled film with its adhesive coated surface facing outside.

Paper tube size

Inside diameter of paper tube



Adhesive coated surface facing inside

This is a rolled film with its adhesive coated surface facing inside.

### ⚠ Note for use of laminate film

- To place or store laminate film, avoid high temperature or humid environment.
- When not in use, store the film in a special locker or box.
- Use laminate films suitable for use with this equipment.
- If you found a film defective, do not use it. Contact the film seller. Using an improper or defective film may cause the equipment to fail.

## Available materials

Materials that can be laminated depend on the type of the laminator. This equipment comprising rolls that are heated inside can laminate photographs and color prints but cannot laminate the following materials due to the high temperature rolls and other structural characteristics.

- Written in crayon (some types of crayon may be liquefied by heating)
- Papers such as heat sensitive paper and pressure sensitive paper subject to deformation or break due to heat or pressure
- Other than paper (possible cause of mechanical damage)

## Recommendation for lamination operating parameters

The main lamination operating parameters - temperature and speed - significantly affect the product quality. For recommendable values of these parameters, see the table below.

Temperature and Speed Setting Applicable for this Equipment			
Film thickness	Thickness of material	Temperature	Speed
32 $\mu$	Thin (about 80g/m <sup>2</sup> , e.g. copy paper)	105°C ~ 115°C	2.2 ~ 2.7
	Medium (about 130g/m <sup>2</sup> , e.g. catalogue)		1.6 ~ 2.2
	Thick (about 210g/m <sup>2</sup> , e.g. food menu)		1.3 ~ 1.9
100 $\mu$	Thin (about 80g/m <sup>2</sup> , e.g. copy paper)	115°C ~ 125°C	1.1 ~ 1.3
	Medium (about 130g/m <sup>2</sup> , e.g. catalogue)		1.1 ~ 1.3
	Thick (about 210g/m <sup>2</sup> , e.g. food menu)		0.8 ~ 1.3
150 $\mu$	Thin (about 80g/m <sup>2</sup> , e.g. copy paper)	120°C ~ 130°C	0.8 ~ 1.1
	Medium (about 130g/m <sup>2</sup> , e.g. catalogue)		0.8 ~ 1.1
	Thick (about 210g/m <sup>2</sup> , e.g. food menu)		0.8 ~ 1.1
250 $\mu$	Thin (about 80g/m <sup>2</sup> , e.g. copy paper)	130°C ~ 140°C	0.5 ~ 0.8
	Medium (about 130g/m <sup>2</sup> , e.g. catalogue)		0.5 ~ 0.8
	Thick (about 210g/m <sup>2</sup> , e.g. food menu)		0.5 ~ 0.8

### Caution

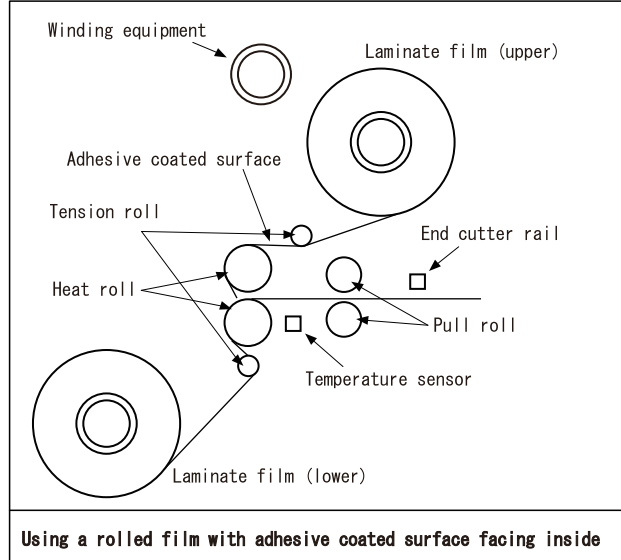
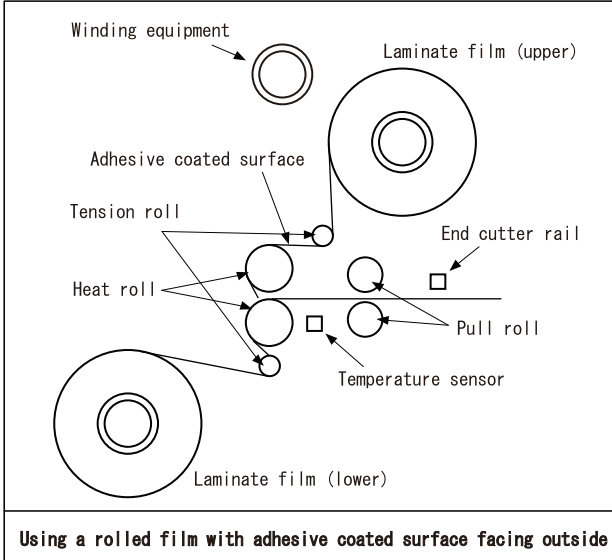
- The table above is for reference only.  
The actual settings of these parameters should be determined case by case depending on the material to be laminated.
- To laminate an important material, you had better test the parameters setting by performing an actual laminating operation but with a dummy material.

