DIRECT CARD PRINTER

PR5350 PR5360LE

Operation Manual

Ver. 1.3

FEB.'11

Contents

Section 1: For your safety

a) Before installing
b) Before turning power ON
c) Before using
d) Before moving the equipment
e) About laws and regulations
F) Prohibited matters

Section 2: Preparation

a) Package contents
b) Consumables
   Ink Ribbon
   Card
c) Parts to be replaced periodically
   Print Head
   Input Roller
d) Name of the parts

Section 3: Installation

a) Environment for installation
b) Space for installation
c) Preparation for installation
d) Connecting the Printer to Computer
   1)SCSI
   2)Parallel
   3)USB
e) Power ON
f) Settings after the Power ON

Section 4: Operation Panel

a) Outline of the Operation Panel
   Appearance and condition
   Function of each part
b) Operation of Normal Mode
c) Operation of User Mode
   Switching to User Mode
   Basic operation in the User Mode
d) Function of User Mode
e) Structure of User Mode

Section 5: Operation

a) Setting cards
b) Setting the ink ribbon

Section 6: Cleaning
a) Input Roller
b) Cleaning of the card transport rollers in Flip Turn Block
c) Cleaning of the print rollers
d) Cleaning of the ribbon transport roller
e) Cleaning of the Supply roller
f) Cleaning of the Print Head
g) Cleaning of the card transport roller
Section 7: Periodical replacement of parts
a) Replacing Input Roller
b) Replacing Print Head
c) Replacing fan filter
Section 8: Basic specification
Section 9: Configuration of the equipment
Section 10: Trouble and countermeasure
a) Troubles displayed on an operation panel.
Display of trouble on the operation panel
Basic operation to release troubles
b) Releasing Card Jam
Card Jam which can not be released by Clear key
c) Troubles which are not displayed on the operation panel

Section 1: For your safety

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.

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

⚠Warning :This indicates that there is possibility of death or serious injury.

⚠Caution :This indicates that there is a possible cause of injury and/or damages on properties.

This manual MUST be read fully before operating the printer.

a) Special attention —— 2 Page

b) Before installing —— 2 Page

c) Before turning the power ON —— 4 Page

d) Before using —— 6 Page

e) Before moving —— 9 Page

f) Other —— 9 Page

Meaning of the marks

△ **means " Be careful "**

○ **means " Never do this "**

● **means " Must do this "**

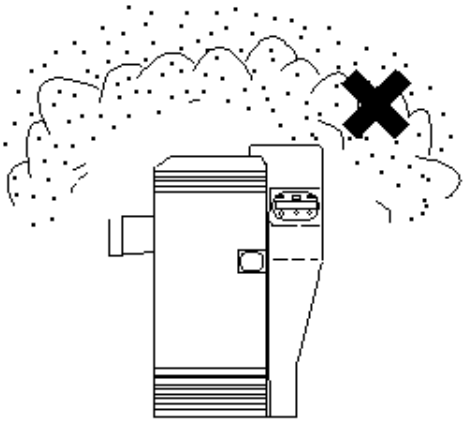
⚠Caution

1-a) Before installing

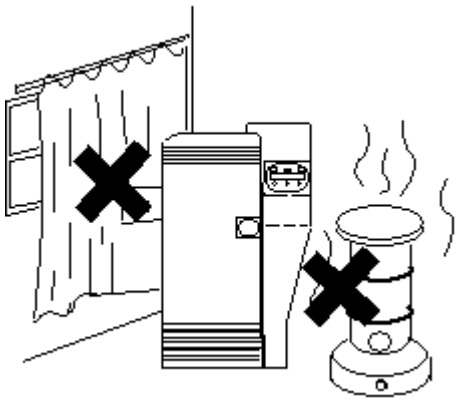
⚠Caution

About environment for installation

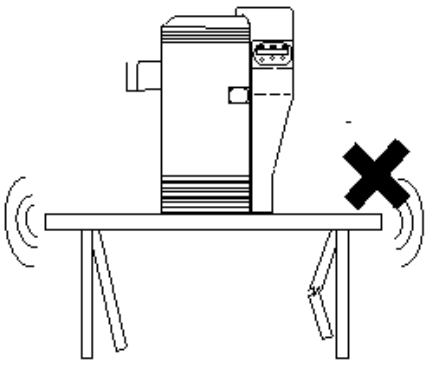
○ Do not install in humid and dusty room. It may cause fire and/or electric shock.



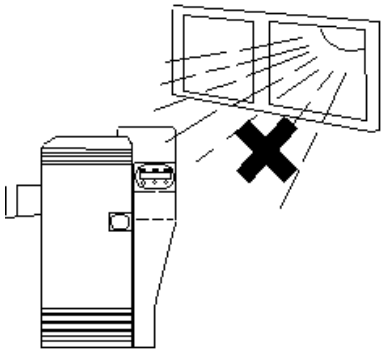
○ Do not install the equipments near the heat emitting apparatus such as stove and heater or near the flammables such as curtain. It may cause fire.



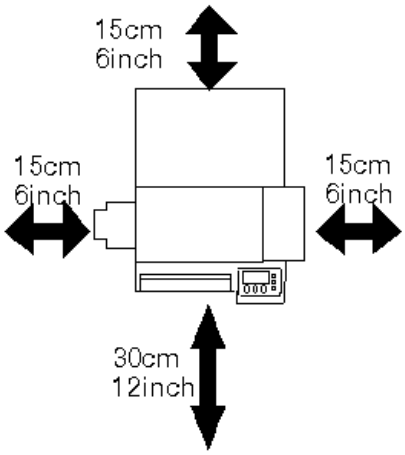
○ Do not place on shaky table or inclined location. It may fall or drop and cause injury to nearby persons.



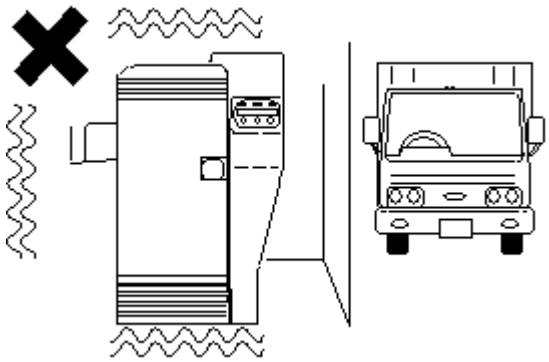
○ Do not place where there is direct sunlight. It may cause deformation of plastic housing and decoloration of the prints.



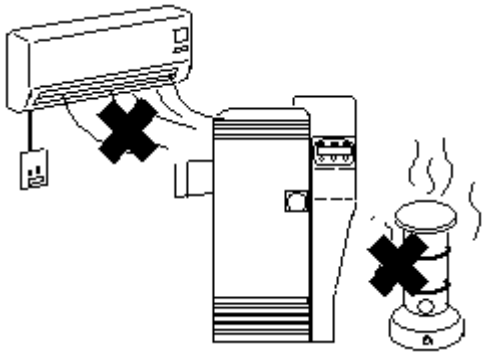
● Enough space must be provided around the equipments. This is necessary for easy operation as well as for ventilation.
If the ventilation opening is closed by obstacle, heat can not be dissipated and it may cause a fire.
(Place with the clearance as shown in the illustration.)



○ Do not place in the room with much vibration. It may cause troubles on the equipments.



○ Do not place in such place where the temperature changes rapidly. If the cold room is suddenly heated it may cause condensation on the equipments and damage the print quality or even printing function itself.

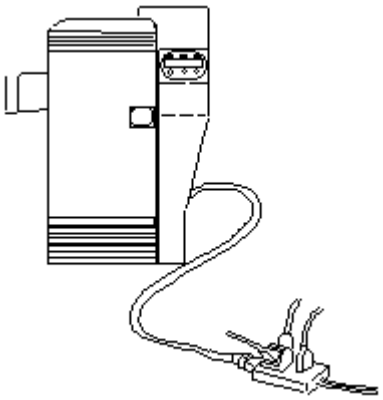


1-b) Before turning the power ON

About power source

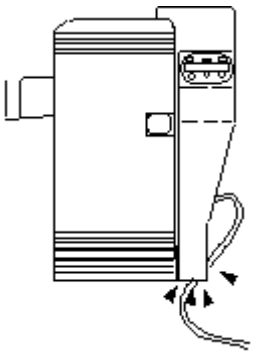
○ Do not use any other outlet than following. Do not connect more than one equipment onto one outlet. Otherwise, it may cause a fire and/or electric shock. The specified rating of this equipment is following.

100～240 VAC 2A

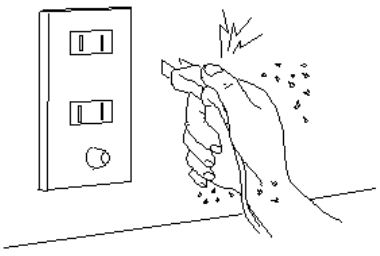


● Dust on the plug and electrical outlet must be removed. If used without removing, a small amount of electricity runs continuously through the dust by the effect of moisture etc. and may eventually cause a fire.

○ Be careful so that the power supply cord is not damaged. If the cord is twisted, pulled strongly or placed underneath a heavy object, it may be damaged and become a cause of fire.

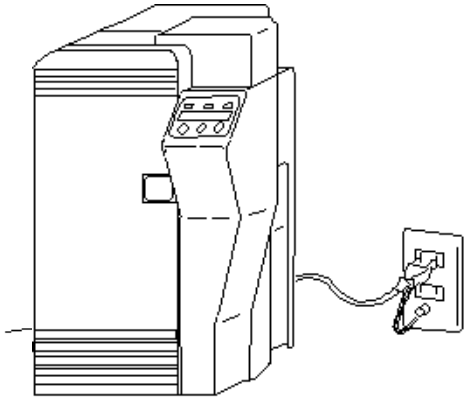


○ Do not handle the plug with wet hand because it may cause electric shock.



○ When you use an extension cord, do not use the cord which is rated at less than 125V 10A. Excessive heat or smoke will be caused.

About connecting the grounding line



● Grounding line must be connected. If the equipment is not grounded and there is an electric leakage, it may cause electric shock or fire.

〈Grounding line may be connected to the following points.〉

◆ Grounding terminal on the electric outlet

◆ The line connected to an copper rod which is buried in the ground at the depth of 65cm(26inch) or deeper.

〈Grounding line may not be connected to the following points.〉

◆ Gas pipe (There is a danger of fire and/or explosion.)

◆ Water faucet or pipe (It does not lead to the ground as plastic pipe may be used. However, it can be connected if it is marked as possible grounding facility.)

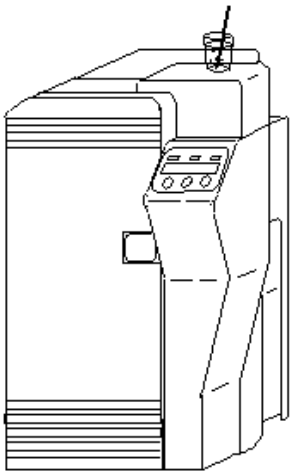
◆ Grounding line of telephone or lightning rod (It is dangerous as large electric current will run when hit by lightning.)

1-c) Before using

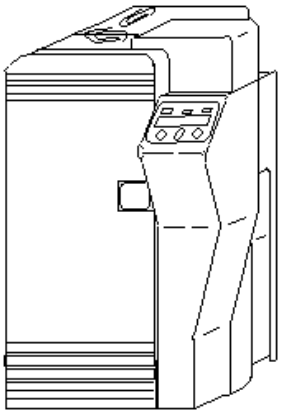
⚠Warning

About handling the equipment

○ Do not put anything containing water such as vase etc. on the equipment. If water is spilled, it may cause fire or electric shock.



○ Do not put any metal pieces such as paper clips on the equipment. If they drop inside the equipment, it may cause short circuit and cause fire or electric shock.

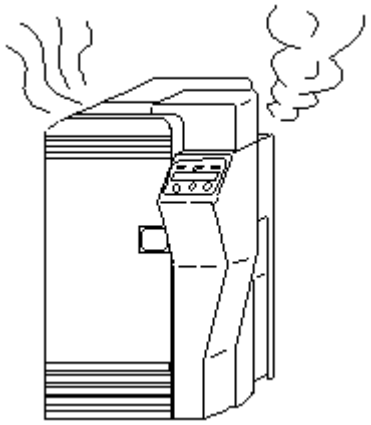


● If, by any chance, metal pieces or water get inside the equipment, turn off the main switch and plug off the power supply cord from the outlet. Then, contact the dealer from whom you have purchased the equipment. Using as it is may cause fire or electric shock.

○ Do not open the panel or cover which is fixed with screws, other than directed by the manual. There is live part carrying high voltage and it is dangerous of electric shock.

○ Do not modify the equipment. It may cause the danger of fire or electric shock.

- If smoke or unusual smell is detected, stop using. If it is used as it is, it may cause fire or electric shock. Turn OFF the main switch immediately, plug off the power cord and contact the dealer from whom the equipment was purchased.



- In case of thunder, for the purpose of safety, turn OFF the main switch and plug off the power cord. This will prevent burning of the equipment, fire or electric shock.

- If the equipment will not be used for a long period, turn OFF the main switch and plug off the power cord for safety. Deterioration of insulation may cause electric shock or leakage and fire.

⚠Caution

About handling of the equipment

○ Do not put any heavy article on the equipment. It may damage the equipment or cause the injury by dropping.

○ Do not use flammable sprays at near the equipment. It may catch fire and cause fire accident.

○ When the front door is open, do not put anything on the door or lean on. The door may be broken and will cause injury.

○ While the equipment is in operation, do not turn OFF the main switch, pull off the plug of power cord or open the doors of the equipment.
It may cause card jamming or malfunction of the equipment.

○ Do not touch any part inside the equipment other than directed by this manual.

● Read this manual carefully before performing recovering operations for card jamming or other malfunctions.

○ Do not attempt to operate in any other way than designated in this manual. Such attempt may cause unexpected damage on the equipment.

● If electric leakage occurs frequently, please contact the dealer from whom you have purchased the equipment.

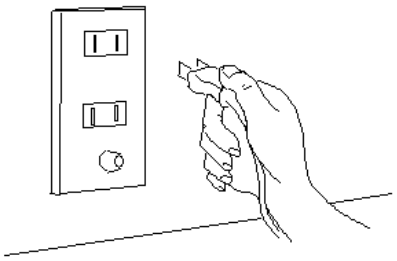
○ Cooling fans are rotating continuously to prevent temperature rise inside the equipment. This is not a defect. Do not put anything which may prevent air flow near the ventilation opening of the equipment.

1-d) Before moving the equipment

⚠Caution

About power source

- Turn OFF the main switch and plug off the power supply cord from the outlet before moving the equipment.
  Otherwise, it may damage the power cord and cause a fire.



- To pull off the plug of the power cord, hold the body of the plug and pull off. If the cord is held and pulled, the core lines may be pulled out or broken and cause fire or electric shock.

1-e) Other

If the equipment is installed and operated at near TV set or radio, it may cause an interference such as noise or flicker. In such case, use the outlet connected to separate power line and place the equipment as far as possible from them.

1-f) Prohibited matters

The law prohibits to use the portrait (photographs, paintings)of a person or use the copyright products (illustrations, logos etc)without permission.
Do not use this equipment for the unauthorized use of the copyrighted products or for other unlawful purpose.

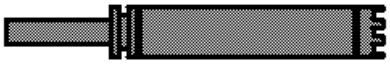
Section 2: Preparation

2 - a) Package contents

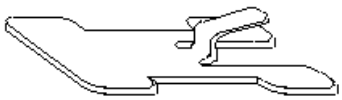
Following items are packed in the carton together with the printer.
If anything is missing, contact the dealer from whom you have purchased.

