

HEAT ROLLER UNIT

PR-L151

(MODEL No. : PR5302)

Operation Guide

Section 1 • • • Introduction

Section 2 • • • Preparation

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Section 4 • • • Replacing the ribbon

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Section 6 • • • Maintenance

Section 7 • • • Countermeasure for troubles

Thank you for your selecting Heat Roller Unit PR-L151 (Model No. PR5302).
Please read this instruction booklet all through before using the unit.

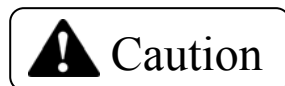
Section 1: Introduction

Several illustrations are used in this operation manual to ensure safe operation.
The following conventions are used to identify the result caused by the use or operations not following such illustrations.

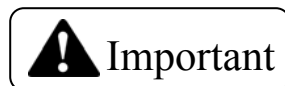
◇ Markings which needs to be observed with special attention.



: This indicates that there is a danger of death or serious injury.



: This indicates that there is possibility of injury or damage on property .



: This indicates the topics which should be carefully followed for correct operation of this unit. If used incorrectly, there is a possibility of causing damages on this unit, connected equipment, and soft wares, etc.

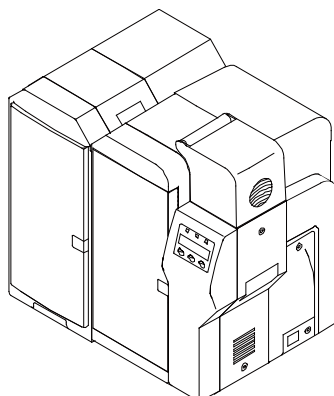
◇ Illustrations used in this instruction manual



This indicates items which are prohibited, “Prohibition mark”.

Feature of this equipment

This Heat Roller unit is optional unit for Card Printer PR-L151 (Model No.PR5350) for over coating.



- Hard coat type operation mode

The printed surface of the card by the card printer can be protected for long period by coating the printed face with reinforced film.

- Soft coat type operation mode

By using hologram film as a coating ribbon, the card with higher security can be made.

- Reference Type Operation Mode

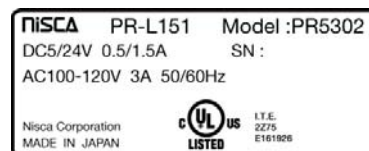
It is possible to place a hologram mark at the specified position on the card



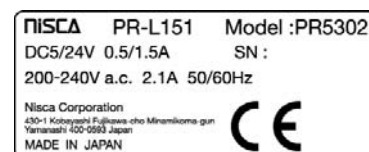
There are following two types of power source for this Heat Roller unit .

Check the rating plate attached to the rear cover and connect to the correct power source.

(1) If your power supply is 100VAC - 120VAC and 50 or 60 Hz, please use the equipment with this name plate.

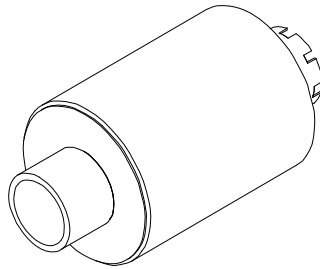


(2) If your power supply is 200VAC - 240VAC and 50 or 60 Hz, please use the equipment with this name plate.



 Caution

Please use the card (print media) and coating ribbon specified by the dealer for this Heat- roller unit.



If card or ribbon other than specified are used, over coating may not be done correctly and it may result in equipment trouble.

Especially, do not use a ribbon made of flammable material as it will cause a fire.

If you are not sure as to the type of the card and ribbon which you are going to use, please check with your dealer.

Points to pay attention before using:

(1) Never disassemble the equipment



Do not remove the screws fixing the top cover and rear cover and disassemble the covers.

There is no user replaceable parts inside, and there is a possibility of causing electric shock.

(2) Do not insert a flammable object or metal items in the ribbon room.



There is a roller which is as hot as over 150°C (302° F) inside the ribbon room.

If a flammable object is inserted, it may cause a fire. Touching to the lead wire of the heat roller may cause an electric shock.

Do not put finger or metal object inside.

Flammable items: Paper, wood piece, flammable plastic, film, etc.

Metal objects: Screw driver, wire, paper clip, etc.

(3) Install the equipment correctly as described in page 11 of this booklet.

■ Do not install at the place where it may cause a fire, such as following:



Near the heat radiating equipment such as stove etc.

Place where there is volatile fuel or filled with flammable gas.

Near the flammable items such as curtain, paper etc.

■ Do not install at the place where the equipment may fall off.



On the unstable desk, inclined surface etc.

On unstable base which is not firmly constructed and may easily be broken by earthquake etc.

This Heat Roller unit weighs 13Kg (28.7lbs).

It may cause an injury if it falls off and hit a person nearby.

■ Do not install at the place with direct sunlight or with unusually high temperature.



The inside temperature of the equipment will increase and may cause a fire.

■ Do not install at high humid and dusty place.



The place where water such as rain or other liquid may sprinkle. Dusty place. It may cause a fire and/or electric shock.

(4) Electrical rating of power supply for this unit is shown on the rear cover.

Connect the power source correctly as described in the page 14 of this manual.

■ If connected to the power source which is different from the specified rating or the power source of less capacity, it may cause a fire or electric shock.

■ If the machine will not be used for a long period, remove the power plug from the wall outlet.

Even if the power switch is turned off, the unit is still connected to the power source.

It may be affected by thunder etc. and cause a fire unless the power cord is disconnected from the wall outlet.

If the following occurs, stop operation immediately, disconnect the power plug and call the dealer. Do not resume to use till the service person completes the inspection and service work.

- Smoke, unusual smell, abnormal sound, etc. are detected.
- The unit fell off the table or is subjected to a physical shock.
- Water etc. are sprinkled.

(5) Do not turn off the power or open covers while the machine is running



Do not turn power off or open covers while printing, otherwise a card remaining in the heat roller unit could not be ejected automatically by deforming when re-turn power on.