## Hot Laminating

### How to set films and how to operate the equipment

Set the upper and lower laminate films as shown in the figures below.

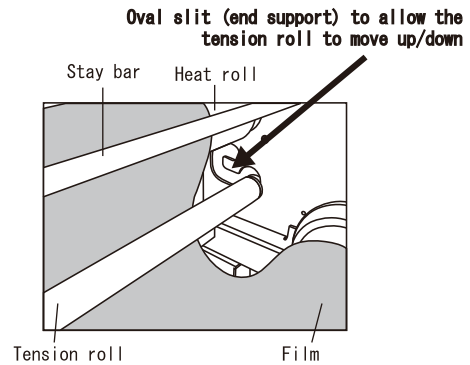
- \* When setting the films, the heater should be kept turned off to avoid burn injuries.
- \* This laminating process does not use the winding equipment.



**【1】** Remove the guide table and safety cover.

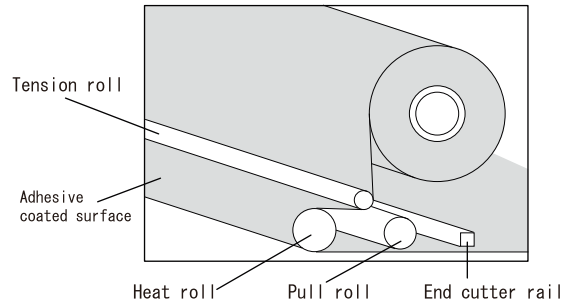
**【2】** Set the lower film.

- ① Remove the film shaft from the unit. Set the rolled film so that the film comes upward when it is unwound.
- ② Set the rolled film adequately.  
Please take care the glue side in the rolled film.
- ③ Looking the unit from the front side, lead the film behind the tension roll and then through the pair of the heat rolls assembly. If the tension roll has been at the raised position, move it down beforehand.
- ④ Then lead the film through the pair of the pull rolls assembly and then under the end cutter rail.
- ⑤ Raise the tension roll.



## 【3】Set the upper film.

- ① Remove the film shaft from the unit. Set the rolled film so that the film comes downward when it is unwound.
- ② Set the rolled film adequately.  
Please take care the glue side in the rolled film.
- ③ Looking the unit from the front side, lead the film behind the tension roll and then through the pair of the heat rolls assembly.
- ④ Then lead the film through the pair of the pull rolls assembly and then under the end cutter rail.



## 【4】After setting the films in place, replace the guide table and safety cover.

- \* If the guide table or safety cover is not in place, [COVER] or [TABLE] lamp will be lit on the LCD panel. This prevents you from turning on the heater. See the LCD to determine which of the guide table or safety cover is not in place. Then set it correctly.

## 【5】Setting

- Press the temperature setting button to turn on the heater.
- Set your desired temperature according to the type or nature of the laminate films and material to be laminated.
- When the laminate rolls reach the specified temperature, [READY] lamp will be lit on the LCD.
- Before starting laminating operation, move down the roll using the roll up/down button, and then press [RUN] to start lamination as a test without the material i.e. with laminate films only. See the films that are coming out of the unit to determine whether or not there are evidences of erroneous operation such as wrinkles, opaque-looking, and wavy surface.

### Wrinkle

The laminate film(s) may not have been set in place.

They should be set with a little tension so that no slack can be made in any part on the path to the final rolls. Slightly apply the brake to the film roll shaft to give tension to the film.

### Opaque-looking

The traveling speed may be too high, or roll temperature setting too low. This may cause the laminated product to be discolored as it looks whitish. Slightly raise the roll heating temperature or decrease the laminate traveling speed, and then perform a test operation.

### Wavy

The traveling speed may be too low, or roll temperature setting too high. Slightly raise the laminate traveling speed or decrease roll heating temperature, and then perform a test operation.



## 【6】 Complete preparation

- If, in the preliminary operation, the laminate films are discharged properly, you can start actual laminating process.
- Move down the roll to rotate it.
- Insert the material between the pair of the laminate rolls assembly.