☐ Power Supply Cord

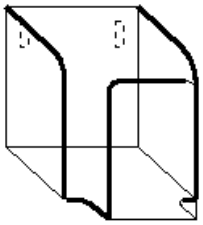
☐ Empty Bobbin



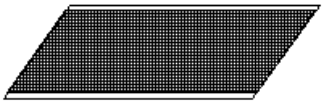
☐ Weight



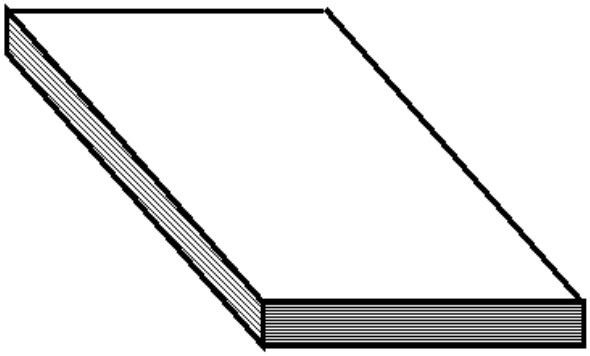
☐ Stacker Box



☐ Cleaning Card



☐ Operation Manual



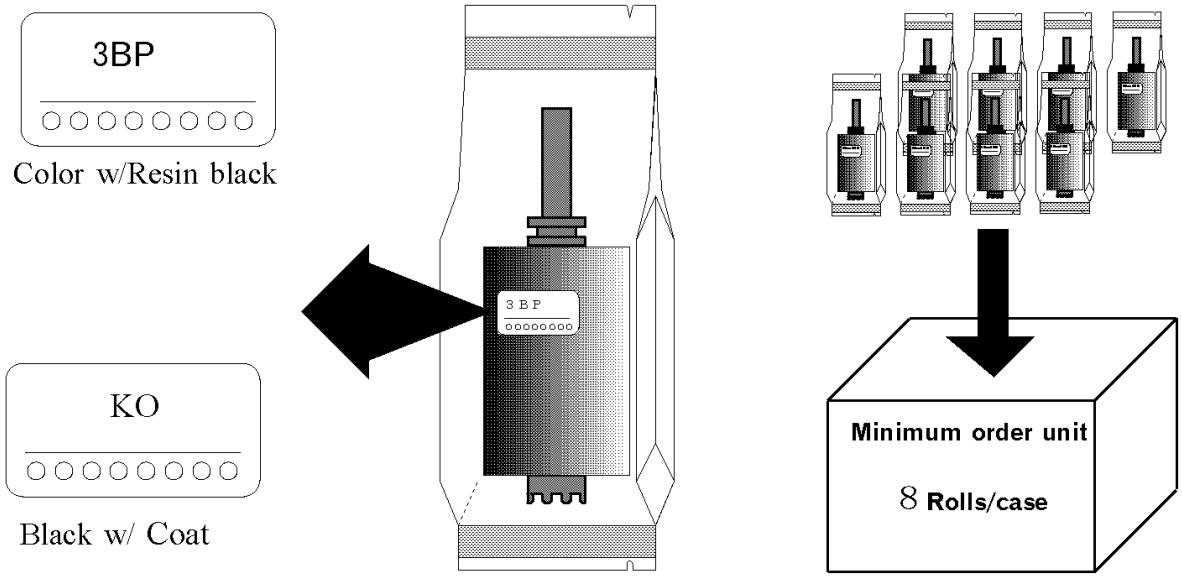
2 - b) Consumables

Ink ribbons and cards must be prepared to use this printer.

Ink Ribbons

The following 2 kinds of ribbons are used for this printer.

Name	Marking	Number of frames (Per roll)	Reference
Color w/ resin black	3BP	250	Dye sublimation type full color + heat melting black+Overcoat
Resin black w/ overcoat	KO	250	Heat melting black + Overcoat



☐ Do not use other ink ribbons than designated by us.→ It may cause equipment trouble.

☐ In the following case, printing of 250 frames may not be possible with one roll of ink ribbon.

Ink ribbon has been changed in the middle.

There has been errors in the middle.

Head lifting has been done in the middle.

Abnormal operation which is not allowed in this manual was done.

☐ Ink ribbon must be stored in the cold and dark place and kept away from organic solvent or diazo copying machine. Use as early as possible.

Maximum storage period is 6 months after delivery if they are kept in the environment of **25˚C (77˚F), 50% RH**. After this period, quality of print may be affected.

Card

The recommended card by dealer must be used. If the other cards are used, normal print quality may not be obtained and malfunction of the equipment may be

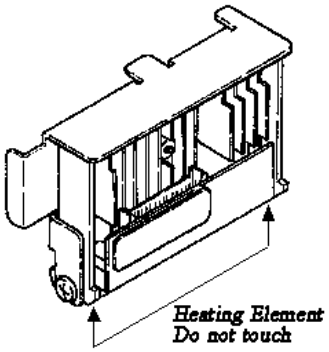
caused.

2 - c) Parts to be replaced periodically

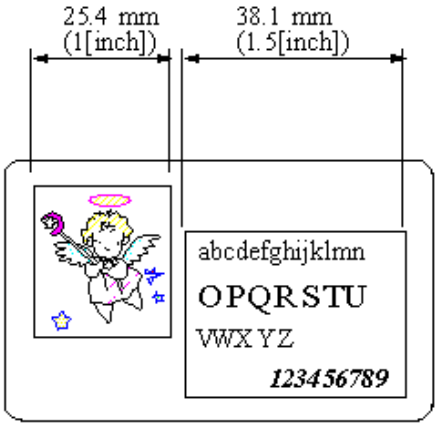
Spare Print Head, Input Rollers and Fan Filter are available for periodic replacement in order to ensure the optimum print quality and long life of machine.

Print Head

The Print Head comes with the floppy disk which contains the data for best print quality assured.
Because the Print Head is very sensitive to static voltage, hold it by frames and be very careful not to touch the contact pins with fingers. Static may damage the circuits inside this part.
At the printing edge of the Print Head is very hig h
compound of heating element. So, never touch this part with a hard object, fingers or stained materials.



Standard replacement cycle for the Head is 20,000 frames of printing with the following standard printing condition.



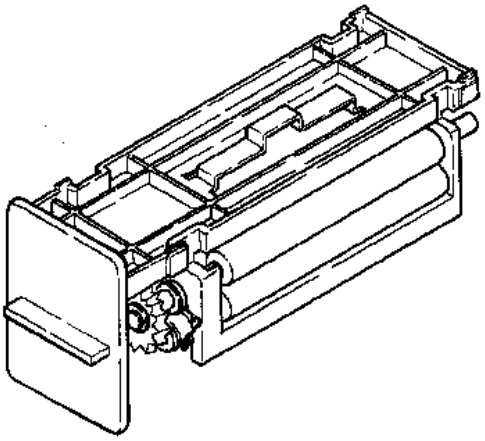
Full color image portion: 25.4mm in length (1inch)
Black characters : 38.1mm in length (1.5inch)
Protective layer :On color image portion only.

⚠Caution

Do not use the stained or dusty cards. Use the cards which are recommended by your dealer. Otherwise, it may cause damage on the Print Head and printer.

Input Roller

Periodic replacement cycle for the Input Roller is every 40,000 frames if the recommended cards are used and cleaning is done every 2,000 frames.
To exchange the Roller, refer the item "Replacing Input Roller" at 7-a)
For cleaning the Rollers, refer the item "Cleaning the rollers" at 6-a)



Fan Filter

Recommended Replacement period: every 6 months
Do not wash with water.
→ It may cause equipment trouble.

See page 50 for replacement

Cleaning Card

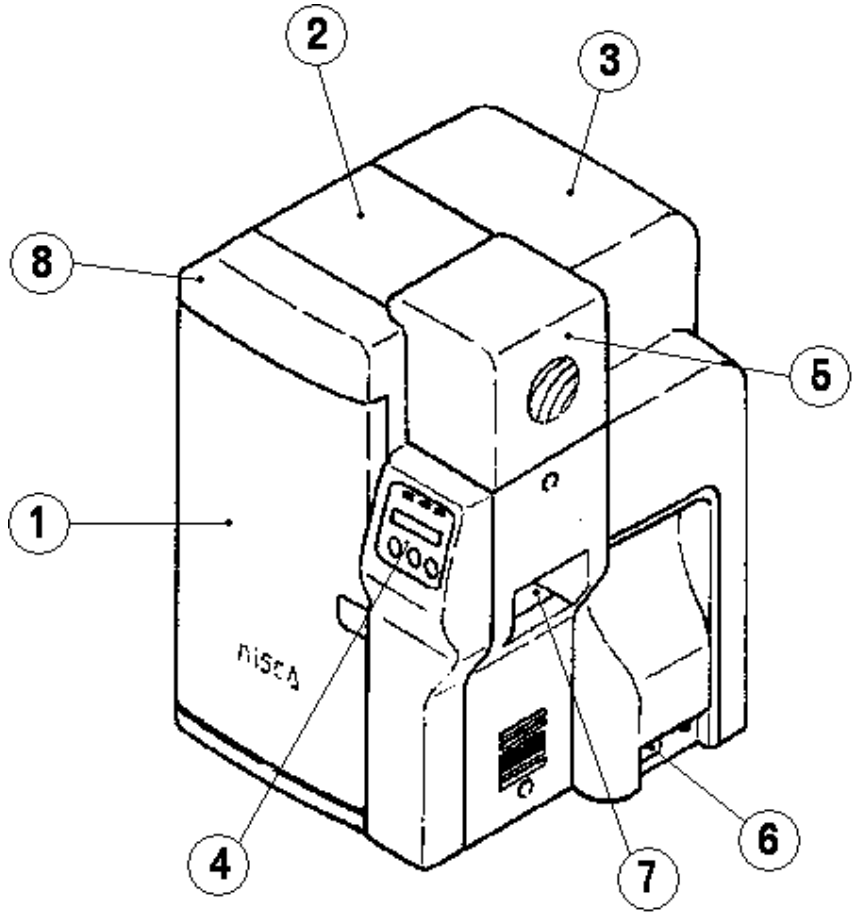
Use to make cleaning of card transportation rollers.
See page 46 for the way to clean.

⚠Caution

The cleaning card is designed as one time use.

2 - d) Name of the parts

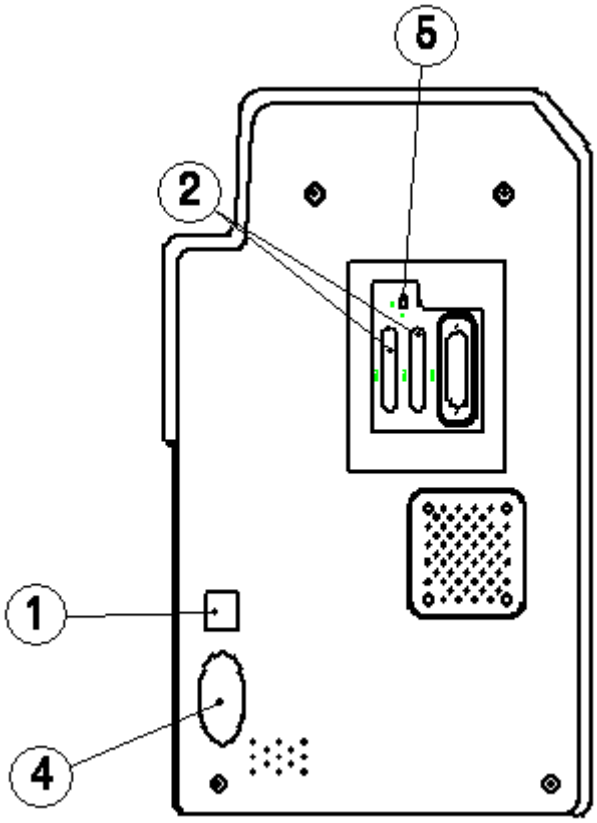
Front side of the printer



①Front Access Cover
②Top Cover
③Rear Cover
④Operation Panel
⑤Card Feeding Unit
⑥Power Switch
⑦Reject Card Exit
⑧Front Cover
⑨Card Stacker

Rear side of the printer

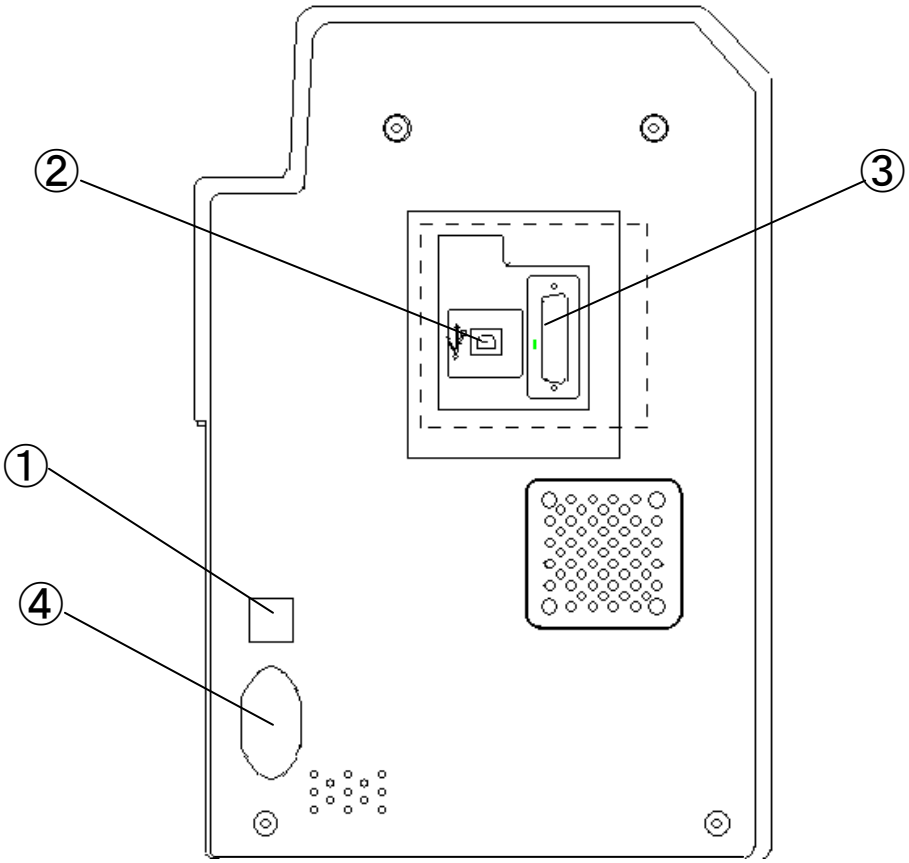
A) w/ SCSI type interface equipment



①Circuit Protecter
②SCSI Connector
③Optional Unit Connector
④Power Cord Receptacle
⑤Terminate Switch

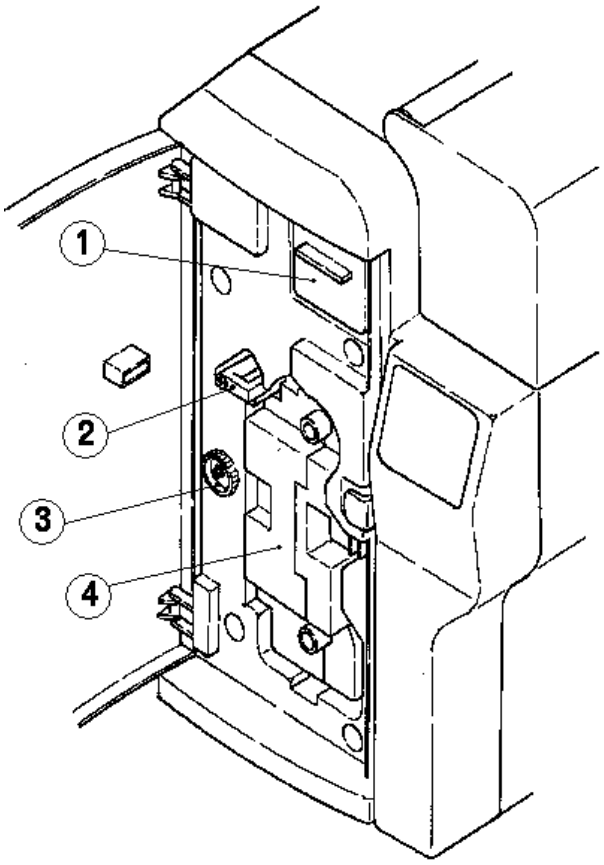
Rear side of the printer

b) w/ USB type interface equipment



①Circuit Protector
②USB Connector
③Optional Unit Connector
④Power Cord Receptacle

Front Access Panel



①Input Roller Module
②Ribbon Cartridge Holding Lever
③Manual Rotation Knob
④Ribbon Cartridge

Section 3: Installation

⚠Caution

□ First, please confirm that you have read the Cautions about installation.

