Datacard

Datacard® SD/CD™ Series Card Printers
User's Guide

Notice

Please do not attempt to operate or repair this equipment without adequate training. Any use, operation, or repair you perform that is not in accordance with the information contained in this documentation is at your own risk.

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Compliance Statements

Liability Statement

The WARNING and CAUTION labels have been placed on the equipment for your safety. Please do not attempt to operate or repair this equipment without adequate training. Any use, operation or repair in contravention of this document is at your own risk.

Safety

All Datacard® products are built to strict safety specifications in accordance with CSA/UL60950-1 requirements and the Low Voltage Directive 2006/95/EC.

Therefore, safety issues pertaining to operation and repair of **Datacard®** equipment are primarily environmental and human interface.

The following basic safety tips are given to ensure safe installation, operation and maintenance of **Datacard®** equipment.

- Connect equipment to a grounded power source. Do not defeat or bypass the ground lead.

- Place the equipment on a stable surface (table) and ensure floors in the work area are dry and non-slip.

- Know the location of equipment branch circuit interrupters or circuit breakers and how to turn them on and off in case of emergency.

- Know the location of fire extinguishers and how to use them. ABC type extinguishers may be used on electrical fires.

- Know local procedures for first aid and emergency assistance at the customer facility.

- Use adequate lighting at the equipment location.

- Maintain the recommended temperature and humidity range in the equipment area.

Regulatory Compliance

Notice for USA (FCC notice)

This equipment has been tested and found to comply with the limits for Class A computing devices, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If this equipment is not installed and used in accordance with this instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice for Canada

This Device complies with Industry Canada License-exempt RSS standard(s). Operation is subject to the following two conditions: 1) this device may not cause interference, and 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme avec Industrie Canada RSS standard exemptes de licence(s). Son fonctionnement est soumis aux deux conditions suivantes: 1) ce dispositif ne peut causer des interférences, et 2) cet appareil doit accepter toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.

Notice for Europe

We hereby certify that this printer complies with EMC Directive2004/108/EC , R&TTE Directive 1999/5/EC, and the EU RoHS Directive EU Directive 2011/65/EC. This printer conforms to Class A of EN 55022 and to EN 301 489-5. Operation of this equipment in a residential environment may possibly cause interference. In the event of interference, the users, at their own expense, will be required to take whatever measures are necessary to correct the problem.

Notice for China (Simplified Chinese)

警告

此为 A 级产品，在生活环境中，
该产品可能会造成无线电干扰。
在这种情况下，可能需要用户
对干扰采取切实可行的措施。

Notice for Taiwan (Traditional Chinese)

警告使用者：
這是甲類的資訊產品，在居住的
環境中使用時，可能會造成射頻
干扰，在這种情況下，使用者會
被要求采用某些适當的對策。

Notice for Japan

Japanese Voluntary Control Council for Interference (VCCI) class A statement

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用する
と電波妨害を引き起こすことがあります。この場合には使用者が適切な対策
を講ずるよう要求されることがあります。   VCCI-A

Korea Communications Commission (KCC) statement

이 기기는 업무용(A급)으로 전자파적합기기로
서 판매자 또는 사용자는 이 점을 주의하시기
바라며, 가정외의 지역에서 사용하는 것을 목
적으로 합니다.

California Proposition 65 Compliance

Warning Statement Wording:

**WARNING: This product contains chemicals, including lead, known to the State of California to
cause cancer, and birth defects or other reproductive harm. *Wash hands after handling.***

Revision Log
SD/CD Series Card Printers User's Guide

Revision	Date	Description of Changes
A	June 2012	First release of manual.
B	Nov. 2012	Updates for XPS Card Printer Driver v. 4.0

Contents

Chapter 1: Introduction

1

About this Manual

This manual provides user information for the SD and CD Series Card Printers. The manual includes:

- An overview of printer components and options, and a description of the system label.

- How to use the printer, including how to power the printer on and off, how to use the front panel and LCD menus, card processing basics, how to print a test card, and how to load and replace supplies.

- How to perform routine maintenance and troubleshooting tasks.

An additional *Installation and Administrator's Guide* is available for use by administrators or other professionals responsible for printing cards. Refer to the Owner's Library CD.

Intended Audience

The manual is intended for the printer operator responsible for printing cards, loading and replacing supplies, printer maintenance, and troubleshooting.

Technical Support

Contact Datacard Technical Phone Support at 1-800-328-3996.

Chapter 2: About the Printer

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About the SD and CD Series Card Printers

The card printer applies images, text, and encoded data to plastic cards. It can print full-color and monochrome images, depending on the type of print ribbon installed.

A busy issuance site might issue up to 10,000 cards a month. During these busy times, the site might use more than one printer to keep up with demand. The printer issues cards either one at a time or in batches — up to 100 cards at a time. An optional 200-card input hopper is available for some printers.

Options available for the card printer include magnetic stripe, smart card, automatic duplex, and reject hopper. The configuration label on the printer shows the options installed. Refer to "System Label" on page 7 for more information about recognizing the factory-installed options on your card printer.

Refer to the following to view the printer components and the different options:

- Printer Components on page 4

- Printer With Input Hopper on page 5

- Printer With Duplex Option on page 6

Printer Components

Printhead: Transfers images to cards using the print ribbon.

Configuration label: Shows location and date of manufacture, and options installed.

Manual advance knob: Use the knob to move a card in the track.

Security lock: Insert the security plate before attaching the lock.

Printer connections:

- Power receptacle

- USB connection

- Network connection

Printer ribbon cartridge: Holds ribbon for printing.

Print ribbon: Roll of material to apply images to cards.

Replaceable cleaning sleeve: Removes dust and other particles from cards to maintain print quality.