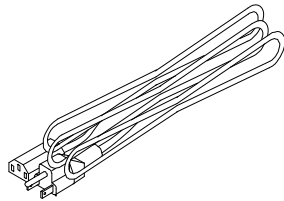
If a power cut occurs while printer working, open the front cover and check whether a card is in the Heat Roller unit.

Memo

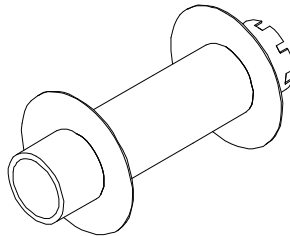
Section 2: Preparation

Check the contents of the package.

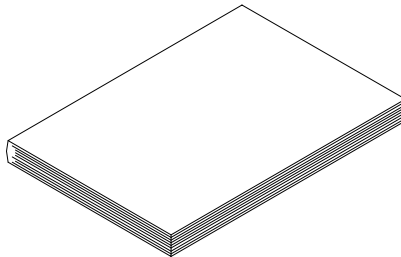
- Check that there is no damage on the unit during transportation. If any damage is found, please contact the dealer immediately.
- Check that the following are included:
Power cable.



Ribbon take-up spool



Operating manual



Caution

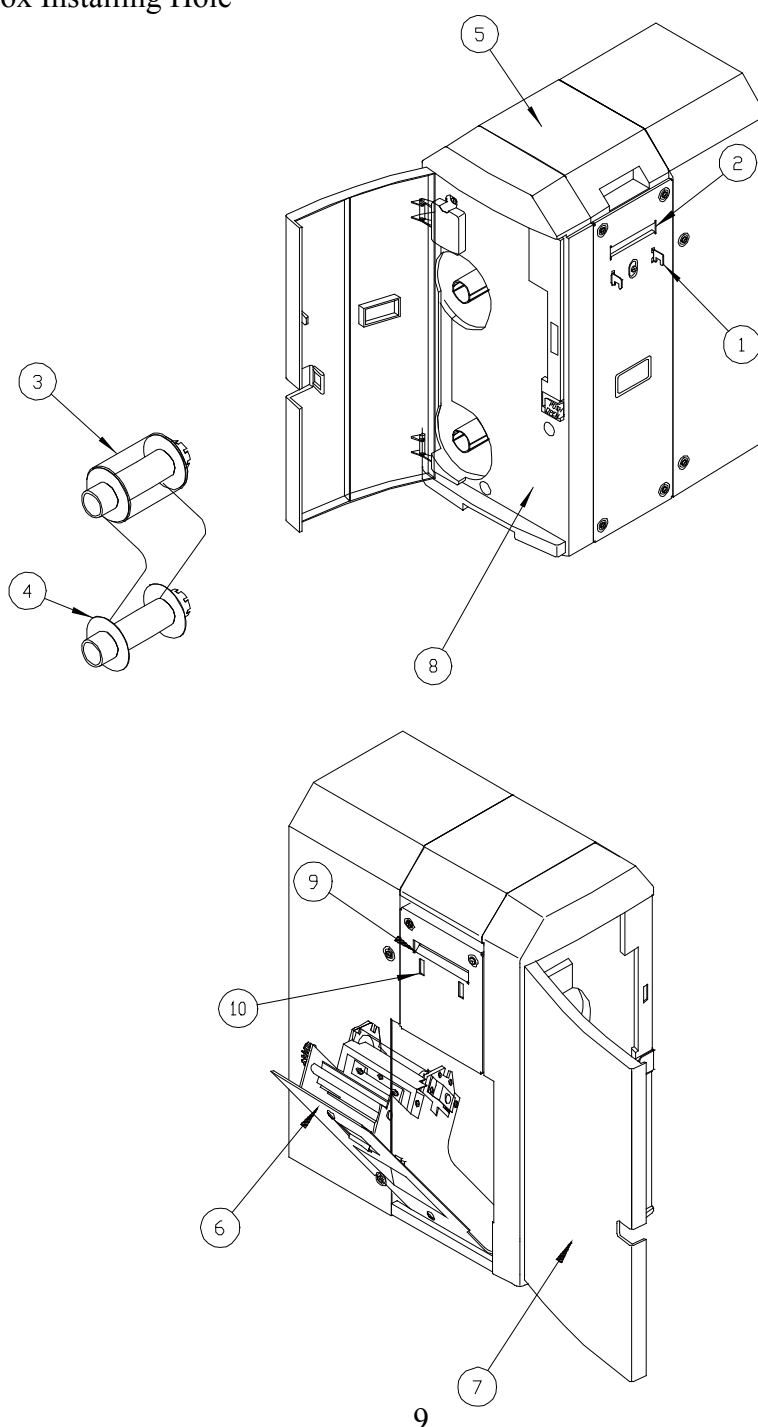
A cushion pad is inserted inside the unit to protect the heating lamp from a shock during transportation. Remove the pad before using following the instruction in page 13th.

Memo

Names of Parts

<PR-L151 (MODEL No. PR5302)> (Front Side, Right & Left Side)

