

Sublimation type retransfer printer

# EDISECURE<sup>®</sup>XID93xx series



• Thank you for purchasing this product.

∕!∖

- Please read this manual carefully before use to ensure correct operation. It is particularly important to read the Safety Precautions for safe operation. After reading, retain this manual carefully for future reference.
- The product number is important for quality control. Upon purchase, check the back of the unit to make sure that the product number is correctly displayed.
   Notes about this manual
- (1) This manual may not be reprinted in any way without permission.
- (2) The contents of this manual, as well as the specifications and design of this product, may change without notice.
- (3) The illustrations used in this manual may differ slightly from the actual product.



## Declaration of Conformity

Model Number:	XIDie Printeryyyyy(y=A-Z,0-9 or blank)
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Product name: Card Printer

We herewith declare that the above mentioned product complies with the following council directives and harmonized standards.

Council Directives:	1999/5/EC 2004/108/EC 2006/95/EC	relating to radio equipment and telecommunications terminal equipment. relating to electromagnetic compatibility. relating to electrical equipment designed for use within certain voltage limits.
Harmonized Standards:	EN55024:199 EN61000-3-2 EN61000-3-3	:2008 006+A11:2009 2 V1.5.1
Authorized Representative:	Digital Identifi Teckstrasse 5	cation Solutions AG

Place/Date of issue:

Esslingen, June 2011

73734 Esslingen Germany

Signature:

Manfred Arnold Senior VP Hardware R & D and Support

### Information for USA

- NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not approved by party responsible for compliance could void user's authority to operate the equipment.

### Information for Canada

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

## Information for EU

Machine noise

Sound power level: less than 70dB(A) according to DIN45635 part 19 (EN27779). The measurements are to be made according to DIN45635 part 2019 or EN27779, respectively.

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## Before you use

Read these notes on safety thoroughly before operating your printer in order to use the unit properly. Once you start using the unit, this manual should be put aside the unit, or at a convenient place where you can look up the manual any time as you need.



If you ignore the warning with this mark, and handle the unit in a wrong way, death or serious injuries may occur.



If you ignore the caution with this mark, and handle the unit in a wrong way, injuries or damages to properties may occur.

## 🗥 WARNING

- If the abnormal phenomena as listed below are seen, immediately stop operating the unit. Continuing operation may cause a fire or electric shock.
- Smoke or odd smell comes out from the machine.
- Water or metal went into the machine.
- The unit fell to the floor, or the cabinet was broken.
- The power cable is damaged (exposed lead, broken cable, etc.)

If you see these phenomena, turn off the power, pull out the power plug, and contact your dealer as soon as possible. Do not try to repair it by yourself. It is dangerous.

- Do not remove the screws, or disassemble or alter the machine.
- High-voltage components are contained in the unit. Touching these areas may result in an electric shock.
- Ask your dealer if you want your printer inspected or repaired.
- Do not remove the external covers of the machine. You may get an electric shock.
- Do not work on the power cable, or give excessive force on it. Do not put heavy objects such as furniture on the cable.
- The cable may be damaged, causing a fire or electric shock.
- When you find a defect on the power cable, such as exposed lead, stop using the unit, and consult your dealer.
- Do not use the machine with the power plug inserted incompletely.
- The machine generates heat due to incomplete contact, causing a fire or electric shock.
- Do not put many cords on a single plug socket. The power cords also heats up.
- Do not use the machine with dusts piled on the power plug. Do not put a metallic material adjacent to the power plug.
- Dusts and metal are conductive, causing a fire or electric shock.
- Pull out the power plug from the outlet every six months, and clean the dusts piled on the legs and body of the plug.

- Do not use a line voltage other than instructed.
- Using a line voltage or power supply which is not specified may cause a fire or electric shock.
- Do not put foreign materials from the openings of the machine (e.g., vents, card slots, cassette inlet, etc.)
- Metals, flammable things, and other foreign materials may cause a fire or electric shock if entering into the machine.
- If these things went into the machine, immediately turn off the power, pull out the power plug, and ask your dealer to repair. Do not try to repair it by yourself. It is dangerous.
- Do not put a container with liquid in it, or small metal ornaments and the like on the machine.
- The liquid or metal entering into the machine acts as a conductor, causing a fire or electric shock.
- If liquid or metal went into the machine, immediately turn off the power, pull out the power plug, and ask your dealer to repair. Do not try to repair it by yourself. It is dangerous.
- Do not place the machine on a rickety table or slanting places.
- The machine may fall out of the table or fall over, which may damage the machine or injure you.
- If the machine is damaged by falling or turnover, immediately turn off the power, pull out the power plug, and ask your dealer to repair. Do not try to repair it by yourself. It is dangerous.

Do not wet the machine with water.

- Using the machine at a place where water splashes on the machine, or wetting the machine with water (applying, throwing, or spilling water over the machine) may cause a fire or electric shock.
- If water entered into the machine, immediately turn off the power, pull out the power plug, and ask your dealer to repair. Do not try to repair it by yourself. It is dangerous.

Do not touch the machine with wet hands.

• Touching the machine with wet hands may cause an electric shock.

Do not touch the power plug during electrical storms.Lightning may cause an electric shock.

- Ground the machine with the attached electric cord when connecting it to the utility outlet.
- Using a cord other than the one supplied for grounding may cause an electric shock when the machine fails.
- Do not put your head or yourself into the packaging bag.
- Do not play with the packaging bag. You may suffocate yourself.
- Give close attention to small children who may want to play with the packaging bag.

- Do not use the machine while it has a fault.
- Do not use the machine while it has a fault, as this may cause a fire or electric shock.
- Immediately turn off the power, pull out the power plug, and ask your dealer to repair. Do not try to repair it by yourself. It is dangerous.
- Do not use the power supply code of the attachment excluding this machine. It may cause a fire or electric shock.

## A CAUTION

Pull out the power plug before cleaning the machine.

- This is for preventing electric shocks.
- Pull out the power plug when you won't use the machine for a prolonged period of time to assure safety.
- Remove the power plug from the outlet for safety when you won't use the machine for a long time.
- Do not move the machine with the power cable and other electric cables connected.
- The cables may be damaged while being moved, which may cause a fire or electric shock.
- You may stumble over the cable and get injured.

Do not move the machine with objects placed on it.They may fall on you and hurt you.

Do not put heavy objects on the machine.They may fall on you and hurt you.

#### Do not block the vents.

- Heat generated inside the machine cannot escape, which may cause a fire.
- Be sure to work with two persons when you unpack, move or lift the machine.
- If you work alone, you may be injured by the fallen machine or hurt your back by lifting a heavy machine by yourself.

#### Inspection

• Ask you dealer or a qualified person to inspect the machine, typically once every two to three years. Operating the machine with dusts piling on the components for a prolonged period of time may cause a fire or a malfunction of the machine. It will be particularly effective to inspect the machine before wet rainy season. Consult your dealer on the costs of inspection.

Do not put the machine at a place where it will be wet with steam (e.g., from a humidifier), or at a excessively humid or dusty place.

• The oil, water and dusts act as conductors, which may cause a fire or electric shock.

- Do not put the machine at a place where it becomes excessively hot.
- The surface and internal components may deteriorate. Also there is a danger of a fire. Special care should be taken for exposure to direct sunlight or a heater adjacent to the machine.

Hold the body of the power plug when pulling it out.

• Do not pull out the plug by holding the cable. The cable may be broken or damaged which may in turn cause a fire or electric shock.

Do not touch the power plug with a wet handYou may get an electric shock.