Configuration label

Printhead

Manual advance

Security lock

Printer connections

Print ribbon cartridge

Print ribbon

Replaceable cleaning sleeve
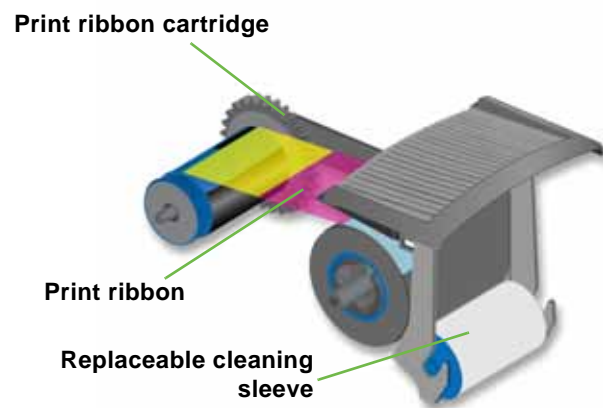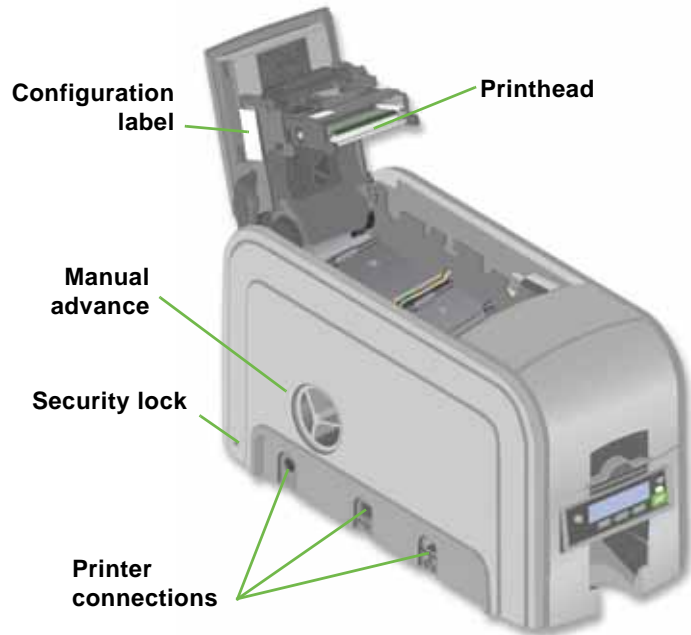
Printer With Input Hopper
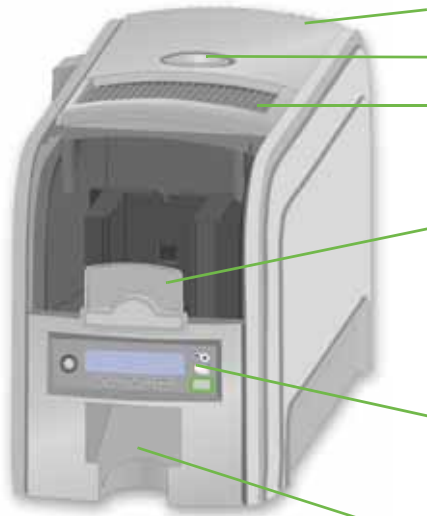
Cover: Open the cover to load print ribbon.

Latch: Push to release the cover and open the printer.

Ribbon cartridge handle: Holds the print ribbon and replaceable cleaning roller.

Card input hopper: Loads cards to print. Holds up to 100 cards.

Front panel: Includes the Ready button, the status lights, the power button, and the LCD panel with keys.

Output hopper: Holds up to 25 completed cards. (The output hopper of a model SD260 with a manual feed holds 5 cards.)

Printer With Duplex Option

Cover: Open the cover to load the print ribbon.

Latch: Push down and release latch to open the printer cover.

Ribbon cartridge handle: Holds the print ribbon and replaceable cleaning roller.

Card input hopper: Loads cards to print. Holds up to 100 cards (0.030-in or 0.762mm thickness).

Front panel: Includes the User button, the status lights, the power button, and the LCD panel with navigation keys.

Security lock receptacle

Output hopper: Remove completed cards.

Manual advance knob

Power connection

Network connection

USB connection

Inside a Printer With a Duplex Option

Configuration label: Shows printer model and options installed.

Printhead: Transfers images to cards using the print ribbon.

Duplex module: Automatically turns card for two-sided printing.

Print ribbon cartridge: Holds print ribbon and replaceable cleaning sleeve.

Reject card tray: Optional reject card location.
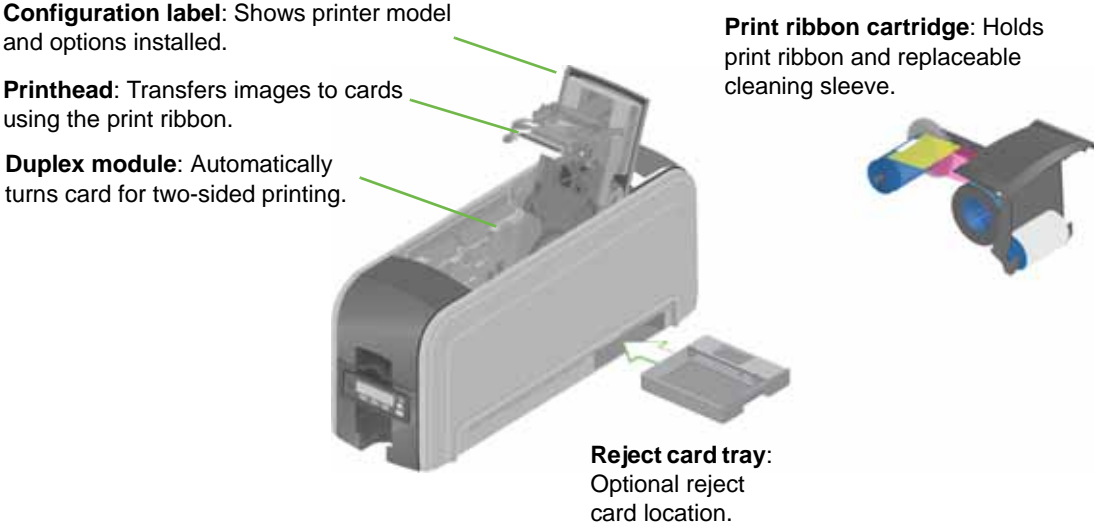
System Label

The printer configuration label on the side of the cover arm shows the components installed. It provides information that is useful when requesting service.
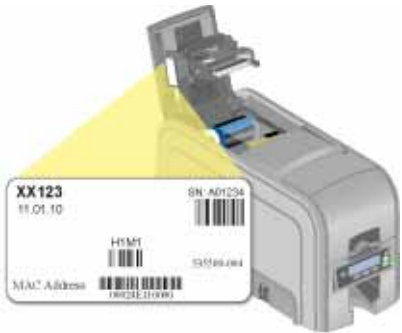
The label shows:

- Printer name, which also appears on the model label.