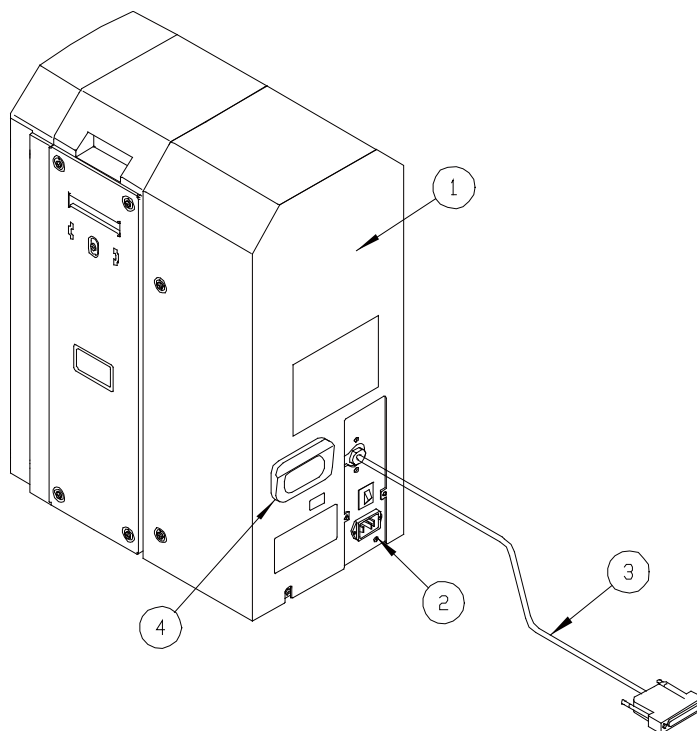
- 1: Printer joint hook
- 2: Card entrance
- 3: Ribbon feeding spool
- 4: Ribbon take-up spool
- 5: Top cover
- 6: Side Cover
- 7: Front Access Cover
- 8: Front Cover
- 9: Eject Card Exit
- 10: Stack-Box Installing Hole



Names of Parts

<PR-L151 (MODEL No. PR5302)> (Rear Side)

- 1: Rear cover
- 2: Power cord receptacle
- 3: Printer connecting cable
- 4: Handle

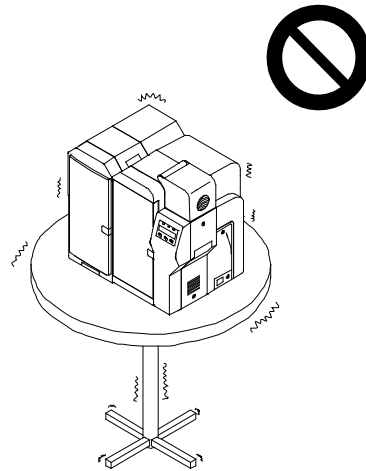


Section 3: Installation

a) Place to install

Select the place as described below:

- Select and install on the rigid table or floor on the same plane as the printer, which is free from vibration or shock.



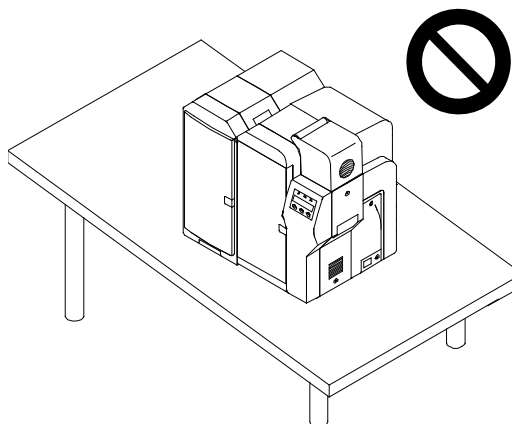
- The place where the environment can be controlled as specified in the specification.

Temperature: 10 - 35°C (50 - 95° F)

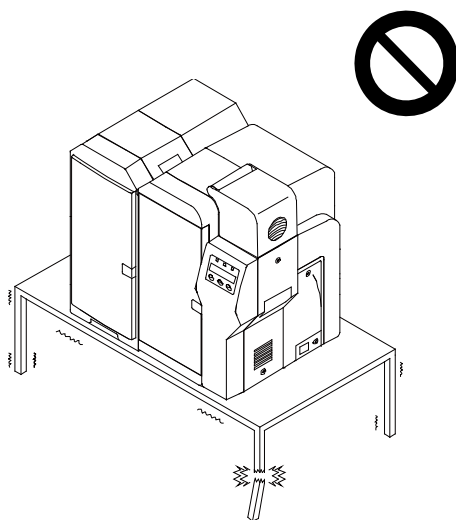
Humidity: 35 - 80%

Do not install in such place as following:

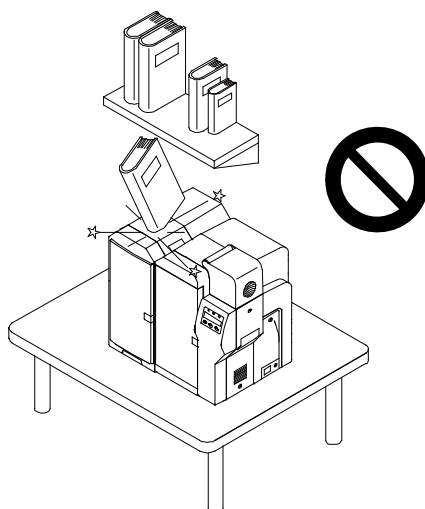
- Slanted and/or uneven surface.



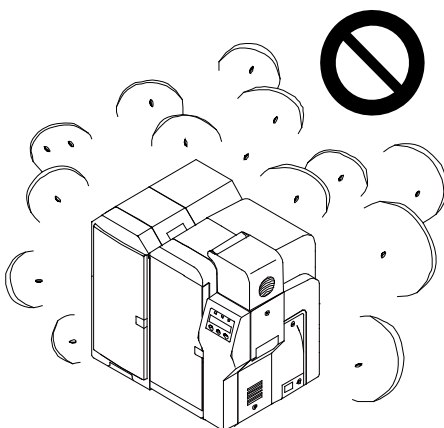
- Weakly structured table or floor which cannot sustain the weight of the unit.



- Table or floor which may be subjected to a drop shock of something.

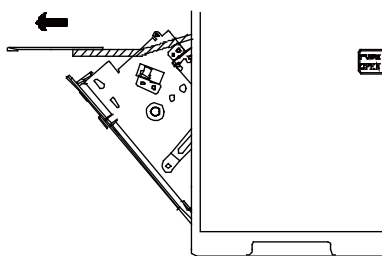


- Place with much dust and high humid.



b) Installation procedure

- (1) Open side cover



- (2) Remove lamp protection pad before connecting to the power source.