### **Caution**

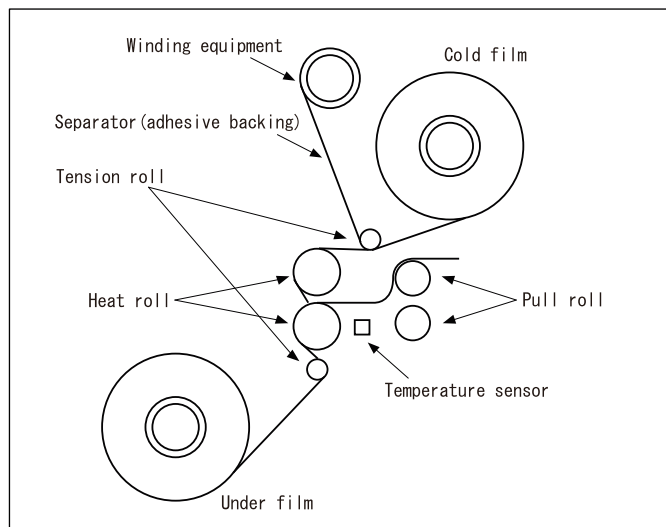
- When not in use, keep the roll at the raised position. Leaving the roll lowered may cause the roll to be damaged.
- When the heater is on, the roll surface is too hot to touch with hand. Never touch it.
- During rolls rotation, there is a danger of your fingers, hair or clothes being caught in the pair of the rolls assembly. Take care to avoid these pinch hazards.

## Cold Laminating

### How to set films and how to operate the equipment

Set the upper and lower laminate films as shown in the figure below.

- \* When setting the films, the heater should be kept turned off to avoid burn injuries.
- \* This laminating process does not use the pull rolls assembly.

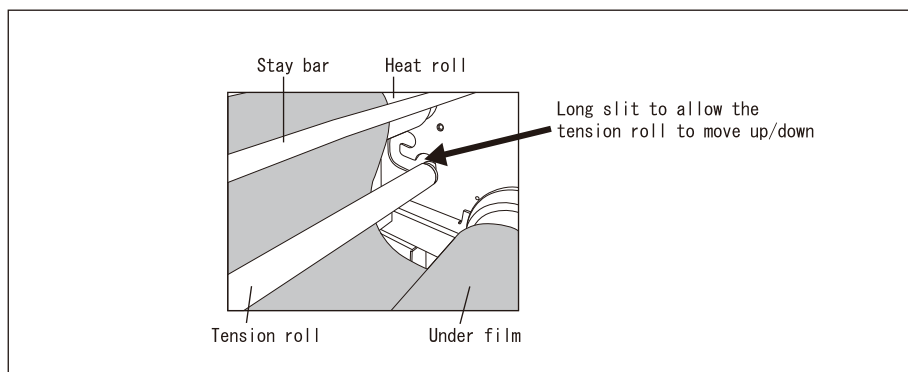


**【1】** Select COLD mode (heater off) using HOT/COLD selector button.

**【2】** Remove the guide table and safety cover.

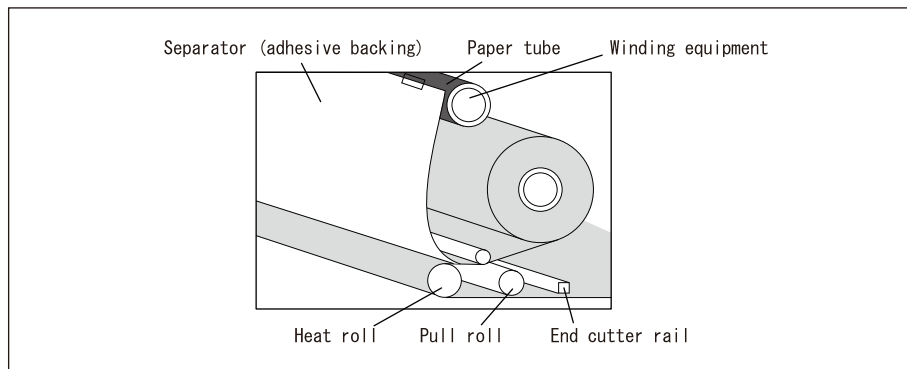
**【3】** Set the under film.

- ① Remove the film shaft from the unit. Set the rolled film so that the film comes downward when it is unwound.
- ② Set the film adequately. Take care the direction of the film.
- ③ Looking the unit from the front side, lead the film behind the tension roll and then through the pair of the heat rolls assembly. If the tension roll has been at the raised position, move it down beforehand.
- ④ Then lead the film in such a manner that it bypasses the pull rolls assembly and end cutter rail and then further unwind the rolled film so that it can reach the discharge port.
- ⑤ Raise the tension roll.



## 【4】Set the cold film

- ① Remove the film shaft from the unit. Set the rolled film so that the film comes upward when it is unwound.
- ② Set the film adequately. Take care the direction of the film.
- ③ Looking the unit from the front side, lead the film behind the tension roll. Peel off the separator (adhesive backing) within a relevant length from the free end of the cold film, and adhere it to the under film.
  - \* Tape the end of the separator (adhesive backing) to the paper tube on the winding equipment.
- ④ Unwind the cold film until it comes out of the discharge port.