- Configuration, which includes options in the printer.

- Date and country of assembly.

- The MAC address to use when the printer is connected via an Ethernet network.

Information for components installed by the dealer or sales group is hand-written on the label.


```
Model              XX123                SN: A01234   Serial Number
Date of Manufacture  11.01.10                        A01234
                          H1M1D1S2
                          H1M1D1S2       535500-004
MAC Address        MAC Address:  00024E110000
(assigned in factory)            00024E110000
```

Configuration
Input Hopper:
    H0=Manual Feed
    H1=100 Card
Magstripe:
    M1=ISO
    M2=JIS
    (blank=no option)
Duplex:
    D1=Long Duplex
    (blank=no option)
Smart Card:
    S1 Integrator Contactless
    S2 SCM Dual
    S3 HID PcProx Contactless
    S4 iClass Read Contactless
    S5 iClass Read/Write Contactless
    S6 Duali Standard
    S7 Duali Single Wire
    S8 Duali Single Wire Sony Felica
    (blank=no option)
Firmware Upgrade:
    F1 Open Card Enabled
    (blank=no option)

Chapter 3: Using the System

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This section provides information on how a card travels through the printer, the printer as part of a card production system, printer controls, printing a test card, loading and replacing supplies, and cleaning the printer.

How the Card Travels

The card is verified and sent to print from the PC. The hopper pick mechanism picks a card and moves the card into the printer component for processing.

Optionally, the card moves to the magnetic stripe encode area or to the smart card park station, depending on the type of card selected. The encrypted data is decrypted and written to the card. The finished card exits the printer through the card output hopper.

Card Printer System Overview

The card printer is used with other equipment and software to create a card production system. The system produces cards for a specific purpose and the cards must meet requirements.

Equipment

The system can include:

1. A PC, with software to support the printer, such as:

   - The XPS Card Printer Driver for Windows.

   - ID software designed specifically to capture, format, and save the data for cards.

   - A retail application such as Microsoft® Word or Adobe® Photoshop®.
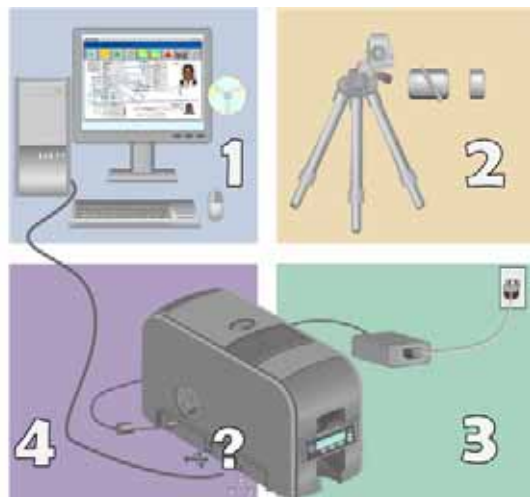
2. Capture devices, such as:

- A digital camera connected to the PC to take photos for ID badges and other cards.

- A signature capture pad or fingerprint reader.

3. The printer with supplies and a facility power source.

4. A data connection between the printer and PC, which can be a USB connection or a network connection. (Do not use both with one printer.)

Tasks and Users

Typical roles in a card production system include:

- The **operator**, who makes cards, loads supplies, and handles minor problems such as card jams.

- The **system administrator**, who sets up the card printer and other hardware, sets up card designs, configures card production software, and identifies the best use of the card printer in the organization.

Printer Controls

The front panel of the printer provides the controls for operating the printer. It includes the following:

Power Button

Use this button to power off and power on the printer. All lights show steady amber while the printer powers on.

To power off the printer, press the button for 1 to 2 seconds until the printer powers off.

To power off the printer while it is processing cards, press the button for 2 or more seconds. Card jobs in the printer are not completed.
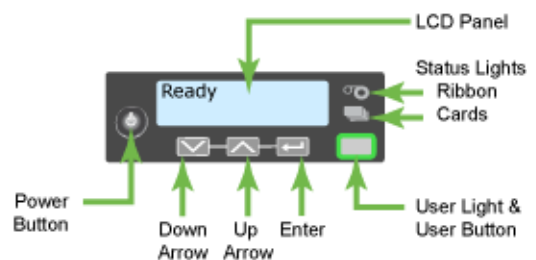
LCD Panel Menus

The LCD panel shows the printer's menus and displays printer messages or conditions. Refer to *"Responding to Messages"* on page 45 for more information.

The menu system has four major branches:

- Use the **Maintenance** menu to run a cleaning card or a test card.

- Use the **Status** menu to see settings and data about the printer.

- Use the **Configuration** menu to change settings.

- Use the **Activate** menu to enable or disable secure features of the printer.

Use this menu only during installation or removal of the system.

HINTS & TIPS

- The menu system can be accessed when **Ready** displays on Line 1 of the LCD panel.

- The printer returns to the **Ready** status after two minutes of no activity. Changes not applied are lost.