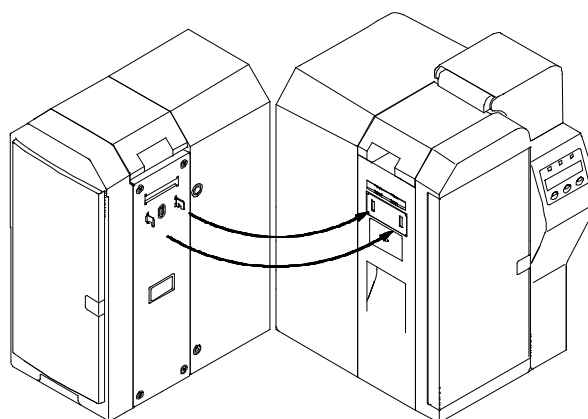
- (3) Turn off the power of the printer. (PR-C151 (Model No. PR5350))

Turn off the power switch of the printer and confirm that the Power LED on the operation panel of the printer is off.

- (4) Combine the Heat Roller unit to the printer. (PR-L151 (Model No. PR5302))

Remove the stacking box of the printer.

Insert the printer joint hook located on the right side cover of the unit into the stacking box hole located on the left side cover of the printer in the direction as shown by the arrow mark.



Important

After combining this unit with the printer, make sure that all four legs of both this unit and the printer are supporting the bodies of the units. If any one leg is found not supporting, check whether the surface of the desk is even or not slanted, or the combination hook is firmly inserted, etc. and remove the cause after determining.

- (5) Attach the stacking box to the card exit of this Heat Roller unit.

Insert the stacking box removed from the printer into the stacking box mounting hole.

(6) Check the power source before connecting the power cord to the wall outlet.

- Select the correct power supply wall outlet to connect the cord of this unit.

Check and confirm whether the rating of the power source matches with the rating which is indicated on the rating plate on the back of the unit.

If the rating of the outlet cannot be confirmed, ask your dealer before connecting the power plug.

- Select the outlet location for easy plugging of the cord.
- If extension cord needed, use the cord with higher rating than the rating of the unit.

The rating of the extension cord is:

125V 10A for the 100 - 120V series unit.

250V 10A for the 200 - 240V series unit.

Using the cord with less than the rating may cause abnormal heat or fire.

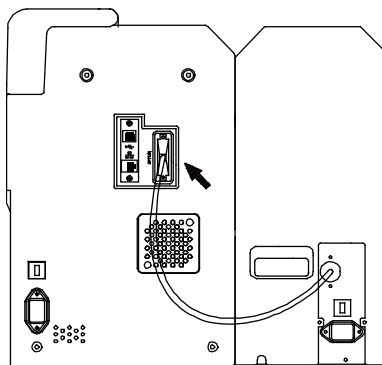
- Use the outlet with the earth pole.

(7) Plug-in the power cord.

- Do not handle the power cord with wet hands as it may result in electric shock.
- Do not bend the power cord too tightly, place anything on it or place at near the heat emitting objects.
- Connect the earth line of the power cord to the earth terminal of the outlet without fail.

(8) Connect the printer connecting cable. (PR-L151 (Model No. PR5302))

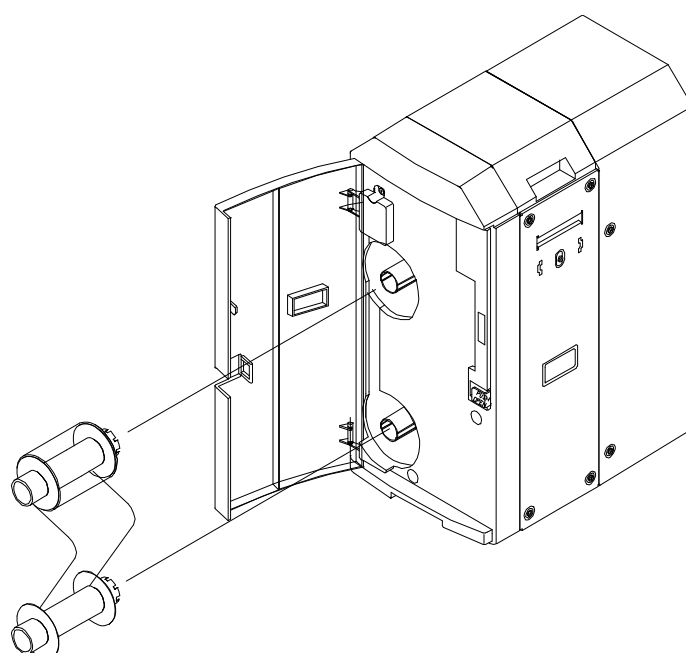
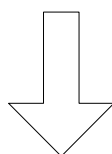
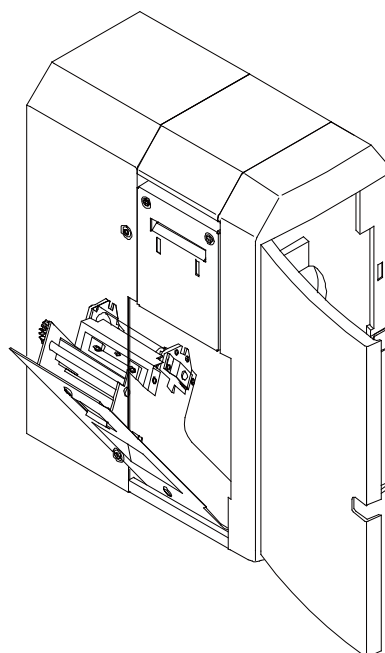
First, confirm that the power switch of the printer is off (Power LED of the control panel of the printer is off) and then, connect the cable to the optional unit connector at the backside of the printer.



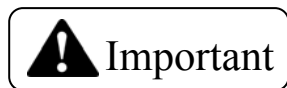
There is a power supply from the printer (DC 5V & 24V). If the cable is connected while the power source to the printer is on, it may cause a trouble on the unit.

