Close the printer door, and press RESET →▭ to reset the printer.
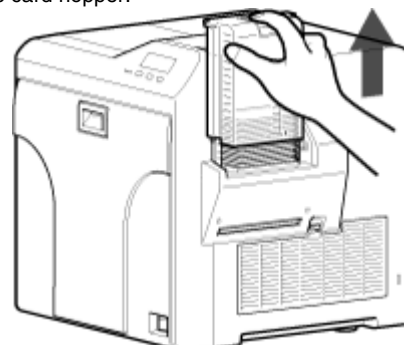
```
Door Open        D1
     Total       ★ ★ ★
 Reset  ⟷ ⚡ 🔓   Menu
```

```
>Initialize
              O K ?
 Exit    ⏎    Next
```


Error code 91

Card jam in the turnover unit
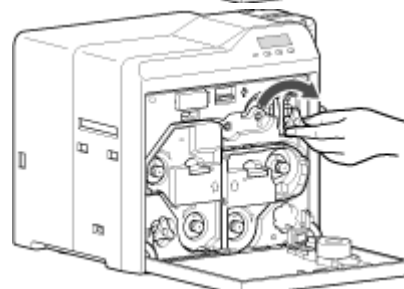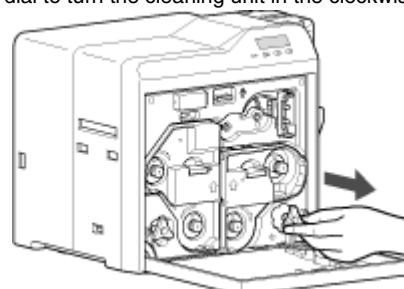
```
Jam(Turn Over)    91
```

1 Remove the card hopper.
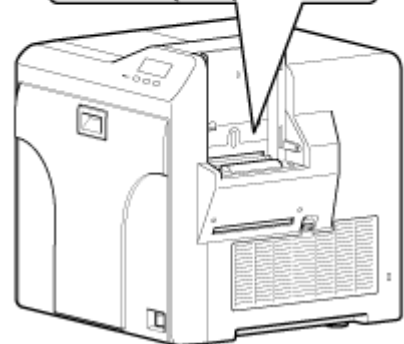

2 Open the printer door, and remove the cleaning unit.

3 Use the jog dial to turn the cleaning unit in the clockwise direction.

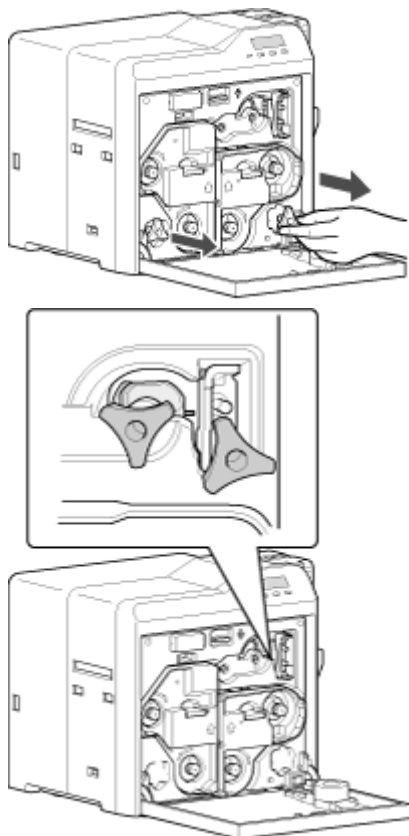Open the card hopper cover, and remove the card if this is possible.

4 Use the jog dial to turn the turnover unit slightly in both the left and right directions.

If the card is protruded from the turnover unit, the turnover unit cannot be turned.

45

Turn the turnover unit and cleaning unit at the same time in opposite directions to move the card to the turnover unit.

5 Move the card to the turnover unit.

Turn the turnover unit and cleaning unit in opposite directions.
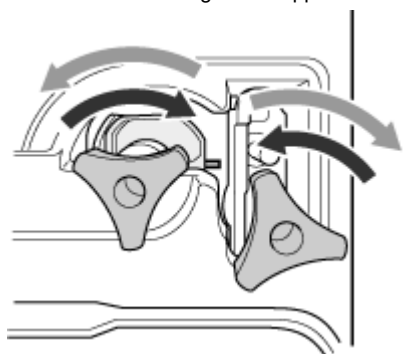
6 Close the printer door, and press RESET →◨ to reset the printer.

The card is discharged from the NG card outlet or card stacker.

Error code 92

Card jam in the magnetic encoder unit.

```
Jam(MG)          92
```

1 Open the printer door.

2 Restore the card to the magnetic encoder unit.
Use the jog dial to turn the cleaning unit.

3 Turn the jog dial at the turnover unit to adjust the unit to a vertical position.

While doing so, make use of the printer's label as a reference.

4 Move the card to the center of the turnover unit
Maintain the turnover unit in the vertical position.
Turn the jog dial at the cleaning unit.
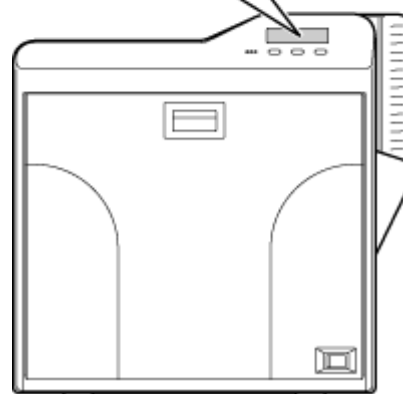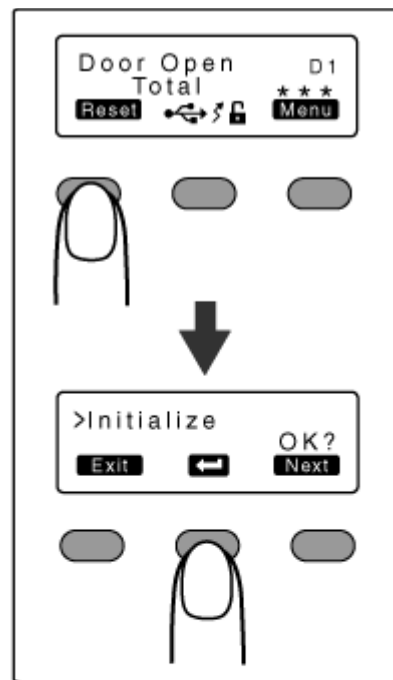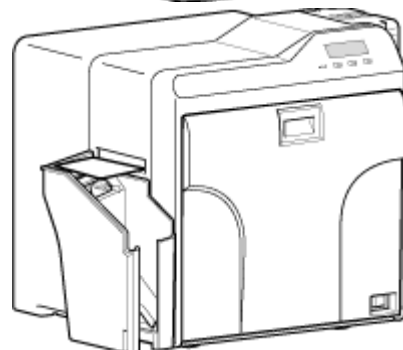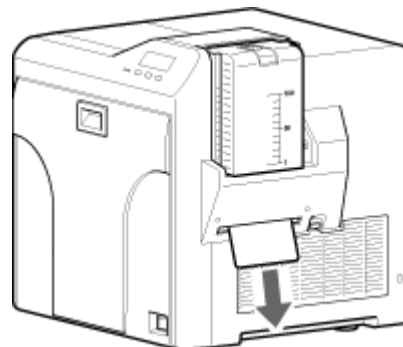Check to ensure that the card moves to the turnover unit.

5 Turn the jog dial attached to the turnover and cleaning units at the same time in opposite directions.
Set the turnover unit to the horizontal position.

6 Turn the jog dial of the turnover unit clockwise to an angle of 45@.
While doing so, make use of the printer's label as a reference.

7 Turn the jog dial at the cleaning unit in the anti-clockwise direction.
The card is discharged from the NG card outlet.

8 Press RESET ➔⏎ to reset the printer.


```
Door Open        D1
    Total     ★ ★ ★
 Reset  ⟷⚡🔓  Menu
```

```
>Initialize
              OK?
 Exit    ⟵    Next
```
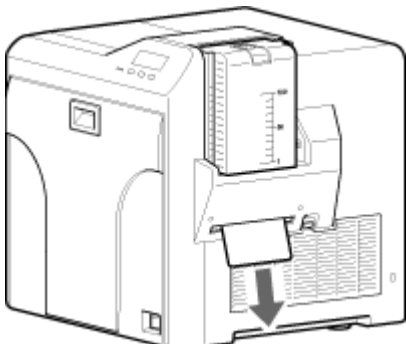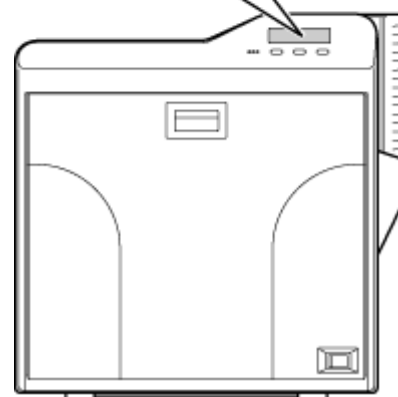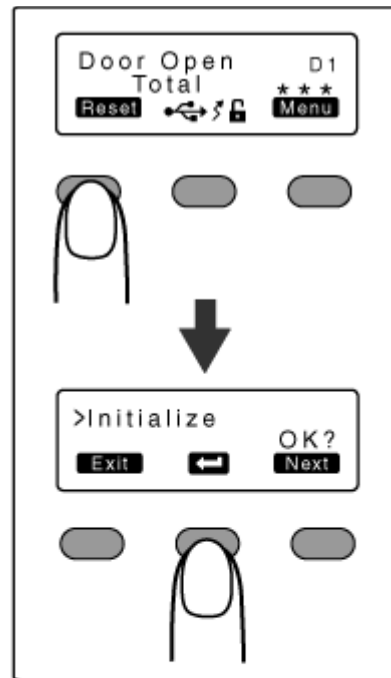
Error code 93

Card jam in the retransfer unit

```
Jam(Trasfer)     93
```

1 Press Reset ➔⏎ to reset the printer.

The card is discharged from the NG card outlet or card stacker.

Error code 94

Card jam in the discharge unit.
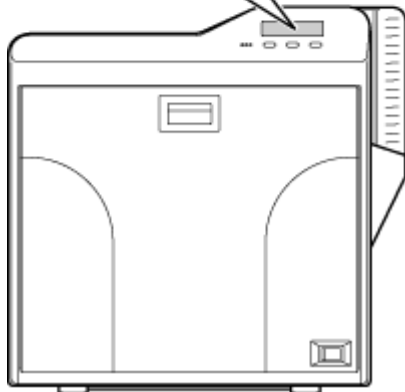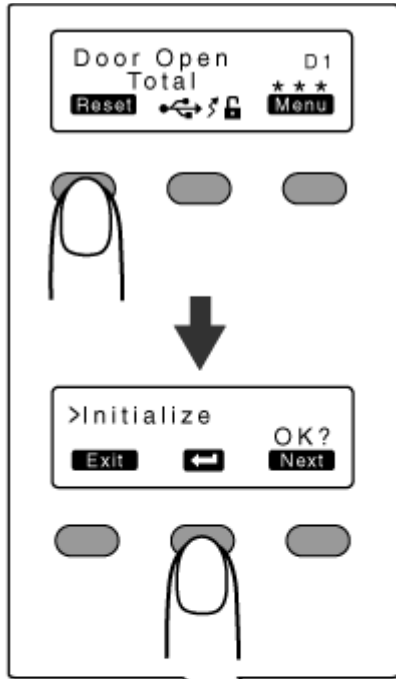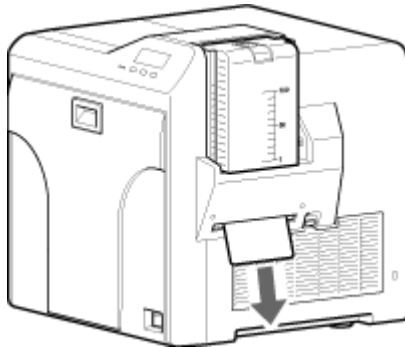
Jam(Discharge)　　94

1　Open the printer door.
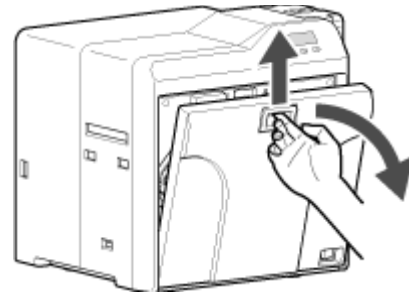
2　Remove the retransfer film cassette (on the left), and check the printer interior.

If the card is found adhered to the retransfer film, remove the card.
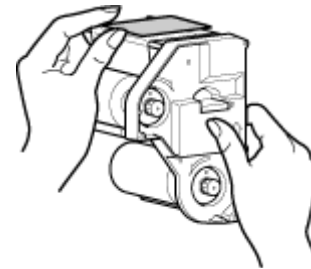
Note:
If the card cannot be removed from the retransfer film cassette (on the left), do not try to do so forcefully. Consult our authorized dealers or servicing personnel.

3　Close the printer door, and press　RESET ➞⟵ to reset the printer.

```
Door Open        D1
    Total       ★ ★ ★
 Reset  ⊷⟊⌁🔓  Menu
```

⬇

```
>Initialize
 Exit   ⏎   OK?
            Next
```

Ink Ribbon

"Ink ribbon has run out" ☞ page 29
"Ink ribbon is broken" ☞ page 30
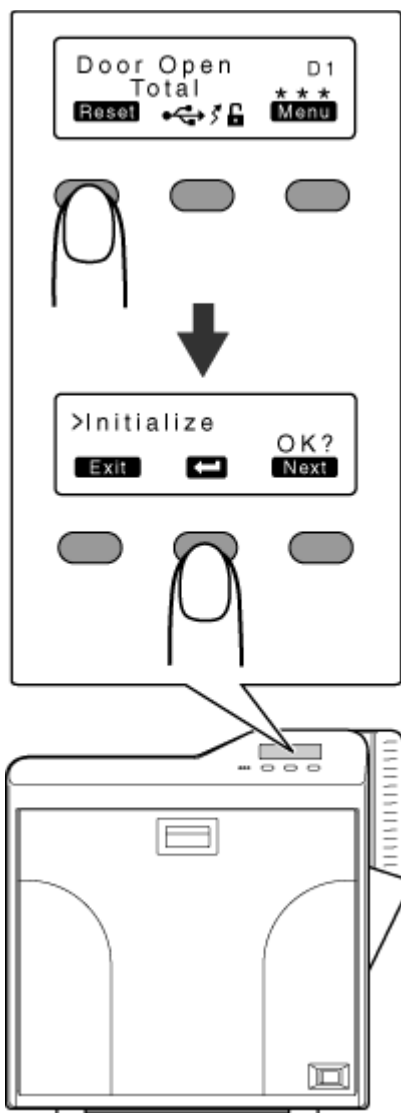
Card has run out

"Replenish the cards." ☞ page 28

Retransfer Film

Unable to fit retransfer film cassette into printer

With the printer door closed. turn on the power, and cancel the transport mode.

When in the transport mode, the retransfer film cassette cannot be installed to the printer with the retransfer film attached.

Unable to produce desired printing results

Lines appear on card after printing

"Clean the thermal head." ☞ **page 41**

Colors on card appear faded after printing

"Clean the cleaning roller." ☞ **page 34**
"Clean the fan filter." ☞ **page 35**
"Clean the card feed roller/heating roller." ☞ **page 36**
"Clean the bobbin holders." ☞ **page 40**

Peeling occurs on card after printing

"Check the retransfer mode settings." ☞ **page 83**

Overall printing quality is poor

"Clean the cleaning roller." ☞ **page 34**
"Clean the fan filter." ☞ **page 35**
"Clean the card feed roller/heating roller." ☞ **page 36**
"Clean the bobbin holders." ☞ **page 40**

Is the printing face of the card dirty?
Use a clean card.

Card is printed in a single color

Is the print settings set to single-color printing?
Is the software application settings set to single-color printing?
Check the print settings.

Strange characters or images are printed

**Is the driver for this printer selected on the computer?**
Select the driver for this printer.

Is the USB cable connection loose?
Plug in the USB cable properly.

Retransfer cannot be performed successfully

Is the printing face of the card dirty?
Use a clean card.

Is the surrounding temperature or card surface temperature too low?
Use after the ambient and card surface temperatures have reached the range specified in the operating environment conditions.

Is the retransfer speed setting value too high?
Set to a value that is smaller than +2 (between +1 and -3).

Is the temperature of the retransfer roller too low?
Set to a value that is larger than +1 (+2).

Printer not operating as desired

Card is not fed into the printer

Is the card feed path dirty?
Clean the card feed roller/heating roller.
"Cleaning the card feed roller/heating roller" ☞ **page 36**

Is the paper load roller dirty?
Apply alcohol (sold separately) to a wiper (sold separately), and use it to clean the paper load roller.

Is the card thickness correctly adjusted?
Check the card separator settings.
"Card separator settings" ☞ **page 56**

Are the cards adhered to one another?
Cards may be adhered to one another due to static. Separate the cards one by one before setting them in the printer.

Power does not turn on

Is the power switch turned off? (O position)
Turn on the power. (I position)

Is the power cord disconnected?
Plug in the power cord properly.

Is there electricity supply from the outlet?
Try connecting another electrical device to the outlet. If the device works normally, then it could be due to malfunctioning of the printer. Consult our authorized dealers.

Printing does not start or stops halfway

Is the printer door open?
Close the printer door properly, and reset the printer.
"Initialization" ☞ **page 17**

Is the printer connected to a computer?
Connect the printer to a computer correctly using a USB/LAN cable.

Is the length of the USB cable too long?
A USB cable with a length of not more than 2 m is recommended.

Are cards set into the printer?
Set the cards correctly.
"Replenishing cards" ☞ **page 28**

Is an ink ribbon/retransfer film installed?
Install an ink ribbon/retransfer film correctly.
"Installing the ink ribbon" ☞ **page 29**
"Attaching the retransfer film" ☞ **page 31**

Is the driver for this printer selected?
Select the driver for this printer.

Before sending printer for repair

Enter the symptoms into the troubleshooting sheet.

Printing the troubleshooting sheet

Clicking the Print icon displays a PDF file.
Print out the PDF file and enter accordingly.

Installation and Connection

Printing Media

Printer and Computer Connection

Computer Settings

Printer Settings

Installation and Connection

Printer Installation

Note:
Using the printer in an environment beyond the operating ambient temperature range may result in retransfer or printing errors. Check the "Precautions on installation location" and "Operating environment conditions" specifications.

"Precautions on installation location"   ☞ page 5
"Operating environment conditions"   ☞ page 9

Ventilation holes for the cooling fan are located at the rear and side of the printer.
Install the printer by allowing a clearance of at least 20 cm between its sides and surrounding walls.
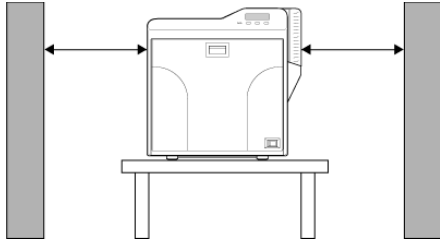
Allow a clearance of at least 10 cm between the rear of the printer and the wall.
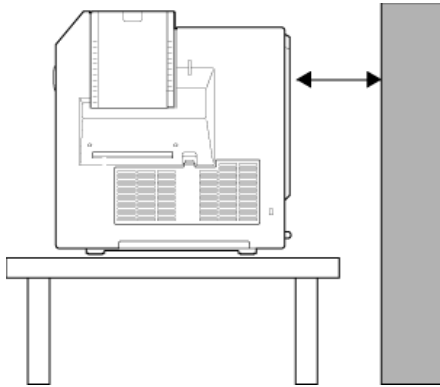
Do not place any object on the printer.