- To leave a selection without changing the value, press the up or down arrow key until **Exit** displays and then press the ENTER key.
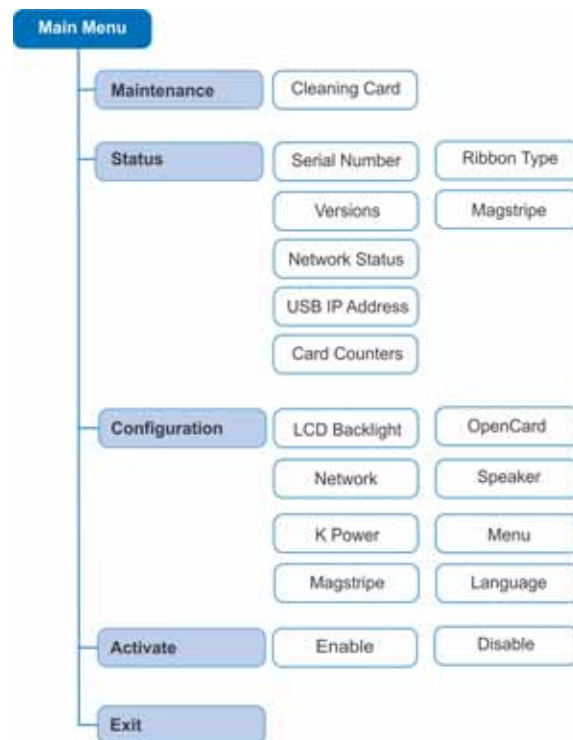
User Button and Light

The printer's USER button displays with a border of light that indicates the system status. Use the USER button to:

- Suspend printer activity – press the USER button when the LCD panel displays **Ready.**

- Clear a message – press the USER button once.

- Clear all messages – press the USER button for 2 seconds or more.

- Clear all cards currently printing – press and hold the USER button again for two or more seconds. (Make sure that this action is allowed in your card system.)

- See whether the printer is ready, busy printing, or not available. Indicators include the following:

Off	Printer is off or suspended.	
Green	Printer is ready.	
Blinking green	Printer is busy.	
Amber	The printer is not ready. The POWER button was pressed to turn the printer off.	
Blinking Amber	The printer has an error.	

Down Arrow, Up Arrow, and Enter Key

Use the arrow keys to move through the printer menu system, and the ENTER key to make a selection.

Ribbon Light

The ribbon light glows green when the print ribbon is low. It glows amber when there is a problem with the ribbon. Indicators include the following:

Off	Ribbon is okay.	
Green	Ribbon is low – less than 10% remains.	
Amber	Ribbon is out.	
Blinking Amber	The printer problem applies to the ribbon.	

Card Light

The card light indicates the status of cards in the printer.

Off	Cards are okay.	
Green	Ribbon is low – less than 10% remains.	
Blinking Green	Insert cleaning card.	
Rapid Blinking Green	Insert card for printing.	
Blinking Amber and Green	The printer is equipped with an optional card present sensor and no card is detected.	
Blinking Amber	The printer problem applies to cards. Blinking Amber also indicates the configured card count before cleaning has been reached or exceeded. Set aside time to run a cleaning card.	

Retrieve the Printer IP Address

The printer can display the network IP address it uses when connected to the network. It also displays the subnet mask, gateway address, and MAC address.

Begin with the printer power connected, and the printer connected to the network.

1. Press the POWER button (if needed) to power on the printer.

2. Access the Network Status menu in the LCD menu:

    A. Press the USER button to suspend the printer.

    B. Press the ENTER key to enter the menu system.

    C. Press the down arrow to display **Status** on line 2.

    D. Press ENTER to enter the Status menu.

    Press the down arrow key until **Network Status** displays on line 2.

    E. Press ENTER to display the Network Status menu.

3. Press the down arrow key until **IP Address** displays on line 2.

4. Press ENTER to display the IP address. Record the IP address.

5. Press ENTER to return to the Network menu. **Subnet Mask** displays on line 2.

6. Do one of the following:

    • To exit the LCD menu system, skip to step 9.

    • To display the gateway address value, press the ENTER key.
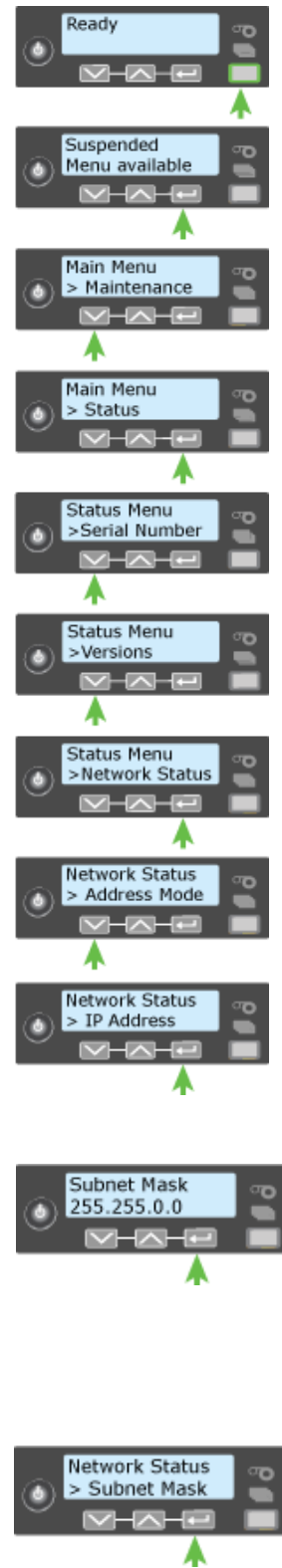
a. Press the ENTER key to return to the Network menu. **Gateway Addr** displays on line 2.

b. Press the ENTER key to display the gateway address (if any).

7. Press ENTER to return to the Network menu.

8. Press the down arrow key to scroll to **Exit** on line 2.

9. Press ENTER. Then, press the USER button to return the printer to **Ready**. The USER button glows green.
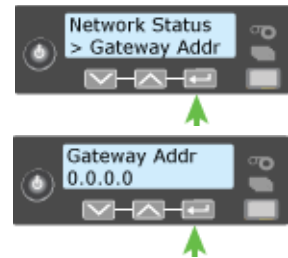
Print a Test Card

The printer includes a test card that runs without using a driver or other source of card data. Use it to verify that the printer is working.