Firmly tighten the screws of the plug of interface cable to prevent unexpected trouble.

Section 4: Replacing the ribbon



1. Ribbon to be used



Please use the ribbon specified by the dealer only.

There are two types of ribbons, hard coat type and soft coat type.

The unit will not function if the ribbon which is not specified is used.

Fire or other trouble may be caused depending on the kind of the ribbon used.

2. Timing of the ribbon exchange

The ribbon for this unit must be exchanged as a consumable supply at the following occasions:

- When the unit is first used.

The ribbon is not loaded when the unit is shipped from factory.

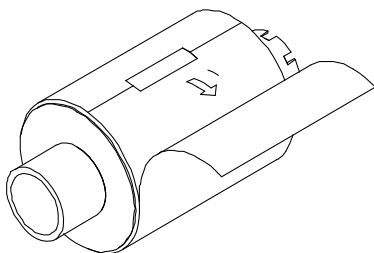
- When the ribbon is finished

- When changing the type of ribbon

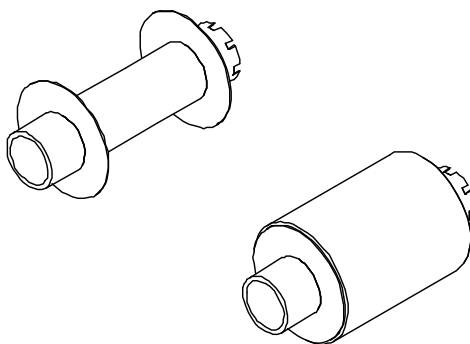
3. Preparation for changing the ribbon

- (i) Remove the adhesive tape of the ribbon.

Peel off the adhesive tape on the end of the new ribbon roll.



- (ii) Place the feed spool side by side with the take-up spool in the same direction as shown in the fig.



Important

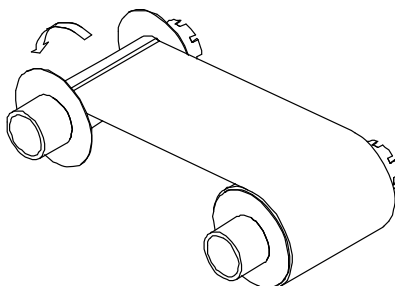
Coupling holes of both take-up spool and feed spool must be in the same direction.



Caution

If the unit is used for the first time, use the empty take-up spool which is included in the shipping carton. After second time on, use the feed spool which has become empty, as the take-up spool. (The feed spool and the take-up spool are the same)

- (iii) Attach the end of the ribbon onto the take-up spool with adhesive tape along the groove of the spool.



Align the edge of the ribbon against the longitudinal groove on the spool and attach.



Important

If the end of the ribbon is not aligned correctly against the groove it may cause a failure in take up or coating.

- (iv) Turn on the power of the printer.

Power LED lamp on the operation panel turns on.

- (v) Open side cover

4. Loading the ribbon



Caution

While exchanging the ribbon, the Heat Roller (150°C (302° F)) is exposed.

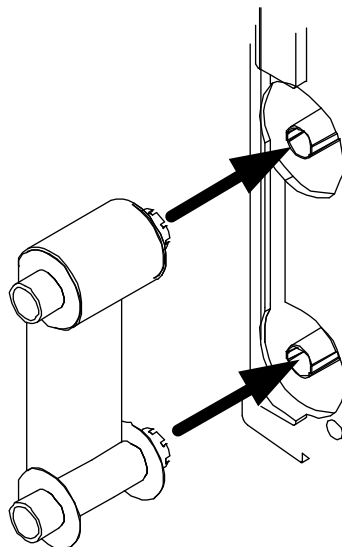
Do not put your fingers in this area to avoid getting burned.

Carefully proceed the ribbon exchanging in the following steps.

- (i) Open the front access cover.

Gently press the center part of the cover. Then the cover opens.

- (ii) Load the ribbon



Important

- Hold take-up and feed spools with both hands, the coupling holes toward the unit as shown in the fig.
- Slowly insert the spools onto the guide-pins of the unit.
If the spools are not inserted smoothly, the ribbon or spools may be conflicting with some parts inside the unit. Pull out and try again.
- Insert the spools till they are set firmly



Caution

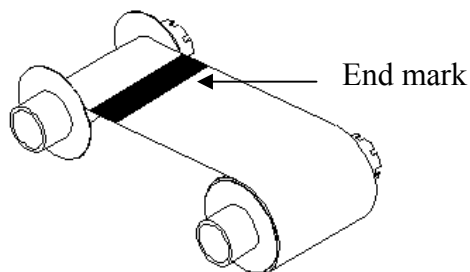
Inside the unit where the ribbon is to be inserted, the high temperature Heat Roller is exposed. When the ribbon conflicts with internal parts, do not use screw driver etc. to release. Pull out the spools and try again.



Important

Ribbon must be loaded in the correct path without slack. Otherwise, it may cause a trouble or failure of coating.

When mounting the hologram ribbon during use, do not use if the end mark can be confirmed on the ribbon surface.



(iii) Close the side cover.

(iv) Close the Front access cover and press “Clear” key to initialize.

Confirm that the message “Ready to print” is displayed after pressing “Clear” key on the operation panel of the printer.

If other message is shown, such as “Error”, follow the instruction of the relevant message.

5. Removing ribbon

- (i) Turn on the power of the printer

Power LED lamp on the operation panel of the printer turns on.

- (ii) Open the side cover.