Power Cord Connection

1 Insert the power cord (supplied) to the power input terminal at the rear of the printer.
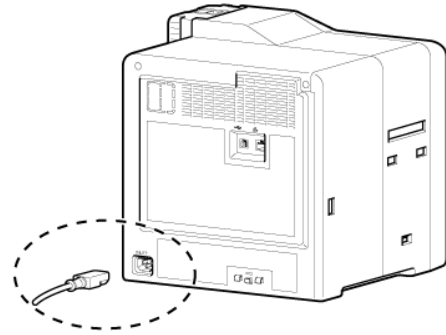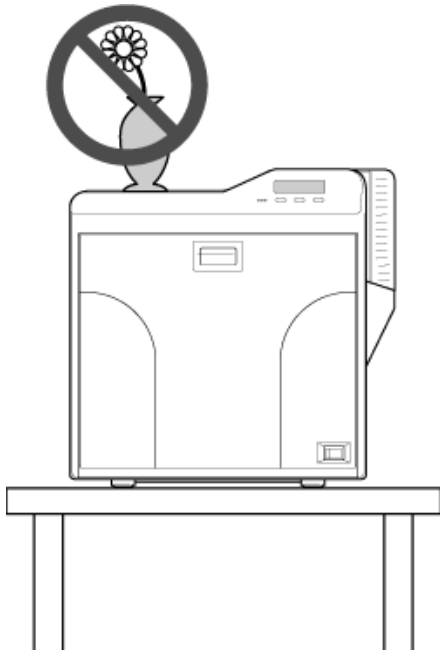
2 Plug the power cord (supplied) into an outlet.

Memo:
Make use of an AVR (automatic voltage regulator) to prevent any fluctuation in voltage. Alternatively, an uninterruptible power supply is recommended in case momentary power outage occurs.

Note:
Make sure that the power outlet is grounded and used as a dedicated power source for the printer.
It must not be shared with other power supply facilities.

Card Stacker (Supplied)

1 Hook the tab on the card stacker to the card stacker attachment slot.
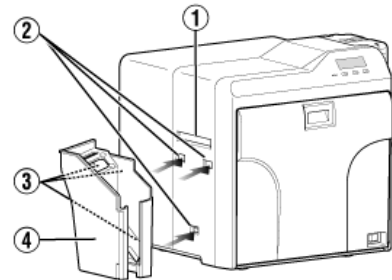
Card outlet
Card stacker attachment slot
Tab
Card stacker

Memo:
The card stacker is able to store up to about 100 cards with a thickness of 0.76 mm, or about 300 cards with a thickness of 0.25 mm.

Printing Media

Installing the ink ribbon

Note:

Stand the cassette on a flat surface as illustrated in the diagram. Avoid doing so on a floor as dust attached to the retransfer film may cause printing errors.
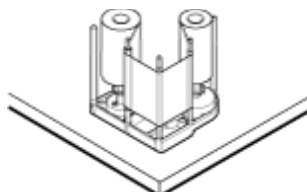
Do not touch the inked surface (the side that faces outward when installed) with your hand. Touching it may cause printing errors. Put on the supplied gloves when handling the ink ribbon.

When handling the cassette, hold it with both hands. Accidentally dropping the cassette may damage it or result in injuries.

Do not perform work on the printer door. Do not place heavy objects or apply load on the printer. Doing so may damage it.

1 Open the printer door.

2 Press and hold down the cassette button, and pull out the ink ribbon cassette (on the right) to remove the ink ribbon.
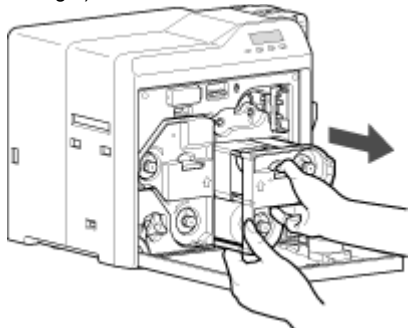
3 Install a new ink ribbon.
Install while referring to the indication on the label of the cassette.
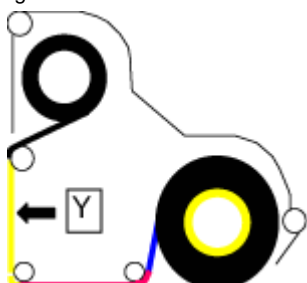
With the inked surface facing outward, align the yellow side of the unused ribbon with the arrow on the cassette, and unwind it along the three shafts.

Insert the ink ribbon firmly into the bobbin holders with the ribbon set to the far end of the guides.

A: take-up side (black)

B: unused side (yellow)
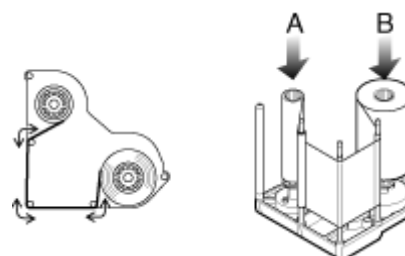
4 Remove any slack in the ink ribbon.
Hold the cassette.
Turn the knob in the direction indicated by the arrow.
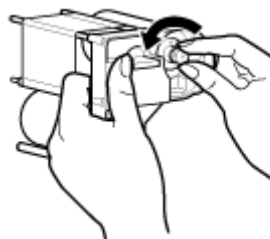
5 Insert the cassette all the way in along the guide rail until a "click" sound is heard. Close the printer door.

6 Press Reset ➔▭ to reset the printer.

```
Door Open      D1
    Total     ★ ★ ★
 Reset  ←•→ ⚡ 🔒  Menu
```

```
>Initialize
              OK?
 Exit     ←     Next
```
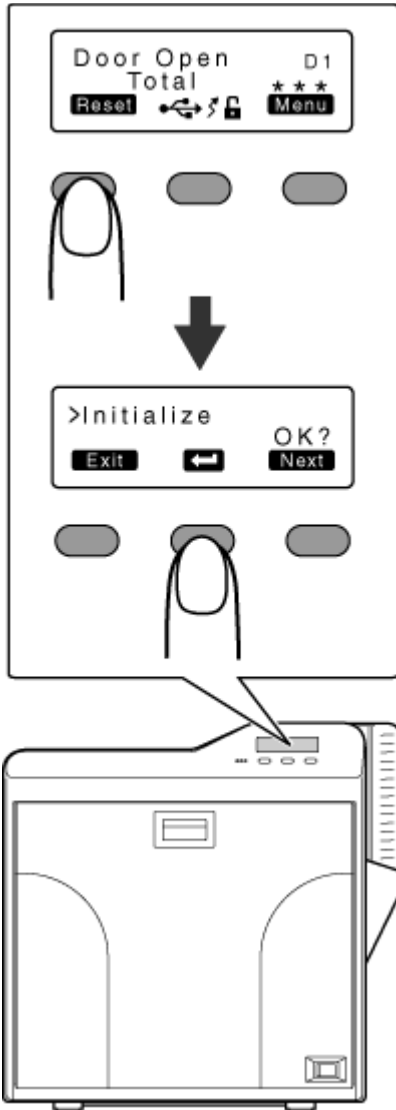
Attaching the retransfer film

Note:

Stand the cassette on a flat surface as illustrated in the diagram. Avoid doing so on a floor as dust attached to the retransfer film may cause printing errors.
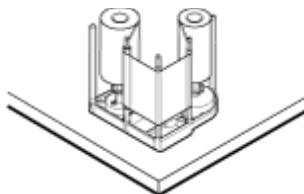
Do not touch the retransfer face (the side that faces outward when installed) with your hand. Touching it may cause printing errors. Put on the supplied gloves when handling the retransfer film.

When handling the cassette, hold it with both hands. Accidentally dropping the cassette may damage it or result in injuries.

When installing a new film, make sure that at least three black lines are wound onto the take-up side. Insufficient winding may cause the printer to malfunction.
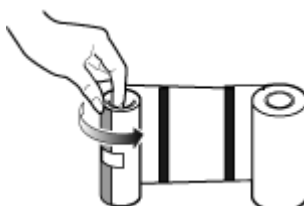
Do not perform work on the printer door. Do not place heavy objects or apply load on the printer. Doing so may damage it.

1 Open the printer door.

2 Press and hold down the cassette button, and pull out the retransfer film cassette (on the left) to remove the retransfer film.

3 Install a new retransfer film.

Install while referring to the indication on the label of the cassette.

When installing the retransfer film, make sure that at least three black lines are wound onto the take-up side.
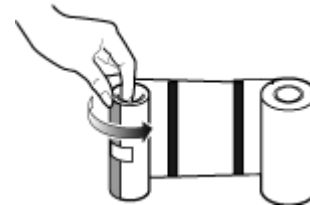

With the retransfer face facing outward, align the unused side of the film with the arrow on the cassette, and unwind it along the three shafts.

Insert the retransfer film firmly into the bobbin holders with the film set to the far end of the guides.

A: take-up side (black)

B: unused side (green)
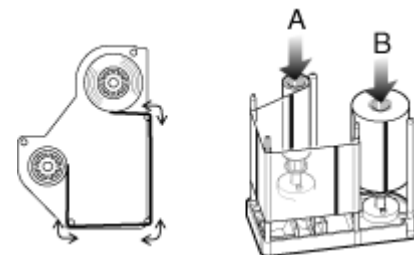
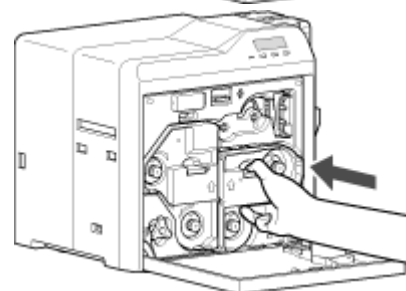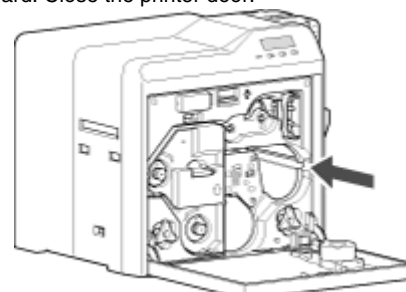*4* Remove any slack in the film.

Hold the retransfer film cassette.

Turn the knob in the direction indicated by the arrow.
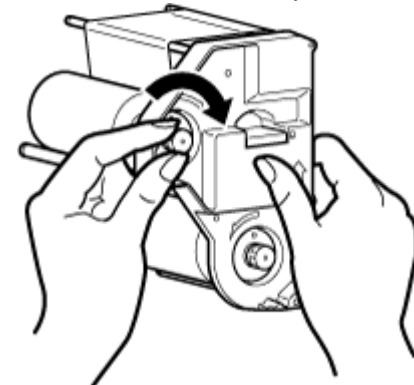
*5* Insert the cassette all the way in along the guide rail until a "click" sound is heard. Close the printer door.
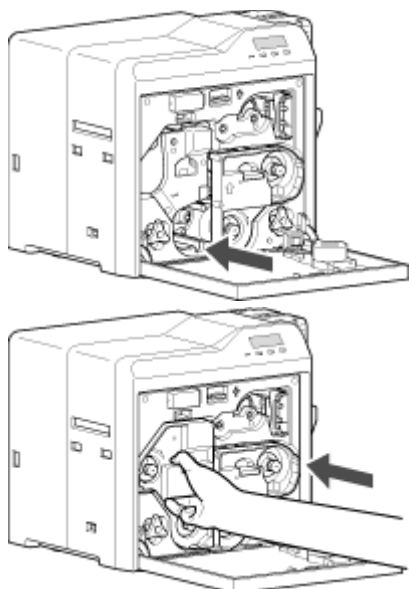
Memo:
If the retransfer film cassette does not fit into the printer, turn on the power of the printer with the printer door closed to cancel the transport mode.

6 Press   Reset   ➡️⬅️ to reset the printer.
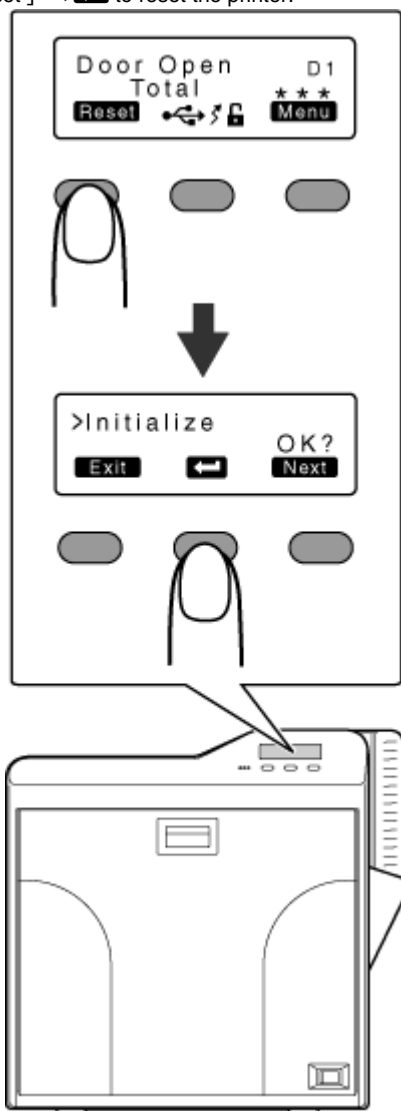
Memo:
When attaching a new retransfer film, it is recommended that you forward the film by one or two images before printing.

Setting Cards

Note:
When using new cards, separate them one by one before setting them in the printer. Cards may be adhered to each other due to static, thus causing card jams.

Align the cards before setting them in the printer. Otherwise, the card hopper cover may not close properly, and this may damage the printer.

Printing the card on the side with the magnetic stripe may cause printing errors or damage to the card's functions. If you want to do so, consult our authorized dealers in advance.

To set cards with both functions (magnetic stripe and contact IC), follow the procedure for setting the contact IC card.

1 Set the card hopper knob to   OPEN   .
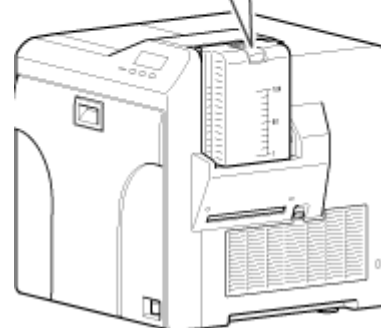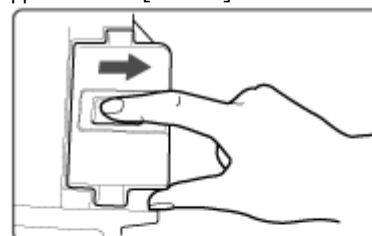
2 Lift to remove the card hopper cover.

3 Align the orientation of the cards, and set them in the printer.

Magnetic cards

Set the card with the magnetic stripe facing upward and toward the printer, or facing downward and toward you.
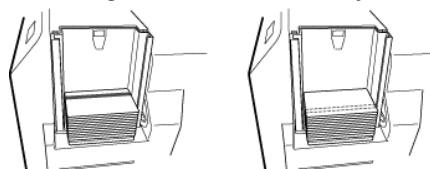
ISO contact IC cards

Set the card with the Contact IC terminal facing upward and toward the rear of the printer, or downward and toward the front of the printer.

55
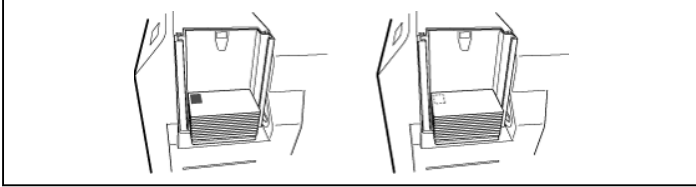
4 Install the card hopper cover.
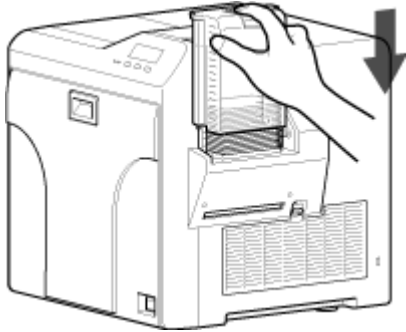
Adjusting Card Thickness

This printer can print cards with a thickness between 0.25 mm and 1.00 mm.

This is adjusted to a thickness of 0.76 mm by default.

Set the card hopper knob to   LOCK   .
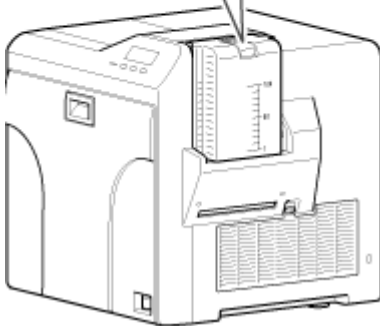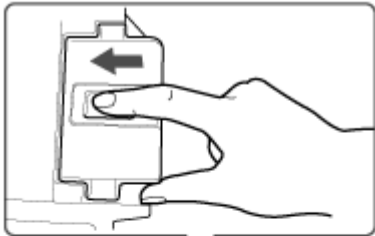
Remove the card hopper.
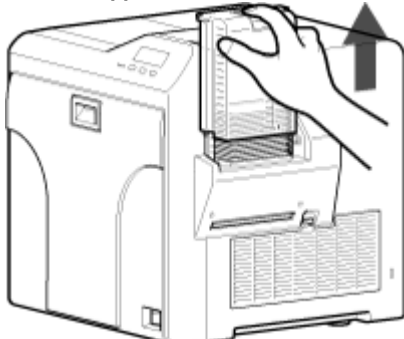
Insert a ballpoint pen into the card separator hole, and turn slowly.
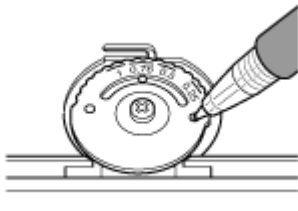
Memo:

If the card cannot be discharged during printing, adjust the card thickness by turning the card separator in the clockwise direction by one scale at a time.

If two cards are discharged at a time during printing, adjust the card thickness by turning the card separator in the anti-clockwise direction by one scale at a time.

If cards of different thickness are used frequently, purchase of an additional card hopper according to the card thickness is recommended.

For details on the purchase of card hoppers, please consult our authorized dealers.

Attach the card hopper cover.
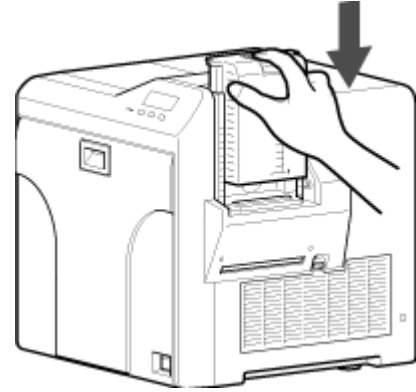
Printer and Computer Connection

Connecting with a USB Cable

Note:

While printing is in progress, do not turn off the power of the host computer, or switch it to the sleep or standby mode. Doing so may stop the movement of the cards inside the printer.

Plug the USB cable in correctly and firmly.

Do not connect the cable to the USB connectors on the monitor or keyboard of the host computer. The printer may not be correctly recognized.

When using a USB hub, make use of one that is directly connected to the host computer.

1 Turn off the power of the printer and host computer.

2 Plug the USB cable into the USB cable connection terminal at the rear of the printer," and pass the" ☞ page 7 USB cable through the cable clamp.
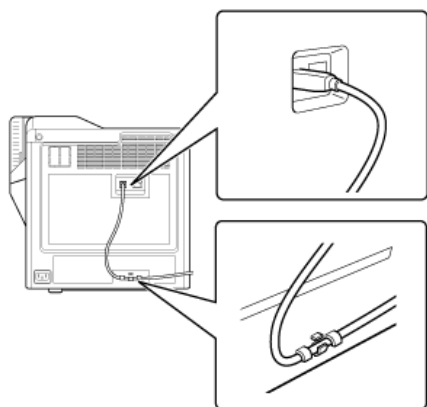
Note:

As illustrated in the diagram, do not pull the USB cable excessively toward the cable clamp. Doing so may subject the USB connector of the printer to stress, thus resulting in connection problems.
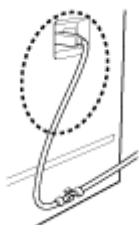
3 Plug the other end of the USB cable into the USB cable connection terminal of the host computer.

Connecting with a LAN Cable

Note:

Plug the LAN cable in correctly and firmly.

Make use of a shielded LAN cable to avoid any malfunction.

If a USB cable is also connected at the same time when the power is turned on, priority will be given to USB.