1. Begin with the printer **Ready**. The USER button shows steady green.

2. Press the USER button to display **Suspended** on Line 1 of the LCD panel.

3. Press ENTER to enter the menu system.

4. Press ENTER to enter the Maintenance menu.

5. Press the down arrow button until **Test Card** displays on line 2.

6. With **Test Card** displayed on Line 2, press ENTER to display **Start** on Line 2.

7. After the card prints, press the USER button to return the printer to **Ready**.
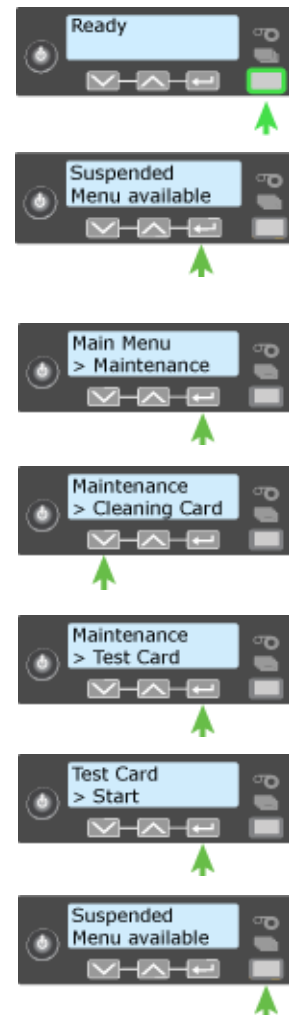
Load and Replace Supplies

To prepare the printer to print cards, load blank card stock into the input hopper (optional), and load print ribbon and a cleaning sleeve into the print cartridge.

Loading Cards

Do one of the following:

- If you are using a manual feed printer, skip this step and keep a supply of blank cards close to the printer.

- For printers with an input hopper, continue with these steps:

  1. Open the input hopper.

  2. Fan cards before placing them into the input hopper (optional).

  3. Insert magnetic stripe cards with the stripe down and toward the right side of the input hopper.

  4. Close the input hopper.
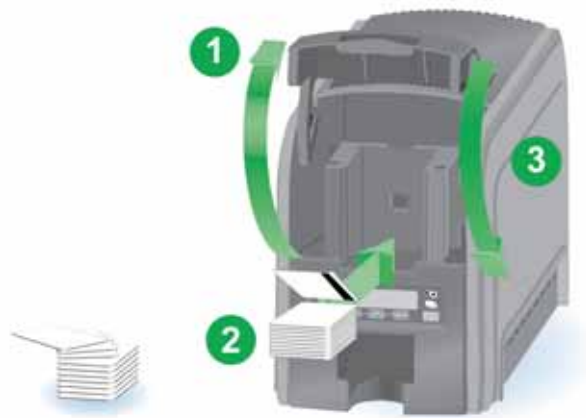
Loading the Print Ribbon

Load the print ribbon when you install the printer and when the ribbon runs out.

1. Open the printer's top cover.

2. Remove the print ribbon cartridge.

3. Load a full roll of print ribbon onto the spindle closest to the cartridge handle.

4. Place the empty spool on the spindle with the black gear.

5. Wind the empty spool counter-clockwise one full turn.
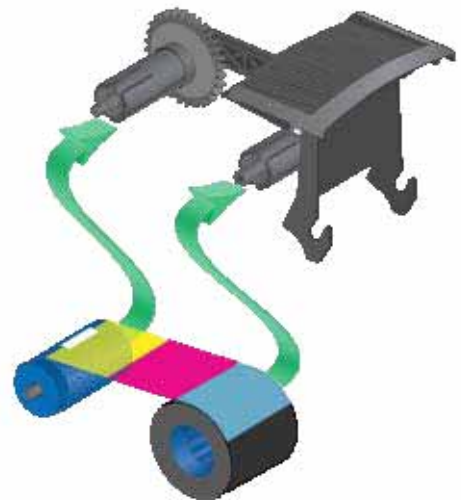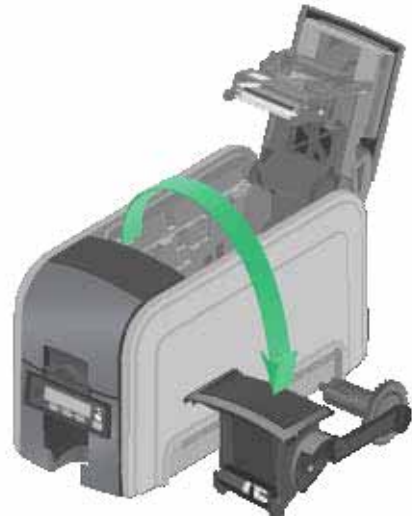
Loading the Cleaning Sleeve

Load a new cleaning sleeve with each new roll of print ribbon.

The printer ships with the cleaning roller spindle installed on the print ribbon cartridge.

1. Remove the cleaning roller spindle from the ribbon cartridge and slide the continuous cleaning sleeve onto the spindle (a).

2. Snap the spindle with sleeve installed onto the ribbon cartridge (b).

3. Remove the protective wrapper from the cleaning sleeve (c).
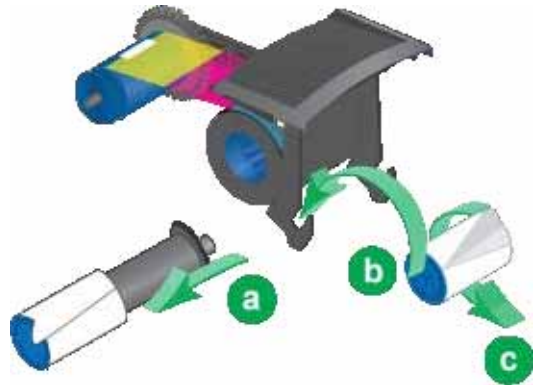
Installing the Ribbon Cartridge

Install the assembled print ribbon cartridge into the printer.

1. Open the printer's top cover.

2. Hold the print ribbon cartridge by the handle and lower into the printer with the handle toward the front of the printer.

3. Make sure that the ribbon cartridge is correctly positioned in the guides.

4. Close the printer's top cover.
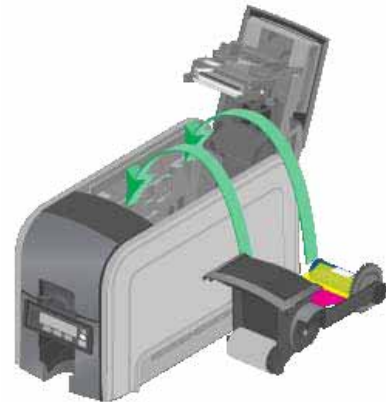
Chapter 4: Printing Cards

4

Before Starting to Print

This section explains how to print a card to a printer. Make sure that:

- Cards are available.