- Do not lay the power cable near the heating equipment.
- The covering of the cable will melt due to heat from such equipment, which may cause a fire or electric shock.
- The heat rollers and adjacent areas become hot during operation.
- Be careful not to touch the heat rollers and adjacent areas when replacing the ink ribbon or retransfer film, or remove jammed cards.
- Wait until the heat rollers get cooled down to prevent burns.
- Be careful of jamming your hand or fingers in the card tray, card bracket on the hopper, or printer door.
- Replace the ink ribbon or retransfer film, or remove jammed cards with care not to jam your hand or fingers in the mechanism, which may cause an injury.
- Do not use a power cable other than the specified cable for connection.
- If you use an unspecified power cable for connection or extension, heat may accumulate in the cable, causing a fire.

## **Product features**

- This card printer allows printing of high-quality, full color images equivalent to photographic quality onto standard size (ISO 7810 compliance) plastic cards using sublimation type transfer printing.
- Use of sublimation type retransfer printing enables printing of cards other than those made of PVC and non-contact IC cards, etc. with uneven surfaces that were previously difficult to print directly.

/ Some card materials may not be suitable for printing. Consult your dealer regarding the materials to be used and specifications required before purchase.

- Printing with no margins on all sides is possible.
- This printer have more securer erase function (security erase) to protect of the individual information.
- The host interface utilizes USB mode and Ethernet mode.
- This printer can automatically discern what type of ink ribbon is installed by means of RF-ID tag built inside.

#### Checking accessories

Please check for any missing accessories when opening the box.

- Power cord AC 120V type(For North America)(250cm) 1unit AC 220V~240V type(For Europe)(250cm) 1unit
- Instruction manual : English · · · · · · · 1 unit
- \* The detached power cords and the Instruction manual vary according to model and country of purchase.
- Cleaning card : 1 unit
- Card stacker : 1 unit
- Ink ribbon cassette : 1 unit
- Retransfer film : 1 unit cassette
- USB Cable (200cm) : 1 unit
- Jog lever (inside the card tray)
- : 1 unit
- Gloves : 1 unit
- Key : 2 units

## Handling of transfer film, ink ribbons and cards

#### Handling

Take note of the following points when handling print media (retransfer film and ink ribbons) and cards.

- Use of bent or damaged cards may result in card feed error.
- Do not touch the print media or the printed surface of cards directly with the hands as this may cause blurring of the print.
- Foreign materials on the printing area may result in misprints. Always load the print media and cards in a clean environment.
- Static build-up in the print media or cards can cause errors. To avoid causing static electricity, do not rub cards together.
- When replacing or replenishing print media or cards that have been stored at low temperature, let the print media or cards sit for at least one hour at the same temperature as location where the printer is to be used before use. Using print media or cards as they are may cause condensation and result in malfunction or print errors.

#### Storage

The storage condition of the print media (retransfer film and ink ribbons) and cards may have a strong influence on the print quality. Select a storage location that fits the following criteria:

#### Storage environment

Storage temperature	:	5°C to 25°C
		41°F to 77°F
Storage environment relative humidity	:	40% to 60%

Storage location

To avoid deterioration of the ink ribbon and retransfer film, do not store in the following locations:

- · Locations exposed to direct sunlight
- Locations with high temperature and high humidity
- Locations near organic solvents or diazo copiers.

Storage period

Print media should be used within a half year of purchase. For cards, please consult the dealer from which they are purchased.

#### Storing and handling cards after printing

Avoid storing the cards in locations exposed to direct sunlight or with high temperature and high humidity. Furthermore, avoid contact with the following chemicals and stationery, as they can cause discoloration or fading of the cards:

- Organic solvents such as alcohol, film cleaner, diazo copies, etc.
- Soft vinyl chlorides, document cases, pass holders, erasers, etc.
- · Hair-dressing products and cosmetics, etc.

#### Purchasing print media and cards

Contact your dealer regarding the purchase of print media (retransfer film and ink ribbons) and cards. Always use the products specified below.

#### Print media

Use only the ink ribbons and retransfer film specified for this unit. For the names of these products refer to "Main Specifications" on p. 51 of this manual.

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problems arising as a result of the use of media using materials other than those specified.

#### Card material

ISO/IEC 7810 type ID1 (dimensions) : equivalent product ISO/IEC 7811-2 (Magnetic stripe) : equivalent product ISO/IEC 7816 (IC card) : equivalent product

The materials of some cards may not be suitable for printing. Consult your dealer regarding the materials to be used and specifications required before purchase.

## Escape Clause

We do not provide compensation for any malfunction during card printing caused by breakdown of the machine, ink ribbon defects or card characteristics. In addition, we also do not provide compensation for insufficient print quality, which are not agreed in advance. Please evaluate carefully beforehand.

Card Material

Some card material may not be suitable for printing. Using a contact-type IC card other than those specified by the dealer, may cause damage to the thermal head. No compensation is made for the life reduction and failures that were caused by unsuitable card material. Warp of card or uneven thickness of IC cards, even though they are within the tolerance of JIS or ISO standards, may not be suitable for printing or feeding. For details on the specifications about card material or others, consult the dealer in advance

• Version upgrade

The following defects may occur as a result of the version upgrade for the firmware of the printer or for the printer driver.

- Card printing is disabled for the application software that has been used.
- The operation of the printer or application software becomes unstable.
- Defects in print result occurs.
- Print color or shade differs.
- The performance of reproducing fine letters, changes.
- Others

Be sure to retain a copy of the current version when performing version upgrade. Reinstall the previous version immediately if these problems occur. We are not liable for any damage such as defective cards or interruptions during printing as a result of the version upgrade.

#### Installation

The performance of the card printer is strongly influenced by the installation location.Be careful of the following items as for installation location.

 Install in the locations is not so much as to cause print defect due to dust adherence.
 Dusty environment increases print defect. It is recommended that the card printer is used in the

locations with the cleanness Class 8 or better of ISO14661-1. But at least avoid the following locations. (1) Carpeted room

(2) Crowded locations

(3) Locations where paper(corrugated etc.) is handled(4) Areas near copy machines

When the card printer is not used, it is recommended that the power is turned off and the printer is covered by plastic sheet etc.(not textile).

• Install in the locations where the printer performance is kept.

Avoid the locations below where the performance or life of the printer is affected.

- (1) Locations where there is vibrations or shock
- (2) Locations exposed to direct sunshine.
- (3) Wet locations without ventilation
- (4) Unstable locations and sloped surface
- (5) Areas near air conditioners, humidifiers, stoves, etc. that may cause condensation within the printer .
- Install in the environment that gives full play to the printer ability.

The printer is to be installed in an environment with the following temperature and humidity.

	,
:	15°C to 30°C
	59°F to 86°F
:	35% to 70%
	:

**CAUTION** Use of the printer in an environment with temperature lower than the above range may cause retransfer errors and use of the printer in an environment with temperature higher than the above range may cause print errors from deformation of the cards and wrinkling of the film.

#### Installation diagram

Ventilation holes are provided for the cooling fan on the bottom and sides of the unit. Avoid inserting any object into the gap between the bottom of the unit and the top of the stand. Install the unit with its sides at least 20cm away from the surrounding wall as illustrated in the diagram, and keep the back of the unit at least 10cm away from the wall. Also, do not place any object on top of the unit.



## Names of parts



## Front

When the printer door is open

## Set-up

## Connecting the IC unit (sold separately)

Medium-type and compact size IC units are sold separately, as are specialized optional devices for the printer. Consult your dealer for more details.

## ▲ WARNING



• Make sure that the power switch is turned OFF and the AC cable is detached from the plug, before connecting and disconnecting the IC units. Otherwise electric shocks, fires or malfunction of the product may occur.

• Using IC units other than those specified may cause electric shocks, fires or malfunction of the product.

Medium-type IC unit and Compact IC unit (sold separately)

Please ask your dealer for the Compact IC unit connection.

Connect the compact IC unit to the host computer with the interface cables which are commercially available. The medium-type IC unit has various type of interface cable, according to installed IC unit. Consult your dealer for more details.