1 Turn off the power of the printer and host computer.

2 Plug the LAN cable into the LAN cable connection terminal at the rear of the printer.
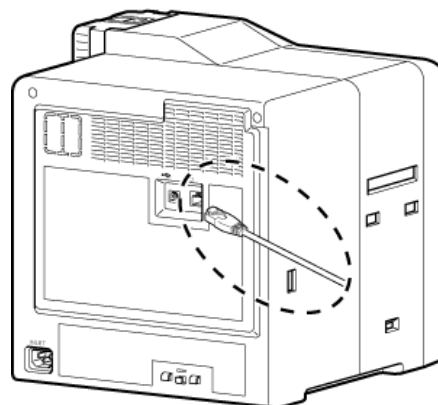
3 Plug the other end of the LAN cable into the LAN cable connection terminal of the host computer.

Connecting Multiple Printers

To connect multiple printer units to one host computer via USB, assign a different unit number from 1 to 10 to each of the printers.

"Unit number setting"   ☞ page 23

To connect multiple printers to the same network, set a different IP address for each printer.

Computer Settings

Note:

"Contents of this manual" ☞ page 3

Reprint of this manual without prior consent is strictly prohibited.

The contents of this manual and the specifications and appearance of the printer may be modified without prior notice.

Illustrations used in this manual may differ slightly from the actual product.

Microsoft and Windows are the registered trademarks or trademarks of Microsoft Corporation in the United States and other countries. Microsoft® Windows Vista operating system (Japanese), Microsoft® Windows® XP operating system (Japanese), and Microsoft® Windows® 2000 operating system (Japanese) are denoted in this manual as Windows Vista, Windows XP, and Windows 2000 respectively.

Screenshots used are in accordance with the guidelines of Microsoft Corporation.

This product includes software developed by the OpenSSL Project for use in the OpenSSL 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).

System Requirements

The printer software runs under the following environments.
Microsoft Windows Vista 32 bit (Service Pack 1, Japanese)
Microsoft Windows XP 32 bit (Service Pack 2/3, Japanese)
Microsoft Windows 2000 Professional 32bit (Service Pack 4, Japanese)

Software

Using the installer (automatic execution program) enables easy installation of the printer software, while the folder where the Electronic Manual is stored can be opened easily at the same time.

The installer application installs programs based on the Windows language settings. To change the language setting of a program, use the language selection pull-down menu.

Software License Agreement

Users need to agree to the terms and conditions in the "Software License Agreement" before using the software. Please read through the License Agreement.

"Software License Agreement"

Install

Note:

Administrator authority is required to install or uninstall the software.

To install/uninstall the software, log into the system as an administrative user (Administrators group).

A part of the illustrations in this electronic manual may not be displayed depending on the computer's environment. Skip the procedures in this case.

Printer Driver

Installing the printer driver

USB connection

Note:

Do not turn on the power of the printer until instruction asking you to do so appears on the installer.

Do not connect the printer to the USB until instruction asking you to do so appears on the installer.

You need to enable the USB hub before connecting the printer via this hub. Do not connect the printer to the USB hub until it is enabled.

Exit all applications that are currently running.

If document printing is currently in progress, wait for all the jobs to complete.

1 Start up Windows, and set the CD-ROM supplied into the PC.
The Card Printer Setup screen appears.

If the CD-ROM of the PC is set to run automatically, the installer will be executed automatically.
If the installer is not automatically initiated, double-click [Setup.exe] in the CD-ROM folder.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the installer for the printer driver by double-clicking the following file in the CD-ROM: "English\USB_Soft\install.exe".

Windows Vista

A [Auto play] screen appears.
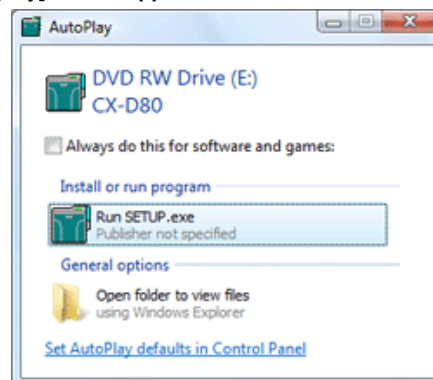
Clicking [Run SETUP.exe] displays the [User Account Control] screen.
Clicking [Yes] displays the [Card Printer Setup] screen.

Select the language to use from the pull-down menu.
Selecting [English] switches the program to the English version.
Selecting [Japanese] switches the program to the Japanese version.

Select [Interface].

Check to ensure that the [USB connection] checkbox is selected.

Select [Action].

Select [Install] to start installation. Select [Uninstall] to start uninstallation.

Select the [Printer Driver] checkbox.

Memo:

You can select the [Status Monitor] and [Electronic Manual] checkboxes to install them simultaneously. Selecting all checkboxes starts installation in the order of the electronic manual, printer driver, followed by [Status Monitor].

The same status monitor can be used for printers connected via USB and Ethernet.

> **Clicking [Open the Electronic Manual] opens the electronic manual.**
>
> **Clicking [Exit] ends the installation.**

2 Click [Next].

The [Install CX-D80 USB Printer] screen appears.
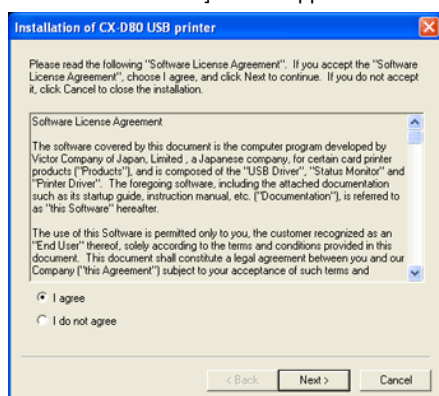
3 Read through the "Software License Agreement".

If you agree to the terms and conditions of the agreement, select the [I agree] checkbox.

If you do not agree, click [Cancel] to stop the installation.

4 Click [Next].

A Start Installation screen appears.
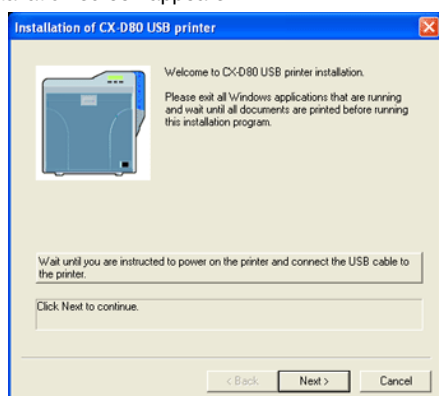
5 Check the details, followed by clicking [Next].

The [Printer Model] and [Printer Name] setting screens appear.
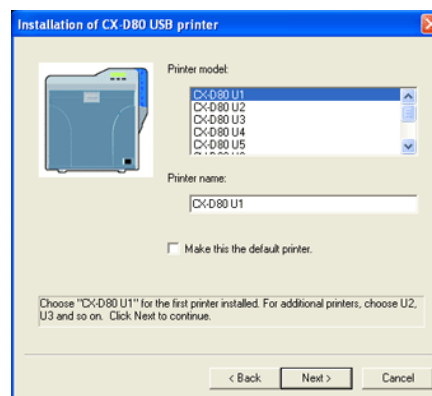
Select a printer model according to the unit number of the printer. "Unit number setting" ☞ page 23

Select a printer model according to the unit number of the printer. Installation may fail if the combination is incorrect.		
Printer Unit Number	**Printer Model Options**	**USB Device Name**
1 (Factory Setting)	CX-D80 U1	CX-7000 U1
2	CX-D80 U2	CX-D80 U2
3	CX-D80 U3	CX-D80 U3
4	CX-D80 U4	CX-D80 U4
5	CX-D80 U5	CX-D80 U5
6	CX-D80 U6	CX-D80 U6
7	CX-D80 U7	CX-D80 U7
8	CX-D80 U8	CX-D80 U8
9	CX-D80 U9	CX-D80 U9
10	CX-D80 U10	CX-D80 U10

Enter the printer name.

Select the [Make this the default printer] checkbox if necessary.

Memo:

Doing so enables you to use it as a default printer after installation is complete.

6 Click [Next].

The Enter Shared Name screen appears.

nter the shared name when you are sharing a printer.
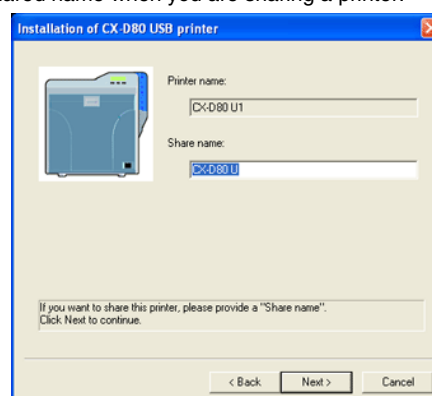
Memo:

Doing so enables you to use it as a default printer after installation is complete.

7 Click [Next].

The Port Selection screen appears.

Select [CX-D80U Port] from [Create a new port].
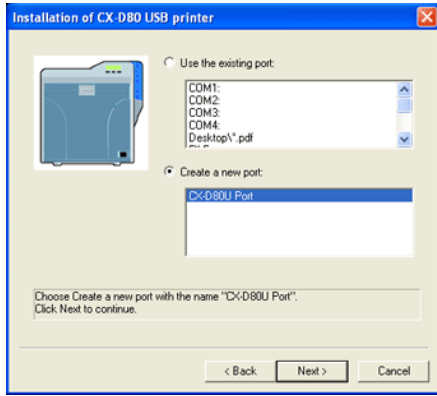
8 Click [Next].

An Installation Information confirmation screen appears.
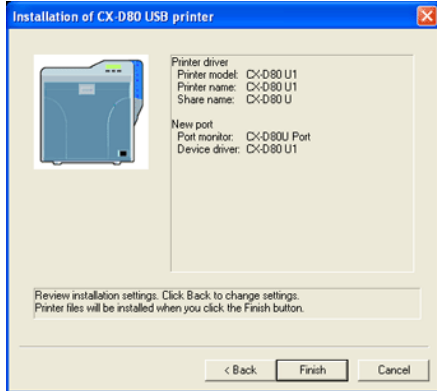
9 Check the installation information, followed by clicking [Finish].

To change the settings, click [Back].

Windows XP

A [Software Installation] screen appears.

Click [Continue Anyway].

Windows Vista

A Windows Security screen appears.

Click on "Install this printer driver".

A USB Cable Connection instruction screen appears.

10 Connect the printer and PC using a USB cable.

11 Turn on the power of the printer.

Installation starts automatically after the printer is detected.

Installation does not start if connection is improper. When this occurs, check the connection.

Windows XP

A [Found New Hardware Wizard] screen appears.

Select [No, not this time], and click [Next].
An Installation Selection screen appears.
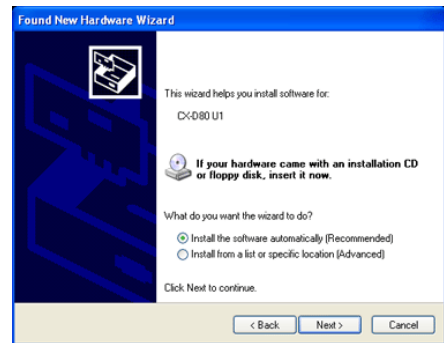
Select [Install the software automatically(Recommended)], and click [Next].

A [Hardware Installation] screen appears.

Click [Continue Anyway].
A [Found New Hardware Wizard] screen appears.
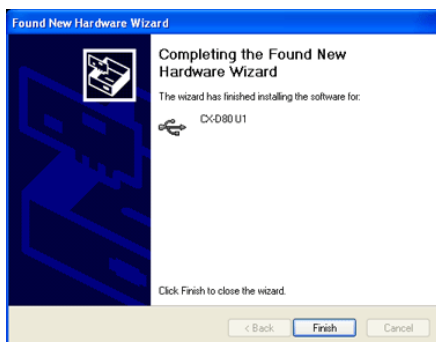
Click [Finish].

A [Software Installation] screen appears.

Click [Continue Anyway].

Windows 2000

A [Digital Signature Not Found] screen appears.
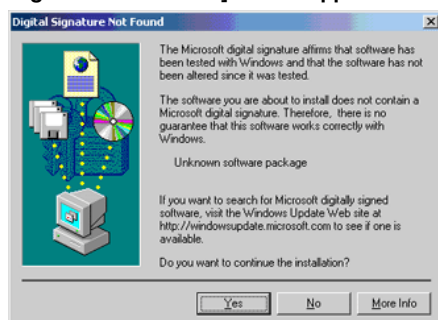
Click [yes].

A [CX-D80N Port] screen appears.
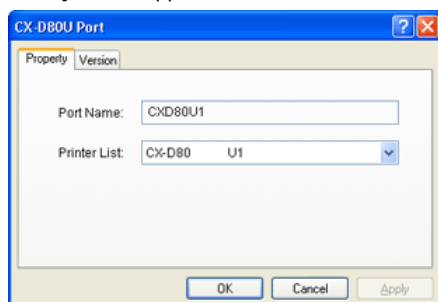
12 Select the [Property] tab.

Select this printer from [Printer List].
USB connection is improper if [Not Connected] appears in the printer list. When this occurs, exit installation and restart the installation process.

If [Not Selected] appears in the [Printer List], select a USB device name that coincides with the printer unit number that is currently being installed from the pull-down list.

Enter the port name.

13 Click OK .

Windows XP

A [Software Installation] screen appears.

Click [Continue Anyway].

Windows Vista

A Windows Security screen appears.
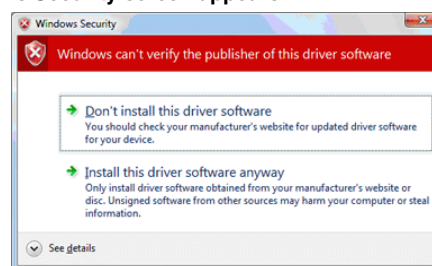
Click on "Install this printer driver".

Windows 2000

A [Digital Signature Not Found] screen appears.
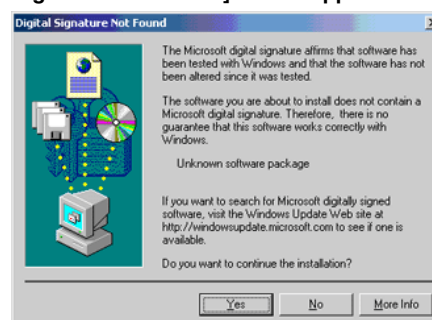
Click [Yes].

A Printer Installation Completed screen appears.

14 Click [Finish].
Exits the installation program.

15 Open the printer in the [Control Panel].
Check to ensure that the printer is added.

Windows XP

Windows Vista
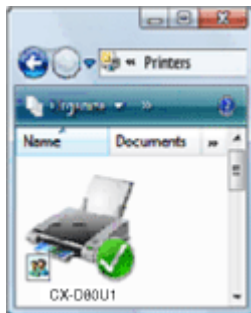
Windows 2000 (Example)

Note:
To delete a printer, execute "Uninstall printer driver" after restarting Windows.

Ethernet (LAN) Connection

Note:
Configure the IP address and other necessary settings for the printer in advance.

Do not connect the printer to the USB port.

Do not connect the printer to the Ethernet (LAN) until instruction asking you to do so appears on the installer.

Do not turn on the power of the printer until instruction asking you to do so appears on the installer.

You need to enable the LAN hub before connecting the printer via this hub.

Exit all applications that are currently running.

If document printing is currently in progress, wait for all the jobs to complete.

1 Start up Windows, and set the CD-ROM supplied into the PC.
A [Card Printer] screen appears.

If the CD-ROM of the PC is set to run automatically, the installer will be executed automatically.
If the installer is not automatically initiated, double-click [Setup.exe] in the CD-ROM folder.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the installer for the printer driver by double-clicking the following file in the CD-ROM: "Japanese\USB_Soft\install.exe".

Windows Vista

A [Auto play] screen appears.
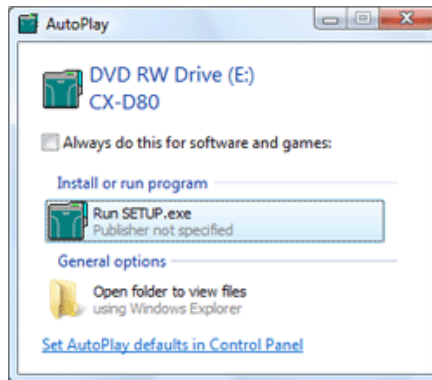
Clicking [Run SETUP.exe] displays the [User Account Contro] screen.

Clicking [Allow] displays the Card Printer Setup screen.

Select the language to use from the pull-down menu.
Selecting [English] switches the program to the English version.
Selecting [Japanese] switches the program to the Japanese version.
Select [Interface].
Check to ensure that the [Ethernet connection] checkbox is selected.
Select [Action].
Select [Install] to start installation. Select [Uninstall] to start uninstallation.
Select the [Printer Driver] checkbox.

Memo:
You can select the [Status Monitor] and [Online Manual]heckboxes to install them simultaneously. Selecting all checkboxes starts installation in the order of the electronic manual, printer driver, followed by status monitor.

The same status monitor can be used for printers connected via USB and Ethernet.

Clicking [Open the instruction Manual] opens the electronic manual.

Clicking [Exit] ends the installation.

2 Click [Next].
A [Installation of CX-D80 Ethernet printer] screen appears.
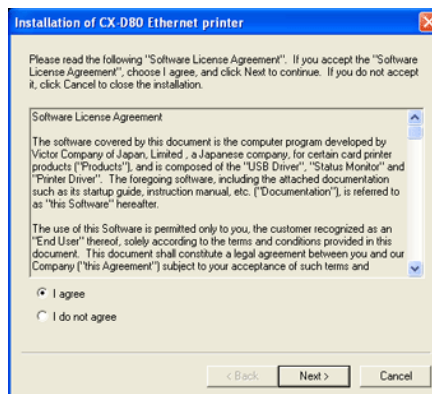
3 Read through the "Software License Agreement".

If you agree to the terms and conditions of the agreement, select the [I agree] checkbox.

If you do not agree, click [Cancel] to stop the installation.

4 Click [Next].

A Start Installation screen appears.
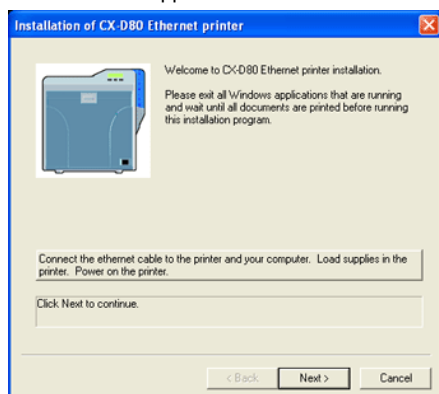
5 Connect the printer and PC using a LAN cable.

6 Turn on the power of the printer.

7 Check the details, followed by clicking [Next].

A Start Installation screen appears.

The [Printer Model] and [Printer Name] setting screens appear.
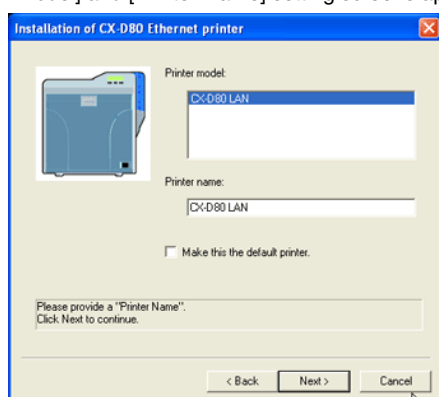
Select a printer model.

Enter the printer name.

Select the [Make this the default printer] checkbox if necessary.

Memo:

Doing so enables you to use it as a default printer after installation is complete.

8 Click [Next].

The Enter Shared Name screen appears.

Enter the shared name when you are sharing a printer.
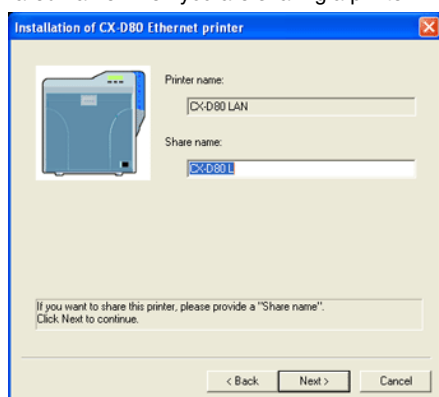
Memo:

Select the [Make this the default printer] checkbox if necessary.

9 Click [Next].

The Port Selection screen appears.