- Ribbon is loaded in the printer. For the steps to follow, refer to "Loading the Print Ribbon" on page 17.

- The card design is set up. If you need to set up or modify the design, refer to "Elements of Card Design" in your card printer's *Installation and Administrator's Guide.*

HINTS & TIPS

Make sure that magnetic stripe cards are inserted correctly. The printer shows the correct position.

You also can:

- Print a test card directly from the printer. Refer to "Print a Test Card" on page 15.

- Print a driver sample card. Refer to "Printing a Driver Sample Card" in your card printer's *Driver Guide*.

Printing Cards

Make sure that cards are available to insert. For the steps to follow, refer to "Loading Cards" on page 16.

Printing from ID software

1. From the ID software, use the template or design for the card.

2. Select the printer if you use more than one printer.

3. Enter the data for the card. Follow the instructions for your software.

4. Capture the photo for the card, if necessary.

5. Click the **Print** button to send the card to the printer.

6. At the printer, insert a card in the single feed slot.

Printing from Other Software

1. Open the software application and select the card printer as the current printer.

2. Use **Page Setup** to select the ISO-ID1 page size (2.13 x 3.38 in).

3. Set the margins to 0 (zero or zed).

4. Select an orientation – portrait or landscape.

5. Create the card design:

    A. Add graphics, such as a company logo or background.

    B. Add a photo.

    C. Add text information, such as name, address, or employee number.

    For information about additional card features, refer to "Elements of Card Design" in your printer's *Installation and Administrator's Guide*.

6. Click **Print** to send the card to the printer.
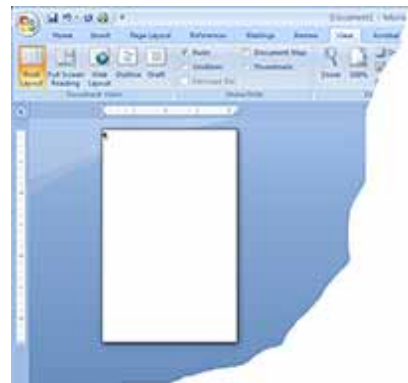
7. At the printer, insert a card in the single feed slot.

   A. Orient all cards the same way.

   B. Do not touch the card surface to be printed. Handle cards by their edges or wear gloves.

   C. Push in the card until the printer moves it.

HINTS & TIPS

The printer can receive card jobs from more than one PC. It prints cards in the order they are received.

Chapter 5: System Maintenance

5

Clean the Printer

The printer performs best when it is cleaned on a regular basis. Follow the cleaning guidelines for your site to keep the printer in good working condition. Clean the printer when:

- The printer displays a message for which cleaning is a solution.

- There is debris on completed cards.

- A new roll of print ribbon was installed.

You can perform the following cleaning tasks:

- "Clean the Printhead" on

- "Run a Cleaning Card" on

Clean the Printhead

Clean the printhead when:

- The printhead is replaced.

- There are unprinted lines on the finished card. This usually indicates dirt or contamination on the printhead.

- The printhead is touched accidentally. Oils from hands can affect print quality and damage the printhead.

Do the following to clean the printhead:

1. Power off the printer.

2. Open the printer cover and remove the print ribbon cartridge.

3. Open the cleaning pen.

4. Using gentle pressure, move the cleaning pen back and forth along the full length of the printhead edge until it is completely clean.

5. Replace the print ribbon cartridge and close the printer cover. Avoid bumping the printhead when installing the print ribbon cartridge.
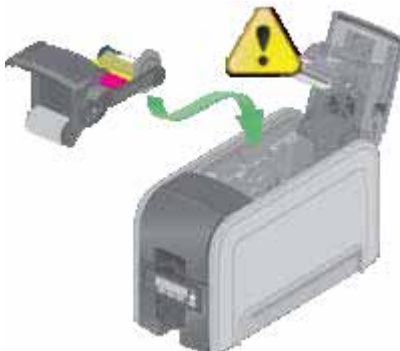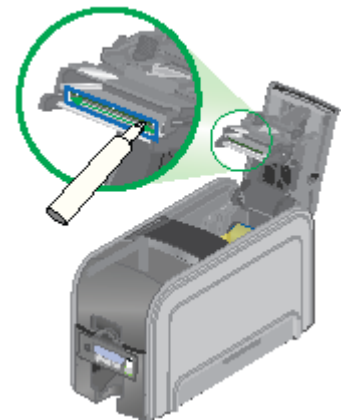
6. Power on the printer.

7. Print a sample card to verify the quality of printing. Refer to "Print a Test Card" on page 15 for more information.

HINTS & TIPS

*   Avoid touching the printhead edge with your fingers. Contamination due to skin oils eventually can damage the printhead.

*   Avoid touching the printing edge of the printhead cartridge with any sharp objects that can permanently damage the printhead.

*   Use only the cleaning pen to clean the printhead. Other materials can stick to the printhead and cause damage.

*   Use the cleaning pen up to 8 times, and then replace it.

Run a Cleaning Card

Run a printer cleaning card to clean debris from the inside of the printer. The cleaning card can remove most contaminants from the printer.

1. Prepare the printer.

   A. Power on the printer.

   B. Open the printer cover and remove the print ribbon cartridge.

   C. Close the cover.

   D. If necessary, open the input hopper and remove unprinted cards.

2. Access the LCD menu.

   A. Begin when the printer displays **Ready** and the USER button shows steady green.

   B. Press the USER button to display **Suspended** on Line 1 of the LCD panel.

   C. Press the ENTER button to enter the menu system.

   D. Press the ENTER button to enter the **Maintenance** menu.

   E. Press the ENTER button to display **Cleaning Card**.
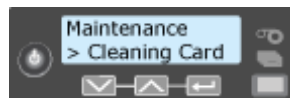
   F. When **Cleaning Card** displays on Line 2, press the ENTER button to display **Start** on Line 2.