## 【5】Replace the front table and safety cover.

## 【6】Set operating parameters and start operation

- ① Adjust the settings for the side cutter, film tension, temperature, and traveling speed.
- ② With [READY] lamp lit on the LCD, you can start the process by pressing [RUN]. The winding equipment will operate automatically.
- ③ After lamination is completed, cut off the laminated portion of the material using the rear cutter.
- ④ Raise the laminate roll (upper). End of operation

### Caution

- The adhesive coated on the film is so strong that it may easily adhere to the rolls assemblies, which can result in their damage.
- Roll temperature higher than 60°C is unavailable for the cold laminating mode. Wait until the rolls cool.
- Do not place things close to the temperature sensor. It may otherwise fail to detect heat.

## Maintenance

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

### Cleaning the heat rolls

During operation, small amount of adhesive may separate from the film and stick to the rolls. Rolls contaminated with adhesive may degrade the quality of laminating process and lead to machine failure. Clean the rolls periodically.

- ① Remove the guide table and safety cover.
- ② Find stains while rotating the rolls in normal and reverse directions.
- ③ Wipe with a dry soft cloth, or use disinfecting ethanol or alcohol to remove stains (adhesive). Never use solvent (thinner and benzene), the rolls may otherwise deform or discolor.

### Cleaning other rolls

Other rolls than the heat rolls can be contaminated with foreign matters such as paper powder and dust. Clean the rolls in the similar manner as that for the heat rolls.



#### Caution

- Keep the roll turned off while its cleaning.
- Be careful about the heat rolls that have been too hot to touch.
- Do not use hard brushes such as steel wool. The rolls may otherwise be damaged.
- Avoid keeping the roll depressed.
- A normal cleaning method using a dummy of thick paper as a cleaning agent, applicable for pack type laminators, should not be used. Such thick paper may jam the equipment, leading to its damage or malfunction. The same cleaning method but with a thin dummy paper is also unavailable. The paper may be entangled by the rolls.

### Protective cover

When not in use, keep the equipment covered for dust protection.  
Use a cloth large enough to cover the entire part of the equipment.

## Failure, or Just a user serviceable matter?

Important check points for ensuring the proper operation of the equipment are shown below.

### The equipment cannot be powered.

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

The equipment uses 1  $\phi$  230 VAC. Check that the plug is properly connected to the wall outlet. Check that the power switch located on the rear side of the unit is turned on.

- **Fuse is blown off**

Replace the fuse with new one (see P. 7 for installation instructions). If the fuse is blown off repeatedly, contact the seller or our company.

- **Fuse in the circuit breaker is blown off**

Turn off the power switch, and disconnect the power cable. Wait for a while and power the equipment again. If this failure persists, contact the seller or our company.

### The rolls cannot be heated up.

- **The heater is off.**

Adjust the heating temperature setting and turn on the heater power switch.

- **The overheat protective thermal cut off is operating, or heater element is broken**

Contact the seller or our company.

### The heater cannot continue to operate with [ERROR] indicated on the LCD.

- **The temperature sensor or its electric circuit is defective.**

Contact the seller or our company.

### The laminator does not operate with [TABLE] or [COVER] indicated on the LCD.

- **The front guide table or safety cover is not in place.**

Set it in place.

Then press the temperature setting button to turn on the heater (for hot laminating process).

### The equipment operates erroneously, or power turns off soon.

- **The temperature sensor or its electric circuit is defective.**

Contact the seller or our company.

- **Static electricity charged within the equipment may cause the PCB to operate erroneously.**

Turn the power off and then on again.

### The material cannot be conveyed.

- **Too thick material?**

The equipment accepts a maximum thickness of 60  $\mu$  to 4 mm including the films. Inserting a material of larger thickness may lead to rollers' incapability of rotation, or failure of the equipment. Do not insert materials thicker than the maximum allowable thickness.

- **Film or material entangled by the rolls?**

If the material is left in the entrance, remove it 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 the seller or our company.

## Others

### Product Specification

Max. laminating width	1120 mm
Max. substrate thickness	4 mm
Paper tube size	2 inch (3 inch is option)
Max. laminating speed	Max. 3.0 m/min
Processing temperature	140 °C
Heating system	Heating roller
Power requirements	230V 50/60Hz
Power consumption	3700W
Size (W x D x H)	1576×597×1071 (mm)
Weight	140 kg
Accessories	Foot switch and casters Caster:1260×450×770 (mm)
Option	Rewinding equipment

※ Details in this document can be changed without notice to make improvements on the product.