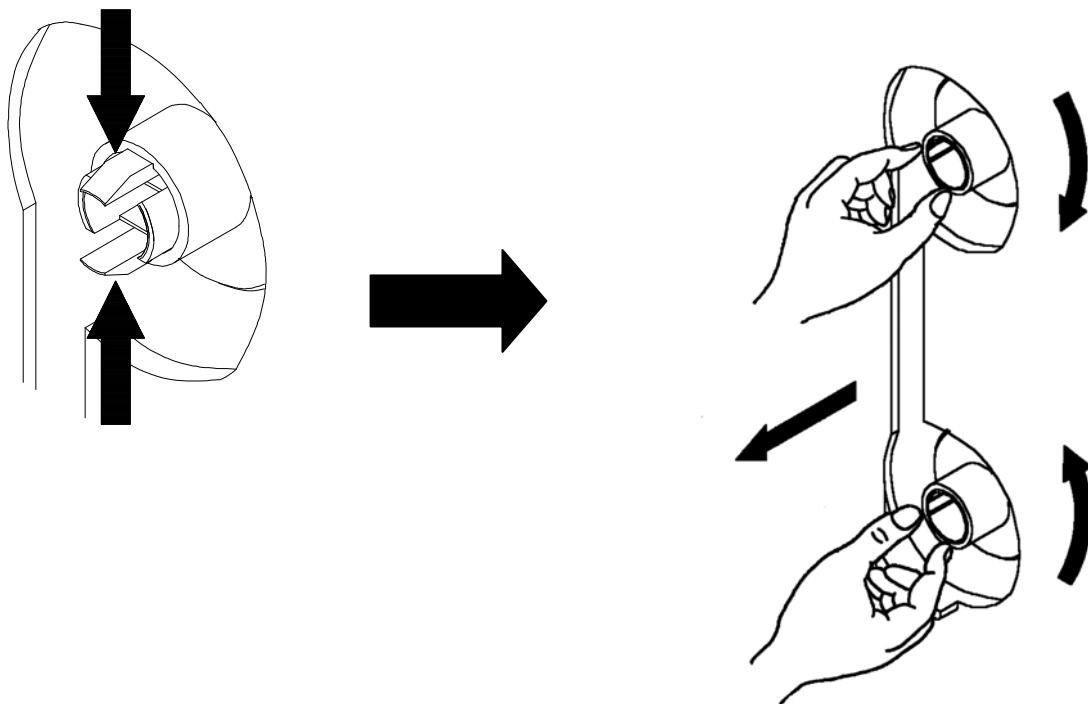


The heat roller assembly (150°C (302° F)) is exposed when exchanging the ribbon.
To avoid burning injury, do not put fingers in the Heat Roller space.

- (iii) Open front access cover.

Gently push the center part of the cover to open it. Be careful not to give excessive power.

- (iv) Hold the take-up spool and feed spool with both hands as shown in the fig. and pull out slowly.



Section 5: Setting ribbon type



Important

There are various types of heat roller units according to the ribbon type. Please check To See if the correct ribbon is used for your heat roller unit.

■ Matching of heat roller unit and ribbon type and marking

There is a making of "A-HARD" or "SOFT" near the interface part on the back side.

Correspondence of the types are shown in the table below.

Marking	Ribbon Type :Application
SOFT	NO RIBBON TYPE: Used to heat without ribbon.
A-HARD	
-	HARD COAT TYPE 1: Incompatible.
A-HARD	HARD COAT TYPE 2: Patch type ribbon.
A-HARD	HARD DUAL TYPE 2: Patch type ribbon. (Design different front and back)
SOFT	SOFT COAT TYPE: Full area print type ribbon.
SOFT	REFERENCE TYPE: Full area print type ribbon with positioning mark for hologram pattern.

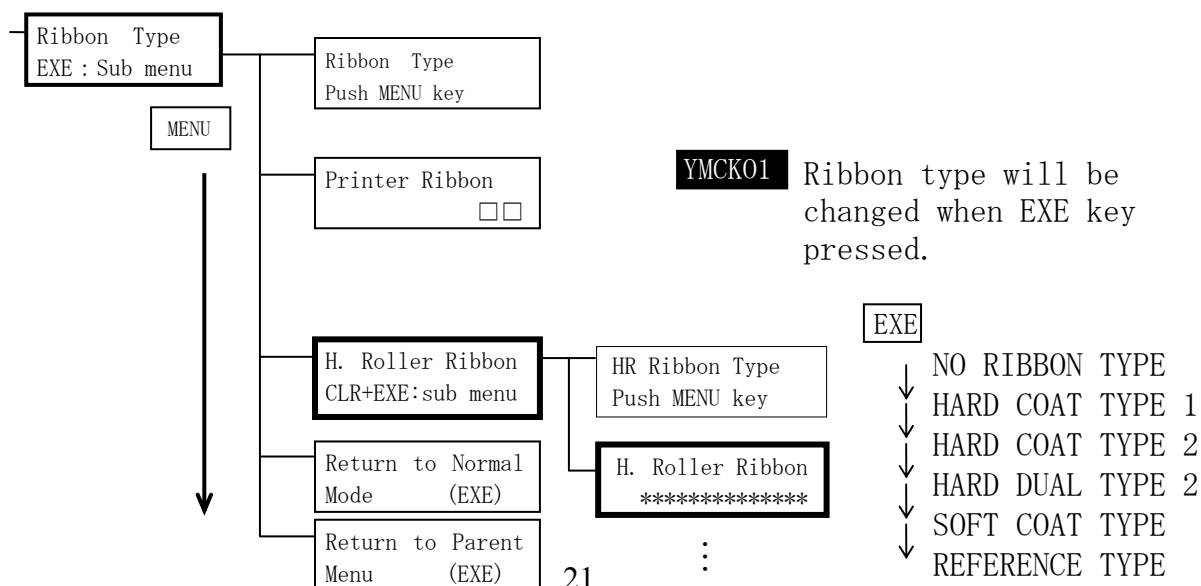
According to the ribbons to be used for the heat roller unit, it is necessary to set the ribbon type and heat transferring condition on the operation panel of the printer.

■ Setting the ribbon type

Set the ribbon type on the operation panel of the printer. For the method of setting, please refer to the paragraph 4, "Operation Panel" in the operation manual of the printer.

On the LCD (liquid crystal display), press the CLEAR Key and EXE Key when "H. Roller Ribbon CLR + EXE:sub menu" displays to enter the Ribbon Type setting menu.