   G. Press the ENTER button to display **Insert cleaning card** in the LCD panel. The card light blinks.
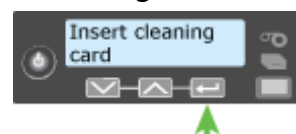
3. Insert the cleaning card.

   A. Open the cleaning card package and remove the cleaning card.

   B. Place the cleaning card in the input hopper or in the manual feed.

   C. Press the USER button to resume or click **Retry** (or **Resume the card**) in the Message box to start the cleaning cycle.

   The printer moves the card through the printer several times and ejects it in the output stacker.

4. Remove the used cleaning card. Wait a few minutes for the rollers to dry.

5. Prepare the printer for use.

   A. Replace the cards in the input hopper.

   B. Replace the cleaning sleeve on the ribbon cartridge with a new sleeve, and remove the protective cover. Refer to "Loading the Cleaning Sleeve" on page 18 for the steps to follow.

   C. Replace the ribbon cartridge and close the printer. Press the USER button to return the printer to Ready. The printer is ready to print cards again.

   D. Discard the used cleaning card and cleaning sleeve.

HINTS & TIPS

- Use the cleaning card and cleaning sleeve one time only.

- Change the cleaning sleeve each time you clean the printer or change the print ribbon.

  If the card light is blinking and there are cards in the input hopper, it indicates the configured cleaning count has been reached and it is time to clean the printer.

Chapter 6: Troubleshooting

6

This section is designed to help you identify and fix basic issues that can occur when printing. Also refer to the documentation for the Card Printer Driver, CardWizard, or OpenCard for additional troubleshooting information.

The section starts with an overview of card production and printer issues you may encounter:

- Locating a Problem Within the Card Production System on page 30

- Locating a Problem with Basic Printer Functions on page 31

This section also describes troubleshooting for the following:

- Installation Problems on page 32

- Driver Problems on page 34

- Card Appearance on page 36

- Magnetic Stripe Problems on page 41

- Card Jams on page 43

- Messages and Conditions on page 44

Locating a Problem Within the Card Production System

For typical components of the system, refer to "Card Printer System Overview" on page 9. If any one of the following components does not work properly, printing cards can be affected.

- The XPS Card Printer Driver

  Should you need to re-install the driver to fix a problem, we recommend you download the latest version of the driver from **http://www.datacard.com**. Select **Support & Drivers > Drivers & Download** from the menu. Enter your printer model in the Enter Product Name or Number area, and click **Go**.

- Card production software

  Card production software formats the types of data used to print cards. Make sure that the card production software features implemented work with the printer you have.

  If you do not use card production software, make sure that the software you use supports the requirements for creating cards. If you use magnetic stripe data, use an application that saves text as text and not as a graphic. (For example, MS Paint only saves graphic data, while Photoshop saves both graphic and text data.) Fonts and escapes require that text be sent from the application as text.

- Printer plug-in

  Card production software might require a printer plug-in, which takes the data in the card production software and makes it available in the form the driver can use.

- Other components of the system

  An ID or badge system usually includes a camera to take photos, and may include other capture devices for biometric data. Using and maintaining these components is important to the quality of cards you produce.

Locating a Problem with Basic Printer Functions

If the system is not working as expected, follow these steps in the order listed to isolate the source of the problem before contacting your service provider.

1. Make sure that the power cord is plugged in and the printer is powered on.

2. Does the printer power on and display **Ready** on the front panel within 1 minute?

   - If yes, continue to step 3.

   - If the printer powers on but does not display **Ready**, the printer is not working properly. Request service for the printer.

   - If the printer does not power on, make sure that the power source is functioning by doing one of the following:

     - Remove the printer power cord from the outlet and connect it to another outlet.

     - Remove the power cord from the printer and connect it to another device, such as a light, and then connect it to the same outlet.

       If the power source is functioning, there is a problem with the printer. Request service for the printer.

       If the power source isn't functioning, replace it and then begin with step 1.

3. Make a printer test card. Refer to "Print a Test Card" on page 15 for more information.

4. Does the test card print? Does it look like one of the cards shown in the topic?

   - If yes, the printer is working correctly. Continue to step 5.

   - If no, the printer is not working correctly. Request service for the printer.

5. Connect the printer data cable, if necessary. Make sure that you use the same type of cable (USB or network) used when the printer was installed.

6. If you use the XPS Card Printer Driver, print a driver sample card. For the steps to follow, refer to the printer's *Card Printer Driver Guide*.

Does the sample card print?

- If yes, the printer and driver are working correctly. Continue to step 7.

- If no, the printer and driver have a communication problem. Troubleshoot communication problems.

If you are not using the driver, ask your service provider or software provider for assistance.

7. Print a card using your card production software.

Does the card print?

- If yes, the driver is working successfully with the card production software. Troubleshoot the card design.

- If no, check the following:

    - In the application, is the correct printer selected in the Print Setup or Print dialog?

    - If the printer produced a blank card, you might have the wrong page size or driver settings.

If the card causes an error, the card might have a type of data the printer does not support.

Installation Problems

This section describes issues that could prevent a successful installation and provides recommended solutions to those issues. Choose from the following topics:

- USB Installation Troubleshooting on page 33

- Network Installation Troubleshooting on page 34

USB Installation Troubleshooting

Problem	Solution
The cable is loose.	Reconnect the USB cable to the ports on the PC and the printer. Power the printer OFF, and then back ON. If the PC and printer still do not communicate, restart the PC.
The data cable is damaged or frayed.	Power off the printer. Replace the cable if you have a spare. Contact your service provider to order a new data cable.
The system has a temporary communication problem.	Check the following: • USB extension cables can cause communication problems. The recommended USB cable is 6-ft. (2 meters) long. Make sure that the cable is rated for USB 2.0 data transmission. • If you are using a USB hub, a self-powered hub is recommended.
The PC USB port does not communicate with the printer USB port.	Power management on the PC has shut down USB communication. Open the Device Manager and the list of USB devices. Disable shutdown for each hub in the list. You might need to restart the PC to make the changes take effect. Hibernation on a laptop PC requires several moments to enable USB communication. Unplug the USB printer port and then connect it again. Replace the PC port or the PC. Contact your PC or port vendor if you need assistance.