3 - a) Environment for installation

The equipment can be used in the ambient temperature of 10～35° C（50～95° F）but to ensure the best performance, temperature range of 20～25° C（68～77° F）is recommended. Humidity should be 35 - 80% (RH) and without condensation.

⚠Caution

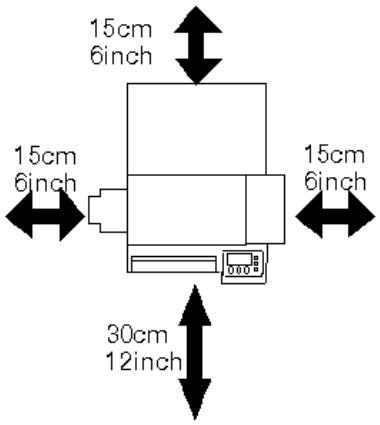
□ This printer is very much sensitive to dust. Do not install it in dusty room.
→ If dust remains on the printing surface of the card, it will directly affect the printed image. In the worst case, it will damage the Print Head and the Printer.

□ Do not place near the equipments which emit magnetic field.
→It may destruct the magnetic encoding data if the Magnetic Encoder is being used. In the worst case, it may cause equipment trouble.

3 - b) Space for installation

The space for the operation as shown in the illustration should be provided.

- ◆ At least 20 cm（8inch）of clearance should be kept for the Top Cover.
- ◆ Table to place the printer should be able to hold minimum 25Kg（55lbs）and have flat top and 4 rigid legs.
- ◆ It should not incline more than 1° .



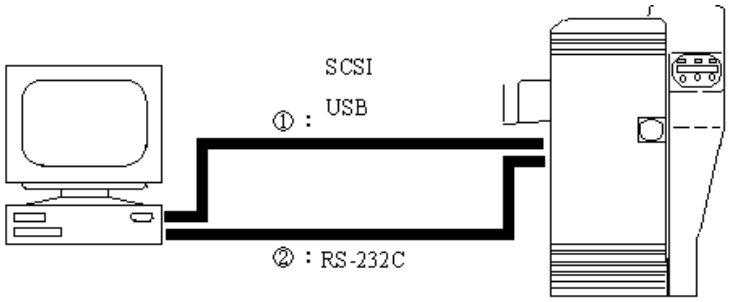
3 - c) Preparation for Installation

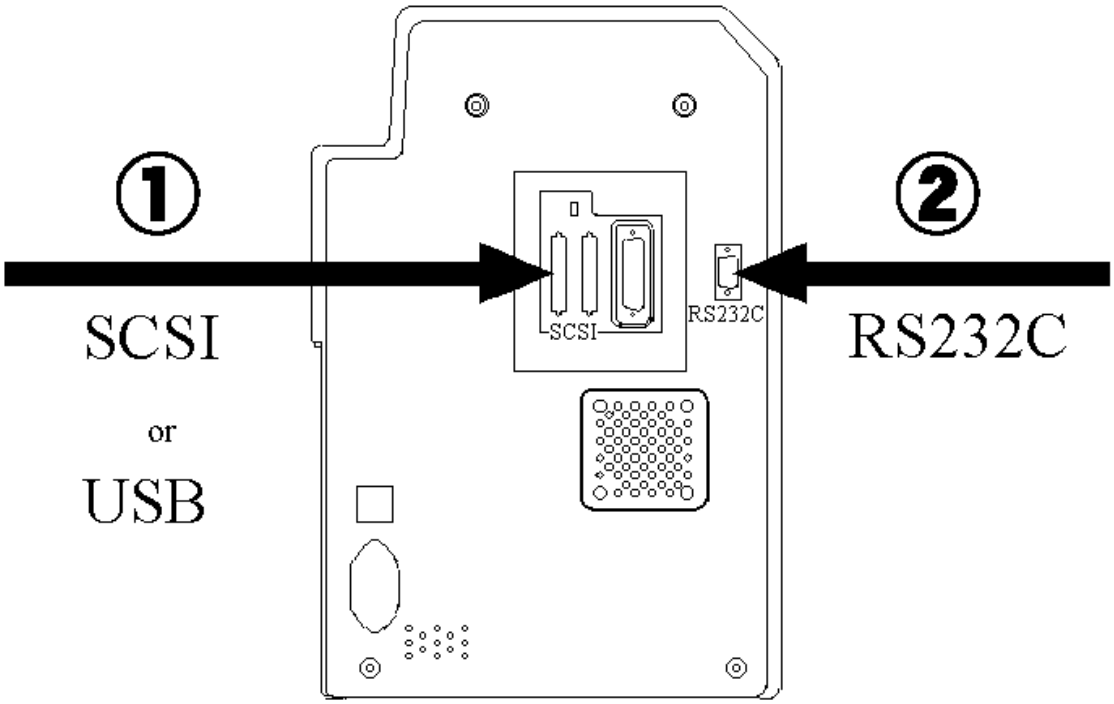
Take out the printer from the shipping carton, confirm that all contents are included as listed in section 2-a) and place it on the installing table.
Make sure that the main switch is in OFF position before placing the printer on the table. Before connecting the plug into the power outlet, make sure once again that the main switch is OFF.

3 - d) Connecting the Printer to Computer

SCSI or USB interface and RS-232C interface(for IC R/W)

No	Description	Interface	Cable
①	To Control a Printer	ＳＣＳＩ or ＵＳＢ 2.0	Not bundled
②	IC R/W control Only for IC R/W installed	ＲＳ－２３２Ｃ	Not bundled, prepare Dsub-9pin/female-female/cross type When needed

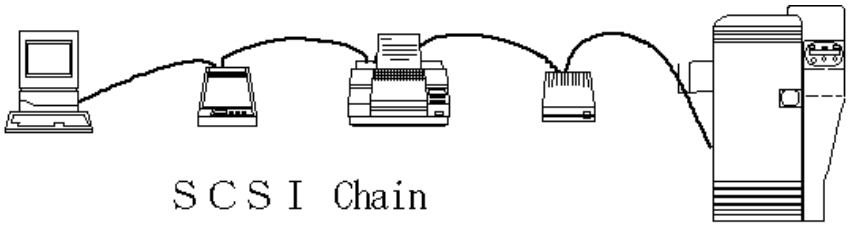




3 - d-1) For SCSI type interface

When constructing a system with the plural number of devices, connect the SCSI compatible terminal devices (SCSI devices) including this printer in the chain connection as shown in the following fig.

Those SCSI devices designed to suit for such connection has two SCSI connectors. For example, one is used for interface cable for computer and the other for connecting the other SCSI device.



Setting SCSI ID

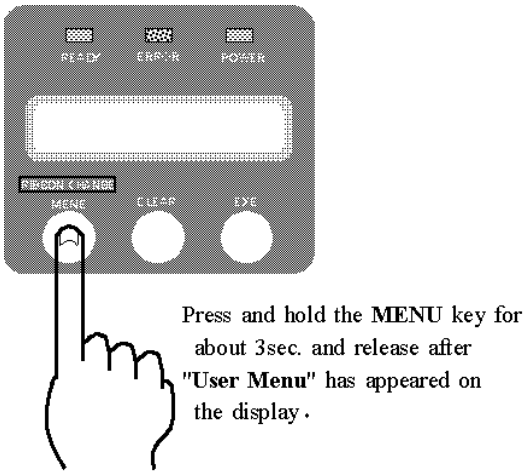
Each SCSI devices to be connected in the SCSI chain must be identified with individual ID numbers, which are called as "SCSI ID No.". There are 7 SCSI #s. as a specification and each devices must be assigned with different ID numbers. To set the ID numbers for this printer system, follow the instruction of the system. The default of this printer is "4".

◆ Set the ID No. with the user menu from the operation panel

1. Entering into the User Menu

Press and hold the Menu key as shown in the fig. till the displayed letters change from "Input Command" to "User Mode".

When the key is released, the following selection is shown under the "User Mode", "CLR:BACK EXE:GO". By pressing EXE key here, you can enter the User Menu.



2. Selecting the SCSI ID setting Menu

The initial display at the User Menu is "User Mode/Push MENU key". Following this display, select "SCSI ID Select" with the MENU key.

3. Setting the SCSI ID

"ID:_" is displayed under the "SCSI ID Select" and the numerals of 0 - 7 is shown on the part of _. Enter appropriate number on this part using EXE key.

4. Confirming the SCSI ID

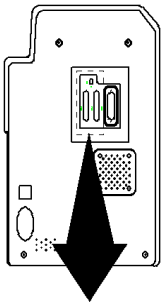
After checking the number, select "Return to Normal Mode" with MENU key and press EXE key to return to "Ready to Print" . The setting is now confirmed.

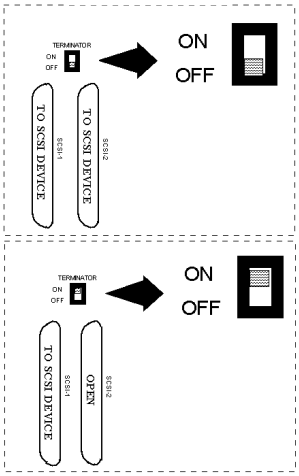
⚠Caution

☐ The SCSI ID No. shall not be the same as that for the other device.
→ The system will not operate normally.

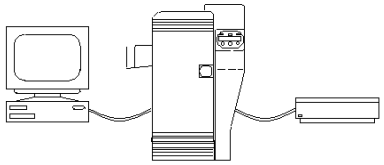
Setting the Terminating Switch

Depending on the system structure, this printer may be connected at the end or middle of the SCSI chain (daisy chain) . Turn ON or OFF the terminating switch accordingly as shown in the following figs.



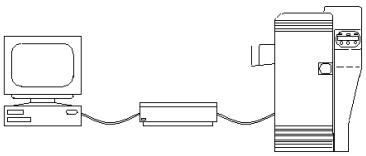


◆ In case of the printer is in the middle:



Terminating Switch should be" OFF"
Default is "OFF".

◆ If the printer is at the end of the line,



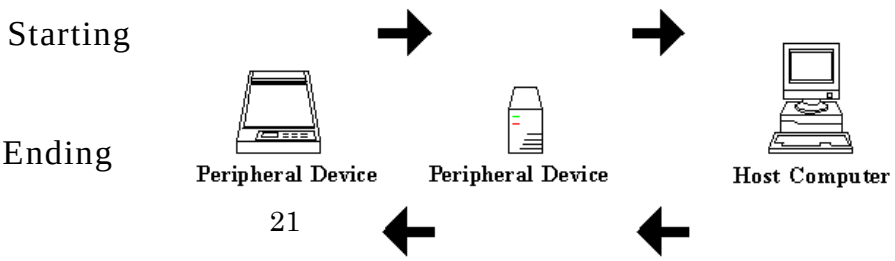
Terminating Switch should be "ON"

⚠Warning

□ Do not connect any device other than the specially designated device (Model Name : PR5302) which are presented by Nisca, to the connector (Non LPS:Limited Power Source) for theoptions.(Refer to the printer back view in the Section 2, Name of each parts)
→Connected device may be damaged.
→Circuit voltage rating: 24 Vdc, 5 Vdc
→Fire risk when none designated device is connected.

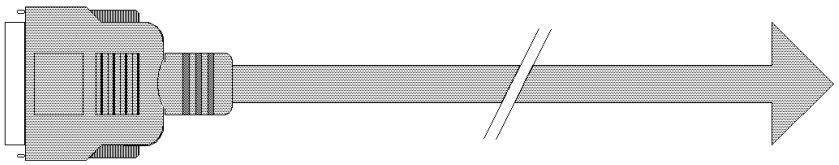
□ When connecting the cable, do not forget to turn OFF the power switch of the printer and all other devices to be connected.
→It may cause a trouble to entire system and there is a possibility of big damage such as losing the stored data.

□ Regarding the order of turning ON or OFF of the power of each devices at t he time of starting or finishing the system, the instruction of the system must be observed.
Generally, when starting, the peripheral devices shall be started first and the host computer at the last. When finishing, in opposite order.
→It may cause a trouble to entire system and there is a possibility of big damage such as losing the stored data.



Connecting Cable

Please follow the instruction of the system for the selection of the cable. The interface of this printer is SCSI specification. The printer side connector is [Pin type Half 50 pin male]. The other end shall meet the type of the connector of the computer or SCSI devices to be connected.



Pin Type Half 50 Pin Male

TO SCSI DEVICE

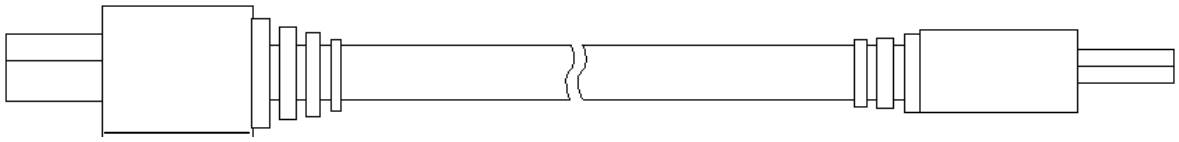
⚠Caution

□ The SCSI is an interface specification which allows very high speed data transfer. Consequently, the electrical characteristics of the cable is very severely specified. When using for a high level system, much attention must be paid to the electrical characteristics between the cables. To secure stable operation, follow the instruction of the system for the cable selection. Also, use as short cable as possible.

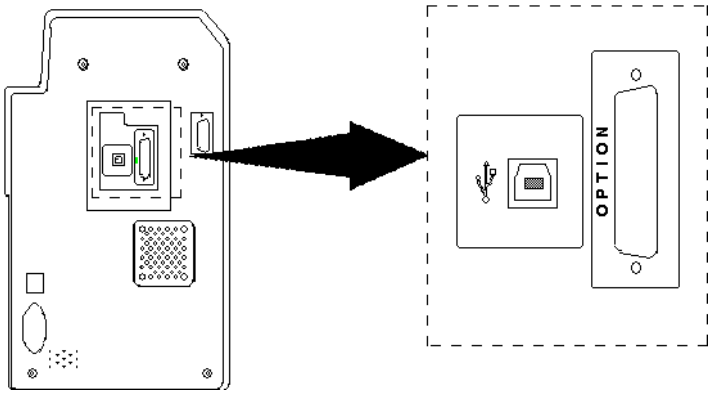
3 - d-2) For USB type interface

Connecting Cable

Shape of the connector on a printer side :B Type



Connect the B type side to the back of a Printer at the connector with displayed as as shown on right



Warning

☐ Do not connect the cable of parallel interface to the connector with displayed as "OPTION".
Otherwise it will cause equipment damaged.

3 - e) Power ON

⚠Caution

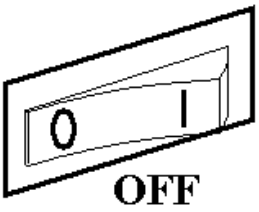
□ The electrical rating of power for this printer is alternate power (AC100V-240V .50 Hz or 60Hz).

□ Earth must be securely connected for this printer.

□ The maximum power consumption of this printer is 120W. Avoid power failure or voltage drop as much as possible.

□ When the power is turned OFF, wait for at least 3 sec. before turning ON again.

◆ Check that the power switch is "OFF" (○) before connecting the power cord to the outlet.



3 - f) Setting after the Power ON

◆ Set the Card and Ink Ribbon.