The ribbon type shown on the lower line of the LCD display changes each time the EXE key is pressed while "H. Roller Ribbon" is shown on the upper line. Select the correct ribbon type and move by MENU key and return to normal mode to complete the setting.



■ Setting the heat transfer condition

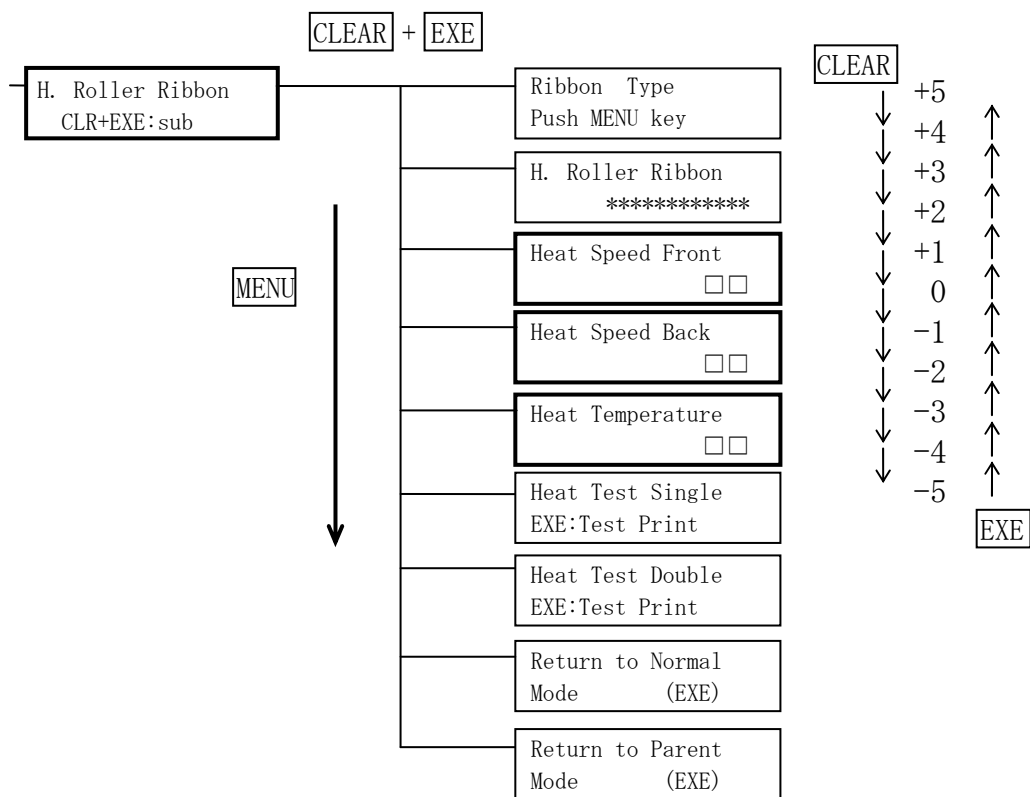
Set the heat transfer condition in the following steps.

Heat Speed Front: Heat transfer speed (front surface)

Heat Speed Back: Heat transfer speed (rear surface)

Heat Temperature: Heat transferring temperature

After correct ribbon is set, press the CLEAR Key / EXE Key to set the transfer speed and transfer temperature. After setting the heat transfer speed and temperature individually, test print can be made by the menu "Heat Test Single/EXE Test Print" or "Heat Test Double / EXE Test Print" to check the transfer condition. Move by MENU key and return to normal mode to complete the setting.



Settings Menu	Details
Heat Speed	Higher values mean a greater transfer speed, and lower values mean a lower transfer speed.
Heat Temperature	Higher values mean a greater temperature, and lower values mean a lower temperature.

Section 6: Maintenance



Important

Periodic cleaning at the interval of 10,000 times of operation is necessary for the flip over transport rollers, capstan rollers and platen rollers which are used to transport the card in this unit. Failure of cleaning may cause stain on the face of printed card, heat transfer defective and transport failure. Please perform cleaning correctly in the following steps.



Caution

The surface of the heat roller of this unit becomes high temperature of more than 150°C while in operation. When cleaning, turn off the power and wait for more than 30 min. and make sure that the surface of the heat roller has become the room temperature. Otherwise it may cause burn.

How to clean the flip over transport roller

- (1) Turn off the power of the printer and heat roller and pull off the plug of the power cord. When plugging off, do not pull the cord. If the cord is damaged, electric shock or fire may be caused.
- (2) Open the top cover, turn the flip-over module by rotating the grip to bring the rollers to the convenient position for cleaning.
- (3) Open the front access cover.
- (3) Hold the cotton bud wet with alcohol touched to the roller and rotate the green knob on the front access panel.
- (4) After cleaning, please wait about 5 min. before restarting the heat transfer operation. By leaving about 5 min., the alcohol on the surface of the roller will evaporate.



Important

Please use the wet cleaning brush with alcohol for OA equipment. Using dry brush may cause trouble. The cleaning brush is disposable. Do not reuse.

Cleaning the capstan roller and platen roller

- (1) Turn off the power of the printer and heat roller and pull off the plug of the power cord from the outlet. When plugging off, do not pull the cord. If the cord is damaged, electric shock or fire may be caused.
- (2) Open the side cover of the card feeding side. The cover can be removed by removing the 4 fixing screws.
- (3) Open the front access cover.
- (3) Hold the cotton bud wet with alcohol touched to the roller and rotate the green knob located on the front access panel.
- (5) After cleaning, wait about 5 min. before restarting the heat transfer operation.
By leaving about 5 min., the alcohol on the surface of the roller will evaporate.



IMPORTANT

Please use the wet cleaning brush with alcohol for OA equipment. Using dry brush May cause trouble. The cleaning brush is disposable. Do not reuse.