## Connecting the Laminator

The laminator is sold separately, as a specialized optional device for the printer. Consult your dealer for more details.

## A WARNING



Make sure that the power switch is turned OFF and the AC cable is detached from the plug, before connecting and disconnecting the laminator. Otherwise electric shocks, fires or malfunction of the product may occur.

- Using laminator other than those specified may cause electric shocks, fires or malfunction of the product.
- **1.** Set up the unit joint plate which comes with the laminator (optional). Mount the printer on to joint plate.



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Be careful not to pinch your finger when installing.

2. install the laminator



Memo

If the mounting is uneven, the card would not be transported smoothly. be sure to fit the units right in. Always install the unit at a horizontal and hard surface location

3. Install the unit connecting cable.(optional)

As shown in the diagram, connect the cable to the OPTION 2 external connection terminal of the printer and the PRINTER external connection terminal of the laminator.



Tight the screw after connecting

# Make sure to tighten the screws of the interface cables.

## Connecting the power cord

**1.** Check the plug.



- For AC 120V type (North America)
- For AC220-240V type (Europe)
- \* The detached power cords vary according to model and country of purchase.
- 2. Plug the power cable into the printer.



Plug the power cable of the laminator if it is installed.



Always use a grounded power outlet. Never share the outlet with other electrical equipment.

Use an AVR (Automatic Voltage Regulator) if there is a possibility of voltage fluctuation. Use an uninterruptible power source rather than an AVR if there is the possibility of uninterruptible power source.

## Installing the card stacker

Hang the stacker claw on the stacker receptacle.



The card stacker is capable of containing approximately 100 0.76mm(0.03inches)-thick cards or 300 0.25mm (0.01inches)-thick cards at the maximum.



Be sure to hang the card stacker claw on the card stacker receptacle, not the card discharge slot. If you mount the card stacker at a wrong place, cards are not discharged, resulting in a card jam.

When connecting the laminator, pull the tab of the card stacker at the stacker mount of the laminator card.



#### Discharging the card

When correctly printed, the cards are discharged from the left side.

If a card jam or a write error on magnetic stripes occurs on the way, results differ depending on the areas.

- Portion A: If a card jam, a write error on magnetic stripes or an IC unit encode error occurs on the way, press the RESET button, then the ENTER button. The printer is initialized, and the cards are discharged from the right side of the printer.
- Portion B: See the description in Jam (Transfer) on p.50.
- Portion C: When correctly printed, the cards are discharged from the left side of the printer. The cards jamming around this area are also discharged from the left side.



### Setting the ink ribbon

ribbon with your hands.

**1.** Activate the slide knob and open the printer door. To provide access to supplies authorized personnel only this printer come with mechanical security locks please unlock the printerdoor to open it.

When the slide knob is moved, the printer door opens downwards. Hold the door with your hand and open it slowly.



**2.** Remove the ink ribbon cassette. When the lever is pressed, a small portion of the cassette pops out.



ink ribbon and the retransfer film, then place the cushion on the thermal head. Transporting without the cushion may cause the thermal head and roller to malfunction. Do not use cushion materials other than the transfer cushion that comes with the unit, as this may cause damage to the head. 3. Remove the head pad.



#### 4. Insert the ink ribbon into the cassette.

Stretch the ink ribbon along three shafts with the ink face of the ribbon facing outside and insert the bobbins firmly into the bobbin holders.



Place the cassette upright on a flat surface during set-up.



When you need to take out the cassette, for instance, to clean the printer, be sure to put the cassette upright as shown in the above illustration. When the ink ribbon is put on the table with its face down, dusts attach to the surface, causing a malfunction of the printer.

 $5. \ \ {\rm Wind \ the \ ribbon, \ taking \ up \ the \ slack.}$ 

Turn the knob in the arrow direction to wind a small portion of the ink ribbon. If the ink ribbon does not wind up, go back to step 3, and insert the ink ribbon firmly into the bobbin holders.



7. Close the printer door.

Please relock the printer door when you are finished

If you want to mount the retransfer film, keep the door

and make sure to store the keys in a secure place.

Printing with the ink ribbon set improperly may cause the image to be faint.

### Setting the retransfer film

**CAUTION** Do not touch the retransfer film surface with your hands.

**1.** Activate the slide knob and open the printer door.

To provide access to supplies by authorized personnel only this printer come with mechanical security locks. Please unlock the printer door to open it. When the slide knob is moved, the door opens

downwards. Hold the door with your hand and open it slowly.



film on the back of the door for mounting. Do not rest your elbows or put any heavy object on the back of the door as it may break.

## 2. Remove the retransfer film cassette.

When you press the lever, a small portion of the cassette pops out.

Press the cassette removal lever.



**3.** Insert the retransfer film into the cassette.

Stretch the retransfer film along three shafts with the retransfer face of the film facing outside and insert the bobbins into the bobbin holders firmly.

At this time, perform setting so that the film is inside the guide. Wind the film to the wind spool more than three stripes (two frames).

Otherwise the printer may fail.



Place the cassette upright on a flat surface during set-up.



When you need to take out the cassette, for instance, to clean the printer, be sure to put it upright as shown in the above illustration. When the film is put on the table with its retransfer face down, dusts attach to the surface, causing a failure of the printer. **4.** Wind the retransfer film to take up the slack.

Turn the knob in the arrow direction to wind a small portion of the retransfer film. If the film does not wind up, go back to step 3, and insert the bobbins firmly into the bobbin holders.





**6.** Setting the number of frames to be used.

The number of frames of the retransfer film being used is set.

For details, refer to the "Media Type" setting on page 33.

This work must be done when the used film (number of

When the setting of number of frames is not correct, the printed picture may be entirely shifted

When the retransfer film is wound up to the end,

After replacement press the RESET button, then

If the retransfer film is not set properly,



appears on the LCD panel. When these messages

- The retransfer film is firmly inserted into the bobbin holders.
- The retransfer face of the film is directed correctly.
- The feeding and winding bobbins are mounted correctly.



To mount the retransfer film which is partially used, set the unused portion of the film on the bobbin holder indicated with an arrow on the seal of the cassette.

Printing with the transfer film set improperly may cause the image to be faint.

## Caution when loading the retransfer film cassette and/or the ink ribbon cassette

To provide access to supplies by authorized personnel only this printer come with mechanical security locks. Please unlock the printer door to open it.

The following caution shall be kept when the retransfer film cassette and/or the ink ribbon cassette is removed because of card jam or other trouble.

Please pay enough attention so that the retransfer film and/or ink ribbon is maintained at the right position. Particularly, the ink ribbon is extremely thin, therefore it apt to slip down when the cassette is removed as shown in the illustration.



## Adjust the position with hands so that the media position of take-up side and supply side becomes parallel

When loaded in this condition, it may cause improper printing such as INK RUNOUT error, improper color printing etc.

To avoid this, please handle the ink ribbon and/or the retransfer film very carefully with hands so that the media position of take-up side become parallel. Please do not touch the print side of the ink ribbon and/ or the retransfer film with your hands. Otherwise, it may cause improper printing.

When adjusting the print position of the retransfer film and/or ink ribbon, please follow the instruction label attached on the cassettes.

## Setting cards

Please use cards specified by your dealer. This unit can take both 0.76 mm(0.03inches)-thick and 0.25 mm (0.01inches)-thick cards. The factory setting is for 0.76 mm-thickness.



Fingerprints, soiling, etc. on card surface can result in print errors. Wear lint-free gloves when handling.

Inserting cards

The unit can take about 300 0.76mm-thick cards. As for 0.25mm thick cards do not insert more than 300 pieces.

/This 300 pieces is not a guaranteed quantity. In the event of card feed failure, caused by card bending or others reduce card quantity.

CAUTION When removing new cards from the box, it is possible that cards may be stuck due to static electricity. In this case, peel the cards off one at a time before setting into position. Hold the edges of the card when carrying out these operations.