→ 5-a) Setting the Card

→ 5-b) Setting the Ink Ribbon

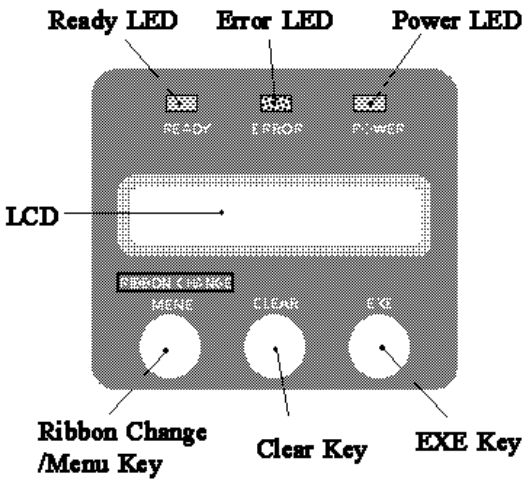
◆ Set the Operation Panel following the system instructions

→ 4-d) [Setting the system environment] in the paragraph of [Setting in the User Mode]

Section 4: Operation Panel

4 - a) Outline of the Operation Panel

Appearance and compositio n



Function of each part

The functions of LCD and the three keys (Menu, Clear, Exe) are different for Normal Mode (after the power is turned ON and before entering the User Mode) and for the User Mode. In the following table, the functions listed in the [Normal] column is for Normal Mode and in the [User] column, for the User Mode.

Item	Mode	Description
LCD	Normal User	Shows the printer status. Shows the selected menu or set values
READY LED (Green)		The lamp shows the printer is ready. While it is lighted, communication with the host computer is possible. Flushes while communicating.
Error LED (Red)		Indicates Error. This alarms that the printer is in error.
Power LED (Green)		Power ON indicator. This shows the power is ON.
Ribbon Change /Menu Key	Normal User	Use this key when taking out the ribbon cassette before the ribbon is finished. By pressing for 3 sec or longer, it moves to User Menu. Use this key for the menu selection at the User Mode.
Clear Key	Normal User	Use for clearing or resuming after releasing error. By pressing for 3 sec., the printer is reset. Depending on the system, it is used to stop continuous printing when the message **"Please wait ...Now Printing"** is showing. In some cases, it is used to change the set values.
EXE Key	Normal User	Not used. Depending on the system, it may be used to print the data which is stored in the memory of the printer Use to execute the displayed items or to change the set

4 - b) Operation of Normal Mode

When the power is turned ON, the printer is in Normal Mode.
The *Power LED* (Green) turns ON and the printer status is shown on the *LCD* panel.
Normal Mode is the mode for printing, and the printer status is shown on the *LCD* panel. For example, when the printer is waiting to print, *"Ready to Print"* is shown.
If there is any problem to print, error message such as *"Card Empty"* or *"Ribbon Empty"* appears.
Thus, the mode for printing is called as Normal Mode, and is differentiated from the User Mode.

Checking "Ready to Print" status
When printing, check that the *Ready LED* (Green) is ON. At such status, *"Ready to Print"* or *"Ready to Print/Removable Ribbon"* is displayed on the *LCD* panel.

Recovering from the Error status
When the *Error LED* (Red) is lit, there is some error in the printer and it can not operate normally. In such case, the messages on the *LCD* panel must be followed.
Please refer to Paragraph 10, Countermeasure for Trouble.
After releasing the error, press Clear key to resume to *"Ready to Print"*.
If *"Cannot Recover/Please Reset"* appears on the *LCD*, resolve the trouble and press Clear key for about 3 second. Release the key after checking that the display has been changed to *"Reset"* so that the printer is reset and returned to the status of after the power ON.

Recovering from the Error status
To pull out the Ribbon Cassette containing the ribbon in the middle of operation, for example, to change the ribbon type or to check the amount of the Remaining ribbon, press *Menu/Ribbon Change* key. The message on the *LCD* panel changes from *"Ready to Print"* to *"Ready to Print/Removable Ribbon"* and the Ribbon Cassette can be pulled out.

Clearing the Output Data
To erase the output data which is still in the memory of the printer, reset the printer.
Press and hold the *Clear* key for about 3 sec. to change the message on the *LCD* panel to *"Reset"*. Release the button after checking the above. The printer becomes to the status of immediately after the power is turned ON.

EXE key print

This is the function to repeat printing the data stored in the printer memory by pressing the *EXE* key. However, to effect this function, it is necessary to set the *EXE Key Print* to ON position in the user mode. This function is invalid regardless of the setting in the user mode if the system is designed so that the data is not stored in the printer memory to prevent double printing.

Stopping the continuous printing

While printing more than one card with a single data, press Clear key to interrupt the printing after the current printing is completed.
]However, depending on the system design, this function may be invalid.

4 - c) Operation of the User Mode

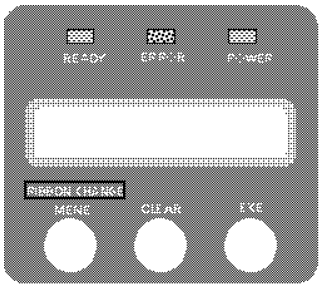
User Mode is used to set the printer setting for the user environment or to check the printer status.

Switching to User Mode

1.Press and hold the *MENU* key on the Operation Panel as illustrated. The message on the LCD display changes from *"Input Command"* to *"User Mode"*.

2.Release the key after checking that the "User Mode" is shown. Then, selection of *"CLR:BACK EXE:GO"* appears on the lower line.

3.Select *"GO"* with the *EXE* key. Then, *"User Mode/Push Menu Key"* is displayed on the screen. If *"BACK"* is selected with Clear key, it returns to Normal Mode.

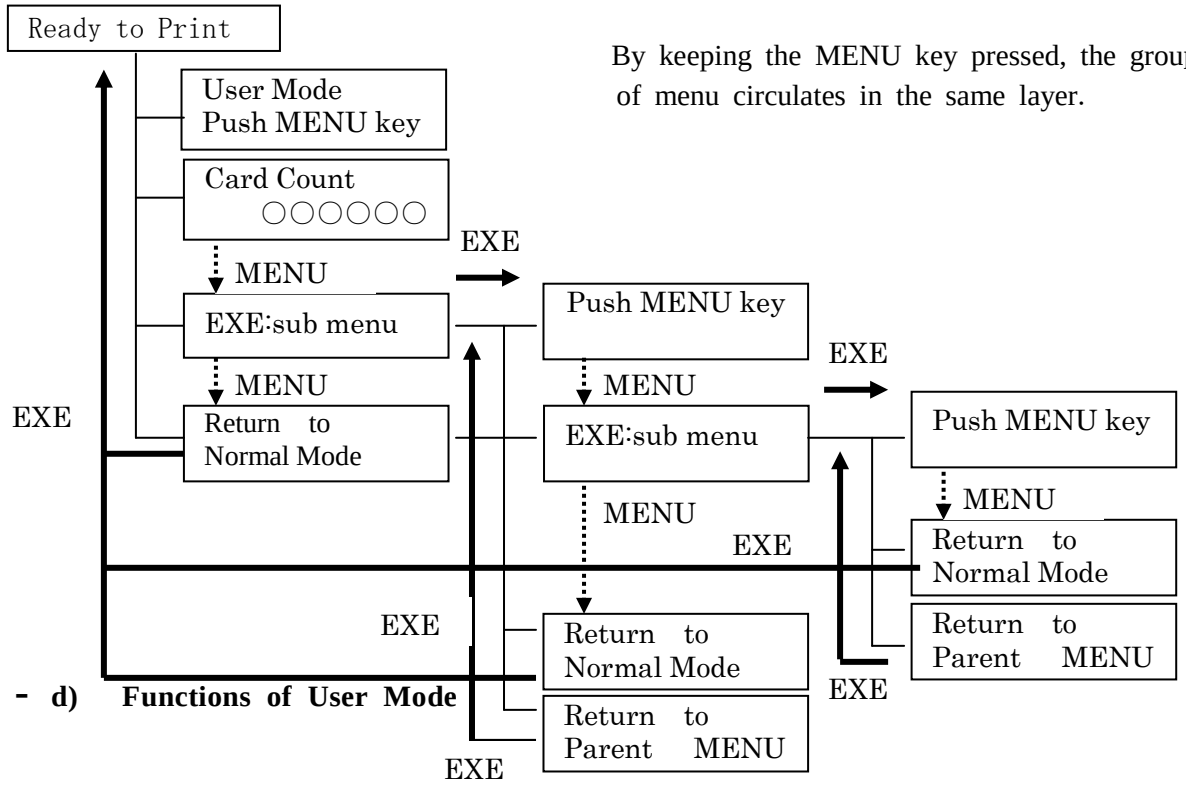


Press and hold the **MENU** key for about 3sec. and release after **"User Menu"** has appeared on the display.

4.After checking that the *"User Mode/Push MENU Key"* is shown, press *MENU* key as directed, to move to the User Menu. Then, the first menu, *"Card Count"* is displayed.

Basic Operation in the User Mode

As the User Menu has the following layer structure, select the desired item with the *MENU* key and change the setting values using *EXE* key or *Clear* key. By pressing *EXE* key at *".../EXE:sub Menu"*, it goes one layer below. There are *"Return to Normal Menu"* or *"Return to Parent Menu"* selections at each layers. By pressing *EXE* key at either of these selections, you can return to one layer higher or to the Normal Menu.



By keeping the MENU key pressed, the group of menu circulates in the same layer.

4 - d) Functions of User Mode

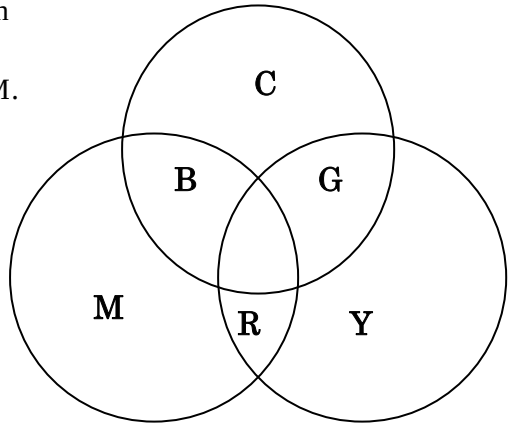
Checking the number of cards used: Card Count
Indicates the number of the cards taken-in from the card feeder. It returns to 0 by pressing *Clear* key.
→ To be used for the control of card consumption.

Total count of the printed frames: Total Count
This is a maintenance counter for the accumulated number of the frames printed. The value can not be reset.
→ To be used to know approximate time of maintenance operations.
* For the both side printing, Total Count is 2 [frames] against the Card Count of 1[card].

Adjustment of color: Color Adjustment
Color adjustment is done by adjusting the intensity of Yellow, Magenta and Cyan. Each value can be adjusted within the range of ±3. The value increases by pressing *EXE* key and decreases by *CLEAR* key. Standard value is 0

[Example of color adjustment]
The color image to be printed on the card consists of the 3 colors, Cyan C, Magenta M and Yellow Y. These colors are the complementary colors to Red R, Green G and Blue B. The following fig. shows the relationship of C.M.Y and R.G.B.

Example) To increase red color:
Decrease the value of Cyan which is in the complementary to red, or increase the value of Y and M.



Correlation of RGB and CMY

If there is a customized setting, color tone of Nisca default setting and the customized setting can be selected with Gamma0 Select menu. Please ask the dealer for the details.

Fine adjustment of black color: Color Adjustment → Black
Adjust the value of Black in the Color Adjustment. The steps are same as the other color adjustment. To obtain more crisp fine line, increase the value. Decrease the value when the bold line smudges.

ON/OFF of the error buzzer: Error Buzzer
Select ON/OFF of the error alarm buzzer which sounds when the errors such as

"Cover Open" or "Card Empty" occur.

Ribbon type setting: Ribbon Type
"YMCK01" for color printing and "K01" for black letters are used as the standard ribbons for this printer. Setting of the operation panel is required corresponding to the label of the ink ribbon type being used.
* Some system does not display this item for the purpose of prevention of the erroneous operation.

Setting SCSI ID No: SCSI ID Select (For SCSI type interface equipment)
Set the SCSI ID No. Please refer to page 21 , [Setting SCSI ID] for the details.

Checking connection of Optional Devices: Firm Ware Version
If Encoder ROM display is included in the ROM Version menu, it indicates that the internal encoder is connected. Absence of this display means no encoder is connected.

Checking Optional Encoder Type: Firm Ware Version
4 digits alpha-numerical figures displayed on the lower right of "Encoder ROM" shows the type of the connected encoder.

Version information of the devices: Firm Ware Version
This printer is equipped with the function to download the main program from the PC in order to support various card printing systems. The program has two parts; one is the Base Program which controls the basic communications and the other is the Main Program to control all functions. In addition to those two, it is possible to check and confirm the version of the optional devices, if connected.

Setting the System Environment: Printer Status

This item must be set according to the system being used. So, follow the system instructions for setting.

To enter this menu, in order to prevent operational error, follow the instruction on the display and press Clear key and Exe key at the same time. Others are same as the basic operation.

Menu	Function
Parity Set	Set ON/OFF of the parity.
Encode Type	Select Hi-Co or Low-Co. (Hi-Co supporting encoder only)
Encode First	When this is ON, encoding is done before printing.
Encode Mode	Set the entry direction into the encoder (front or back).
Encode Reject	Set the out put distance of a card rejected
IC-R/W Err mode	Select to display or not to display when an error occurred at IC-R/W
EXE Key Print	When this is ON, data in the memory is printed by Exe key.
Print Retry	When this is ON, card with error is re-output by Clear key.
Parallel Print	Encoding and printing are executed simultaneously.
Card Eject Face	To change the card surface side when the card is ejected.
Print Area	To change the printable area on the card. (Full edge or 0.5mm from all edge of a card)

⚠Caution

☐ Depending on the system, these functions may be invalid.

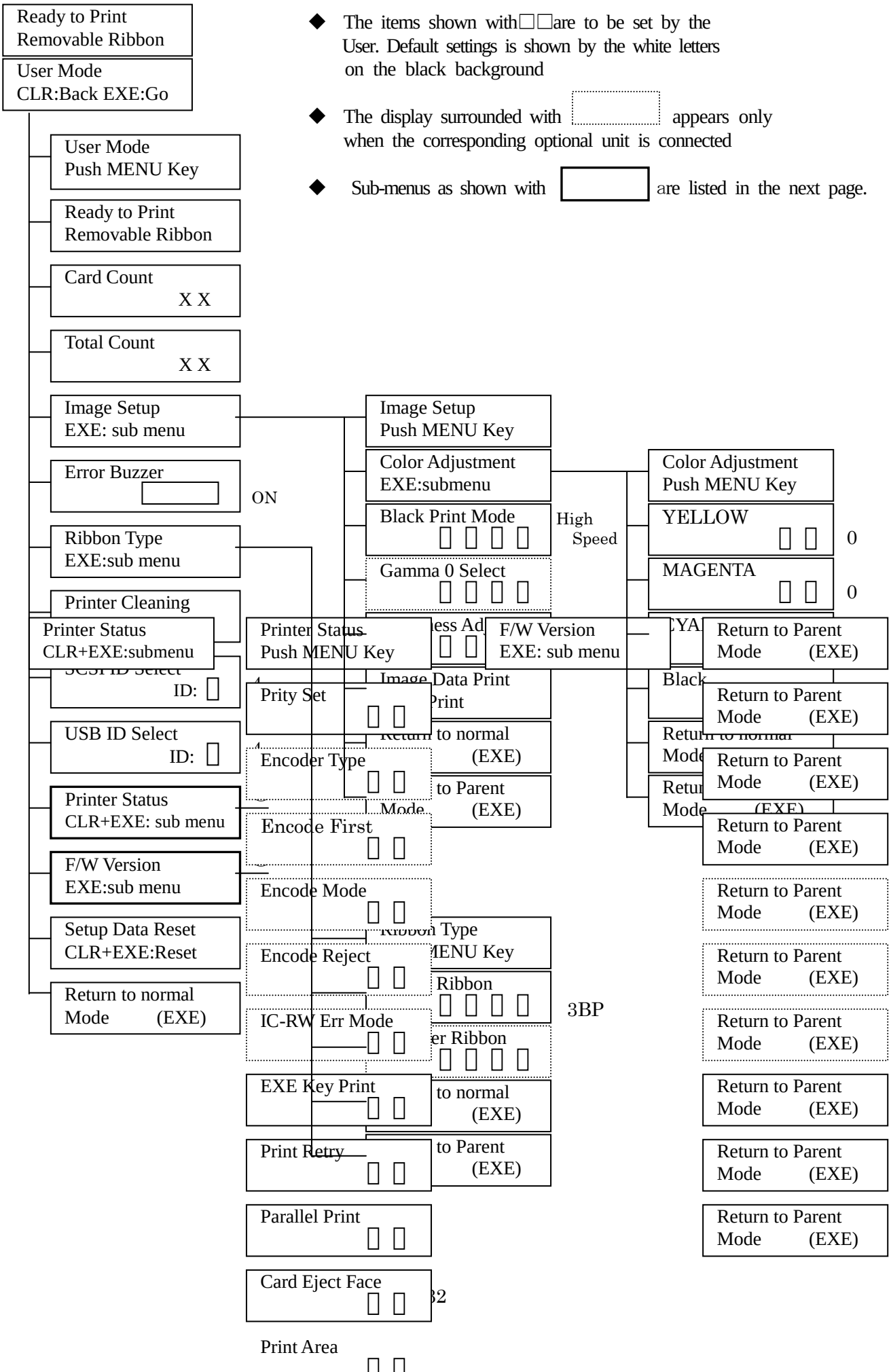
☐ If the optional encoder is not included, messages relating to Encode will not be displayed.