Select [CXD80N Port] from [Create a new port].
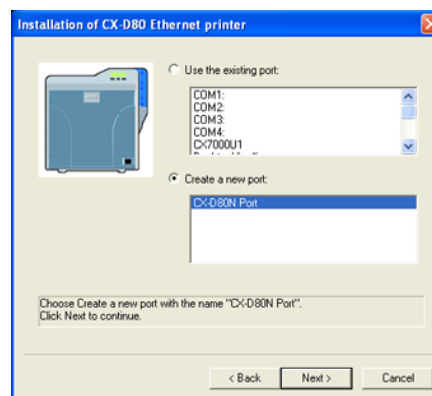
10 Click [Next].

An Installation Information confirmation screen appears.
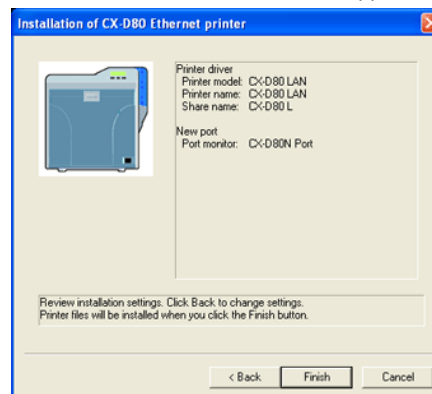
11 Check the installation information, followed by clicking [Finish].

To change the settings, click [Back].

Windows XP

A [Software Installation] screen appears.

Click [Continue Anyway].

A Windows warning screen appears.

Click [Unblock].

The program may not function properly if you click [Keep Blocking].

Windows Vista

A [Windows Important Security Warning] screen appears.
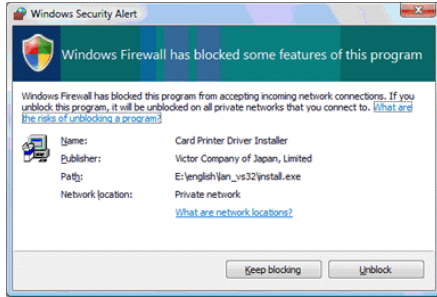
Click [Unblock].
The program may not function properly if you click [Block].

A CXD80N Port] screen appears.
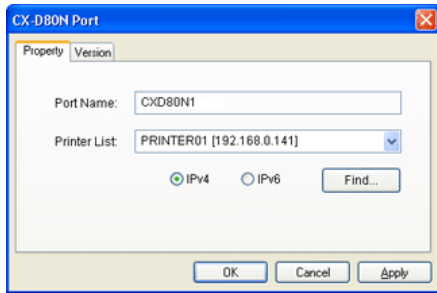
12 Select the [Property] tab.
Select this printer from [Printer List].
Enter the [Port Name].

13 Click   OK .

Windows XP

A [Software Installation] screen appears.
Click [Continue Anyway].

Windows Vista

A Windows Security screen appears.
Click on "Install this printer driver".
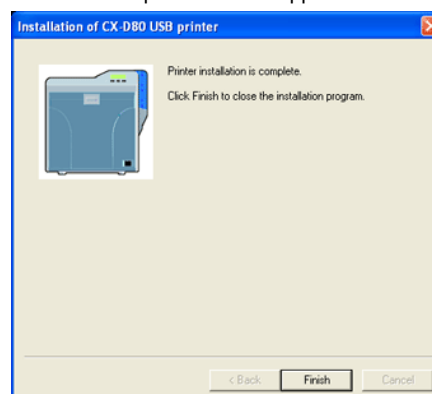

Windows 2000

A [Digital Signature Not Found] screen appears.

Click [Yse].

A Printer Installation Completed screen appears.
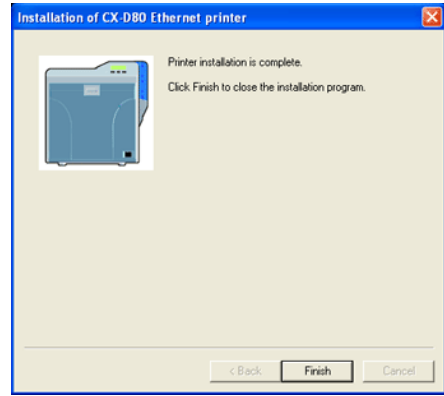
14 Click [Finish].
Exits the installation program.

15 Open [Printer] in the [Control Panel].
Check to ensure that the printer is added.

Windows XP

Windows Vista
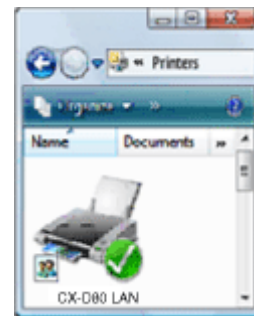
Windows 2000 (Example)

Note:
To delete a printer, execute "Uninstall printer driver" after restarting Windows.

Update of Printer Driver

To update

1 delete the existing printer driver.
"Uninstall"   ☞ page 70

2 Re-install the printer driver.

Network Sharing of Printer

Network Sharing of Printer

Windows XP/ Windows 2000

Note:

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Check to ensure that you can access the PC to which the printer is connected.
Check also to ensure that the printer can be shared.

1 Open the printer in the [Control Panel].
A [Printers and Faxes] screen appears.
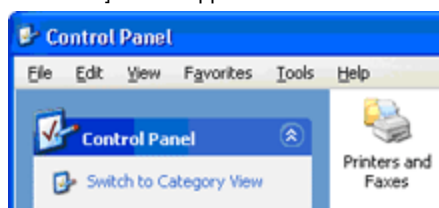
2 Double-click [Add Printer].
A [Add Printer Wizard] screen appears.

3 Click [Next].
A Printer Type Selection screen appears.

4 Select "A network printer, or a printer connected to another computer", and click [Next].
A [Specify Printer] screen appears.

5 Select [Browse for a printer], and click [Next].
A [Browse for a printer] screen appears.
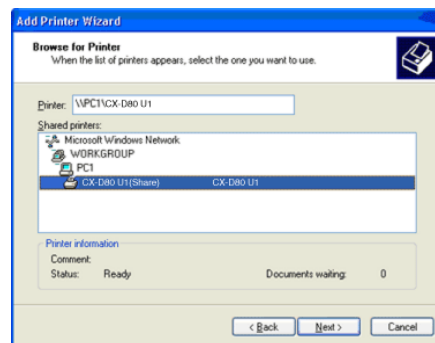
6 Select a printer from [Shared printers], and click [Next].
A [Default Printer] screen appears.
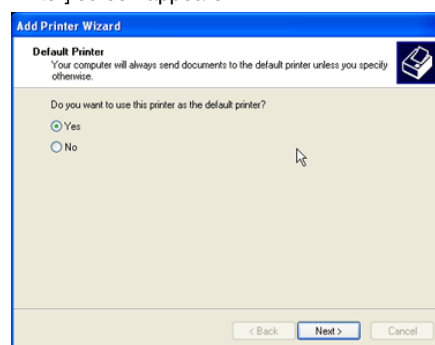
7 Select [Yes] if necessary, and click [Next].
A Completing the Add Printer Wizard screen appears.
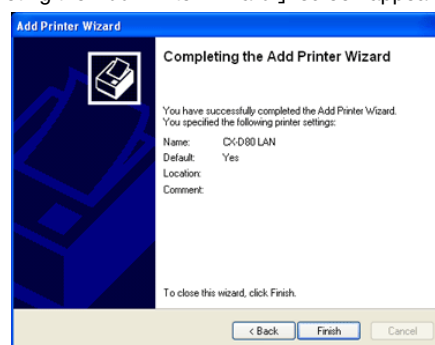
8 Check the details, followed by clicking [Finish].
Network sharing of the printer is complete.

9 Open the printer in the [Control Panel].
Check to ensure that the printer is added.

Note:
When the access authority of the computer is not proper, the printer may not be able to perform printing even if installation of the printer driver is completed.
Ensure that the access authority is proper according to the instructions of the network administrator.

Windows Vista

Note:
Check to ensure that you can access the PC to which the printer is connected.
Check also to ensure that the printer can be shared.

1 Open the printer in the [Control Panel].
A [Printers] screen appears.
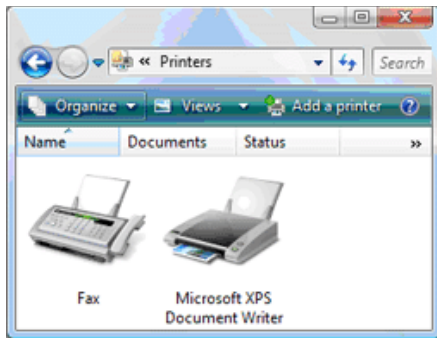
2 Click [Add a printer].

A Printer Selection screen appears.
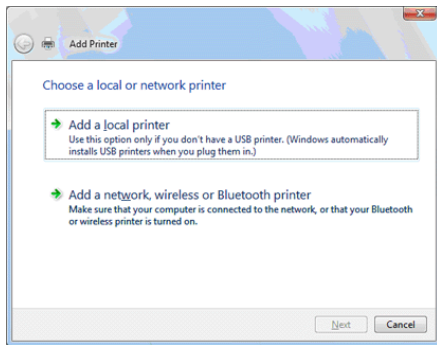
Select [Add a network, wireless or Bluetooth printer], and click [Next].

A [Add Printer] screen appears.
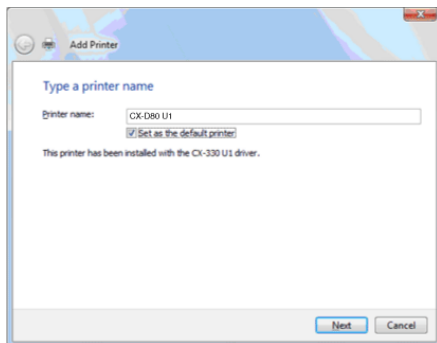
3 Select the [Set as the default printer] checkbox if necessary, and click [Next].

A Printer Addition Complete screen appears.
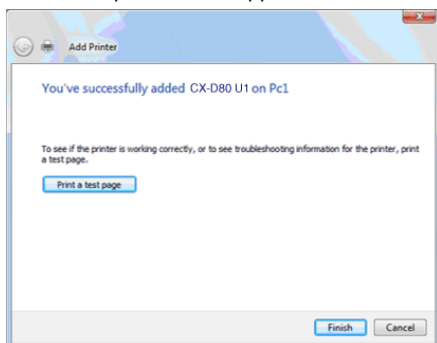
4 Check the details, followed by clicking [Finish].

Network sharing of the printer is complete.

5 Open [Control Panel].
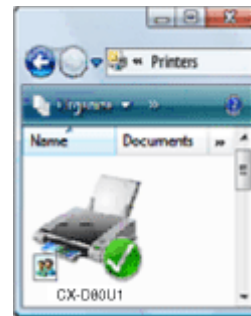
Check to ensure that the selected printer is added to [Printers].

Note:

When the access authority of the computer is not proper, the printer may not be able to perform printing even if installation of the printer driver is completed.

Ensure that the access authority is proper according to the instructions of the network administrator.

Status Monitor

Install

Note:

The same status monitor can be used for printers connected via USB and Ethernet.

Make sure that the status monitor is only installed once on a single PC.

To continue using the status monitor after uninstalling the printer driver, update the status monitor accordingly.

1 Start up Windows, and set the CD-ROM supplied into the PC.

The Card Printer Setup screen appears.
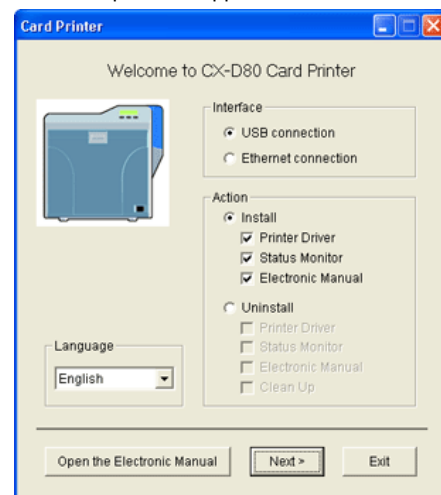
If the CD-ROM of the PC is set to run automatically, the installer will be executed automatically.

If the installer is not automatically initiated, double-click [Setup.exe] in the CD-ROM folder.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the installer for the status monitor by double-clicking the following file in the CD-ROM:

"English\Software\STT_MON\install.exe"

Select the language to use from the pull-down menu.

Selecting [English] switches the program to the English version.

Selecting [Japanese] switches the program to the Japanese version.

Select [Interface].

Select [USB connection] or [Ethernet connection].

Select [Action].

Select [Install] to start installation. Select [Uninstall] to start uninstallation.

Select the checkbox for the status monitor.

Clicking [Open the Electronic Manual] opens the electronic manual.

Clicking [Exit] ends the installation.

2 Click [Next].

A   Installation of CX-D80 Status Monitor   screen appears.
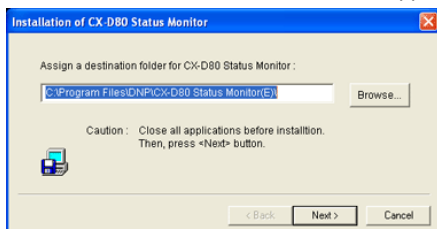
To change the displayed installation destination, click [Browse] and specify the destination folder.

3 Specify the destination to install the status monitor, followed by clicking [Next].

A Status Monitor Display Position selection screen appears.
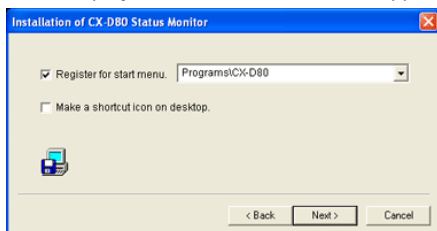
Select the [Register for start menu] checkbox.
To alter the position of the displayed start menu, make a selection from [Register to start menu].

Select the [Make a shortcut icon on desktop] checkbox if necessary.

4 Click [Next].

Installation starts.

An Installation Completed screen appears.
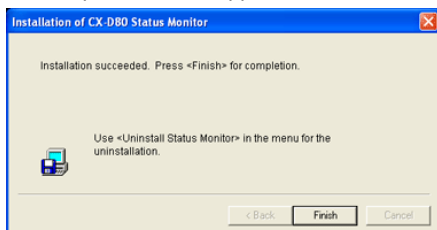
5 Click [Finish].

An Installation Completed confirmation screen appears.

6 Click [OK].

Exits the installation program.

You can now start the status monitor from [Start].

Note:

The following error may occur.

Cause: The status monitor cannot run because the program cannot be identified by Windows Vista.
Action: Select "Run as administrator..." to start the status monitor as a user with administrator authority. Doing so enables the program to be identified by Windows Vista, and subsequent error does not occur.

To update

1 Delete the status monitor.
"Uninstall"   ☞ page 71

2 Re-install the status monitor.

USB Driver

Installing the USB driver

Note:

The USB driver is also installed while you are installing the printer driver via USB connection.

Install the USB driver additionally only when you want to set items other than the [Printer Name] on the [Printer Selection] screen of the status monitor.

Do not turn on the power of the printer until instruction asking you to do so appears on the installer.

Do not connect the printer to the USB until instruction asking you to do so appears on the installer.

You need to enable the USB hub before connecting the printer via this hub. Do not connect the printer to the USB hub until instruction asking you to do so appears.

1 Start up Windows.

2 Set the CD-ROM supplied into the PC.
(Windows XP and Windows 2000)
(For Windows Vista, do not set the CD-ROM yet at this point of time.)
The "Setup.exe" automatic execution program in the CD-ROM is not used. Exit this program.

3 Connect the PC and printer using a USB cable, and turn on the power of the printer.

The printer is automatically detected by the PC.

Windows XP

A   **Found New Hardware Wizard screen appears.**
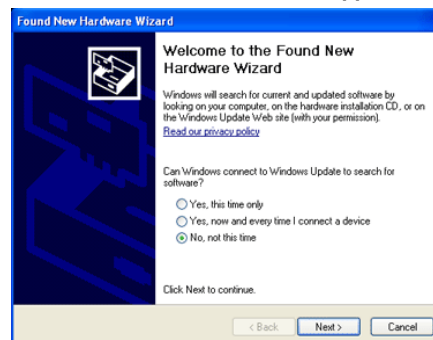
1 Click [No, not this time].
Connection is improper if this screen does not appear. Make sure that the connection is properly established.
An Installation Method selection screen appears.
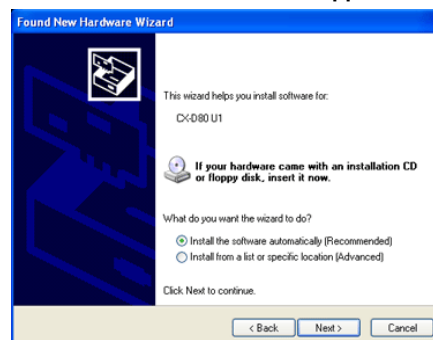
2 Select the [Install the software automatically(Recommended)] checkbox, and click [Next].
A [Hardware Installation] screen appears.

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3 Click [Continue Anyway].

A   Completing the Found New Hardware Wizard   screen appears.
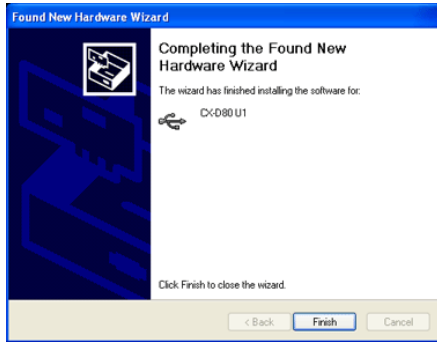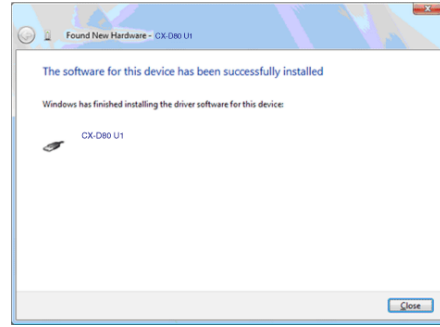
Installation of the USB driver is complete.

Windows Vista

A [Found New Hardware] screen appears.

1 Click on [Locate and install driver software (recommended)].

Connection is improper if this screen does not appear. Make sure that the connection is properly established.

A [User Account Control] screen appears.

2 Click [Continue].

A [Found New Hardware] screen appears.

3 Click [Yes, always search online (recommended)].
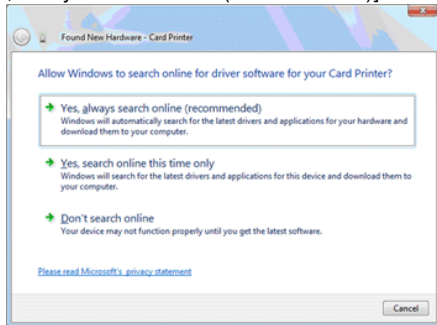
A screen appears, prompting you to insert the disc.

4 Set the CD-ROM into the PC.

A [Windows Security] screen appears.

5 Click on [Install this driver software].

An Installation Completed screen appears.
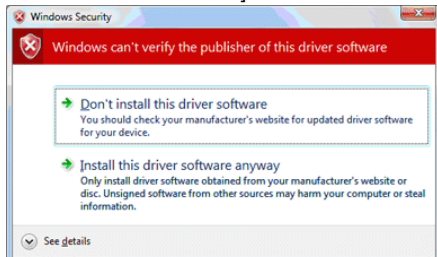
6 Click [Close].

Installation of the USB driver is complete.

Windows 2000

A [Found New Hardware Wizard] screen appears.

1 Click [Next].

Connection is improper if this screen does not appear. Make sure that the connection is properly established.

A Search Method selection screen appears.

2 Select the [Search for a suitable driver for my device(recommended)] checkbox, and click [Next].

A [Locate Driver Files] screen appears.
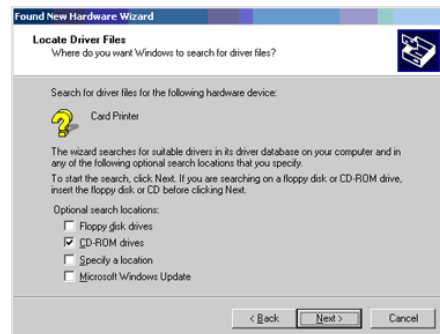
3 Select the [CD-ROM drives] checkbox, and click [Next].