Section 7: Countermeasure for troubles

Troubles displayed on the operation panel



Important

If there is a trouble in the heat roller, a red lamp on the operation panel of the printer will be lighted and the type of the trouble is displayed on the LCD panel. Most of the troubles such as wrong setting of the ribbon type, card jamming position etc., in addition to notifying ribbon empty, can be checked on the LCD panel. In order to differentiate from the troubles in the printer unit, "H" will be shown before the error cord for the troubles in the heat roller unit.



Important

LCD display for the trouble indication

For the messages of the error cord with "H" which is not found in the table below, or in case of the trouble which can not be released, please contact the dealer.

In such case, please inform the message and the 4 digit error code shown in the lower right corner of the LCD display.

H. Roller Cover
Open H○○-○○

← Error Code

Card Jam HR Unit
Area10 H○○-○○

Card Jam HR Unit
Area11 H○○-○○

H. Roller Ribbon
Empty H○○-○○

Ribbon Type Incorrect
H○○-○○

Ribbon Wind up
Miss H○○-○○

Check H. Roller
Power H○○-○○



Important

Standard operation to clear the trouble

After clearing the existing error, press the Clear key located below the LCD panel of the printer unit so that the printer can be recovered to the "Ready to Print" status. If "Cannot Recover / Please reset" appeared on the LCD panel, clear the trouble and press the Clear Key for more than 3 sec. Release the Clear Key after checking that the display has been changed to "Reset". The printer is reset and returns to the initial status of power on. If "Ribbon ..." appeared, take out the hologram ribbon without fail and check the condition of the ribbon.

Steps to clear the trouble

Message on the LCD Display	Cause / Countermeasures	Ref.
H. Roller Cover Open H-○○○○ □Cover is open	◆One of the front access cover, top cover or side cover is open. →Close the cover positively.	§11
H. Roller Cover Empty H-○○○○ □Ribbon is empty	◆Ink ribbon has become empty. →Change to the new ink ribbon.	§15
Ribbon Type Incorrect H○○-○○ □Incorrect ribbon	◆Setting of the ribbon on the operation panel of the printer and the actual ribbon is different. →Take out the hologram ribbon and check whether the set ink ribbon is correct or not. If correct, change the setting of the operation panel to the actually loaded ribbon.	§15 §21
Ribbon Wind up Miss H○○-○○ □Failed to wind ribbon	◆Hologram ribbon is not correctly loaded. →Check that the hologram ribbon is loaded correctly. →Check whether the used up ribbon cassette is loaded again.	§15 §21
	◆Hologram ribbon cannot be wound up. If the heat transfer Operation of hologram is interrupted by power shut off etc., card jam error may be caused as the hologram ribbon may stick to the surface of the card. →Peel off the hologram ribbon from the card, Wind it up till there is no wrinkle and set again. As the card may be deformed and may not be ejected automatically, remove it by hand. (Refer to the item "Card Jamming") Depending on the condition, repair work may be required.	§15
Check H. Roller Power H○○-○○ □No power to the heat roller	◆Heat roller is not heated after certain time is elapsed. →No electric power is supplied to the heat roller. Check whether the power cord on the back of the unit is correctly connected.	§11

How to clear the card jam

Important

Most of the card jam errors are caused by stain of the transport rollers in the card transportation path. As the card jam error occurs frequently with stained rollers, periodic cleaning of the rollers is recommended as explained in the section 6.

Most of the card jam errors can be cleared by pressing CLEAR Key on the operation panel and the card is automatically ejected to the reject exit of the printer unit. If it is not ejected in this way, remove the card by hand from the position shown on the LCD display on the operation panel.

Caution

The surface of the heat roller of this unit becomes high temperature of more than 150°C. (302° F) When cleaning, turn off the power and wait for more than 30 min. and check that the roller surface has become room temperature. Otherwise, there is a danger of getting burned.

Card jam error which is not cleared by Clear Key

Message on the LCD Display	Cause / Countermeasures	Ref.
Card Jam HR Unit Area10 H○○-○○ □Card jam in flip over Module	◆Card is jammed in the flip over block. →Turn off the power. Open the top cover and remove the card. If necessary, rotate the green grip in the flip over module or card transport knob in the ribbon cover and move the card to easy position to remove. After removing the card, clear the error by Clear Key. If this error occurs frequently, clean the rollers in the flip over block.	§23
Card Jam HR Unit Area11 H○○-○○ □Card jam in the hologram transfer area	◆Card is jammed in the heat block. →Turn off the power. Rotate the flip over module to vertical position so that the card transport roller comes to the right side. By rotating the card transport knob in the ribbon cover move the card to the flip over module. The rollers in both heat transfer module and flip over module are driven by rotating the card transport knob. Note: When the card jam error cannot be cleared by operating the card transport knob and it is necessary to insert hands in the unit, turn off the power, remove the hologram ribbon, and wait for sufficient time to cool down the heat roller and its peripheral area because it is dangerous with high temperature. If the error occurs frequently, clean the card transport rollers in the heat transfer module.	§23

Other troubles

Symptom	Cause / Countermeasures	Ref.
◆Card always jams at the transfer point from the printer unit	◆Abnormal communication with the printer unit. →Check that the ROM version of the heat roller (Ex. H. Roller Unit / 1.0) is shown in the menu of "ROM version display" in the User mode. If the version is displayed, follow the normal "Card Jam" countermeasures. If not displayed, there is a trouble in communication with the printer. Check whether the connector of communication cable with the printer is correctly connected. If it is connected correctly, please call the dealer. Other troubles	§11
◆There is no message about a Heat Roller appeared on LCD panel of a printer Even Front / Side cover of a Heat Roller is open	◆Abnormal communication with the printer unit. →Check whether the connector of communication cable with the printer is correctly connected. If it is connected correctly, please call the dealer.	§11
◆Print flakes off. The card is bent.	◆It is possible that the transfer conditions are not appropriate. →Set the transfer conditions to suit the environment you are using. (See how to set the transfer conditions)	§22