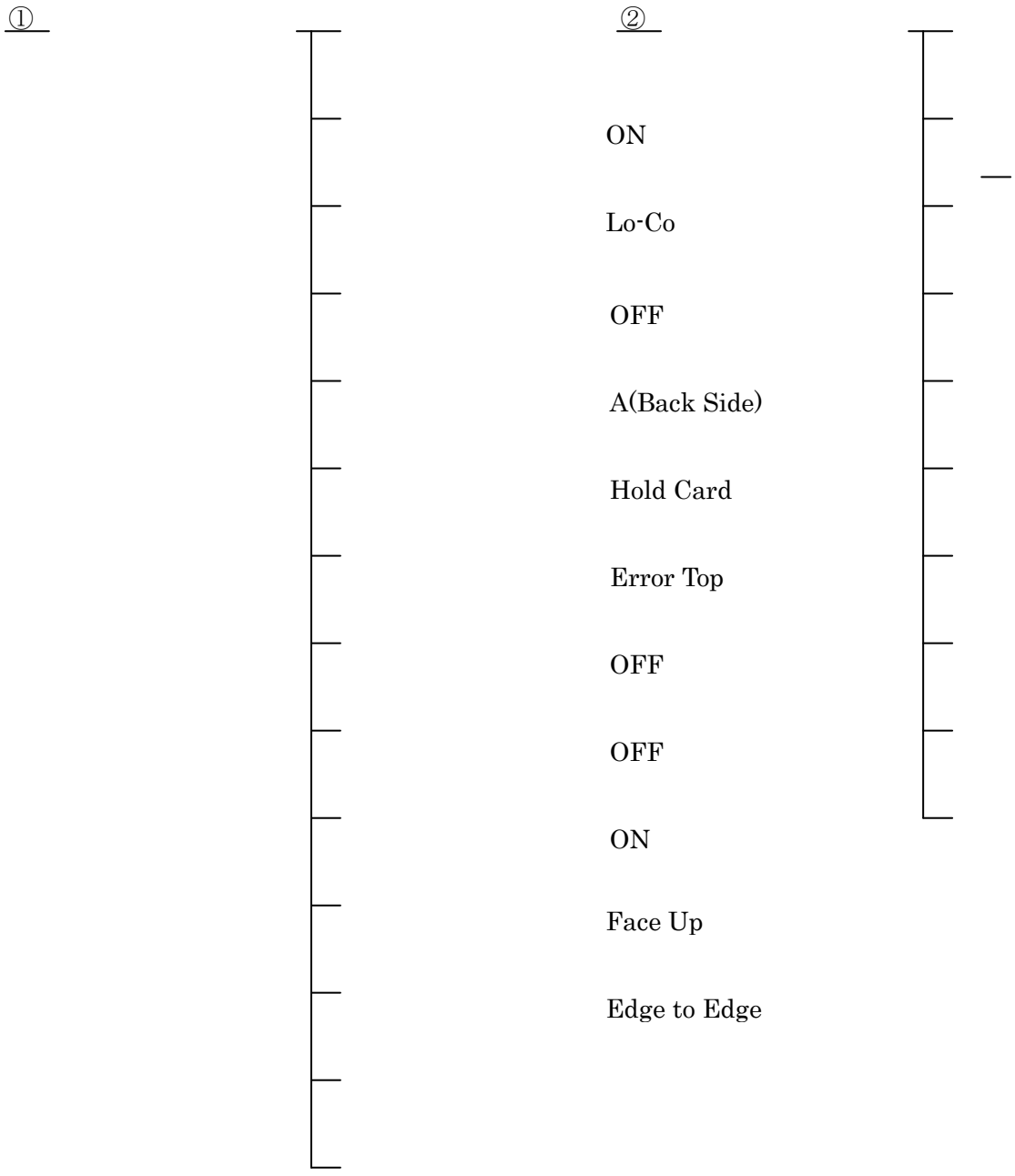
☐ Encode Type displays, only when the optional encoder of ISO Hi-Co standard is connected. This must be set according to the magnetic characteristics of the card being used.

→If the magnetic characteristics of the card is different from the settings of this menu, normal encoding will not result.

4 - e) Structure of Uer Mode

- ◆ The items shown with□□are to be set by the User. Default settings is shown by the white letters on the black background
- ◆ The display surrounded with ⋯⋯ appears only when the corresponding optional unit is connected
- ◆ Sub-menus as shown with ▭ are listed in the next page.




①
②
ON
Lo-Co
OFF
A(Back Side)
Hold Card
Error Top
OFF
OFF
ON
Face Up
Edge to Edge

Section 5: How to Set Cards and Ribbon

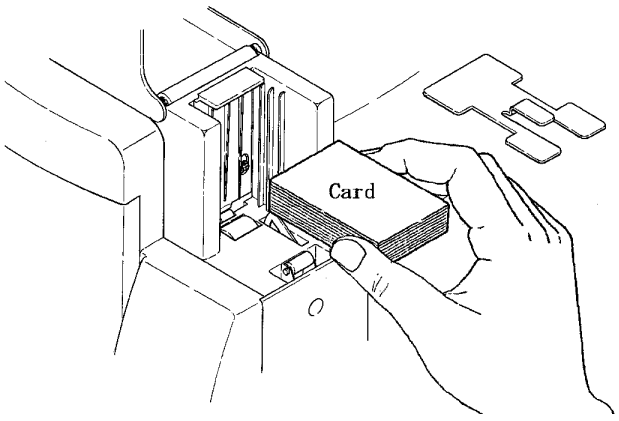
5 - a) Setting cards

⚠Caution

☐ Do not use the card other than designated by the dealer.
→ Otherwise, it may not produce the normal print quality and cause trouble on the equipment.
☐ Double printing on the card which has been printed with this printer is not possible.
→ Double printing will cause trouble on the printer.

1. Open the cover of card supplying box and remove the card weight.
2. Hold a stack of card as shown in the fig. on the right side, and set.
3. Push the cards in so that the back edges of the cards become even.
4. Place the card weight on top of the card and close the cover.

Place the Weight on the Top



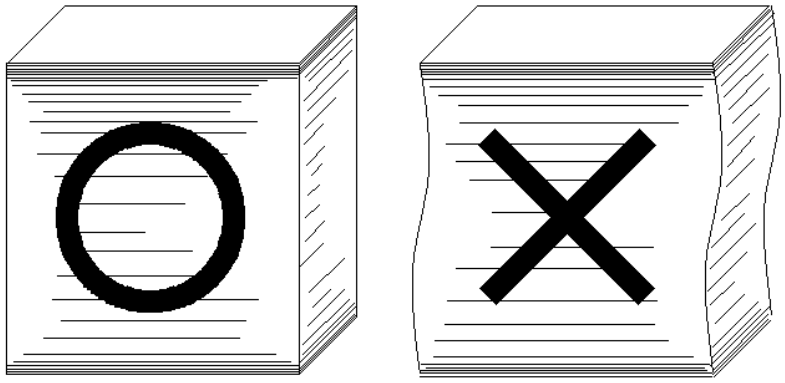
Hold the card(s) by the edge

⚠Caution

☐ When loading the cards with mag-stripe, be careful to the direction of the card. Regarding the direction, read and follow the instruction manual.
→ If the direction is incorrect it becomes "Encoder Write Error".
→ If mag-stripes are on both sides, it may be erroneously encoded.
☐ When printing on the pre-printed card, make sure that cards are loaded in the correct direction. Read the operation manual of the systems which you are using.
→ If it is incorrect, the proper printing will not be made.
☐ Do not use dusty or stained cards .
→ It may cause a damage on the Print Head.
☐ Hold the cards by the edges only and do not touch the printing surface.
→ It may affect the print quality.

⚠Caution

□ When loading the cards, stack the cards evenly as marked with ○ in the figure below. If it is stacked unevenly as shown with the × mark in the figure below, it may cause "Pick Up Error" or the stack may collapse.



5 - b) Setting the ink ribbon

⚠Caution

□ When taking out the ink ribbon cartridge before it becomes empty (while LCD panel displays other than "Ribbon Empty"), press RIBBON CHANGE key and confirm that the head is lifted.

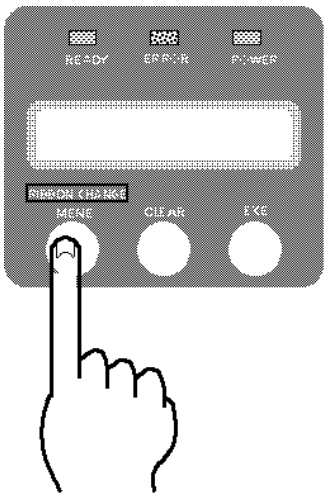
→ Cartridge can not be removed with the head at the printing position. The ribbon may be wrinkled or broken if the cartridge is removed forcibly. Removing forcibly may cause damage on the printer.

□ Do not attempt to open the Top Cover and take out the Ribbon Cartridge without lifting the Print Head by pressing RIBBON CHANGE key.

→ Normal print quality of the next printing will not be obtained.

□ Do not leave the ink ribbon cartridge off hand. When loading again, take up the frame which has been exposed before inserting.

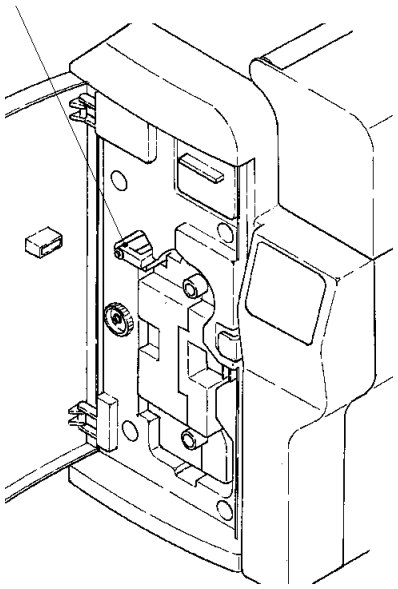
→ Dust on the ribbon or cartridge may cause a trouble on the print head.



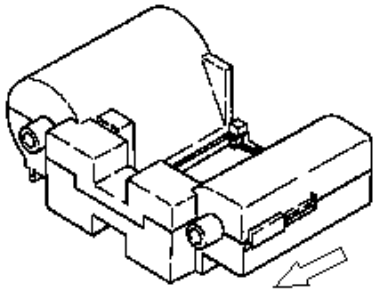
Press Ribbon Change key about 1 sec.
Then make sure of the "Removable Ribbon" has appeared on lower part of operation panel.

Cartridge Retaining Lever

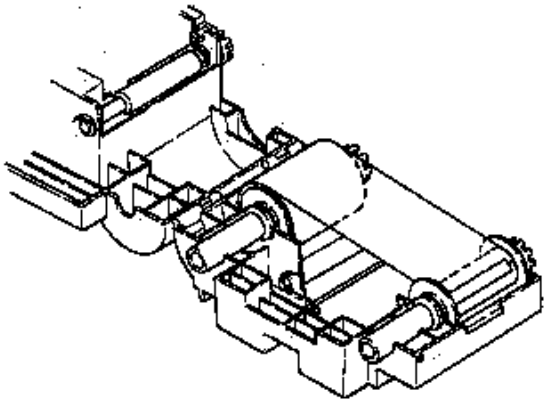
Open the front cover of the printer.
Release the Cartridge Retaining Lever and pull out the Ink Ribbon Cartridge.



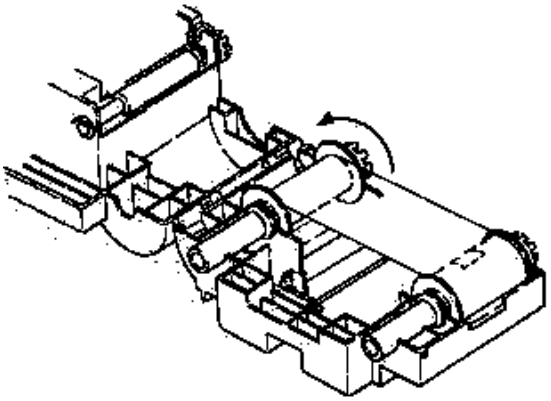
Release the lock of Ribbon Cartridge and and open as illustrated.



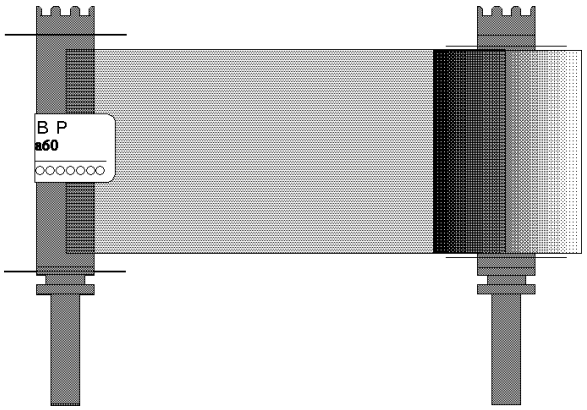
Peel off the remaining ribbon from the supply bobbin.
Dispose of the take up bobbin with the full used ribbon.
Place the now empty supply bobbin in the take up side of the cartridge to use as take up bobbin.
Set new ribbon onto the supply side of the cartridge.



Peel off the leading tape at the beginning of new ribbon and put it onto the empty bobbin.



Attach the center of ribbon to the center of the bobbin as shown below.



Close and lock the cartridge, turn the take up bobbin shaft some(2-3) turns in direction as shown by arrow in the figure and set the cartridge to the printer.

Section 6 : Cleaning

To ensure the optimum print quality, precision components and electronic parts are used for this printer. Stain on rollers and print head is crucial to the print quality. To maintain the best print conditions, observe the following point Clean these parts periodically to keep the optimum performance.

⚠Caution

□ Turn OFF the power without fail before the cleaning operation.
→It may cause a trouble and/or to have electrical shock.
□ Do not use solvents other than **alcohol for cleaning OA equipments**.
→Using the solvent other than alcohol may damage the parts and may cause trouble of the printer.
□ Do not clean the parts at near the fire.
→Alcohol is flammable and may cause fire accident.
□ Take off all the cards on feeder block before cleaning
→In case of the roller in the feeder block rotate linking with other rollers It may cause a trouble.
□ Take off all the cards on feeder block before cleaning
→In case of the roller in the feeder block rotate with linking to other rollers It may cause a trouble.
□ After the cleaning operation, leave the machine for about 5 min before restarting.
→Correct printing may not be obtained if printed before the alcohol is completely dried.
□ Do not touch the rollers with hand.
→Fingerprint may affect the quality of the printed image.
□ Take off all the cards on feeder block before cleaning
→In case of the roller in the feeder block rotate linking with other rollers It may cause a trouble.