#### **1.** Open the card tray.

Hold the lower part of the card tray and pull the tray toward you slowly until it no longer moves.



## 2. Pull the card bracket back.

The card bracket locks when it reaches the hole.



3. Insert the cards and move the bracket back into position.

Limit the number of cards as the card bracket moves back slightly from the lock position.

CAUTION Setting the cards improperly can cause feed jams. Check that the cards are neatly arranged.



When moving the card bracket back into position, do this slowly to avoid jamming your fingers. Leaving the card bracket out of position may cause card jams.

## 4. Close the card tray.

Please lock the card tray when you are finished and make sure to store the keys in a secure place. Push the card tray back into the printer until it no longer moves.



## 

To print pre-printed cards on this printer, determine print layout, color tone and card inserting direction by in advance consulting your dealer.

Especially for card pre-printed in a dark color such as black, card positioning error may happen. And for a magnetic or IC card, encoding error may happen.

## 

When handling cards, avoid dusty environment and use the attached gloves. Dusty cards such as those finger marked may cause improper printing.

Consult your dealer to purchase new gloves.

#### When using magnetic cards

When using cards with magnetic strips, set the cards in the following manner.



Place the card with its magnetic stripes upward and facing the card bracket.



Place the card with its magnetic stripes downward and facing the card bracket.



#### When using contact IC cards

When using contact IC cards, set in the following manner.



Place the IC card with its IC terminal inward and facing the card bracket.

#### Loading cards

Load cards when the printer's LCD panel shows the message "Ready" or "No Card", and not when printer operations have stopped due to an error. Cards can also be loaded when the power supply is not switched on. If there is a drop in the volume of remaining cards (under about 25 cards with a thickness of 0.76mm), the electronic beep sounds before every feeding. (See p.34 in this manual.)



Loading



When "Loading" is displayed on the LCD panel, do not open the card tray under any circumstances. The unit is currently feeding cards. If a message other than the one above is displayed, cards can be loaded even while the unit is printing. However, you are recommended to load cards when the unit is not printing.

To prevent defective printing caused by suspended printing or vibration as a result of opening and closing the card tray, load cards with care.

#### Switching the card thickness

Depending on the material, some 0.25mm(0.01inches) thick cards may not be suitable for printing. Consult your dealer regarding the materials and specifications of the card before purchasing.



Injury

• As for switching the card thickness,consult your dealer or the service personnel. Otherwise injuries or malfunction of the printer may be caused

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### Connecting with a host computer

**CAUTION** • Do not switch off the power of the host computer during printing.

• Do not use the sleep or the stand-by function on the host computer.

If the power of the host computer is switched off during printing, or if the sleep or the stand-by function of the host computer is activated, the printer may stop with cards printed halfway remain in the printer. When this occurs, initialize the printer as "Stopping when printing" of page 48 on this manual.

#### USB cable connection

- 1. Check that the power supply of the printer and host computer are both turned off.
- 2. Connect the printer and host computer with the USB cable.

Insert the USB cable to the USB cable connection terminal at the back of the printer.



- The location of terminals varies with the host computer. Please refer to the instruction manual of the host computer.
- When there are multiple USB cable connection terminal on the host computer, either one can be used.
- Do not connect to the USB connection terminal on the host computer's monitor or keyboard. It may not be recognized correctly.
- When using a USB hub, connect to the hub that is directly linked to the host computer.

#### LAN cable connection

- **1.** Check that the power supply of the printer and host computer are both turned off.
- 2. Connect the LAN cable to the port of the HUB connecting the printer and the host computer. Insert the LAN cable to the LAN cable connecting terminal at the back of the printer.



Adjust orientation of the USB cable according to the terminal, and insert it all the way in.

Consult your dealer on the cable connection if there are USB or serial cable connection terminal on the printer's optional port.



### Connecting multiple printers

When connecting a host computer to multiple printers, set different Unit Numbers from 1 to 7 for each printer. Refer to see the page 36 of the instruction manual. To connect multiple printers to a network, you must

configure the IP addresses for every printer. For details, see page 37 of this documentation.

### Program copyright display

This product includes software developed by the Open SSL Project for use in the Open SSL Toolkit.(http://www.openssl.org/)

This product includes cryptographic software written by Eric Young(eay@cryptsoft.com).

This product includes software written by Tim Hudson(tjh@cryptsoft.com).

## Beforeuse

## Names of parts on the operation panel



#### **Operation display LED**

READY LED (green)

- ON : unit ready, printer in operation
- Flashing : receiving image data
- OFF : unit stopped due to error, or unit being set, initialized or preheated.

#### ERROR LED (red)

ON : operation error

OFF: normal status

If an error occurs while the buzzer is set to ON, an alarm will sound. If this happens, the LCD background color will change to red.

#### LCD panel

During normal operation

- Upper line : operation status display (For details concerning the operation display, see p. 24 of this manual.)
- Lower line : counter display (Toggles between total counter/head counter/ free counter and roller counter.)

If an error occurs

Displays the error status. (For details concerning the error display, see p. 46 - 47 of this manual.)

During user mode

Displays various setting modes. (For details concerning settings, see p. 28 in this manual.)

Display background color

Bright green : OS booting up Orange : Card feeding

Dod : Error		_	
Red . Elloi	led	: Error	

The above background colors can be selected in user mode settings.

(For details concerning settings, see p. 30 in this manual.)

#### Setting buttons

RESET	

Initializes the printer by the software when an error occurs or an error is cancelled.

MENU	

The user mode setting is displayed when the unit is in the Ready or Preheating status. The button is also used when canceling the operation lock during errors.

Confirms the mode selected in

The parameter setting for each

mode can be adjusted during the

Make sure to press the button to

the user mode setting.

user mode setting.

save the settings.



+ t

EXIT

Quits setting and returns to the upper level setting screen.

## Operation display LED contents and the LCD panel

Printer status	READY	ERROR	LCD panel
Mechanism set period			Initializing
Preheat period			Preheating
Ready period	洪		Ready
Printer operation period	溔		When an error occurs
Error occur		澎	*Depends on the error content
User mode		■°`\	Depends on the user mode content
			: LED off

For details, see p. 46 - 47 of this manual.

#### Initialization period

When the power is turned on, the printer performs positioning of the ink ribbon and retransfer film. It also initializes the mechanisms of the printer and check their operations. "Initializing" is displayed on the LCD panel during this period.

#### Preheating period

When the initialization of the mechanisms completes normally, the printer increases the temperature of the retransfer roller and bend remedial roller up to the specified levels. "Preheating" is displayed on the LCD panel during this period.





When the heat roller temperature setting has been changed or after setting the Low temperature stand-by mode.HEATING will be displayed if the configured temperature does not match the actual temperature before the retransfer operation starts.

## peration

## Turning on the power

Before turning on the power, check the following: Make sure that the printer door is completely closed.

Make sure that the card tray is completely closed. Make sure that the host computer is correctly connected.

Make sure that any peripheral equipment is correctly connected.

Make sure that the power supply outlet is correctly connected.

(Power on the laminator first, if connected.)

Only switch the unit on after checking the above points.

## 2. Turn the power ON.

(I represents ON and O represents OFF.)



3. The unit will be in the ready status approximately 4minutes after turning on the power.

The operation display LED (READY LED) will light up.



Making settings in the user modes When the LCD panel displays Ready or Preheating,



press ⊂ button.

For details concerning each user mode setting, see p. 28 of this manual.

- 4. Enter the control command from the host computer to print cards.

The operation display LED (READY LED) will flash while the unit is receiving image data from the host computer.



Be sure NOT to do any of the following during printing operations and initialization process :

- Do not open the printer door.
- Do not open the card tray. (while the LCD panel displays 'Loading')
- Do not turn off the power supply.
- Do not unplug the unit.
- Do not pull out the connection cable.