A [Driver Files Search Results] screen appears.
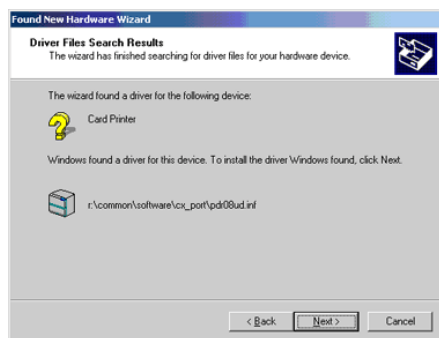
4 Click [Next].

A [Found New Hardware Wizard] screen appears.
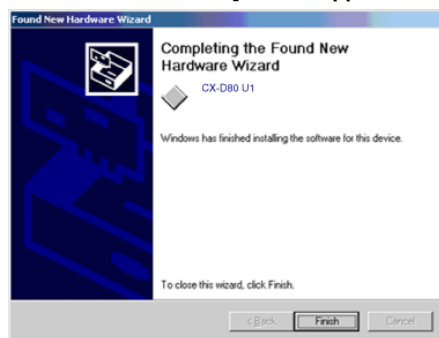
5 Click [Finish].

Installation of the USB driver is complete.

Electronic Manual

1 Start up Windows, and set the CD-ROM supplied into the PC.
The Card Printer Setup screen appears.

If the CD-ROM of the PC is set to run automatically, the installer will be executed automatically.
If the installer is not automatically initiated, double-click [Setup.exe] in the CD-ROM folder.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the installer for the [Electronic Manual] by double-clicking the following file in the CD-ROM:
"English\Software\STT_MON\install.exe"

Select the language to use from the pull-down menu.

Selecting [English] switches the program to the English version.

Selecting [Japanese] switches the program to the Japanese version.

Select [Interface].

Select [USB connection] or [Ethernet connection].

Select [Action].

Select [Install] to start installation. Select [Uninstall] to start uninstallation.

2 Select the checkbox for the electronic manual.
Memo:

You can select the [Printer Driver] and [Status Monitor] checkboxes to install them simultaneously.

> **Clicking [Open the Electronic Manual] opens the electronic manual.**
> **Clicking [Exit] ends the installation.**

3 Click [Next].
An [Electronic Manual Installation] screen appears.
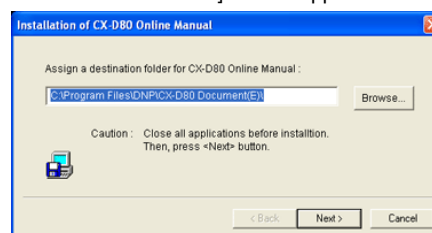
To change the displayed installation destination, click [Browse] and specify the destination folder.

4 Specify the destination to install the status monitor, followed by clicking [Next].
An Electronic Manual Display Position selection screen appears.
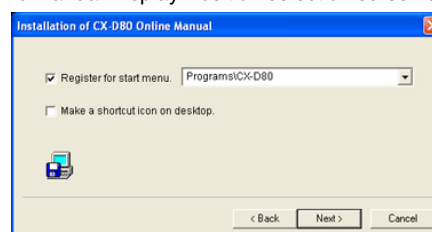

Select the [Register for start menu] checkbox.
To alter the position of the displayed start menu, make a selection from [Register to start menu].

Select the [Make a shortcut icon on desktop] checkbox if necessary.

5 Click [Next.
Installation starts.
An Installation Completed screen appears.
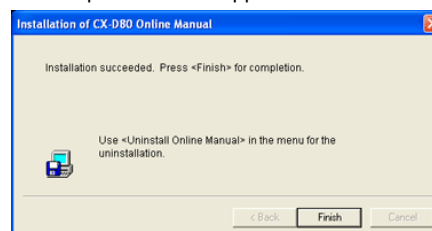
6 Click [Finish].
An Installation Completed confirmation screen appears.
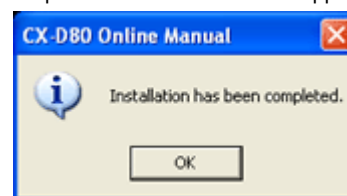
7 Click OK .
Exits the installer.

Uninstall

> **Administrator authority is required to uninstall the program.**

"Printer Driver" ☞ page 70
"Status Monitor" ☞ page 71

Printer Driver

USB connection

1 Connect the PC and printer using a USB cable, and turn on the power of the printer.
Check to ensure that the printer connected via USB is recognized on the PC. If the USB connection is not recognized, the USB driver cannot be correctly deleted.

2 Start up Windows, and set the CD-ROM supplied into the PC.
The Card Printer Setup screen appears.

If the CD-ROM of the PC is set to run automatically, the installer will be executed automatically.
If the installer is not automatically initiated, double-click [Setup.exe] in the CD-ROM folder.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the installer for the printer driver by double-clicking the following file in the CD-ROM: "English\USB_Soft\install.exe".

3 Select [Interface].
Check to ensure that the [USB connection] checkbox is selected.

4 Select [Action].
Select [Uninstall].

5 Select the [Printer Driver] checkbox.
You can select the [Electronic Manual] checkbox to install it simultaneously. Selecting all checkboxes starts uninstallation in the order of the [Printer Driver] followed by [Electronic Manual].

6 Click [Next].
A Delete the CX-D80 USB printer screen appears.
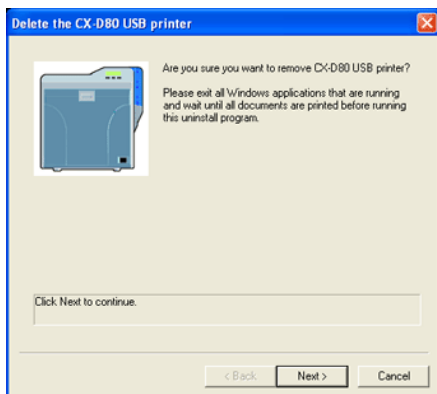
7 Check the details, followed by clicking [Next].
A Printer Model selection screen appears.
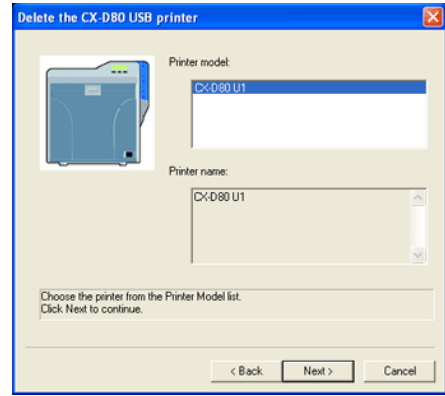
8 Select the printer to uninstall, and click [Next].
An Uninstallation Information confirmation screen appears.
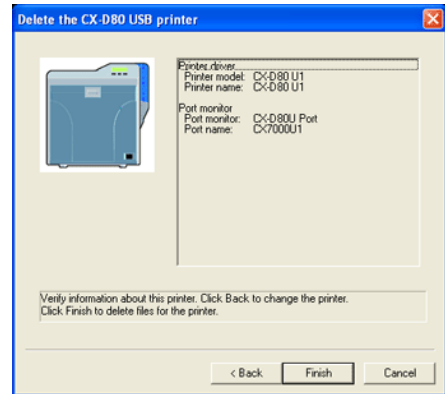
9 Check the details, followed by clicking [Finish].
An Uninstallation Completed screen appears.
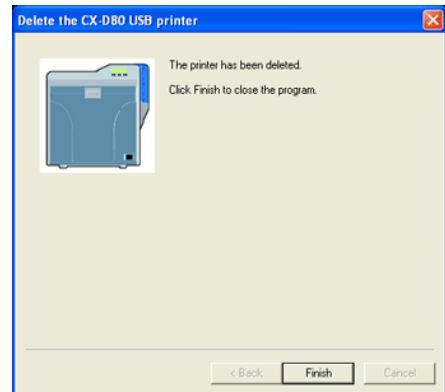
10 Click [Finish].
Exits uninstallation.

Memo:
Uninstall the USB printer drivers accordingly for each printer unit number.

To re-install a printer driver, perform the installation procedures after restarting Windows.

Ethernet (LAN) Connection

1 Connect the PC and printer using a LAN cable, and turn on the power of the printer.
Do not connect a USB cable to the printer.

2 Start up Windows, and set the CD-ROM supplied into the PC.
A [Card Printer] screen appears.

If you are not using the [Setup.exe] automatic execution program in the CD-ROM, start the uninstaller for the printer driver by double-clicking the following file in the CD-ROM: "English\LAN_Soft\uninstall.exe"

To use the "SETUP.exe" automatic execution program, refer to the chapter on "Installer (Automatic Execution Program)". You can start the uninstaller for the printer driver using the automatic execution program.

3 Select [Interface].

Check to ensure that the [Ethernet connection] checkbox is selected.

4 Select [Action].

Select [Uninstall].

5 Select the [Printer Driver] checkbox.

You can select the [Electronic Manual] checkbox to install it simultaneously. Selecting all checkboxes starts uninstallation in the order of the [Printer Driver] followed by [Electronic Manual].

6 Click [Next].

A Delete the CX-D80 Ethernet printer screen appears.
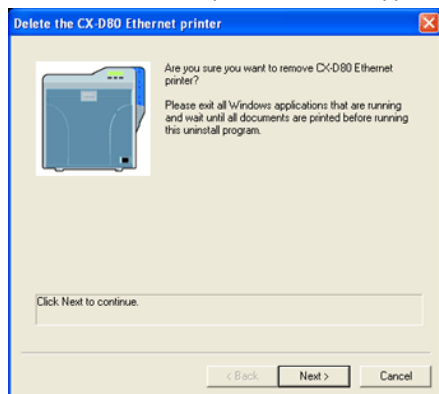
7 Check the details, followed by clicking [Next].

A Printer Model selection screen appears
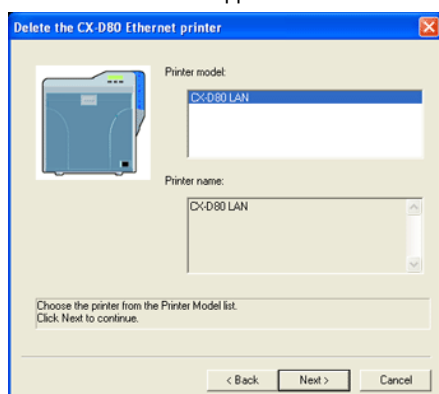
8 Select the printer to uninstall, and click [Next].

An Uninstallation Information confirmation screen appears.
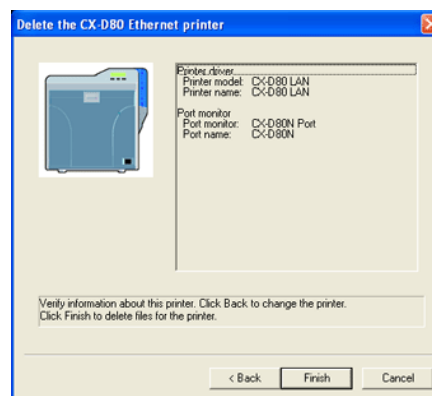
9 Check the details, followed by clicking [Finish].

An Uninstallation Completed screen appears.
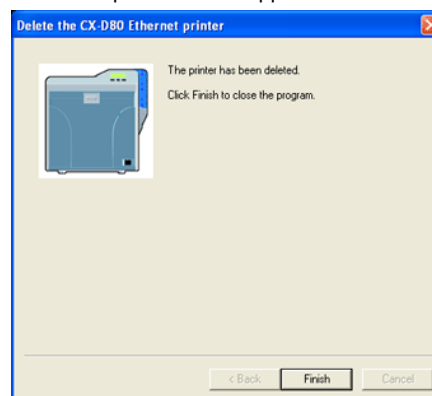
10 Click [Finish].

Exits uninstallation.

Note:
In the case where multiple Ethernet (LAN) printer drivers are installed, the uninstaller deletes all of these printer drivers.

Memo:
To re-install a printer driver, perform the installation procedures after restarting Windows.

Status Monitor

1 Exit the status monitor.

2 Select [Uninstall] from [Start].
A [Status Monitor] screen appears.
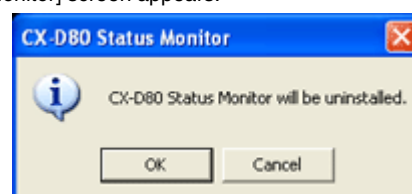
Memo:
If the "Register to start menu" checkbox is not selected during installation of the status monitor, delete using [Add/Delete Programs] in [Control Panel].

To use the "Setup.exe" automatic execution program, refer to the chapter on "Installer (Automatic Execution Program)". You can start the uninstaller for the status monitor using the automatic execution program.

"SETUP.exe" ☞ page 66

3 Click OK .

A [Status Monitor Deletion] screen appears.
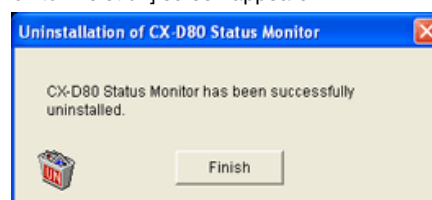
4 Click [Finish].
Exits the program.

IP Sec

Certificate Authentication

Setting Flow
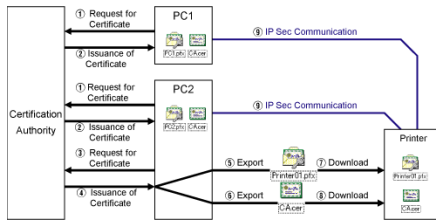
Request the "PC Certificate" to the certification authority.
The "PC Certificate" and "Certification Authority Certificate" are issued by the certification authority. Install these on the PC.
Request the "Printer Certificate" to the certification authority.
The "Printer Certificate" and "Certification Authority Certificate" are issued by the certification authority. Install these on the PC.
Export the "Printer Certificate" and save it in a file.
Export the "Certification Authority Certificate" and save it in a file.
Connect the printer via USB, and download the "Printer Certificate" using the status monitor.
Connect the printer via USB, and download the "Certification Authority Certificate" using the status monitor.
Connect the printer via the network (Ethernet) and enable IP Sec (IP Security) on the PC to start IP Sec communication.

Preshared Key Authentication

Connect the printer via USB, and download the "Preshared Key File" using the status monitor.

Preshared Key File

Note:
Operate IP Sec (IP Security) on Windows® by following the instructions of the network administrator for the location where the printer is installed.

Manage the "Preshared Key File" according to the instructions of the network administrator.

1 Start "IP Security Policy Management" under the MMC (Management Console).

2 Open the "Edit Authentication Method Properties" of the policy for which the preshared key is to be used.
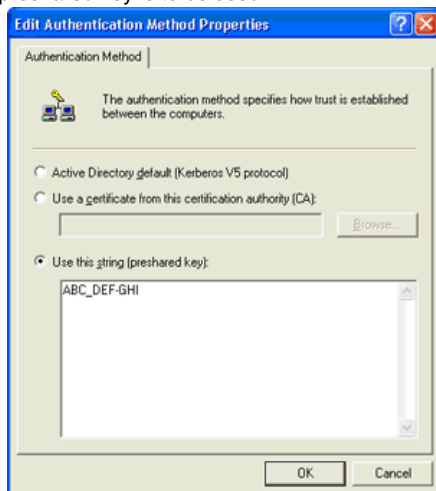
3 Make use of applications such as Windows® "Notepad" to create a preshared key string, and save it as a file with the extension ".key".
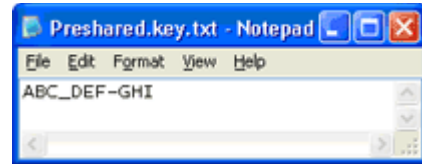
After saving, this file will be downloaded as the "Preshared Key File" when setting "Preshared Key Authentication" using the status monitor.

ASCII characters that can be used for the preshared key of the printer are as follows. The maximum length is 255 characters.

	2x	3x	4x	5x	6x	7x
0		0	@	P		p
1		1	A	Q	a	q
2		2	B	R	b	r
3		3	C	S	c	s
4		4	D	T	d	t
5		5	E	U	e	u
6		6	F	V	f	v
7		7	G	W	g	w
8	(	8	H	X	h	x
9	)	9	I	Y	I	y
A			J	Z	j	z
B			K		k	
C			L		l	
D	-		M		m	
E	.		N		n	
F			O	_	o	

Memo:
For "Preshared Key Authentication" procedures on the printer, refer to the status monitor instruction manual.

Printer Certificate File

Note:
Operate IP Sec (IP Security) on Windows® by following the instructions of the network administrator for the location where the printer is installed.

Manage the "Printer Certificate File" according to the instructions of the network administrator.

There is an expiration date for the "Printer Certificate". IP Sec communication may fail or may not be encrypted successfully if an expired certificate is used.

1 Obtain the printer certificate from the certification authority, and install it on the PC's "Certificate (Local Computer)"
Obtain the printer certificate as an "exportable key".

2 Start "Certificate (Local Computer)" under the MMC (Management Console)

3 Open the Personal Store to export the printer certificate
The format is "PKCS#12". Make sure that you specify a password. The file is saved with the extension ".pfx".
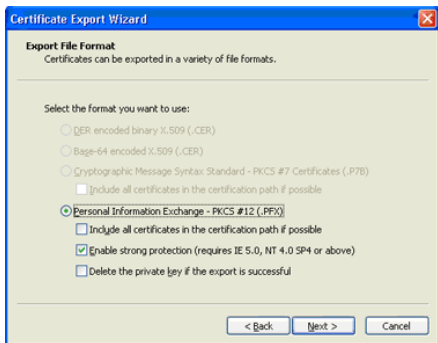
After saving, this file will be downloaded as the "Printer Certificate File" when setting "Certificate Authentication" using the status monitor.

ASCII characters that can be used for the password of the printer certificate of the printer are as follows. The maximum length is 255 characters.

	2x	3x	4x	5x	6x	7x
0		0	@	P		p
1		1	A	Q	a	q
2		2	B	R	b	r
3		3	C	S	c	s
4		4	D	T	d	t
5		5	E	U	e	u
6		6	F	V	f	v
7		7	G	W	g	w
8	(	8	H	X	h	x
9	)	9	I	Y	i	y
A			J	Z	j	z
B			K		k	
C			L		l	
D	-		M		m	
E	.		N		n	
F			O	_	o	

Memo:
For "Printer Certificate Authentication" procedures on the printer, refer to the status monitor instruction manual.

Certification Authority Certificate File

Note:
Operate IP Sec (IP Security) on Windows® by following the instructions of the network administrator for the location where the printer is installed.

There is an expiration date for the "Certification Authority Certificate". IP Sec communication may fail or may not be encrypted successfully if an expired certificate is used.

Manage the "Certification Authority Certificate File" according to the instructions of the network administrator.

1 Start "Certificate (Local Computer)" under the MMC (Management Console)

2 Open the Certification Authorities Store, and export the same "Certification Authority Certificate" as the printer certificate
The format is "DER encoded binary X509". The file is saved with the extension ".cer".

After saving, this file will be downloaded as the "Certification Authority Certificate File" when setting "Certificate Authentication" using the status monitor.

Memo:
For "Printer Certificate Authentication" procedures on the printer, refer to the status monitor instruction manual.

Printer Driver Settings

Setting Example

1 " Setup Tab Sheet" ☞ page 74

2 " Print Tab Sheet" ☞ page 74
  " Printing area Dialog" ☞ page 75
  " Color Dialog" ☞ page 75
  " Look up table Dialog" ☞ page 75
  " Dither Dialog" ☞ page 76
  " UV ink Dialog" ☞ page 76
  " Printer settings Dialog" ☞ page 78

3 " Encode Tab Sheet" ☞ page 79

4 " Configuration Tab Sheet" ☞ page 79

5 " Version Tab Sheet" ☞ page 80

Setup Tab Sheet
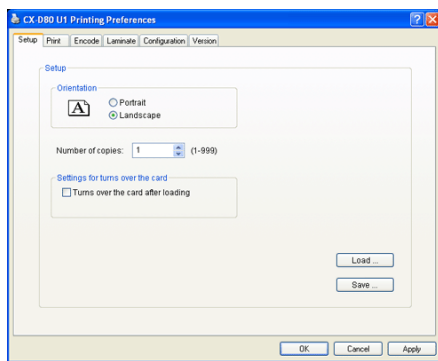
1 Orientation
  Settings for printing orientation.
  Portrait
  Print with the shorter edge of the card on top.
  Landscape
  Print with the longer edge of the card on top.