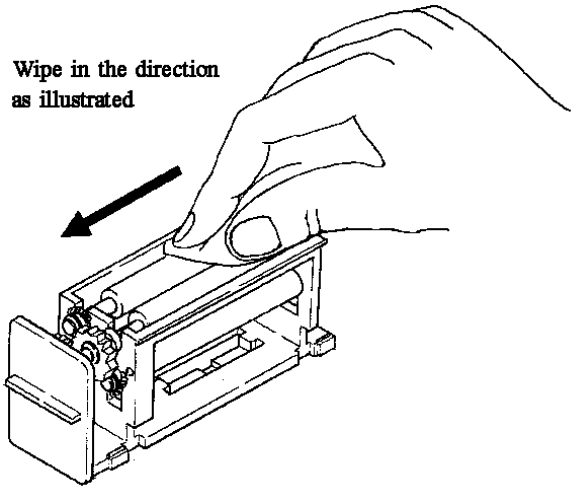
Although the interval of cleaning varies depending on the condition of the card, the following period is recommended assuming that the cards are properly stored and handled.

Parts to be cleaned	Number of frames printed	Cleaning tools and solvent
Input Roller	Every 2000 frames	Soft cloth with no fur, Alcohol
Ribbon Transp-ortation roller	Every 10000 frames	Soft cloth with no fur, Alcohol
Exit Roller	Every 10000 frames	Cotton swab, Alcohol
Print Roller	Every 10000 frames	Cleaning brush, Alcohol
Transportation Roller on F/T Block	Every 10000 frames	Cotton swab, Alcohol
Supply Roller	Every 10000 frames	Soft cloth with no fur, Alcohol
Print Head	Every 2000 frames	Soft cloth with no fur, Alcohol

Number of the frames printed is indicated by the counter on the operation panel.
→ Refer to Section 4 "Operation of the User Mode".

6 - a) Input Roller

Before starting this operation, please read the general advice which appears in the beginning part of this section.
Remove the Input Roller module as explainedin Page 45 and clean in the following procedure.
Wet and squeeze a piece of soft cloth with alcohol for cleaning OA equipment and wipe in the direction as illustrated.
Rotate the roller slowly and clean all surface. After cleaning, wipe with a dry cloth and leave about 1 minute to dry up before reinstalling.

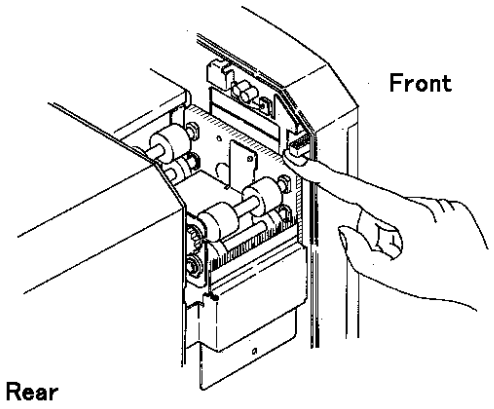


After wiping off, wait till it becomes completely dry before inserting it again.

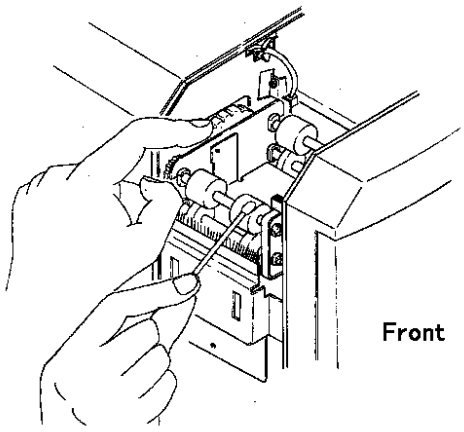
6 - b) Cleaning of the card transport rollers in Flip Turn Block

Before beginning this operation, please read the general advice which appears in the beginning part of this section.

◆Open the top cover, rotate the whole Flip Turn Module to the angle of easy to clean as using green handle as shown in the figure on right.



◆ Prepare the cotton swab and put a few alcohol on it.
Touch the cotton swab to the surface of rubber rollers, then rotate the these rollers as using green disk as shown in figure on right.
This cleaning is given for the all white mold rollers paired with rubber rollers as well.



6 - c) Cleaning of the Print Rollers

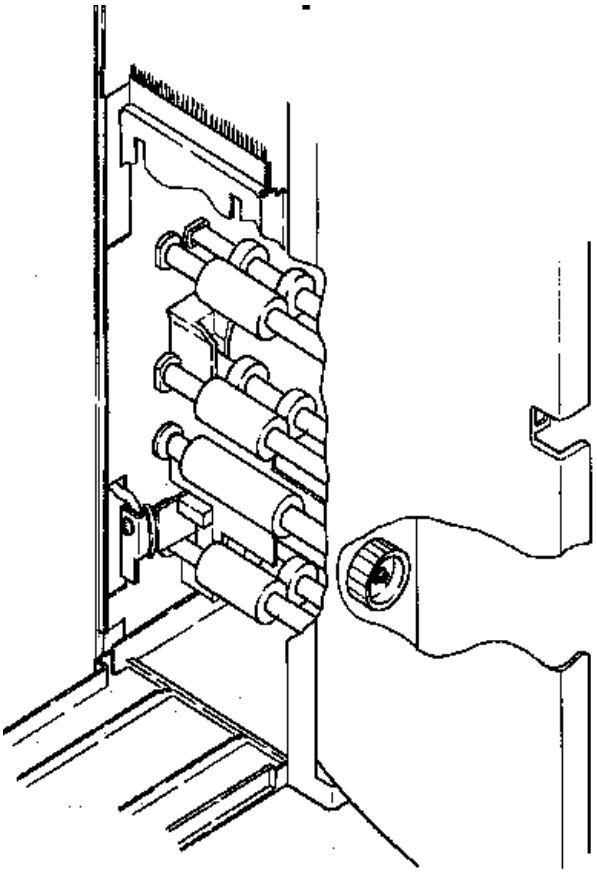
This Operation shall be done by a service personnel.

Before starting this operation, please read the general advice which appears in the beginning part of this section.

⚠Caution

□ Turn OFF the power without fail before the cleaning operation.
→It may cause a trouble and/or to have electrical shock.

The figure on Right is shown that the side cover on ejecting side is opened.
To open the side cover, take off a screw located under the stacker.



◆ Prepare cotton swab and put a few alcohol, clean the whole surface of all 4 pairs of rubber rollers shown with ▨ and white mold rollers.

◆ To clean them easily, use the green handle located on front access area as shown in figure on right.
This handle is used for rotating those rollers manually.

6 - d) Cleaning of the Ribbon transport roller

Before beginning this operation, please read the general advice which appears in the beginning part of this section.

◆ Press **Ribbon Change** key first, then pull out the ribbon cartridge.
◆ Open the ribbon cartridge, take the ribbon out.
◆ Clean the white mold roller on the lower tray and black rubber roller on the top cover.

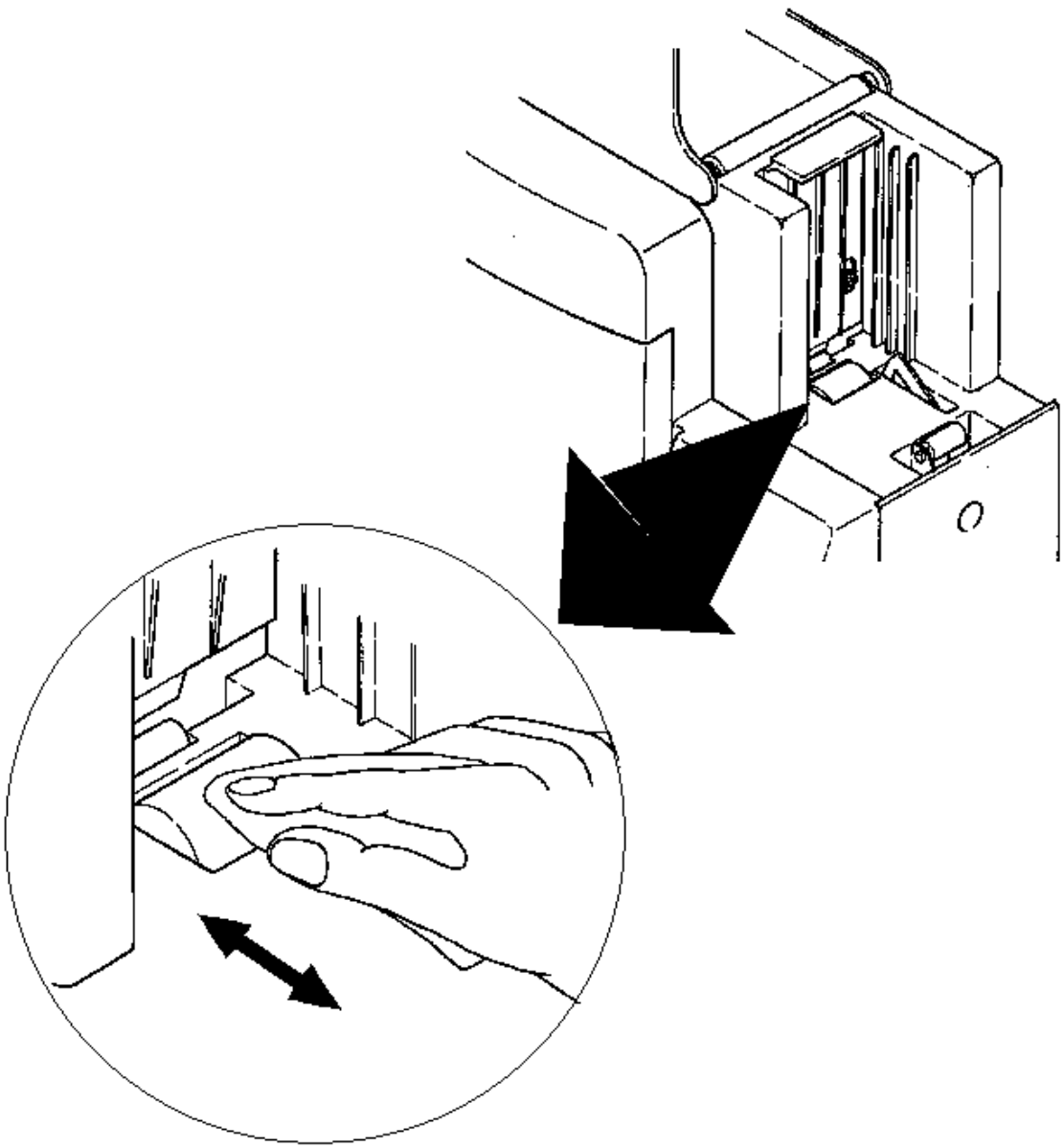
⚠Caution

After cleaning, put the ribbon back to the cartridge after waiting till the rollers are completely dry.

6 - e) Cleaning of the Supply Roller

Before starting this operation, please read the general advice which appears in the beginning part of this section.

◆ Wet and squeeze the soft cloth with alcohol for OA equipments and wipe the all surface of the roller in the direction as shown by arrow in the figure below.



6 - f) Cleaning of the Print Head

⚠Caution

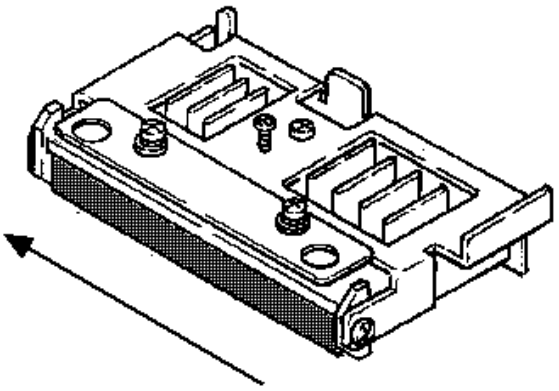
☐ The Print Head will be remaining hot when just after Printing.
Before starting this operation, make sure that the Print Head module has been cool.

☐ Turn OFF the power without fail before the cleaning operation.
→It may cause a trouble and/or to have electrical shock.

☐ Do not use solvents other than **alcohol for cleaning OA equipments**.
→Using the solvent other than alcohol may damage the parts and may cause trouble of the printer.

The heating elements are shown with ▭ in the figure on right.

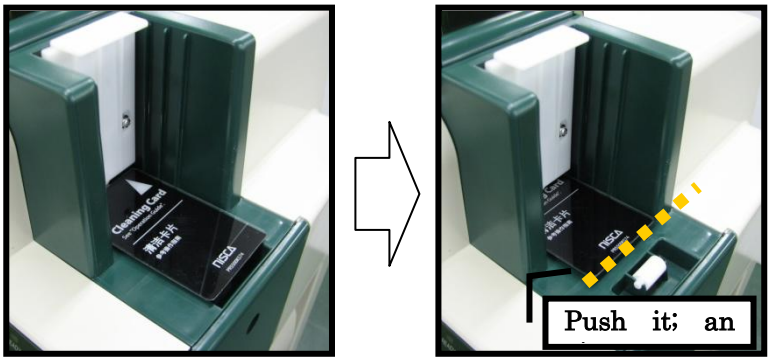
◆ Wet and squeeze the soft cloth with alcohol for OA equipments and wipe the heating elements in the direction as shown by an arrow in the figure on right.



6－g)　How to clean the card transportation rollers

By this plane uses an exclusive cleaning card, and carrying out a cleaning mode,
I can clean the card transportation roller automatically.
But please clean the input roller separately.

I prepare for an exclusive cleaning card, and please spend the power supply of the printer.
→Please tear off protection sheet of the transparence of the card back side.
The cleaning mode is set in the user mode of the printer.
According to the following procedures, please carry out the cleaning of the card transportation roller.

	Button operation / Work contents	Liquid crystal display
1	An MENU key push and hold	**User Mode** **CLR:Back EXE:Go**
2	An EXE key	**User Mode** **PUSH MENU KEY**
3	An MENU key Indication changes whenever I push the MENU key. Such as the right please push it till is displayed.	**Printer Cleaning**
4	An EXE key Please remove a card for print from the card supply department.	**Remove Normal Card**
5	An EXE key I am suitable for it with a cleaning card in the card supply department exclusive use in print side Please set it. Note 1 : I set the print side of the exclusive cleaning card downward I cause the card jamming when I do it. Note 2 : I hit an exclusive cleaning card in the card printer inside Please push it till it proves right. The chart below pushes it I become the aim. 	**Set Cleaning Card**
6	An EXE key I carry out cleaning automatically. In the cleaning end back, a card is drained from a normal outlet, The indication seems to become the right note.	**Please Wait..** **Now Cleaning** ↓ **Set Cleaning Card**
7	An MENU key	**Return to Normal Mode**
8	An EXE key	**Card Empty**
9	I set a card for print and I push the CLEAR key and am finished.	**Ready to Print**

-·- *MEMO* -·-

Section 7: Periodical replacement of parts

This printer offers a superb performance for long period with very high reliability. But to maintain the performance, some parts need to be replaced periodically. This means the low running cost.
Replacement can be easily done if the operator has basic knowledge or experience of handling electronic machinery. Read the instruction and cautions in this manual carefully before performing the required periodic replacement work.

Replaced part	Period(frames)	Tools to be used
Input Roller	Every 40000 frames	N/A
Print Head	Every 20000 frames	Loader Application
Fan Filter	Every 6 months	Philips Screw Driver

Number of the printed frames is displayed on the LCD panel

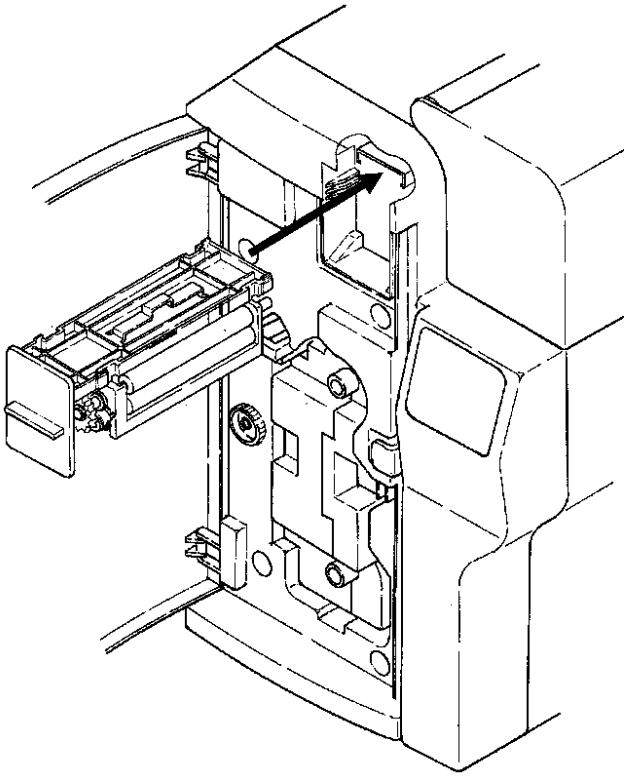
7 - a) Replacing Input Roller

* Hold the tab and pull slightly till its frame can be hold.