Failure to observe the above points will cause printing to be aborted and may result in a malfunction of the unit.

## Operation (continued)

## 

When the printer was occurred an error during printing operation caused by abovementioned operation or others, the retransfer film was rewinded about 3 panels. If the printer is turned off and on the power or is initialized, the printer occur the printing an error which is "INK RUNOUT" or print results problem because of the printer try to print the used retransfer film. Wind up the retransfer film about 3 panels by unused panel. See p.18 "Caution when loading the retransfer film cassette and/or the ink ribbon cassette" and p.26 "On initialization when the retransfer film cassette and/or the ink ribbon cassette is loaded".

## Turning off the power

#### **1.** Check the printer status.

In ready, preheat or error status, check that printer operations are suspended.

## 2. Turn off the power.

Always wait 10 seconds or more before turning the power back on again.

Turn off the power switch when you won't use the printer for a prolonged period of time for power saving.

## About the RESET button

When an error occurs in the printer, press the  $\overset{\text{RESET}}{\longrightarrow}$  button, then the  $\overset{\text{ENTER}}{\longrightarrow}$  button.

The printer is initialized with this operation.

If the error still persists, see p.46-47 and take the appropriate actions.

Then, press the  $\stackrel{\text{RESET}}{\longrightarrow}$  button, and the  $\stackrel{\text{ENTER}}{\longrightarrow}$  button again. The printer is initialized, and returns to the "Ready" status.

(When you turn off the power, these procedures are not necessary.)

## On Initialization when the retransfer film cassette and/or the ink ribbon cassette is loaded

Dust or foreign particles may attach on the surface of retransfer film and ink ribbon when their cassette are removed from the printer.

This may cause defective printing such as image void, defective retransfer etc.

To Avoid this, it is recommended that the retransfer film and the ink ribbon are wound up one or two panels after they are reloaded.

Please follow the initialization procedure described below:

- 1. Turn the power switch on, and wait until the LCD panel displays "Preheat" or "Ready".
- 2. Depress the ESET key. LCD panel displays:

Initialize



3. By depressing the  $\stackrel{+}{\longleftarrow}$  key or the  $\stackrel{+}{\longleftarrow}$  key, the LCD panel change accordingly as shown below. Select the wind-up condition, one or two panels. (This set up is not memorized.)

2'nd Panel, OK?

• Initialized after two panels of the retransfer film and the ink ribbon are would up.

Initialize NEXT Panel, OK?

• Initialized after one panels of the retransfer film and the ink ribbon are would up.



- Initialized without winding up. (Default)
- **4.** By depressing the ENTER key, the printer is initialized according to the selected above set up condition.



## Operation (continued)

Us	ser mode settings	
Main menu	Submenu	Factory setting
>Display>	4 counter type settings: [Total, Head, Free, Rollers]	Total
Display mode	>>contrast       7 gradations from -3 to +3, the higher         0(Standard)       LCD panel contrast setting:	0
See p. 30	LCD panel background color setting: 8 options	PURPLE
>Counter Reset OK?	Counter reset mode For free counter resetting: press the ENTER button.	
>Cleaning>	Cleaning mode For cleaning mode setting: Magnetic head and card feeder roller execution	
>Ink>	Display on ink ribbon : the ink type being used is displayed <u>YMCK:0</u> Display only because of automatic setting by RF-ID(Setting is not possible)	
Ink mode	Setting the black level K: 9 gradations can be set from -3 to +5, the larger the value the darker the printing.	0
o ———	Setting the K printing mode: 2 options [standard and fine]	Standard
See p.32	Setting of MAC address position in the case of UV print Upper Right [Upper Right, Lower Left]	Upper Right
	>>UV Level       9 levels of density setting -3 to +5, the larger the value the darker the printing.	+3
	Setting the special ink SP-Ink2 level: 0(Standard) Setting the special ink SP-Ink2 level: 9 gradations can be set from -3 to +5, the larger the value the darker the printing.	0
>Retransfer>	Setting the retransfer film: setting the film type std(1000/roll):0 [1000,750] - two types	Standard (1000/roll):0
Retransfer mode	Setting the retransfer roller temperature:6 gradations can be set from -3 to +2, the larger the value the higher the temperature.	+1
	Setting the retransfer speed: 13 gradations can be set from -10 to +2, +2(Fast) Setting the retransfer speed: 13 gradations can be set from -10 to +2, the larger the value the faster the speed.	+2
	Setting the rear retransfer speed: 13 gradations can be set from -10 to +2, the larger the value the faster the speed.	+2
	Setting the way of peeling off the retransfer film: 2 settings [On and Off]	Off
	>>Standby mode         Laminate Standby selection: In case of both side printing with optional unit connected, select either one of the card sides for standby.2 Settings [Front Wait, Back Wait]	Front Wait
>Buzzer On	Buzzer mode Setting the buzzer ON/OFF: 2 settings [on and off]	On
>Power Saving Off	Power saving mode Setting the time for the power saving mode:9 options [off, 5, 10, 15, 20, 25, 30, 45 and [See p. 34] 60] (units: minutes)	Off
>Bend Remedy>	>>Temp. Level       7 gradations can be set from -5 to 0 or off, the larger the value the higher the temperature.	Off
Bend Remedy mode	Bend remedy speed setting: 5 gradations can be set from -2 to +2, the larger the value the faster the speed.	+2
See p. 35	Cooling time setting: 16 gradations can be set: none and 1–15 (units seconds).	None
>Card Thickness Standard	Card thickness setting mode: Card thickness setting: 2 options [Standard, Thin]	Standard
>MG ISO Type Hi-Co	Coercivity setting mode: ISO card coercivity setting: 2 options [Lo-Co, Hi-Co]	Hi-Co
>IC Antenna Pos. None	Non-contact IC antenna setting mode: Non-contact IC antenna position setting: 3 options [None, Ext. Unit, Added on]	
>IC Contact Pos. None	IC contact position setting mode: IC contact position setting: 3 options [None, Built-in, Ext. Unit]	
>Test Print OK?	Test print mode: to carry out test printing: press the ENTER button.	

Main menu		Submenu		Factory setting
>Unit No. No.1	Unit No: Unit No. setting:	7 options [No.1 to No.7] press the ENTER button.	See p. 36	No.1
>Network>	>>Printer Name PRINTER01	Printer name entry, Please select the PRINTER name is enter from the host computer (within 1		PRINTER01
Network mode The current IP address is displayed	>>Host Interface LAN	Select Interface [USB, LAN ]		LAN
	>>DHCP On	Availability of DHCP [On, Off]		On
See p. 37	>>IP Address 192.168.0.141	IP address settings (Setting when DHCP is Off)		192.168.0.141
	>>Subnet Mask 255.255.255.0	Subnet Mask settings (Setting when DHCP is Off)		255.255.255.0
	>>Geteway 192.168.0.1	Default Gateway settings (Setting when DHCP is Off)		192.168.0.1
	>>Session TimeOut Off	Net Session Timeout Settings [Off, 10min, 20min, 30min, 60min]		Off
	>>MAC address 0080-8842-8B00	Display of MAC address		
	>>IPSec Mode Off	Availability of IP Sec.[Off , On ] (When IP Sec Type is "not setting", it is fixed at	Off)	Off
	>>IPSec Type not setting	Display of IP Sec authentification method not so (presharing of key authentication), Certificate (F		not Setting
>HR Control Off	Low Temperature Sta [On, Off ]	nd-by mode setting	See p. 39	Off
>Download> OK?	Firmware Download r Press the ENTER but	node ton to enter download mode	See p. 39	
>Transport mode OK?	Transport Mode: Transport mode setti	ng: press the ENTER button.	See p. 39	



The unit has the following three settings for the display mode. Allows selection of which counter value is displayed when the power is turned on.