2 Number of copies
  The number of copies to issue. Enter a number up to 999.

3 Settings for turns over the card
  Settings for turns over the card.

4 Load
  Loads setting information from a specified file.

5 Save
  Saves setting information to a specified file.

Print Tab Sheet
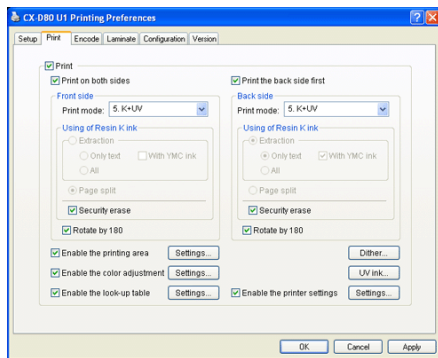
1 Print
  Executes printing.

2 Print on both sides
  Prints both sides of the card.

3 Print the back side first
  Prints the image on the back side first when printing on both sides of the card.

4 Front side/Back side
  Front side: Print settings for the front side of the card.
  Back side: Print settings for the back side of the card.
  Print mode
  Ink list. Specify the ink to use for printing.

Note:
  Print error occurs if an ink that is not mounted to the printer is selected.

Setting values

  1. YMC:
  Prints using the YMC ink.
  2. K:
  Prints using the Resin K ink.
  3. YMCK:
  Prints using the YMC ink and Resin K ink.
  5. K+UV:
  Prints using the Resin K ink. Prints the setting data in the [UV ink] dialog using the UV ink.
  6. YMCK+UV:
  Prints using the YMC ink and Resin K ink. Prints the setting data in the [UV ink] dialog using the UV ink.

  Resin K ink
  For specifying the component to print using the Resin K ink.
  Extraction
  Prints the black color component on each page using the Resin K ink.
  Text
  Prints only the black color text using the Resin K ink.
  All
  Prints all black color components using the Resin K ink.
  With YMC ink
  Prints the background of the specified black color component using the YMC ink.
  Page split
  Prints all components on a specific page using the Resin K ink.
  Security erase
  Enables the Resin K security feature.
  Rotate by 180
  Prints the page upside down.

5 Settings…
  Enable the printing area
  Prints in the specified area. Set a value in the [Printing Area] dialog.
  [Update]
  Opens the [Printing Area] dialog.
  Enable the color adjustment
  Adjusts the color. Set a value in the [Color Adjustment] dialog.
  [Update]
  Opens the [Color Adjustment] dialog.
  Enable the look-up table
  Uses the look-up table. Set a value in the [Look-up Table] dialog.
  [Update]
  Opens the [Look-up Table] dialog.
  [Dither]
  For specifying settings related to dithering.
  [UV ink]
  For specifying settings related to UV ink print data.
  Enable the printer settings
  For specifying settings of the printer unit. Set a value in the [Printer Settings] dialog.
  [Update]
  Opens the [Printer Settings] dialog.
  " Printing area Dialog" ☞ page 75

Printing area　Dialog

Settings related to the printing area using Special ink 2 or areas not to be printed using all YMCKUV inks.
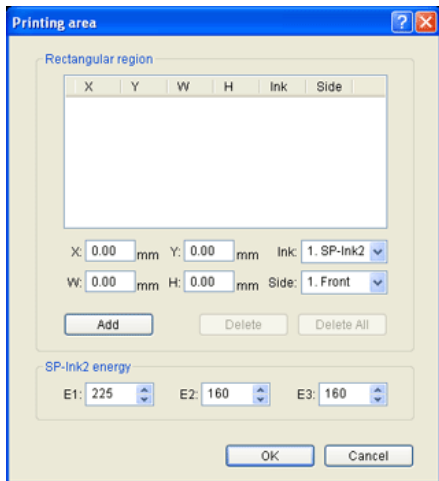
1 Area

Printing area information.

X

Start X-coordinate of the printing area by millimeter.

Y

Start Y-coordinate of the printing area by millimeter.

W

Width of the printing area by millimeter.

H

Height of the printing area by millimeter.

Ink

Ink valid for the printing area.

Setting values

1. SP-Ink2:
Area to print using the peel off ink.

2. YMCK:
Area not to be printed using all YMCKUV inks.

Side

The side of the card for which the printing area is valid.

Setting values

1. Front:
Front side

2. Back:
Back side

---

2 [Add]

Registers the input data. You can enter up to 8 input data.

3 [Delete]

Deletes the information selected in the list.

4 [Delete All]

Deletes all registered information.

5 SP-Ink2 energy

Print density of the Special ink 2.

E1: 225
E2: 160
E3: 160

Setting Values

Each of the set values must satisfy the following requirements.

$$E1 \geqq E2 \geqq E3$$

Note:

Special ink 2 (SP-Ink2) can be used by a printer with PO (peel off) print function. Please consult our authorized dealers for details.

The following values are recommendation when you print with PO (peel off) function on the magnetic stripe area of the card.

X	Y	W	H	Ink	Side
0	0	87.46	13.89	1 (SP-Ink2)	1 (Front)
0	0	87.46	15.92	2 (YMCK)	1 (Front)

Note:

The input value of the text box may differ from the value of the "Printing area information" portion by an accidental error in calculation.

Memo:

The printing starting position that is set with application software may not match with the above mentioned X=0 and Y=0.

About 1 mm portion is not printed from the end of a picture to a card.

Color　Dialog

Settings related to color adjustment.
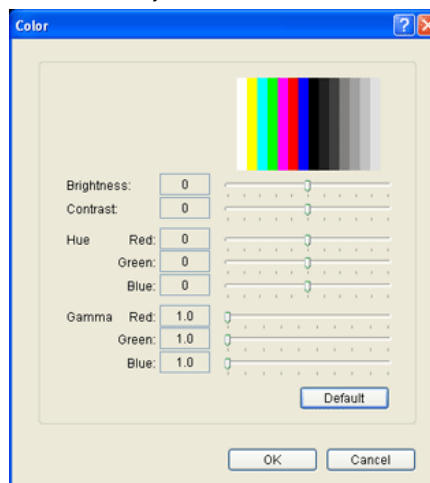
1 Brightness

Brightness level.

2 Contrast

Contrast level.

3 Hue

Hue level.

4 Gamma

Gamma level.

5 Default

Restores the settings to the default values.

Look up table　Dialog

Settings related to the look-up table.
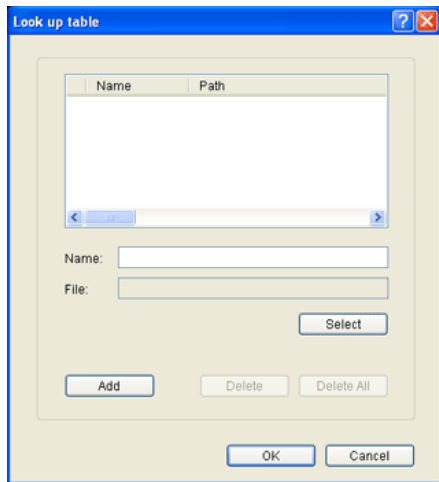
1 Name

Registered name of the look-up table file. You can enter a name up to 30 characters.

2 File

Look-up table file. Click the [Select] button to select a file.

3 [Add]

Registers the input data. You can enter up to 16 input data.

4 [Delete]

Deletes the information selected in the list.

5 [Delete All]

Deletes all registered information.

Structure of the file

Data format of the file is CSV (Comma Separated Values).

Delimiter character is comma (ASCII character code: 0x2c) or LF (Line Feed = ASCII character code: 0x0A).

There is a total of 1024 fields. This is comprised of four planes, each containing 256 fields.

The planes are arranged in the order of yellow, magenta, cyan, and black colors.

The value of each field ranges between 0 and 255.

Dither　Dialog

Settings related to dithering.
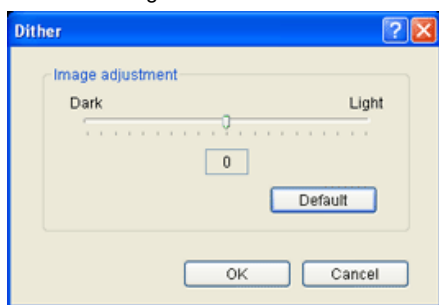
Note:

This setting is valid only when the [Mode] item inside the [Print] tab is specified as 2. K or 5. K+UV, and when Page split is selected for [Resin K ink].

1 Image adjustment

Image adjustment value.

Setting values

Dark:
Darkens the printed image after dithering.

0:
Default value.

Light:
Brightens the printed image after dithering.

---

2 [Default]

Restores the settings to the default values.

UV ink　Dialog
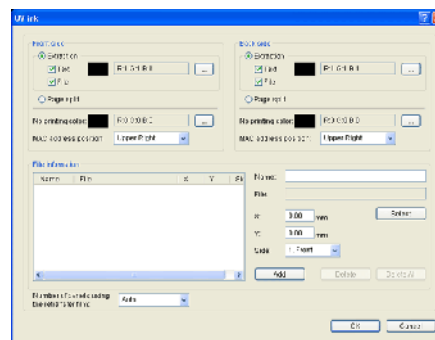
Settings related to the data to be printed using the UV ink. Settings of "MAC address position" and "Number of panels using the retransfer film" are in this section.

Note:

This setting is valid only when the [Mode] item of the [Print] tab is specified as [5. K+UV] or [6. YMCK+UV].

1 Front side/Back side

Settings for the front side of the card.

Settings for the back side of the card.

　Extraction

Prints the following color component on each page using the UV ink.

"About the priority of printing data" ☞ page 77

　Text

Prints the text of a specified color using the UV ink with maximum density.

White and black colors cannot be selected.

　File

Prints the picture files registered by list of "File information" using the UV ink.

　Page split

Prints all components on a specific page using the UV ink with 256 gradation. Page split is divided in order of YMC ink, Resin K ink and UV ink.

"The page number of the printing document and setup of Page split" ☞ page 77

　No printing color

Selected color is not printed using the UV ink.

Memo:

The background of UV ink picture is specified here. Paint over the background of picture by a specific color using graphic software etc. If background color is the same as part of the picture, it will not be printed. So please select background color carefully.

The color selected here does not influence the color specified by [Extraction]- [Text]. Even when the same color is selected, the text of the color is printed.

　MAC address position

The network (Ethernet) MAC address of the printer is printed at the following specified position using the UV ink.

Setting values

Upper Right:
Upper right position

Lower Left:
Lower left position

"About the MAC address position" ☞ page 77

2 File Information

Settings related to the printing picture file using the UV ink.

Memo:

This setting is valid when the [Extraction]- [File] is specified at front side or back side.

　Name

Registered name of the picture file. You can enter a name up to 30 characters.

File

Picture file. Click the [Select] button to select a file.

"File type of Windows® Bitmap (*.BMP)" ☞ page 78

X

Start X-coordinate of the printing picture file by millimeter.
When [Landscape] at [Orientation] inside [Setup] tab is set, the value is 0.00 to 87.4. When [Portrait] is set, the value is 0.00 to 55.9. The data which is outside of the printing area is not printed.

Y

Start Y-coordinate of the printing picture file by millimeter.
When [Landscape] at [Orientation] inside [Setup] tab is set, the value is 0.00 to 55.9. When [Portrait] is set, the value is 0.00 to 87.4. The data which is outside of the printing area is not printed.

Side

The side of the card for which the printing area is valid.

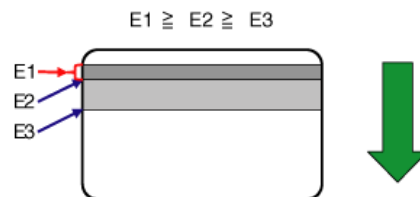**Setting values**

1. Front:
Front side
2. Back:
Back side

3 [Add]

Registers the input data. You can enter up to 8 input data.

4 [Delete]

Deletes the information selected in the list.

5 [Delete All]

Deletes all registered information.

6 Number of panels using the retransfer film

Number of panels using the retransfer film.

Setting values

Auto:
When the data of other ink does not overlap with the printing point of UV ink, it prints automatically using the retransfer film of 1 panel.
1 panel:
Always prints using the retransfer film of 1 panel. However, when the data of other ink overlaps with the printing point of UV ink, the data of other ink is adjusted.
**2 panels:**
Always prints using the retransfer film of 2 panel.

"The number of panels using the retransfer film at the time of printing" ☞ page 78

About the priority of printing data

A extracted text has the priority higher than a picture file, and is always printed on the top surface.

The picture file is processed in order of registration. When the printing range overlaps, the data of the picture file registered later overwrites former data.

The page number of the printing document and setup of [Page split]

				1	2	3	4	5	6
④	⑤	④	⑤						
–	–	–	–	YMCK	YMCK				
○	–	–	–	YMC	K	YMCK			
–	–	○	–	YMCK	UV	YMCK			
○	–	○	–	YMC	K	UV	YMCK		
–	○	–	○	YMCK	YMC	K	UV		
○	○	–	–	YMC	K	YMC	K		
–	–	○	○	YMCK	UV	YMCK	UV		
○	○	○	–	YMC	K	UV	YMCK	K	
○	○	○	○	YMC	K	UV	YMC	K	UV

setup of [Page split]
Resin K ink

UV ink
Front
Back
The page number of the printing document
This ink is printed on the front side.
This ink is printed on the back side.

When the [Page split] is not set, extracts the data of UV ink from the data of YMC ink, or uses the picture file for UV ink.

About the MAC address position

In the case of UV print, the printer always prints the MAC address.

The position of MAC address can be set up separately to front-side and back-side by the printer driver. The following two position can be chosen.

[Landscape] Orientation

The position of MAC address at [Upper Right].
The position of MAC address at [Lower Left].
(X=0, Y=0)
(About X=87.5 mm, About Y=56.0 mm)
(X=1035pixel, Y=663pixel)

The position of MAC address	X	Y	Width	Height
Upper Right	64.69 mm	0.06 in	0.77 in	0.11 in
Upper Right	764 pixel	18 pixel	230 pixel	34 pixel
Lower Left	0.14 in	2.04 in	0.77 in	0.11 in
Lower Left	42 pixel	611 pixel	230 pixel	34 pixel

[Portrait] at Orientation

The position of MAC address at [Upper Right].
The position of MAC address at [Lower Left].
(X=0, Y=0)

The position of MAC address	X	Y	Width	Height
Upper Right	2.04 in	64.69 mm	0.11 in	0.77 in
Upper Right	612 pixel	764 pixel	34 pixel	230 pixel
Lower Left	0.06 in	0.14 in	0.11 in	0.77 in
Lower Left	19 pixel	42 pixel	34 pixel	230 pixel

The above setting of MAC address is always effective regardless of the printer unit setting.
Indicated data shows the relative position from the starting point of the picture. So actual printing position on the card will include some difference from the above mentioned indicated data.

Memo:
The printing starting position that is set with application software may not match with the above mentioned X=0 and Y=0.
About 1 mm portion is not printed from the end of a picture to a card.

The following file type of Windows® Bitmap (*.BMP) are supported.

Monochrome/Black & white

Bit(s): 1
Normally, the white color is printed using the UV ink with maximum density.
When the white color is selected at the [No printing color], the black color is printed using the UV ink with maximum density.

2 Color

Bit(s): 1
It applies the color palette, and prints using the UV ink with 256 gradation.
When one of the colors in the color palette is selected at the [No printing color], other colors are printed using the UV ink with maximum density.

16 Color

Bit(s): 4
It applies the color palette, and prints using the UV ink with 256 gradation.

256 Color

Bit(s): 8
It applies the color palette, and prints using the UV ink with 256 gradation.

32768 Color

Bit(s): 15
It applies the color palette, and prints using the UV ink with 256 gradation.
The supported type is "(MSB) GGGBBBBB-XRRRRRGG(LSB)" only.

24-bit

Bit(s): 24
It applies the color palette, and prints using the UV ink with 256 gradation.

32-bit

Bit(s): 32
It applies the color palette, and prints using the UV ink with 256 gradation.

The number of panels using the retransfer film at the time of printing

Printing data	Printing data	The setting of [Number of panels using the retransfer film]	The setting of [Number of panels using the retransfer film]	The setting of [Number of panels using the retransfer film]
-	-	1 panel	Auto	2 panels
Printing data which Overlaps with the UV ink are outside of MAC address area.	none	Prints by 1 panel	Prints by 1 panel	Prints by 2 panel
Printing data which Overlaps with the UV ink are outside of MAC address area.	YMC Ink	Prints by 1 panel *In the overlap point with UV ink, it cannot print using the YMC ink.	Prints by 2 panel	Prints by 2 panel
Printing data which Overlaps with the UV ink are outside of MAC address area.	K Ink	Prints by 1 panel	Prints by 1 panel	Prints by 2 panel
Printing data are inside of MAC address area.	none	Prints by 1 panel	Prints by 1 panel	Prints by 2 panel
Printing data are inside of MAC address area.	YMC Ink	Prints by 1 panel *It cannot print using the YMCK ink.	Prints by 2 panel	Prints by 2 panel
Printing data are inside of MAC address area.	K Ink	Prints by 1 panel *It cannot print using the YMCK ink.	Prints by 2 panel	Prints by 2 panel
Printing data are inside of MAC address area.	UV Ink	Prints the MAC address only.	Prints the MAC address only.	Prints the MAC address only.

The target printing data are compared per Pixel and judged whether there is any overlap.
The priority of the number of printing panels is given to "Prints by 2 panel".
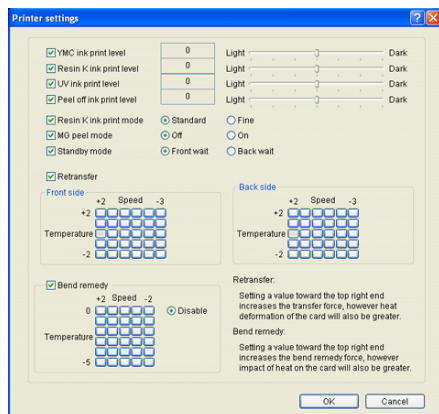When you print using the Resin K and UV ink by 1 panel, there is no UV effect in Resin K ink portion of the printing result.

Printer settings Dialog

Settings related to the printer.
Tick the setting item to enable, followed by specifying a value. Doing so prints the data using the set values.
When this is disabled, data is printed using the preset values of the printer unit.

1 Resin K ink print level

Print density of the Resin K ink.

Use the "+" values to increase, and "-" values to decrease the density.

2 UV ink print level

Print density of the UV ink. (Optional)

Use the "+" values to increase, and "-" values to decrease the density.

3 Special ink 2 print level

Print density of the Special ink 2. (Optional)

Use the "+" values to increase, and "-" values to decrease the density.

4 Resin K ink print mode

Print quality of the Resin K ink.

Selecting "Fine" enhances the printing quality, but slows down the printing speed.

5 MG Print

(MG JIS)

For specifying the way to peel the retransfer film of cards that come with a JIS magnetic stripe when the JIS MG unit is mounted.

6 Retransfer

Settings related to retransfer. Click on the corresponding square to change the value.

Setting a value toward the top right end increases the transfer force, however heat deformation of the card will also be greater.

TEMP

Temperature of the retransfer roller.

SPEED

Retransfer speed.

7 Bend Remedy

Settings related to bend remedy.

Click on the corresponding square to change the value.

Setting a value toward the top right end increases the bend remedy force, however impact of heat on the card will also be greater.

To disable bend remedy, select the "Disable remedy" button.

TEMP

Temperature of the bend remedy roller.

SPEED

Bend remedy speed.

Note:

The optimal retransfer and bend remedy settings vary according to the card type as well as environment in which the printer is used. As such, set the values after trying out under the environment where it is to be used.

If the retransfer or bend remedy settings are different from the preset temperature of the printer, it may take a while before printing starts.

There is only one standard retransfer temperature. Altering the retransfer temperature on one side changes the temperature on the other side as well.

Bend remedy is effective when printing on only one side. Setting bend remedy to a high temperature during double-sided printing may cause the card to deform significantly.

As such, select the "Disable remedy" button during double-sided printing.

When bend remedy is disabled using the "Disable remedy" button, the speed is automatically set to the maximum value (+2).

If the bend remedy force becomes strong, the surface of remedy side will become lusterless.