* Hold frame and pull the whole unit out.

* Before setting the new unit the rollers on the new unit must be clean.

* To put the new unit in. Line it up the slide plate against guide rail of the printer as shown on right. and slide the unit in till to reach it to the stopper.



⚠Caution

□ Do not print without the input roller attached.
→Card jam error will be occurred.
□ Do not pull the unit out with holding only its tab.
→It may cause the unit fallen down when the moment of the unit comes off.

7 - b) Replacing Print Head

The print head comes with a floppy disk which contains the data for assuring best print quality.
The data in floppy disk must be loaded to the printer when the print head replaced.

⚠Caution

□ Turn OFF the main switch and pull out the plug of power cord before the replacement operation in order to prevent the danger of electric shock and possible cause of equipment trouble.
□ Depending on a printer working, the print head has been hot. Before doing thi s operation, make sure that the head is not hot.
→ It may cause to get burn.
□ Do not touch the hard substance or your hands to the edge of the head as pointed with "J" in the figure on next page.
→ It may cause the print head damaged and/or bad image printed.
Clean the edge by a soft cloth with alcohol when you accidentally touch there.

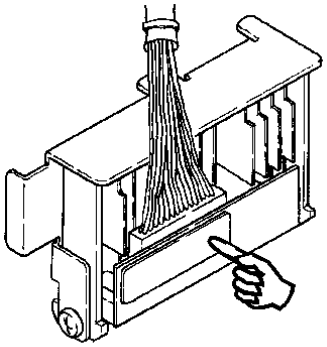
To replace a print head

The figures on next page :① showing a print head fixed
② showing a print head removed

* Take the part off.
See the figure at the top of nextpage.
* To take the print head off.
Release the lever as pointed with "C" in fig.②. Then hold the tab "H" of the head module and pull it out.
* Take the connector off and fixed it onto the new head module.
* To put the head module into the printer.
Release the lever "C" and slide in the head module along the surface as pointed with "D".

Point

The tabs "F" and "G" on head module must go inside of the guide "A" when the head module slid.



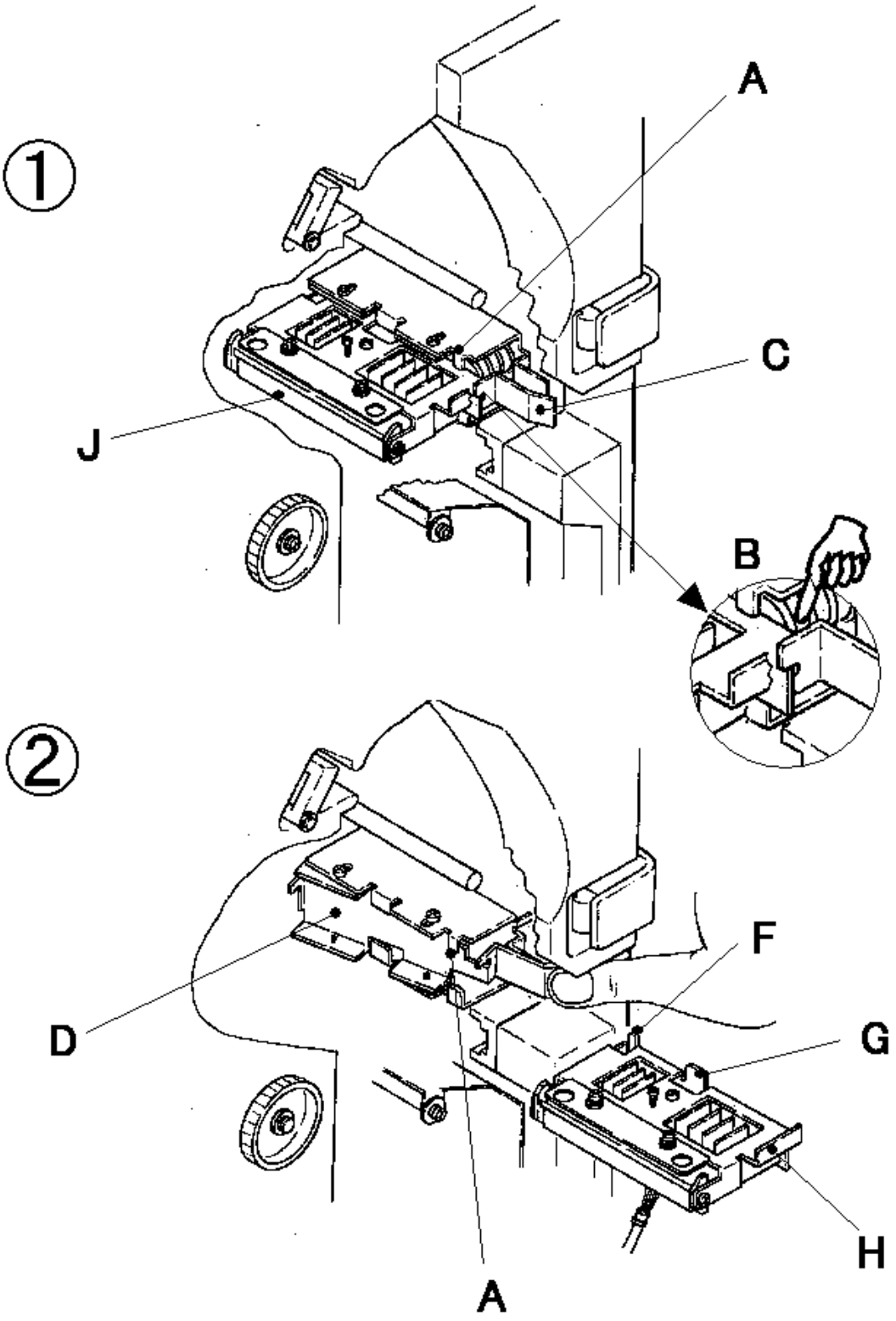
* Get the lever "C" back to original position
* Make sure the head module is locked firmly by the lever "C" as shown with circle "B".

To install the head data

First, you have to get the application for the download from NISCA homepage through internet addressed at http://www.nisca.co.jp .
Please see the information attached application for the way of installation.

⚠Caution

□ The data must be installed to the printer when a print head replaced.
→ It may cause the printer damaged.

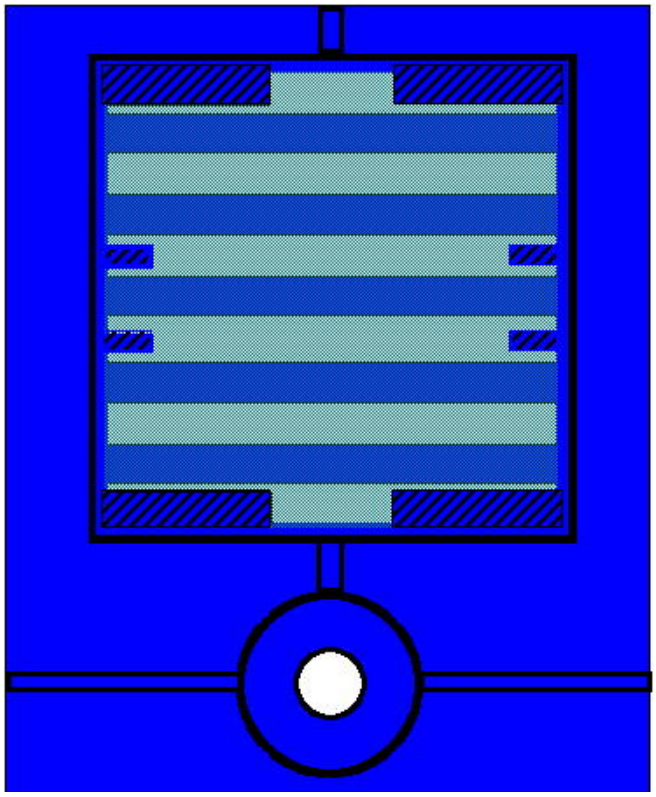

①
A
C
J
B
②
D
F
G
H
A

7 - c) Replacing Fan Filter

⚠Caution

□ Turn OFF the power without fail before the cleaning operation.
→It may cause a trouble and/or to have electrical shock.

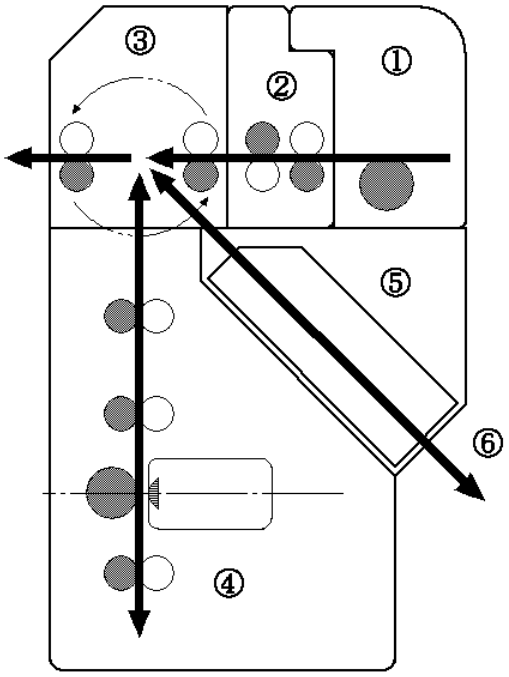
A figure on right shows a part of back side of the right cover located just below the card hopper.



Section 8: Basic Specification

1 Printing Method	Image Area : Dye Diffusion Thermal Transfer Character Area : Molten Type Thermal Transfer Protective Layer : Molten Type Thermal Transfer system
2 Printing Media	PVC Card (Conforms to ISO 7810 , JIS X6301)or made of other materials with receivable layer on the surface Size : 54.5mm x 85.5mm Thickness : 0.76 +- 10% mm
3 Printing Resolution	300 dpi (11.81 dots/mm)
4 Printing Grayscale	Input : 256 grayscale for each of colors R, G and B Output : 256 grayscale control for each of colors Y, M and C
5 Printing Size	Max. 85.5mm(card longitudinal direction) x 54.5mm(card transverse direction)
6 Printing Speed	30 seconds / one side. (excluding communication time.) at whole area printing at the size as shown above.
7 Ink Ribbon	Standard: 3BP 5 panels (250images) : BK/OP 2 panels (250images)
8 Flip Turn Feature	PR5350 : Standard PR5360LE : Non-correspondence
9 Supply method and capacity	100 cards(at card thickness :0.76mm) ; supplied automatically
10 Interface	PR5350:SCSI or PARALLEL or USB2.0 PR5360LE:USB2.0
11 Power supply	AC 100～240V 50/60Hz
12 Power consumption	120W max.
13 Equipment dimensions	421mm(H) × 270mm(W) × 331mm(D) (excluding Stack Box)
14 Equipment weight	13kg : Main body
15 Option	Encoder Device code IC encoding Magnetic encoding specification MC No JIS Ⅰ, Ⅱ CC Yes JIS Ⅰ, Ⅱ MD No ISO (Hi-Co, Lo-Co switchable) CD Yes ISO (Hi-Co, Lo-Co switchable)

Section 9: Configuration of the equipment



①Card Supply Unit

Picks up a card from the bottom of the stack and feeds to the printer with the Supply Roller. The slot is 1.5 times of the thickness of the card so that the double feeding will not occur.

②Cleaning Unit

Remove the impediments such as dusts on the surface of the card fed from Feeder Unit

③Flip Turn Unit

This unit serves to flip over the card and to switch the card path to printing unit, reject unit or to encode unit.

④ Printing Unit

The card moves through this unit five times to be printed 3 colors, black color and protective overlay coating. Print Head is positioned rectangularly to the card transport line and pressed against the printing face of the card linked with the movement of the card. The image is printed by controlling the heat of each cell of the Print Head.

⑤ Encoder (Option) Space

This is the space for attaching the Encoder Unit. If the Magnetic Encoder is mounted, encoding, reading and verifying is done by the commands from the computer.

⑥ Card Rejection Unit

Because of an error in the printer etc, when the card is required to be rejected, such card is rejected through this unit.

Section 10: Trouble and Countermeasure

10 - a) Troubles displayed on the operation panel

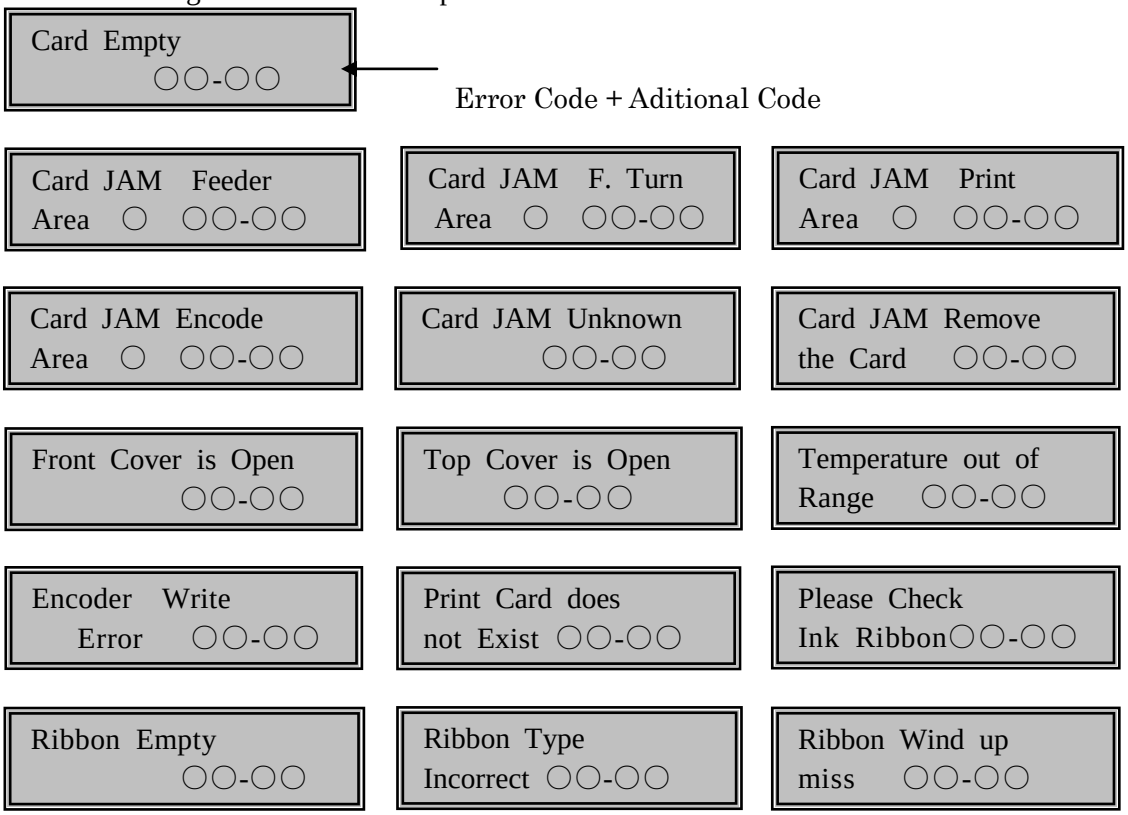
If a trouble occurs, the red lamp on the operation panel turns ON and the nature of the trouble is shown on the LCD panel. In addition to the indication of ribbon empty and card empty, almost all kinds of troubles such as setting of the ribbon type, position of card jam, etc., can be checked with the messages on the LCD panel

Display of trouble on the LCD panel

If messages which is not listed below appears or the trouble is not released, please contact the dealer.