CAUTION

p.34) is set to off.

The beep sounds when pressing the

Enter button to save the settings in the user setting mode.

• The beep will not sound if the buzzer mode setting (see

## Clearing the free counter

Reset the free counter.

The [Total] counter and [Head] counter cannot be reset.



To check that the counter is reset to zero, select "Free Counter" in "Setting the counter type" on p.30.

EAUTION The head counter is cleared to zero each time the thermal head is replaced.

### Cleaning mode

The printer is provided with an operation mode for cleaning the card feed roller and the magnetic head to keep the printer in the best condition.

See p.42,43 and p.44 for executing the cleaning mode.



To exit the cleaning mode, turn off the power after cleaning.

## Operation (continued)

## Ink mode setting

Change settings according to the ink ribbon used.





### Buzzer mode setting

The buzzer indicating errors can be turned on or off.



- electronic beep sound indicating an error,
- electronic beep sound indicating the number of cards, and
- electronic beep sound indicating settings saved with the ENTER button in the user mode are muted.

### Power saving mode settings

The printer enters into the power save mode after a specified period of time if none of operation buttons are touched in the Ready status. The heat roller for retransfer, bend remedial roller, and back-light of the LCD panel are turned off in the power save mode.



Press the EXIT button to cancel the user mode, and the printer starts.

Off:

Not in power saving mode.

Setting options: [5,10,15,20,25,30,45,60] (units: minutes) If printing is not to be carried out for a period longer than the set time, switch the units heater off. (Power save status)

"Sleeping" appears on the LCD panel in the power save mode. The operation buttons are disabled in this mode. See step 2 in "Canceling the power save mode" to enable the operation buttons.

Sleeping

The printer moves to the power save mode when the specified time arrives even if you turns off the printer and turn it on again.

Canceling the power save mode

**1.** From the host computer

Enter a control command to print the card. The power save mode is cancelled, and printing automatically starts upon completion of preheating.

## 2. Temporary cancellation

To cancel the power save mode temporarily on the printer, press  $\overset{\text{RESET}}{\longrightarrow}$ , then  $\overset{\text{ENTER}}{\longrightarrow}$  to initialize the printer.

#### **3.** Permanent cancellation

Cancel the power save mode temporarily as described in step 2, and change the power save mode setting to OFF.

### Setting the bend remedy mode

Single-sided printing may cause a bend depending on the cards. Adjust the setting to get rid of the bend.



## Card Thickness setting mode

The printer is designed to load only the 0.76mm or 0.25mm thick cards. So set card thickness depending on the card used.



For changing card thickness, see "switching the card thickness" on Page 20 of this manual

## Coercivity setting mode

Set coercivity for writing data on the ISO compatible magnetic stripe card.



Non-contact IC antenna setting mode

To use non-contact IC cards, set the antenna position at which the cards stop.



## IC contact setting mode

When using IC cards, specify the contact position to stop the cards.



(The electronic beep sounds.The beep will not sound if the buzzer mode setting is set to off.)

## Test print

Test print is provided for printing a test pattern contained in the printer (there is only one pattern). Operating the printer independent of the host computer enables you to find out the source of trouble if there is a problem in the system.



A single-sided color pattern is printed. When test printing is completed, the unit will automatically return to ready status.

## Unit No. setting

Set Unit Number of the printers to be connected


## Network setting

- Determine the "Network setting" items according to the instruction of the <u>network administrator</u> for the location where the printer unit is installed.
- Other network devices may be affected if the "Network setting" is incorrect.



Continue on next page

# Operation (continued)



# Set position of MAC address print

In the case of UV print, MAC address must be printed at the edge of a card at the same time. Position of MAC address is selectable between Right Upper Edge or Left Bottom Edge via Command or operation panel. Please refer to following Fig.1 about print position. Following mentioned coordinates are based on "Starting point of Print Area" and indicated in pixels.

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(42.611

Print position of MAC address in case that it is set at

Lower Left position.

Starting Point of

Print Area(0,0)

#### Low temperature stand-by mode setting

Please set ON normally in this mode. When the printer is set ON in this mode, the printer will become standby at low temperature of the retransfer heat roller after no printing motion for 30 minutes and over. The temperature of the heat roller will automatically get an original setting when next card printing command received. For that reason, it takes long time for 1st card compared with normal printing.

Availability of heat roller control at the re-transfer side.(on,off)





## Download mode setting

Set the printer to Download mode.



CAUTION In case that UV is printed on YMC directly, print error will be occurred when retransferring. So in case that YMC image is overlapped with UV image, please print UV image on the retransfer film after YMC image is retransferred on the card. It is requested to pay the same special attention for MAC address that is printed with UV ink. So in case that MAC address print area with UV ink is overlapped with with YMC-K image, please print UV image on the retransfer film after YMC-K image is retransferred on the card.

To provide access to supplies authorized personnel only this printer come with mechanical security locks please unlock the card tray to open it.

Always make sure that the printer is turned off before cleaning.

(However, cleaning of the card feed rollers and magnetic head should be carried out with the power turned on.) To achieve the best performance from the printer, always check each part before use for dust and dirt and clean if necessary. The following explains the main rollers that require cleaning. For details about other rollers, see p.45 (Internal roller layout). Dust and dirt, particularly on the thermal head, rollers and cleaning rollers can cause print blurs and shifting of colors.

# Cleaning the cleaning rollers

The cleaning rollers remove dust and dirt sticking to the card. Cleaning the cleaning rollers after every use is recommended if the printer is used almost everyday. Depending on the cards, there may be much dust and dirt. In such a case, perform cleaning every 100 to 200 cards. Do not do this, however, during printing operations.

**3.** Wash the rollers of the cleaning unit with water. Wash out dirt on the roller surface with your fingers. Do not use alcohol or detergents. The cleaning unit should be cleaned only with running water.

#### 1 Open the card tray.



2. Remove the cleaning unit.

Pull out the cleaning unit toward you as shown in the illustration below.





CAUTION After washing the cleaning unit with water, wait until it completely dries up and set it in the printer.

**4.** Push the cleaning unit back into the printer. Push the cleaning unit with the rollers facing upward until it is securely back into the place.

5. Close the card tray.



CAUTION Deteriorated cleaning rollers may cause defects in the printed card. If the rollers begin to deteriorate, replace the cleaning unit. (We recommend replacement after a year)

## Cleaning the thermal head

When the thermal head gets dirty, defects such as unwanted lines appearing on the printed card may occur. It is recommended to clean the thermal head after printing about 10,000 frames. The thermal head is a consumable component, that is, it has a limited service life.

1. Open the printer door and remove the ink ribbon cassette and the retransfer film cassette.

See p.14, 16 in this manual.

2. Wipe the cleaning head with a cotton bud (sold separately), dipped in alcohol (sold separately).



**3.** Insert the ink ribbon cassette and the retransfer film cassette, then close the printer door.

• The thermal head may break if touched with an electrostatic charge. Discharge yourself by touching the printer frame (metallic part) with your hands before cleaning the thermal head.

• Use a cotton bud soaked with absolute alcohol(ethanol). Be careful not to scratch the thermal head with hard materials like metal during cleaning.

### Cleaning the fan filter

When the fan filter gets dirty, partial omissions may occur on the printed cards, or the printing result looks dirty. It is recommended to clean the fan filter after printing about 10,000 cards.

1. Remove the fan filters located in three positions on the sides of the printer.



**2.** Remove the card tray.

See p.49 in this manual.

**3.** Remove the fan filter located on the base of the printer (inside the unit).

Bring down the fan filter(side 2) while pressing its side (side 1). The fan filter can be taken out. Mount the fan filter by pressing this side.



Remove dirt on the fan filter using a vacuum cleaner or other cleaning equipment.
 Hold the sponge with your hand so that it is not sucked into the cleaner.