Encode　Tab Sheet
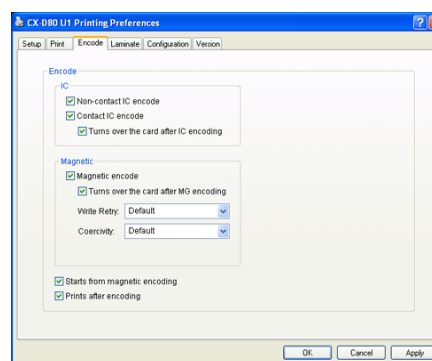
1 IC

Non-contact IC encode

Allows writing of data to the non-contact IC.

Contact IC encode

Allows writing of data to the contact IC.

Turns over the card after IC encoding

Turns over the card after writing data to the non-contact/contact IC.

2 magnetic

Magnetic encode

Allows writing of data to the magnetic stripe.

Turns over the card after IC encoding

Turns over the card after writing data to the magnetic stripe.

ISO Coercivity

Coercivity with respect to the ISO magnetic stripe card.

Selecting "Default" writes data using the preset coercivity value of the printer.

Configuration　Tab Sheet
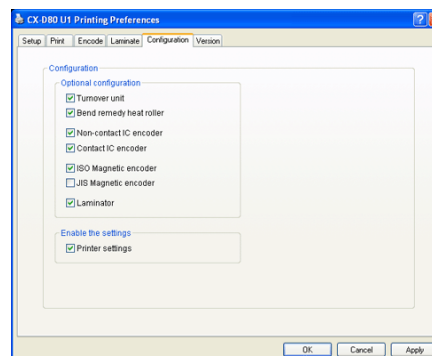
Memo:

When the status monitor runs by an user within the administrator authority (Administrators group), enables the printer settings.

Only run on display when the status monitor runs by an user without administrator authority.

1 Configuration of options

For setting the availability of options.

Retransfer unit

Warpage correction heating roller

Non-contact IC encoder

Contact IC encoder

ISO magnetic encoder

JIS magnetic encoder

2 Allows settings can be changed

Allows or prohibit the setting [Print] tab sheet.

Printer Setting

Allows the setting [Print] tab sheet when select a checkbox.

Allows the setting [Print] tab sheet when not select a checkbox.

Version Tab Sheet

Version and copyright information.
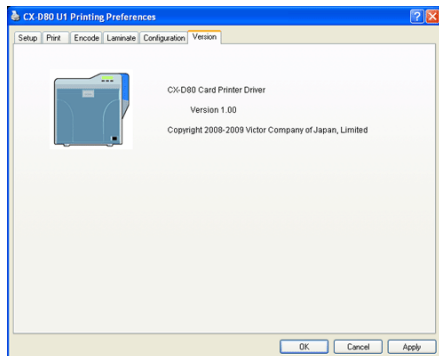
Port Monitor Settings

1 " Property Tab Sheet" ☞ page 80

2 " Version Tab Sheet" ☞ page 80

Property Tab Sheet
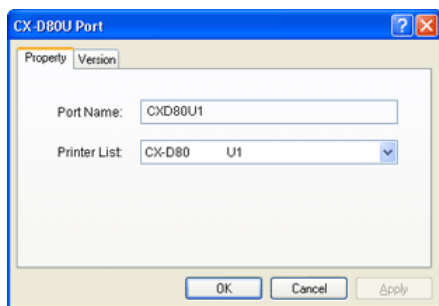
1 Port Name
Name of the port. You can enter a name up to 24 characters.

2 Printer List

List of connected printers. The selected printer is used for printing the card.

Note:
The setting is incorrect if the following message appears.
No Device:
Printer is not found.
No selection:
Last used printer is not found. A different printer is currently connected.

3 [Find…]
Searches for printers and displays them in the [Printer List].

Note:
This feature is used exclusively for network port monitor.

Version Tab Sheet

Version and copyright information.

Status Monitor Settings

What is status monitor?

The status monitor is software for displaying the printer status as well as specifying various printer settings.

Memo:
Use the status monitor only when the power of the printer is turned on.
The printer driver needs to be installed on the host computer. You can install the printer driver using the CD-ROM supplied with the printer.
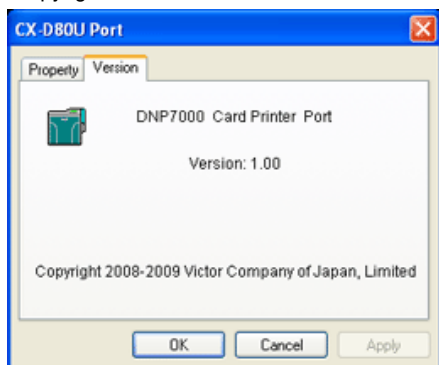When the status monitor runs by an user within the administrator authority (Administrators group), enables the printer settings.
Only run on display when the status monitor runs by an user without administrator authority.

"Executing the Status Monitor" ☞ page 80
"Screen Configuration" ☞ page 81
" Printer Status Tab Sheet" ☞ page 81
" Printer Setting Tab Sheet" ☞ page 82
" Retransfer Tab Sheet" ☞ page 83
" Bend Remedy Tab Sheet" ☞ page 84
" Media Setting Tab Sheet" ☞ page 84
" Property Tab Sheet" ☞ page 84]
" Printer Select Tab Sheet" ☞ page 85
" Security Lock Tab Sheet" ☞ page 86
" Others Tab Sheet" ☞ page 86

Executing the Status Monitor

The status monitor runs on the following method.
Runs by the shortcut of desktop. (This setting is at the installation.)
Runs by the start menu. (This setting is at the installation.)
Runs directly by installed folder of the program.

Windows Vista

Choose the "Run as administrator", and the status monitor runs by an user within administrator authority. Open or double-click the icon of the status monitor, it runs by an user without administrator authority.
Even if an user logged on with the administrator account, the status monitor may be run by an user without administrator authority.
The following Windows dialog may appear when you first start up the status monitor using Windows Vista. This dialog will not appear again if you set to "Unblock". The status monitor incorrectly runs if you set to "Keep Blocking".
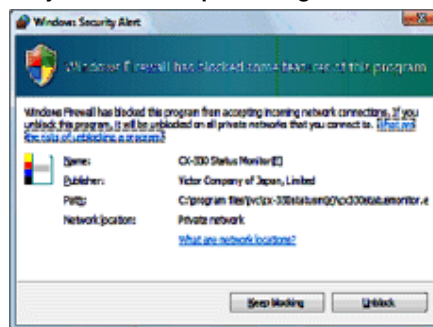
Windows Vista/Windows XP

The following Windows dialog may appear when you first start up the status monitor using Windows XP. This dialog will not appear again if you set to "Unblock". The status monitor incorrectly runs if you set to "Keep Blocking".

Screen Configuration
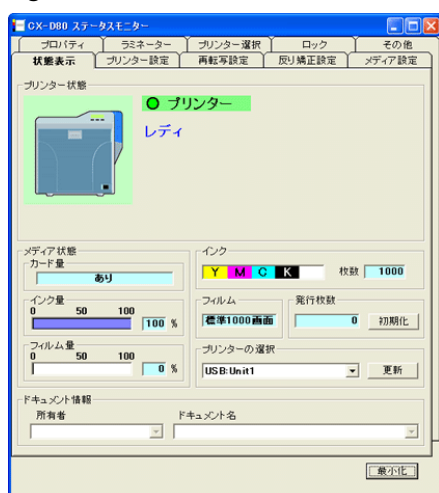
1 Close button

Closes the status monitor.

2 Screen selection tabs

Use these to switch to the following screens.

Printer Status

Displays the printer's status.

Printer Setting

Displays and enables specification of the printer's print settings.

Retransfer

Displays and enables setting of the conditions during retransfer of the card.

Bend Remedy

Displays and enables setting of the conditions during bend remedy of the card.

Media Setting

Displays the ink ribbon's status and enables setting of the card or re-transfer film.

Property

For verifying the device configuration as well as printer's firmware version.

Others

For performing test prints and specifying other settings.

3 [Minimize button]

Minimizes the status monitor to an icon. The icon is displayed in the task bar.

Printer Status Tab Sheet

Displays the printer's status. Content of the screen is automatically up-dated at regular intervals.
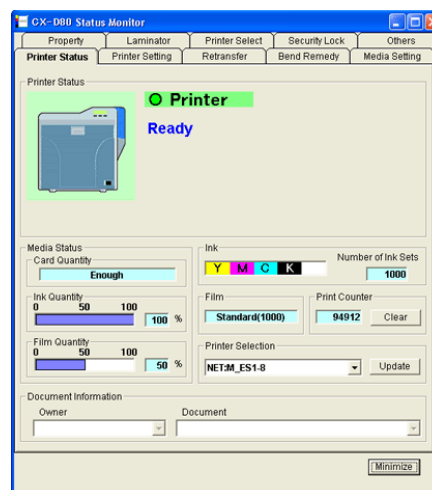
1 Printer Status

Ready status. The printer is ready to start printing.
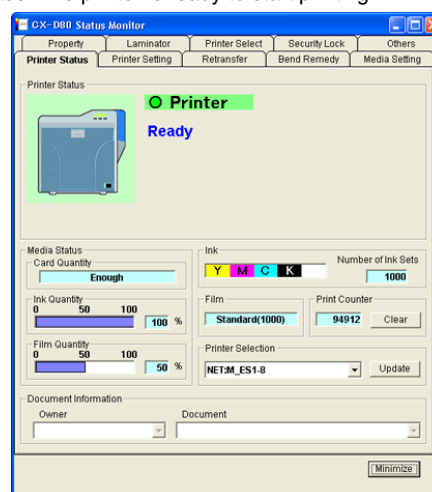
Error has occurred.
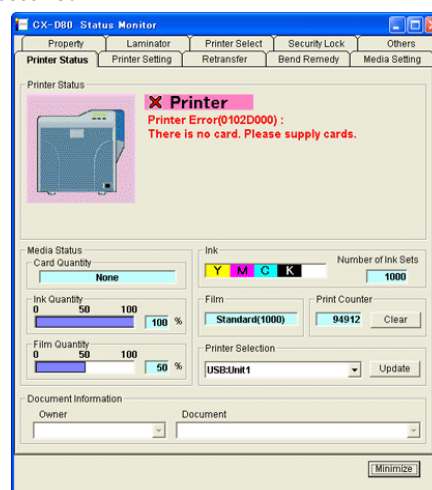
Printer is busy.
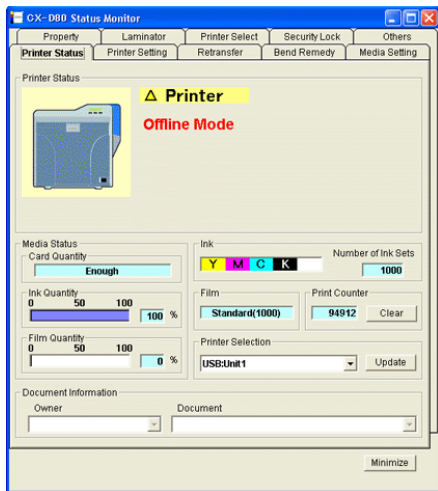
When Roller Cleaning is Required
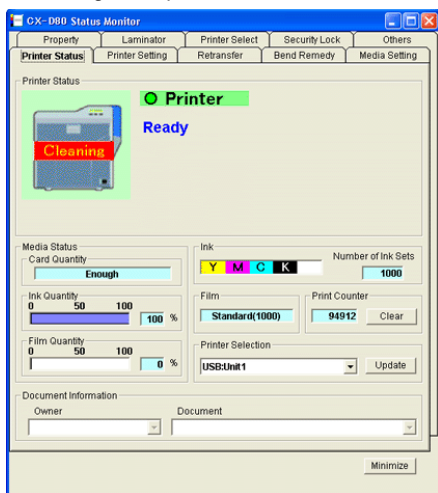
2 Printer icon

Under Normal Circumstances

When Roller Cleaning is Required

Clean the card feed roller and heating roller.

Printer status message

No printer is found:
The power of the printer is not turned on, or the host computer is not properly connected to the printer.

Ready:
The printer is in the ready mode. The printer is ready to start printing cards.

Initializing:
Printer initializing. The printer switches to the Ready mode after initialization is complete.

Offline Mode:
The printer is in the setting mode, or roller cleaning is in progress. When this is complete, the printer switches to the Ready mode.

Preheating:
Preheating of the heat roller is in progress. The printer switches to the Ready mode upon reaching an appropriate temperature.

Card Loading:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

Card Transporting:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

MG Encoding:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

Retransfer:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

Contact IC Encoding:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

No-Contact IC Encoding:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

Printing:
The printer is issuing cards. The printer's operating status when issuing cards is displayed. After card issuance is complete, the printer returns to the Ready mode.

Power Saving:
The printer is in the Power Saving mode, which helps to reduce power consumption. To exit the Power Saving mode, press the Reset button, followed by the ⬅ button to initialize the printer.

3 Media Status
Displays the media's remaining space available.

4 Card Quantity
Displays the remaining card quantity as three different levels as shown below. The display may vary according to the thickness as well as bend of the card.

Card Quantity Display	Card Thickness of 0.76 mm	Card Thickness of 0.01in
Enough	Approx. 25 cards or more	Approx. 70 cards or more
Less	Less than 25 cards	Less than 70 cards
None	No card	No card

5 Ink Quantity
Displays the remaining ink ribbon quantity in 50 different levels in percentage.

6 Film Quantity
Displays the remaining card quantity as three different levels as shown below.
The remaining quantity shown is an estimated value. Differences may occur according to the usage as well as media type.

7 Ink
Displays the information on the mounted ink ribbon. The print counter appears blank if the ink ribbon is not correctly recognized.
You may not be able to control the ink ribbon properly in this case.

8 Film
Displays the type of retransfer film mounted.

9 Print Counter
Displays the number of cards that have been issued. Press the "Clear" button to reset the print counter to 0.

10 Printer Selection
You can switch to the relevant printer when multiple printers are connected to a single host computer.
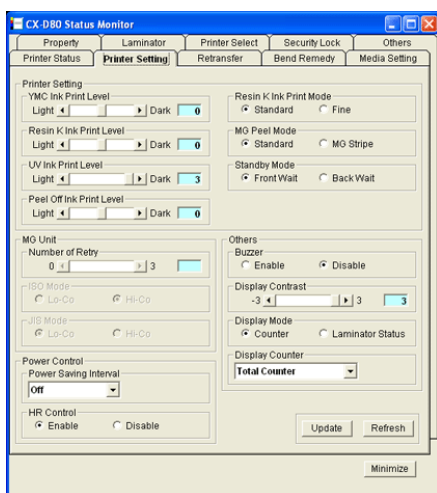Pressing the "Update" button searches for a connected printer and updates the printer in the list box.

11 Document Info
Displays the owner and document names when printing is enabled through a network connection.

Printer Setting Tab Sheet

For specifying settings of the printer.

Make sure that you take down the set values before making any changes.

1 Print Settings

Resin K Ink Print Level

For setting the print density level of the Resin K ink.

UV Ink Print Level

For setting the print density level of the UV ink. (Optional)

Special ink 2 print level

For setting the print density level of the Special Ink 2. (Optional)

Resin K Ink Print Mode

For setting the print quality using the Resin K ink. Selecting "Fine" enhances the printing quality, but slows down the printing speed.

MG Print (JIS)

For specifying the way to peel the retransfer film of cards that come with a JIS magnetic stripe when the JIS MG unit is mounted. The default setting is "Disable".

Standby Mode

For specifying the card standby position while waiting for the laminator to switch to the Ready mode during double-sided printing when the laminator is connected. The default setting is "Front Wait".

2 Magnetic encoder

Number of Retry

For specifying the maximum number of retries when writing/reading of the magnetic stripe fails. The default value is 1.

ISO Mode

For specifying the coercivity with respect to the ISO magnetic stripe. The default setting is "Hi-Co".

3 Encoder Unit

4 Others

Buzzer

For [enabling]/[disabling] the alert sound when error occurs or when the card quantity is running low, as well as the sound upon pressing the ⟵ key in the user mode.

The buzzer does not sound if you [disable] this feature. The default setting is "Enable".

Power Saving Interval

Enables switching to the Power Save mode to reduce power consumption when printing or operation is not performed over a specified time interval.

Select whether to disable the Power Save mode or the time interval before switching to the Power Save mode.

Selecting "Disable" deactivates the Power Save mode. The default setting is "Disable".

HR Control

Switches to the standby mode by lowering the temperature of the retransfer heat roller when printing is not performed for 30 minutes or longer. The default setting is "Enable".

5 [Update]

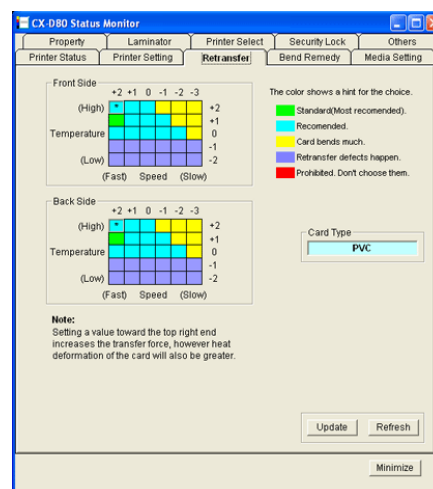Enables the printer settings specified using the slide bars, radio buttons and list box.

6 [Refresh]

Displays the printer settings on the screen.

7 [Minimize]

Retransfer Tab Sheet

The "Retransfer" screen enables you to set the retransfer conditions on the card.

1 Card Type

The appropriate value varies according to the type of card used.

2 [Update]

Applies the selected value to the printer.

3 [Refresh]

Displays the printer settings on the screen.

4 [Minimize]

Setting Procedures

The vertical axis shown in the setting area indicates the retransfer temperature, and the horizontal axis represents the retransfer speed. Click on the corresponding square to change the value.

The selected value is indicated using "*".

Setting a value toward the top right end increases the transfer force, however heat deformation of the card will also be greater. The colors below serve as a rough indicator for selection.

Color	Description
Green	Standard value. Optimal value for the selected card. Select this under normal circumstances.
Light Blue	Appropriate range. Recommended range when selecting a value other than the standard value.
Yellow	Card bends increases.
Blue	Retransfer defect may occur.
Red	Do not choose these values.

Note:

The setting areas serve only as a rough indicator. The optimal value varies according to the card type as well as the environment in which the printer is used. As such, set the values after trying out under the environment where it is to be used.

It may take a while for printing to start when the retransfer temperature is changed.

There is only one standard retransfer temperature. Altering the retransfer temperature on one side changes the temperature on the other side as well.

The range of optimal values varies according to the "Card Type". You can change the card type in the "Media Setting" screen.

If the card type varies across printers, set the card type to use accordingly. The color of the setting area varies according to the card type in use.

Bend Remedy　Tab Sheet

The "Bend Remedy" screen enables you to set the conditions for the card's bend remedy.
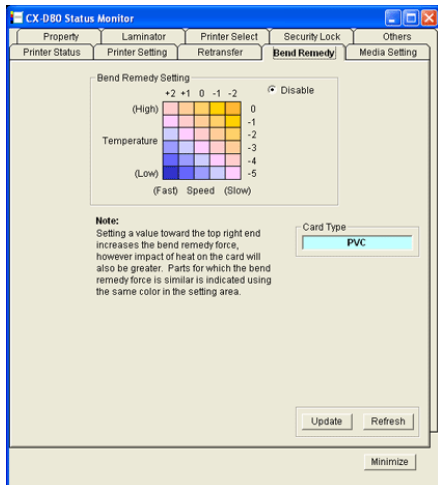
1 Card Type

The appropriate value varies according to the type of card used.

2 [Update]

Applies the selected value to the printer.

3 [Refresh]

Displays the printer settings on the screen.

*4* [Minimize]

Setting Procedures

The vertical axis in the setting area indicates the bend remedy temperature, and the horizontal axis represents the bend remedy speed. Click on the corresponding square to change the value.
The selected value is indicated using "*".
Setting a value toward the top right end increases the bend remedy force, however impact of heat on the card will also be greater. Parts for which the bend remedy force is similar is indicated using the same color in the setting area.
To disable bend remedy, select the "Disable" radio button. default setting is "Disable".

Note:

The setting areas serve only as a rough indicator. The optimal value varies according to the card type as well as the environment in which the printer is used. As such, set the values after trying out under the environment where it is to be used.

Bend remedy is effective when printing on only one side. Performing double-sided printing with a high bend remedy temperature may cause the card to deform significantly.
As such, select the "Disable remedy" button during double-sided printing.