⚠Caution

□ When contacting the dealer, please inform the error message and the error code which is shown on the lower right hand of the LCD panel.



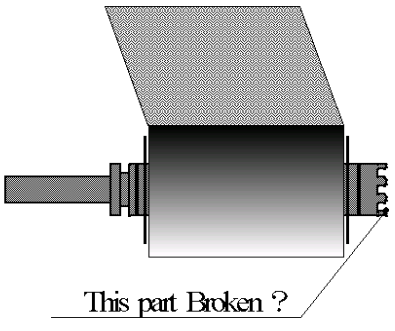
Basic operation to release troubles

By pressing the Clear key after releasing the trouble, the printer returns to "Ready to Print". When there are more than one errors simultaneously, such as "Cover Open" and "Card Empty", the error of higher priority("Cover Open" in this case) is displayed on the LCD panel. Close the cover and press Clear key. Then, the display changes to "Card Empty". Load the cards and press Clear key to return to "Ready to Print". When the message "Cannot Recover/Please Reset" is displayed, remove the trouble and press and hold the Clear key for more than 3 second. Release the Clear key after checki ng the display has been changed to "Reset". The printer is reset to the status of immediately after the power ON. Take out the ribbon cartridge and watch the ink ribbon when "Ribbon…" appears on LCD. In this case, the ribbon cartridge can be taken out without Ribbon Change key pressed.

"Please Check Ink Ribbon" will be appeared on LCD when Clear key pressed without taking out the ribbon cartridge.

Trouble shooting

Message on LCD	Cause/ Countermeasure	Ref.
Card Empty ○○ ☐Card is empty	◆ Card is empty. →Supply cards.	P 34
Front Cover is Open ○○-○○ ☐ Front Access cover is open	◆ Front Cover is not closed correctly. →Close the cover positively.	
Top Cover is Open ○○-○○ ☐ Top cover is open	◆Top Cover is not closed correctly. →Close the cover positively.	
Encode Write Error ○○-○○ ☐ Some error occurred during Mag. encoding	◆ The card is set incorrectly (wrong side up, rihgt side left) →Set the card correctly	P 34
	◆ There is scratch or stain on the magnetic stripe. →Replace with other card.	
	◆Mismatching of the magnetic characteristics →Check the setting of type on the encoder. →Check if the type of the card being used is correct.	P 33
Temperature out of Range ○○-○○ ☐Temperature of the print head or inside of the equipment is out of range.	◆ Temperature around equipment is out of range. → Make sure of ambient temperature is in the range of what is mentioned in Section 3	P 18
Print Card does not Exist ○○-○○	◆The process of printing data will be finished as error by some kind of reason. → Reissue the card .	

Message on LCD	Cause/ Countermeasure	Ref.
Please Check Ink Ribbon ○○-○○	◆This message is shown when the Clear key is pressed without taking out the ribbon cartridge when the ink ribbon related errors →Pull out the cartridge and check the ribbon, then release the error and press the Clear key.	P.36
Ribbon Empty ○○-○○	◆ The ink ribbon is finished →Replace with the fresh ink ribbon.	P.36
Ribbon Type Incorrect ○○-○○	◆ The ribbon type setting of the printer and the ribbon type actually being used do not correspond. →Pull out the ribbon cartridge after pressing the MENU/ Ribbon Change key and check the type of the ribbon in the cartridge. If the type is correct, change the setting of the operation panel to the correct one.	P.30
	◆The ribbon cartridge has been taken out without pressing the MENU/ Ribbon Change key while the ink ribbon is not used up to the end. →The printer becomes to error and normal printing is not possible. Check the ink ribbon.	P.36
Ribbon Wind up miss ○○-○○	◆Ink ribbon is not set correctly. →Check whether the ink ribbon is correctly set in the cartridge. ◆Ribbon transport roller is dirty →Clean the roller.	P.36 P.40
	◆Improper card is used. If a card which is already printed with this printer is used, the ribbon sticks to the card and card jam error will occur. →Peel off the ribbon from the card and roll up the ribbon2 - 3 turns. If the ribbon is broken, use Scotch tape etc. to patch up and roll up. It may require repairing depending of the condition. ◆ The engagement teeth of the bobbin is broken by dropping etc. →Replace with the normal bobbin If the take up bobbin is damaged, unwind the used ribbon or cut off the wound up part of the ribbon, attach the end to the normal bobbin and wind up to the next frame.  	

10 - b) Releasing card jam

Most of the card jam errors are caused by dirt and stain of the card transport rollers.
If the rollers are dirty, card jam error frequently occur. To prevent this, periodic roller cleaning as described in paragraph 6 is recommended.

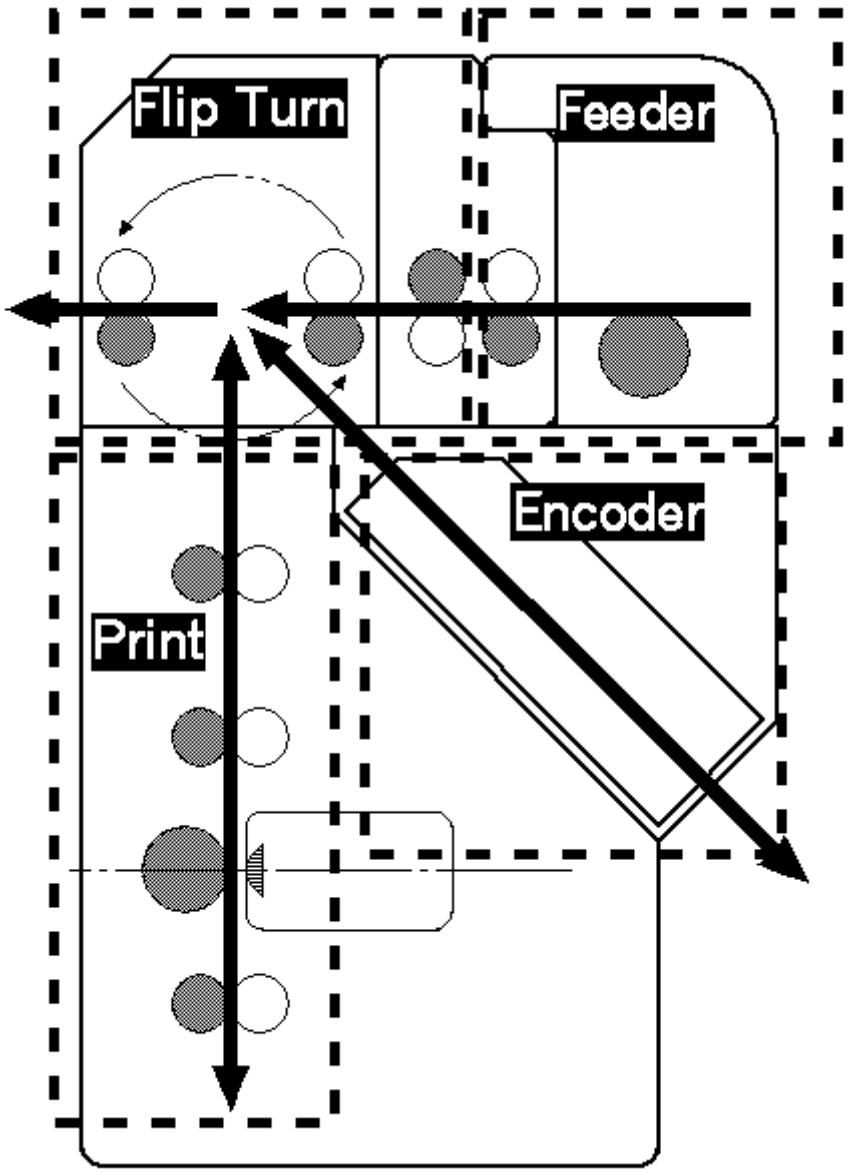
⚠Caution

□ Depending on the position of the card jam, you may have to put your hand in the printer. Please be careful when doing so and be sure to turn OFF the power before beginning the work.

Usually, jammed card can be ejected automatically to the Card Eject Exit by pressing Clear key on the operation panel. If the card can not be ejected in this method, remove the jammed card manually. The l ocation(Block) of card jam is shown on the LCD panel.
The figures next to the "Card Jam Area" indicates the card jam location more closely.

	Area	Location
Card JAM Feeder Area○ ○○-○○	01, 02	Inside the Feeder Block
Card JAM F.Turn Area○ ○○-○○	02, 04 03 08	Between Feeder Block and Flip Turn Block Within Flip Turn Block and eject Between Flip Turn Block and Encoder
Card JAM Print Area○ ○○-○○	04 05～07	Between Flip Turn Block and Print block With in Print Block
Card JAM Encode Area○ ○○-○○	08 09	Between Flip Turn Block and Encoder Within Encoder

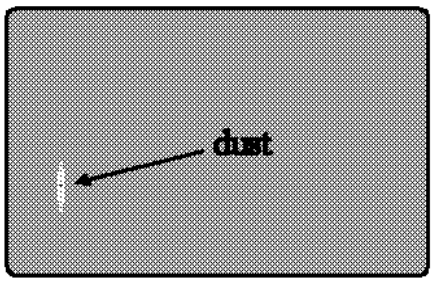
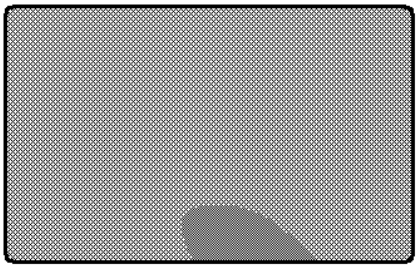
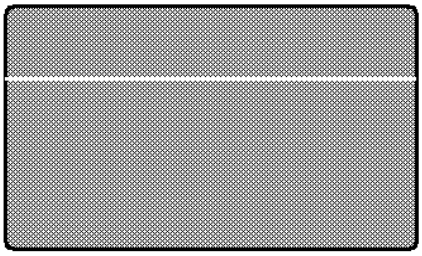
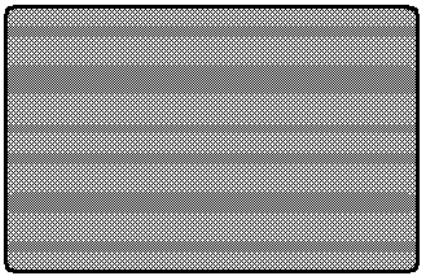
Block Layout

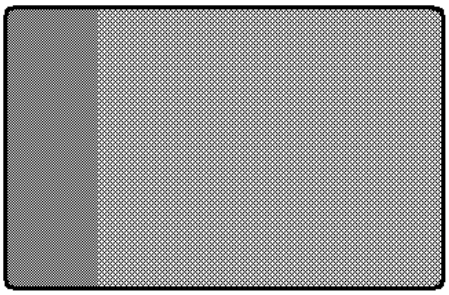
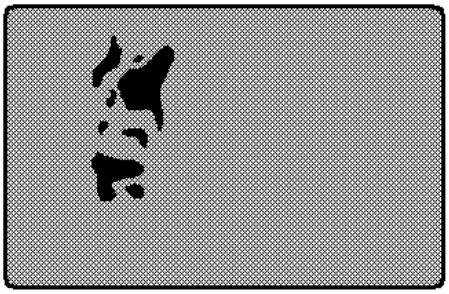


Card Jam which can not be released by Clear key

Message on LCD	Cause/Countermeasure	Ref.
Card JAM Feeder Area○ ○○-○○	◆ Card is not taken into the printer and remaining in the Feeder Block. →Remove all cards in the Feeder and set them again after separating the edges of the cards. After setting, press Clear key to recover the error. In case this error continues to occur. Then make a cleaning of the Supply Roller.	P.41
	In case this error continues to occur even after the above treatment, please call your dealer. If it is caused by the cards, such as the face condition, burr, bend, materials, etc., it is hard to judge visually. Please use the specified cards by the dealer.	
Card Jam F.Turn Area○ ○○-○○	◆ A card is stuck in the Flip Turn Block →First, turn OFF the power. Open the top cover and remove the card. If necessary, rotate the green handle and/or green disk to transport in the flip turn unit to move the card to the easy position to take out. Press Clear key after the card is removed.	
	If this error repeats, clean the rollers in the Flip Turn Block.	P.39
Card JAM Print Area○ ○○-○○	◆ A card is stuck in the Print Block →Press Ribbon Change key and take out the ribbon cassette before turning OFF the power. Remove the stuck card in the same manner as Flip Turn Block. If necessary, rotate the transport knob and output the card to the exit. By rotating the transport knob, print rollers are rotated.	
	If this error repeats, clean the print rollers.	P.40

10 - c) Troubles which are not displayed on the operation panel

Problem	Cause/Countermeasure	Ref.
◆Color drop Partial drop or discoloration The dust may disappear after printing. 	◆If a dust is on the surface of the card when printing, the part of the dust remains unprinted →Do not use the card having a dust on the face. →Do not use the printer in the dusty area. →Clean the rollers.	P.39
◆Abnormal coloring of an amorphous area. 	◆Grease of the fingertip is transferred to a part of the card causing abnormal printing. →Do not touch the printing surface of the card.	
◆A thin unprinted line along the card transport direction appears. 	◆A dust adheres on the print head. →Clean the print head. ◆If the problem is not solved by head cleaning, a part of the heat element of the head is damaged. →Replace with the new head. The damage of the print head is caused by biting a solid particle between the head and the card while printing. To avoid this, do not use a dirty card or leave the ribbon cartridge in the dusty place when taking out from the printer. If the cartridge is taken out, wind up the frame that has been exposed on the window before re-setting it to the printer.	P.42 P.44
◆Random bands appears in the direction of the card transportation. 	◆ The print head is heavily stained. →Clean the print head. ◆More than 20,000 frames are printed. →Replace with a new print head. ◆When the print head is replaced, the data is not installed at the same time. → Install the data contained in Floppy Disk of which come with the head. →The print head for replacement comes with each corresponding Floppy Disk having the same serial number as the head. Check and make sure that the Floppy Disk with the same number is installed. as the print head	P.42 P.44 P.44

Problem	Cause/Countermeasure	Ref.
◆ The color of the printed image suddenly changes in the middle. 	◆If the ribbon cartridge is taken out without pressing Ribbon Change key and re-set again, the first frame is printed and output with this trouble. →When taking out the ribbon cartridge with remaining ribbon, do not forget to press Ribbon Change key before taking out. The message "Ribbon Type incorrect" is shown on the LCD display. This does not mean the machine trouble but means incorrect operation.	
◆ Un supposed Dark area appears on the Printed image. 	◆This problem is caused by a material of the card. →Please use the specified cards by the dealer	
◆White card (unprinted) came out.	◆ If the color image data only is transmitted while the KO ribbon only is set, the card is output without printing. →Set YMCKO ribbon when printing the color image.	

Other troubles

Problem	Cause/Countermeasure	Ref.
◆Power does not turn ON.	◆Check the connection of the power cord. ◆If the circuit protector lever above the power cord receptacle on the backside of the printer is protruding.	P.15
◆Data can not be transmitted to the printer.	→Please call your dealer.	
	For SCSI type Interface Equipment	P.20
	◆Check that the SCSI ID number is not conflicting with other device(s).	P.20
	◆Turn OFF the power of the system and turn ON again. Please be sure that the printer and the other devices start before the computer.	
	◆Check the connection of the cables Keep the length of the SCSI cable as short as possible.	P.20
	◆Check the position of the termination switch. Set the switch to ON position when printer is connected at end of SCSI chain. In other case, set the switch to OFF position. Also, please check the position of the switch with other devices.	P.21
	For PALLAREL type Interface Equipment	
	◆Turn OFF the power of the system and turn ON again. Please be sure that the printer and the other devices start before the computer.	
	◆ Check the connection of the cables.	

MEMO