If the sponge is removed, attach it again as shown below.

#### Side filter

Press down the sponge into the dents at four corners, and set it under the tabs on the frame. Bottom filter Place the sponge under the tabs on the frame.



Replace the fan filter when it begins to deteriorate.(the elasticity of the sponge is lost and the sponge tends to be broken into pieces.) It is recommended that fan filter should be replaced once a year. Contact your dealer for details of replacing the filter.

5. Install the fan filters back to the original positions.

# Cleaning the card feed rollers and heat rollers

Dirty rollers are the major cause of jamming of the cards. It is recommended to clean the rollers once after printing about 1,000 cards. It is also recommended to carry out cleaning before the work, because the retransfer roller (heat roller) does not operate while it is hot.

1. Remove the retransfer film cassette. See p.16 in this manual.

**2.** Turn on the power of the printer. The printer initializes, and the [No Cassette] error is indicated.

 $\textbf{3.} \quad \text{From user mode select cleaning mode.}$ 



4. Press the ENTER button. Select [Rollers] with  $\uparrow$  and  $\downarrow$  buttons, and press the ENTER button.



Insert the cleaning card in about 10 seconds. If you fails to set the card within this time, the printer returns to "Start OK?" Press the ENTER button again to proceed.

## 5. Set a cleaning card.

Peel off the protective paper of the cleaning card and insert it into the NG card discharge slot. The card will be drawn into the unit by the rollers and cleaning will then be carried out from card discharge slot on the left side of the printer. Insert the card with its adhesive face upside down to repeat the cleaning procedure once more. Cleaning card (accessory)



Turn off the power of the printer, and wait until the roller completely cools down before starting the work. Confirm that the retransfer film cassette has been removed.

- The cleaning card does not go into the card discharge slot at the left side.
- If a card jam occurs, turn off the power, then turn on the power again. The jammed card will be discarded.

# 6. Turn off the power after the cleaning card is discharged.

Wait for 10 seconds before turning on the power again.

**CAUTION** The cleaning card can be used only once and disposable after using. If you use the dirty cleaning card many times, the dirt on the card moves onto the rollers, causing damages to the rollers. Consult your dealer for the cleaning card.

## Cleaning the magnetic head

Dirty magnetic head will cause a write/read error. It is recommended to clean the magnetic head after printing about 1,000 cards. Cleaning the magnetic head is not necessary if the magnetic stripe card is not used.

- **1.** Keep the ink ribbon and retransfer film cassettes in their mounting positions.
- 2. Confirm that the READY LED (Green) is lighted
- 3. Specify the "cleaning" mode in the user mode.

See p.31 in this manual.



**4.** Apply alcohol on the magnetic head cleaning card. Drip three or four drops of alcohol on the magnetic stripes.



Magnetic head cleaning card (sold separately)

**5.** Set the card on the card tray.

Place the card in right direction. See p.20.

6. Press the ENTER button, select "MG Head" with the  $\uparrow$  or  $\downarrow$  button, and press the ENTER button.



- 7. When the cleaning card is discharged from NG card discharge slot, turn off the power of the printer. Wait for 10 seconds before turning on the power again.
- CAUTION Replace the magnetic head cleaning card when it gets dirty. A dirty card may pollute the head and cause damages to the head.

Consult your dealer on the alcohol and cleaning card.

#### Cleaning of the bobbin holders

Dirt on the bobbin holders may appear on the card or the film, cause defects on the card. Clean the bobbins when replacing ink ribbon or retransfer film.

1. Remove the cassettes of ink ribbon and retransfer film.

See p.14 and 16 of this manual.

2. Wipe 4 bobbin holders with "Kim-Wipe" soaked with absolute alcohol(ethanol)



# Once printer servicing and cleaning have been completed

Once servicing and cleaning of the printer have been completed, check to make sure that all parts have been replaced properly.

Improper replacement of parts may result in the power not turning on or in operating errors.

### Periodical maintenance

Periodical maintenance by the service personnel is recommended to avoid print error and failure. Consult your dealer for maintenance period and cost.

## Layout of rollers inside the printer

Below is a diagram of the layout of rollers inside the printer. Refer to this diagram in the event of card jams and when cleaning the rollers.



# Error code listing

The meaning of "reset  $\rightarrow$  enter buttons" in the list is, after pressing the Reset button, press the Enter button to initialize the unit.

Error code	Description of error	Remedy
Please, Power Off.	The power must be turned off so that the unit can be initialized.	Turn off the power and then on again.
Please Remove Media Cassette	The cleaning mode can not be set because there is a retransfer film in the unit.	Remove the retransfer film cassette, then press the "reset $\rightarrow$ enter buttons" and set the cleaning mode again.
HR is too hot.	The cleaning mode can not be set because the temperature of the heat roller is too high.	<ol> <li>Turn off the power and allow about 20 minutes for the heat roller to cool. Then turn on the printer and set the cleaning mode again.</li> <li>Confirm that the retransfer film cassette has been removed.</li> </ol>
Jam (Hopper) 90	Card jam (hopper section)	Turn off the power and remove cards from the hopper. Turn on the power.
Jam (TurnOver) 91	Card jam (turnover)	Remove cards from the turnover section. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
Jam (MG) 92	Card jam (encode section)	Press the "reset $\rightarrow$ enter buttons" and initialize the unit. If no cards are discharged, turn off the power and remove the cards. Turn on the power.
Jam (Transfer) 93	Card jam (retransfer section)	Turn off the power and remove the cards from the retransfer section. Turn on the power.
Jam (Discharge) 94	Card jam (card discharge section)	Turn off the power and remove the cards from the paper discharge section. Turn on the power.
Media Broken A0	The retransfer film See p.48	Mend the retransfer film. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
Media Search A1	Retransfer film search error	Reset the retransfer film. Press the "reset $\rightarrow$ enter buttons". Call for service if the problem persists.
Media Run Out A2	The retransfer film has run out	Replace the retransfer film. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
Ink Broken B0	The ink ribbon has broken	Mend the ink ribbon. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
Ink Search B1	Ink ribbon search error (RF-ID read error)	Reset the ink ribbon. Press the "reset $\rightarrow$ enter buttons" and call for service if the problem persists.
Ink Run Out B2	The ink ribbon has run out	Replace the ink ribbon. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
Turn Over Unit CO	Turnover mechanism error	Press the "reset $\rightarrow$ enter buttons" and call for service if the problem persists.
Heater Cam C1	Heat roller operation error	Turn the power off and then on again. Call for service if the problem persists.
No Card	<ol> <li>No card</li> <li>The card tray is open or has been removed.</li> </ol>	<ol> <li>Replenish the cards.</li> <li>Close the tray correctly.</li> </ol>
Door Open D1	The printer door is open	Close the door. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
No Cleaning Unit	Cleaning units missing	Attach the cleaning units. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.
No Cassette D6	Cassette missing	Attach both the ink ribbon cassette and the retransfer film cassette. Press the "reset $\rightarrow$ enter buttons" and initialize the unit.

Should your printer require servicing, turn it off and unplug it and make inquiries at the outlet where it was purchased.