When the "Disable" radio button is turned on, the printer switches to and remains in the preheating mode (for approximately 10 minutes) until the bendy remedy roller's temperature has gone down.
This is not a malfunction. Wait for the printer to switch to the Ready mode.

When bend remedy is disabled using the "Disable remedy" button, the speed is automatically set to the maximum value (+2).

If the bend remedy force becomes strong, the surface of remedy side will become lusterless.

Media Setting　Tab Sheet

For specifying settings of the Printing media.
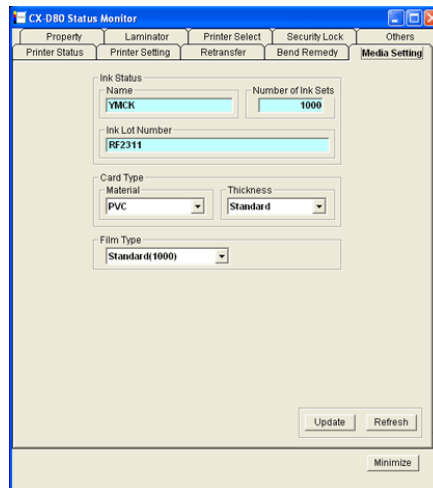
1 Ink Status

　Name

Displays the name of the mounted ink ribbon. A message indicating the cause appears when the ink ribbon cannot be recognized.

　Number of Ink Sets

Displays the specification of the number of screens which is mounted ink ribbon. This is not an indication of the current ink level.

　Ink Lot Number

2 Card Type

　Material

Select one of the card materials from "PET-G", "PVC", and "PET (0.25 mm)". An optimal value for the retransfer speed and temperature settings is displayed according to the selected card.

　Thickness

Select either "Standard" or "Thin" for the card thickness. If the card thickness is 0.76 mm, select "Standard". If the card thickness is 0.25 mm, select "Thin".

To use cards of different thickness, refer to "Switching the card thickness" .

"Adjusting Card Thickness"　

3 Film Type

Displays the specifications of the number of screens which is mounted retransfer film. This is not an indication of the current film level.

　[Update]

Applies the selected value to the printer.

　[Refresh]

Displays the printer settings on the screen.

When the ink ribbon cannot be recognized

When the ink ribbon cannot be recognized, the cause for this problem is indicated in the "Name" field under "Ink Status".

Message	Cause and Action to Take During Ink Recognition Error
(252:Invalid TAG Data)	The TAG record data adhered to the ink ribbon is incorrect. Replace the ink ribbon and try again.
(253:Defective TAG)	Unable to establish communication with the TAG adhered to the ink ribbon. Replace the ink ribbon and try again.
(254:No TAG)	Unable to read the TAG adhered to the ink ribbon. Check to ensure that the ink ribbon is correctly set.
(255:Defective R/W)	Printer TAG reader error. The printer needs to be repaired.

Property　Tab Sheet

For verifying the device configuration as well as printer's firmware version.
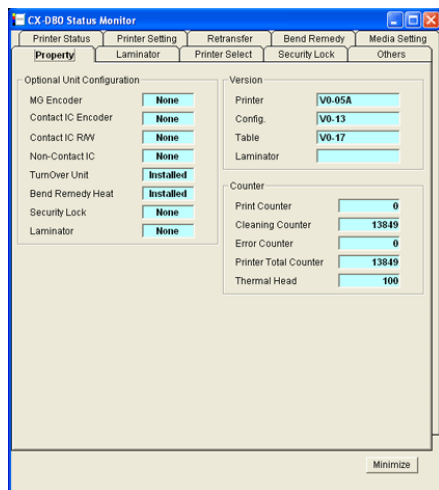
1 Version

Displays the firmware version of the printer as well as peripheral devices. When optional devices, such as the MG unit, and laminator, are not connected, this is indicated as "????".

2 Optional Unit Configuration

Displays the configuration of optional devices.

Note:

When a value other than "None" is shown in the contact IC encoder or non-contact IC encoder field, this means the configuration allows mounting of an IC encoder, and does not indicate that an IC encoder is mounted. Consult our authorized dealers on how to install the IC encoder.

3 Others

: Displays the printer's status.

Printer Print Counter
Displays the accumulated number of cards issued by the printer.

Thermal Head Counter

Displays the number of print ink panels for the thermal head.
For example, when printing on a single side using all YMCK inks, 4 are added to each card.

Printer Select   Tab Sheet

The "Property" screen enables you to verify the device configuration as well as the printer's firmware version.
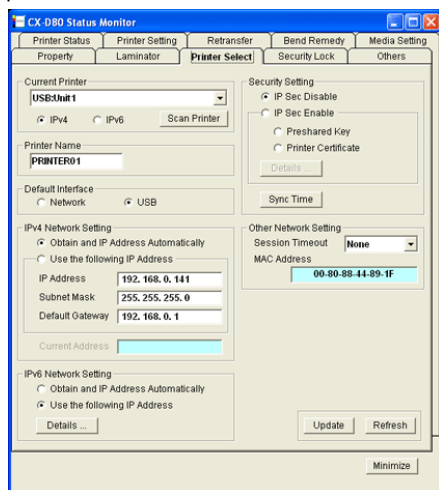
1 Printer Selection

You can switch to the relevant printer when multiple printers are connected to a single host computer.

[Scan Printer]
Pressing the "Scan Printer" button searches for a connected printer and updates the printer in the list box.

Pull-down menu

When a printer is selected from the list box, the status of the selected printer is automatically displayed.

2 Printer Name

For setting the name of the selected printer.

3 Default Interface

For setting the interface during startup. When the printer is connected via the network (Ethernet), the set value is shown but setting is disabled.

Note:

Regardless of the default interface setting, priority is given to USB if the USB cable is connected.

Network Settings
For specifying items related to the network (Ethernet). When the printer is connected via the network, the set values are shown but setting is disabled.

Note:

Determine the network setting items according to the instructions of the network administrator for the location where the printer unit is installed.

Other network devices may be affected if the network setting is incorrect.

When only USB connection is used, there is no need to specify the network setting.

Obtain and IP Address Automatocally

When "Obtain and IP Address Automatically" is selected, the IP address, subnet mask, and default gateway values are automatically acquired from the DHCP server. If the DHCP server is not found, settings in the "Use the following IP Address" will apply.

Memo:

The IP address, subnet mask, and default gateway values that are automatically acquired from the DHCP server are not shown.

The IP address, subnet mask, and default gateway values may change regularly according to the DHCP server settings.
To use a static IP address such as for the printer driver's application software, it is recommended that you select "Use the following IP Address".

Use the following IP Address

When "Use the following IP Address" is selected, specify the "IP Address", "Subnet Mask", and "Default Gateway" fields accordingly.

4 Session Timeout

Use "Session Timeout" to specify the timer interval before disconnecting when communication is not established after print connection. The default setting is "None".

MAC Address
The printer's MAC address is shown in the "MAC Address" field.

5 Security setting

Security Setting: For specifying items related to IPSec of the network (Ethernet). When the printer is connected via the network, the set values are shown but setting is disabled.

Determine the "Security Setting" items according to the instructions of the network administrator for the location where the printer unit is installed.

Encrypted communication cannot be established if the "Security Setting" is incorrect.

When only USB connection is used, there is no need to specify the "Security Settings". Encrypted communication is not possible with USB connection.

It is not possible to apply the "Security Setting" to the printer without connecting via USB.

Refer to the "Installation Manual" for procedures to create the download file to be used for the "Security Setting". Manage the download file according to the instructions of the network administrator.

IP Sec Disable
When "IP Sec Disable" is selected, only communication that does not make use of IP Sec is enabled. The default setting is "IP Sec Disable".

IP Sec Enable

When "IP Sec Enable" is selected, communication that makes use of IP Sec is enabled. Upon completing the setting using the "Details" button, the "Preshared Key" or "Printer Certificate" selection is enabled.

Refer to the table below on whether encrypted communication using IP Sec is allowed.

| Printer Setting	PC's IP Sec Policy	PC's IP Sec Policy	PC's IP Sec Policy
Printer Setting	Security Required	Request for Security	Not Protected
"IP Sec Disable"	Communication Disabled	Normal Communication	Normal Communication
"IP Sec Enable" (When authentication fails)	Communication Disabled	Normal Communication	Normal Communication
"IP Sec Enable" (When authentication is successful)	Encrypted Communication	Encrypted Communication	Normal Communication

"Details"

Pressing the "Details" button displays the "IP Sec Setting" screen, and enables you to send the download file required for IP Sec authentication to the printer.
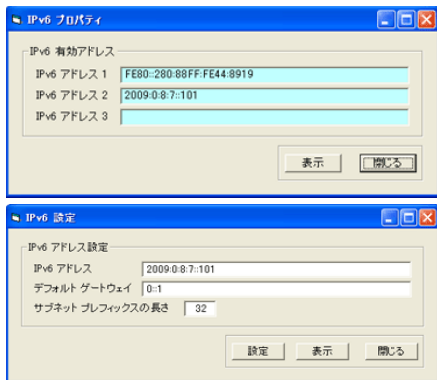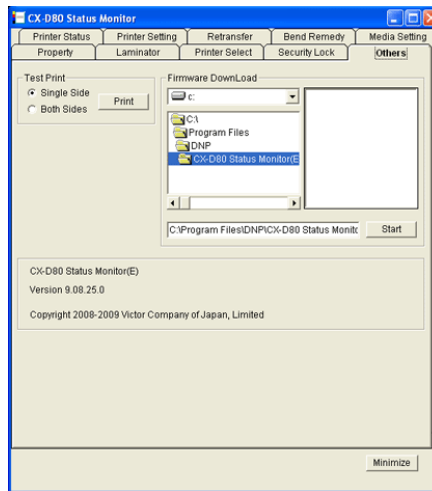

Security Lock Tab Sheet

Security Settings.
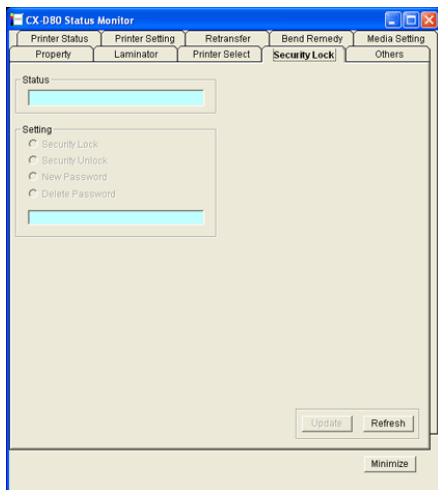
Others Tab Sheet

Test print uses the printer's self-diagnosis function without making use of the printer driver.
You can use it to verify whether the printer is functioning correctly.

For printers connected via the network, the items on this screen are not displayed.

1 Test print
Doing so executes printing on a card using the built-in test pattern of the printer.

2 Firmware Download
Updates the printer's firmware. Special operations are required to update the printer's firmware.

Note:
Request the servicing personnel or our authorized dealer to update the printer's firmware. The printer may not start up if update of the firmware fails.

Inline Encoding

"In-Line Encoding Format" ☞ page 86
"Character Code Table" ☞ page 87

In-Line Encoding Format

In-line encoding is possible when all the settings in the [Encode] tab are enabled.
Encoding data can be sent to the printer through the printer driver using the special character strings (prefixes) described below.
This function is called as "in-line encoding".

Adding a prefix (tilde (~),?, or numeric characters) at the beginning of a text string enables the string to be recognized as encoding data. Character strings including prefixes are not printed on the card when they are recognized as encoding data.

No.	Prefix character string	Text string following prefix (1)	Usable character code table (2)	Max. string length (3)
1	~ ?0	String becomes JIS2 magnetic encoding data.	7 units code	69.00
2	~ ?1	String becomes ISO track 1 magnetic encoding data.	6 units code	76.00
3	~ ?2	String becomes ISO track 2 magnetic encoding data.	4 units code	37.00
4	~ ?3	String becomes ISO track 3 magnetic encoding data.	4 units code	104.00
5	~ ?4	Reserved.	-	-
6	~ ?5	Reserved.	-	-

Note:
Make sure that the string is not broken and uses the same font.
Encoding cannot be performed correctly if characters that are not consistent with the usable code table are used.
The maximum string length is the number of characters including control codes and excluding prefixes.

Example

ABC
~?1DEF

⟶

ABC

DEF

① Textbox character strings of application software
② Character string to be printed on card
③ Encoding data to be sent to ISO track 1

Character Code Table

Below is the list of usable ASCII codes. Configure the character string to encode using the usable half-size characters for each of the level codes.

ASCII character code table

① The range of 7 units code for a text string.
② The range of 6 units code.
③ The range of 4 units code.
④ Tilde character
(Hex-decimal: 7E)

The start sentinel and end sentinel listed below cannot be used in the encoding data.

Units code	Start sentinel	(Hexadecimal value)	End sentinel	(Hexadecimal value)
4 units code	;	(3B)	?	(3F)
6 units code	%	(-25)	?	(3F)
7 units code	DEL	(7F)	DEL	(7F)

List of Error Codes

Printer

No.	Error code	Description
1	0x0102D000	Replenish cards into the card tray.
2	0x0102D100	Printer door is open.
3	0x0102D300	Printer is busy.
3	0x0102D400	Printer is busy.
3	0x0102D500	Printer is busy.
4	0x0102D600	No ink ribbon cassette or retransfer film cassette.
5	0x0102D700	Cleaning unit is not mounted.
6	0x0102DA00	Preheating.
7	0x0102DB00	Printer initializing.
8	0x0102DC00	Offline test in progress or cleaning in progress.
9	0x0102DD00	The operation panel is currently being used, or the "transport mode" is selected.
10	0x0102FD00	Power-saving mode.
11	0x0102FE00	Password authentication is not complete.
12	0x0102****	Printer is not ready.
13	0x01039000	Failure in loading a card.
14	0x01039100	Card jam.

14	0x01039200	Card jam.
14	0x01039300	Card jam.
14	0x01039400	Card jam.
15	0x01039500	No card in the right paper feeder.
16	0x0103A000	Retransfer film has been cut off.
17	0x0103A100	Retransfer film is not detected.
18	0x0103AD00	Writing of magnetic encoding data failed.
18	0x0103AE00	Writing of magnetic encoding data failed.
19	0x0103B000	Ink ribbon has been cut off.
20	0x0103B100	Ink ribbon is not detected.
21	0x0103BB00	Card jam in the external IC unit.
22	0x0103****	Media error is detected.
23	0x0104****	Hardware error is detected.
24	0x01052700	Ink ribbon specification is incorrect.
25	0x01052B00	Incorrect magnetic encoding data.
26	0x01052C00	IC encoder is not mounted.
27	0x01052D00	Magnetic encoder is not mounted.
28	0x0105****	Command error is detected.
28	0x010B****	Command error is detected.
29	0x0142A200	Retransfer film has run out.
30	0x0142B200	Ink ribbon has run out.

Printer driver

No.	Error code	Description
1	0x02******	Printer is not found.
2	0x03002741	Printer is not found.
2	0x0300274C	Printer is not found.
3	0x03******	Unexpected problems have occurred.
4	0x04000003	Printer has been disconnected.
5	0x04000004	Incorrect operation.
6	0x04000005	Operation did not complete in time.
7	0x04000006	Abnormal data has been received.
8	0x04100001	Printer is busy and unable to accept request.
9	0x04100021	Abnormal data has been received.
10	0x04******	Unexpected problems have occurred.
11	0x09******	Command error is detected.
12	0x10000103	Writing of magnetic encoding data failed.
13	0x10000201	Contact IC encoding program is not found.
14	0x10000202	Unable to establish communication with the contact IC encoder.
15	0x10000203	Writing of contact IC encoding data failed.
16	0x10000301	Non-contact IC encoding program is not found.
17	0x10000302	Unable to establish communication with the non-contact IC encoder.
18	0x10000303	Writing of non-contact IC encoding data failed.
19	0x10000401	User program is not found.
20	0x10000403	An error is returned for the user function.
21	0x10001001	Ink ribbon cannot be recognized.

| 22 | 0x10001002 | Ink ribbon specification is incorrect. |
23	0x10001003	IC encoder is not mounted.
24	0x10001004	Magnetic encoder is not mounted.
25	0x10002000	Printer is not found.
26	0x1000200*	Printer is not ready.

Frequently Asked Questions

About print settings

The edge of picture is not printed

Check the margins of printing in the application software.

About 1 mm portion is not printed from the end of a picture to a card. Refer to the following figures.
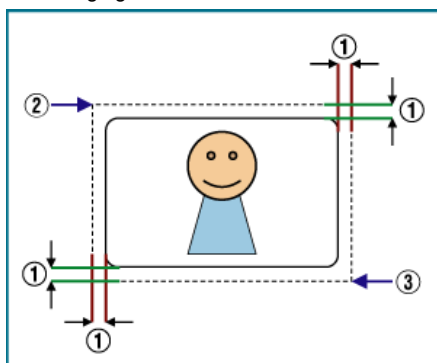
1 About 1 mm

2 (X=0, Y=0)

3 (About X=87.5 mm, About Y=56.0 mm)

The card is discharged without being printed

The [Print] check box of the [Print] tab is not ticked. Tick the [Print] check box.

" Print Tab Sheet" ☞ page 74

How can I print black color using the Resin K ink ?

Choose the [Mode] item of [Printing] tab except "1.YMC".

" Print Tab Sheet" ☞ page 74

How can I print a card using the "Security erase" ?

Choose either "2. K" or "3. YMCK" in the [Mode] item of [Printing] tab, and tick the [Security erase] check box.
Then, the "Security erase" function to resin K ink will become effective.
The "Security erase" function is available only when using the YMCK ink.
Please consult our authorized dealers for details.

I want to memorize contents of "Printing Preferences".

A When you click the [Save ...] button of [Setup] tab, contents of "Printing Preferences" can be saved at a file. When you click the [Load...] button of [Setup] tab, contents of "Printing Preferences" can load from the saved file.

" Setup Tab Sheet" ☞ page 74

About UV ink

How can I print a card using the UV ink ?

A Choose either "5.K+UV", "6.YMCK+UV" or "4. YMC+UV"of the [Mode] item of [Printing] tab, and set the UV function using the [UV ink] button. If the UV ink is not installed into the printer, the error occurs at the printing.

When I print a card using the UV ink, the picture of the upper right position is not printed.

In the case of UV print, the printer always prints the network (Ethernet) MAC address. When you set the "Number of panels using the retransfer film" to "1 panel" in this case, the printer does not print the picture inside of MAC address area.
Please arrange the picture so that printing of the YMCK ink does not overlap in MAC address area.
When you set the "Number of panels using the retransfer film" to "2 panels", the printer can print the whole picture using the YMCK ink.

"About the MAC address position" ☞ page 77

When I print a card using the UV ink, a part of picture is not printed.

When you set the "Number of panels using the retransfer film" to "1 panel", the part of overlaps between the YMC ink and UV ink is not printed.
Please arrange the picture so that printing of the YMC ink does not overlap with the UV ink.
When you set the "Number of panels using the retransfer film" to "2 panels", the printer can print the whole picture using the YMCK ink.

"The number of panels using the retransfer film at the time of printing" ☞ page 78

How can I print the picture with the UV ink without the background color ?

Paint over the background of picture by a specific color using graphic software etc.
Set the specific color by [No printing color] of [UV ink] dialog.
If background color is the same as part of the picture, it will not be printed. So please select background color carefully.

"No printing color" ☞ page 76

Although I chose the picture files in the [UV ink] dialog, the picture is not printed with the UV ink.

The picture files do not meet the supporting types.

"File type of Windows Bitmap" ☞ page 78

Other application software may be using the picture files.

When I print a card using the UV ink, a picture of UV ink is not printed on the Resin K ink.

When you set the "Number of panels using the retransfer film" to "1 panel", there is no UV effect on the Resin K ink.

Others

Others

How can I perform magnetic/IC encoding ?

Exclusive applications are required for methods other than in-line encoding.
Please consult our authorized dealers for details.

I cannot print a card using a network-shared printer which connected via USB.

When the access authority of the computer is not proper, the printer may be unable to print, even if installation of the printer driver is completed by the shared network.

Please make the access authority properly according to the instructions of the network administrator.

Printer Setting

Operation Panel

Setting using the operation panel