Error code	Description of error	Remedy
Hardware XX	Hardware error	Turn off the power and then on again. Call for service if the problem persists.
TR Overheat F0	Retransfer roller overheating	Turn off the power and then on again. Call for service if the problem persists.
TR Broken F1	Retransfer roller malfunction	Turn off the power and then on again. Call for service if the problem persists.
TR Sensor Broken F2	Retransfer roller thermister malfunction	Turn off the power and then on again. Call for service if the problem persists.
RR Overheat F3	Bend remedy roller overheating error	Turn off the power and then on again. Call for service if the problem persists.
RR Broken F4	Bend remedy roller malfunction	Turn off the power and then on again. Call for service if the problem persists.
RR Sensor Broken F5	Bend remedy roller thermister malfunction	Turn off the power and then on again. Call for service if the problem persists.
Overcool F6	Overcool	The usage environment temperature is too low. Use at the specified usage environment temperature. (Call for service if the problem persists.)
Head Overheart F8	Thermal head overheated	Turn off the power and leave the unit for about 10 minutes before switching on again. (Call for service if the problem persists.)
EEPROM Broken FA	EEPROM malfunction	Turn off the power and then on again. Call for service if the problem persists.
MG Unconnected A9	MG connection error	Turn off the power and then on again. Call for service if the problem persists.
MG Mechanical AB	MG mechanical error	Turn off the power and then on again. Call for service if the problem persists.
MG Hardware AC	MG hardware error	Turn off the power and then on again. Call for service if the problem persists.
MG Communicate	MG communication error	Check the I/F cable connected correctly.Turn off the power and then on again. Call for service if the problem persists.
EXT. Unconnected B9	Connected external device malfunctioning	Turn off the power and then on again. Call for service if the problem persists.
EXT. SW Setting BA	External device switch setting error	Turn off the power and then on again. Call for service if the problem persists.
EXT. Jam BB	External retransfer unit jam error	Press the "reset $\rightarrow$ enter buttons" and remove cards if they are not discharged. Press the "reset $\rightarrow$ enter buttons" and call for service if the problem persists.
EXT. Communicate BE	External unit communications error	Check the I/F cable connected correctly.Turn off the power and then on again. Call for service if the problem persists.
EXT2 Communicate BF	External unit2 communications error	Check the I/F cable connected correctly.Turn off the power and then on again. Call for service if the problem persists.

## Stopping when printing

The printer may stop with no error messages If some failure with the connection to the host computer occur or the not proper ink ribbon is set.

In this case, open and close the printer door at once, and then press "reset" and press "enter" to initialize the printer.

# Mending broken ink ribbon and retransfer film

If the ink ribbon or retransfer film is broken, mend it in the following procedures:

**1.** Trim neatly the end of broken portions with a pair of scissors.

2. Align both ends and apply the Scotch tape in the center of the aligned ends. Please do not discard the used ink ribbon or retransfer film on the winding side.

**3.** Turn the ink ribbon or retransfer film to the winding side with your hand until the mended portion is completely wound up.



#### About printing errors

If blurring or color shifts occur in your print results, clean all rollers starting with the cleaning rollers.

Some image errors may depend on the design of the card to print.

In particular, wrinkles can easily occur if large surfaces are printed with high density ink.

To avoid such problems, contact the dealer where the printer was purchased concerning card designs.

### When retransfer operation is not complete

Depending on the cards used, retransfer operation may not be complete. In that case, try the following items. (See Page 33, "Retransfer mode setting")

1. Try to increase the retransfer temperature.

2. Try to decrease the retransfer speed. For the reverse side of the card, try to decrease the reverse retransfer speed.

3. Dust on the card surface. Use clean cards with no dust. Use the attached gloves to avoid finger mark on cards.

4. Ambient temperature

Retransfer operation may not be complete if the temperature of card surface is very low such as the card first printed in the cold morning. In that case, wait until the room becomes warm enough.

#### Caution when printing characters

When printing small characters or thin lines in black ink, the thickness of minimum 2 dots necessary for "Standard" mode.

Printing small characters or thin lines by 1 dot tends to cause blurring.

To avoid this tendency, following settings are recommended. See "Ink mode setting" on Page 32. 1. Set the black value K:

Try to increase setting value to more than 0 (Standard) Then darker printing is possible.

2. Set the K printing mode:

Change mode from "Standard" to "Fine".

Then thicker printing is possible.

If blurring still appears after having tried the above setting , selecting more adequate character font is recommended.

## Removing card jams

To provide access to supplies authorized personnel only this printer come with mechanical security locks please unlock the card tray to open it.

To determine the part of the machine affected by a card jam refer to the error code on the operation panel LCD panel on the printer and the relevant page in this manual.

When removing a jammed card, make sure that the printer is turned off before carrying out the following procedure.

#### Hopper jam

#### **1.** Pull out the card tray.

To remove the card tray, pull it out toward you until it no longer moves and lift it.



2. Remove the jammed cards.

If you can hold the jammed card, pull it out.



If you cannot hold the jammed card: Pull out a small portion of the cleaning unit.



Turn the right knob to drop the jammed card. Remove the fallen card.

**3.** Return the card tray to its original position. Push the card tray back into position on an angle.

Push the card tray back into its position while placing the card tray tabs on the folded over metal plates.



4. Please relock the card tray when you are finished

and make sure to store the keys in a secure place.

Turnover section [Jam (turnover)]

1. Open the printer door and remove the ink ribbon cassette.

See p.14 in this manual.

2. Remove any jammed cards.



• If you can pull out the jammed cards, take them out.



If the jammed cards come out of the turnover table, • push them back into the table, and rotate the table slowly (as it is positioned vertically) until the table is located so that the cards can be taken out.

CAUTION



• When rotating the turnover table, be careful not to touch the metal edge. Wear a glove for this work.

Retransfer section [Jam (transfer)]

1. Open the printer door and remove the retransfer film cassette.

See p.16 in this manual.

2. A jog lever are supplied as standard. The jog lever are attached to the center of the card tray



Turn the tabs in the arrow direction and take out the jog lever and removal stick.

 $\textbf{3.} \hspace{0.1 cm} \text{Turn the jog dial to move the card to the position}$ where it becomes visible.

Turn the jog dial with the attached jog lever.



4. Remove the card.

Remove the card.



• Ink ribbon(YMCKK)

• Ink ribbon(YMCKU) • 750 frames/roll Model: DIC10313

• Retransfer film

• 750 frames/roll

•1000 frames/roll Model: DIC10319

Model: DIC10217

Recording method Feed format Recording density	1 : 256 for Y, M, C and 2 for Bk	DIH10248 (Medium-type IC unit)Power supply: Fed from the printer.Mass: 0.6kgDimension (cm): 7.6(W) $\times$ 17.1(D) $\times$ 11.5(H)DIH10117 (Compact IC unit)Power supply: Fed from the printer.Mass: 0.5kgDimension (cm): 5(W) $\times$ 15.2(D) $\times$ 11.5(H)Accessories: Screw (with washer) $\times$ 3
Interface	: USB2.0(Hi-speed/ Full speed) Ethernet(100BASE-TX/10BASE- T)	Accessories : Screw (with washer) × 3 Screw (without washer) × 2
Operating environme	Temperature: 15°C ~ 30°C	
	Humidity: 35% ~ 70% (no condensation)	
Storage environmen	Temperature: -15°C ~ 55°C	
Power supply	Humidity: 20% ~ 80% : 100V~120V AC/ 220V~240V AC 50/60 Hz (allowance±10%)	
Current dissipation	: 7.0A (for 100V~120V AC) / 5.0A (for 220V~240V AC)	
Wattage Mass	: 750W(Max.) : Standard 22kg Excluding the built-in magnetic encoder	
Dimension (cm) Accessories	: 34.3(W) × 34.7(D) × 38.1(H) : Power cord for 120ACV (North America)×1	
	for 220~240ACV (Europe)×1 Manual(English)×1	
	Cleaning card ×1 Card stacker ×1	
	Ink ribbon cassette ×1 Retransfer film cassette ×1	
	USB cable(200cm) ×1 Jog lever (contained in the	
	card tray) ×1 Gloves ×1 Keys ×2	
Products sold separa • Ink ribbon(Y • 1,000 fr Model:	MCK) 10 cards/se	t Non-contact IC encoder

• Medium-Type IC unit Non-contact IC encoder Model: DIH10248

The specifications and external appearance of this product are subject to change for improvements without a prior notice.

#### External appearance and dimensions



In case of disposal this unit, take care for compliance with the local law and regulations in your country.

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