Network Installation Troubleshooting

Problem	Solution
The network cable is loose.	Reconnect the data cable to the network port and the printer. Restart the printer.
The Status page of Printer Properties shows the printer is not available, but the printer shows "Ready" on the LCD panel.	Follow your network troubleshooting procedures to isolate and test each component of the computer-to-printer communication link. Suggestions: • The computer-to-network connection can be checked by accessing a network resource, such as a network drive. • The network administrator can check communication between a server and the printer. • Make sure that the user is logged in to the network.
The printer is not configured with the correct network address	Make sure that the server name or IP address has been entered in the Port Settings or Configure Port dialog box on the computer. For more information on retrieving the printer's IP address, refer to "Retrieve the Printer IP Address" on page 14. Make sure that **Ready** displays on the printer's LCD panel.

Driver Problems

The Card Printer Driver and printer can have the following communication problems:

• The card printer driver does not detect the network-connected printer on page 35.

• The card printer driver does not detect the USB-connected printer on page 35.

• Driver status or Windows print queue does not provide expected data on page 36.

The card printer driver does not detect the network-connected printer

Problem	Solution
The Printer Properties > Status tab shows the printer is not available.	Make sure that you are using the same type of data cables – USB or network – that were used when installing the printer. You cannot switch the type of data cables after installing. Make sure that the current printer IP Address is the same as the IP Address on the Printer Properties > Ports tab. For more information on retrieving the printer's IP address, refer to *Retrieve the Printer IP Address* on page 14.
Message 500 appears after you send a card to print.	If this happens often, consider switching from DHCP network addressing to static IP addressing. For more information on setting the driver network communication value, refer to the Printer Manager section of the card printer's *Installation and Administrator's Guide*.
The network is not operating properly.	Check the network using another device and fix or report network problems. To check the network, print to a different (paper) printer or check the availability of network drives.
The printer is not connected to the network, or the PC is not connected to the network.	Make sure that both ends of the data cables are connected. Replace defective cables if needed.

The card printer driver does not detect the USB-connected printer

Problem	Solution
The Printer Properties > Status tab shows the printer is available, but Message 500 appears after you send a card to print.	Make sure that you are using the same type of data cables – USB or network – that were used when installing the printer. You cannot switch the type of data cables after installing. Make sure that both ends of the data cable are connected. Replace a defective USB cable if needed.

Driver status or Windows print queue does not provide expected data

Problem	Solution
The Driver Sample Card or magnetic stripe test cards do not print.	Check the following: • **Enable bidirectional support** must be selected on Printer Properties > Ports tab to allow printing from the Card Printer Driver. • **Print directly to printer** is selected in Printer Properties. Clear the selection to allow printing of the driver sample cards.
The Ribbon Low light on the printer and the driver status do not match.	The percent remaining that causes the printer Ribbon Low light can be set using the Printer Manager. The driver display cannot be changed. As a result, the two indicators can show different data.
A print job disappears from the print queue, but does not print.	The printer USB cable was disconnected after the application sent the job.

Card Appearance

Card appearance problems can be caused by many different factors. Click the link below that best describes the card appearance issue seen on the printed card.

- Something did not print on page 37

- Printing includes unexpected data on page 37

- The color printing has flaws on page 38

- The printing is too light on page 39

- The printing is too dark on page 40

- The monochrome printing has flaws on page 40

Something did not print

Problem	Probable Cause	Solution
Nothing is printed on the card.	The Disable Printing option is set to All, Front, or Back.	Open Preferences and change Disable Printing to Off.
	The print ribbon is loaded incorrectly.	Remove the print ribbon and install it correctly.
	The page size was not set to ISO-ID1.	Use your card production application to access the printer's print setup and select ISO-ID1 for its page size. The correct page size is available after choosing the printer.
Color printing on top of a black background does not appear on the card.	The black panel of the ribbon is printing over the color panels.	The printer uses the print ribbon panels in sequence; the Y panel prints first, then M, and so on. The black panel of the print ribbon is used last and prints over the color panels. For best results, change the 100% black background to a color near black, so that it prints using the YMC (color) panels of the print ribbon.

Printing includes unexpected data

Problem	Probable Cause	Solution
Text intended for the magnetic stripe printed on the card.	The magnetic stripe font was not applied to the text.	Refer to the card printer's *Driver Guide*.
	The escape code was typed incorrectly.	Refer to Refer to the card printer's *Driver Guide*.
	The text to encode was longer than one line.	Reduce the font size to keep all text on one line.
Several blank cards are ejected before the full card prints.	The application can use the page size in effect when a document is created, and you set the page size after creating the document and before printing.	Use the page setup feature of the application to set the page size before creating the document. Consider creating a template for cards that opens at the correct page size.

The color printing has flaws

Problem	Probable Cause	Solution
One or more unprinted lines appear on the card.	The printhead is dirty or damaged.	Clean the printhead. Refer to "Clean the Printhead" on page 24.
One color panel is not aligned correctly with other color panels.	The cards are slipping in the track.	Run a cleaning card. Refer to "Run a Cleaning Card" on page 26.
	The cards are not the correct size for the printer.	Use cards that meet the size requirement for the printer. Refer to "Cards" in your printer's *Installation and Administrator's Guide* for specifications. If you must use the cards you have, ask your system administrator for help.
Printing is blurred.	The cards have a matte, not glossy, finish.	Use cards that meet the requirements for the printer. Refer to "Cards" in your printer's *Installation and Administrator's Guide* for specifications.
	The rollers are dirty.	Run a cleaning card. Refer to "Run a Cleaning Card" on page 26.
	The printhead is dirty.	Clean the printhead. Refer to "Clean the Printhead" on page 24.
The printed card has small unprinted areas.	Unprinted cards have scratches.	Handle cards carefully. Refer to "Card Quality Guidelines" in your printer's *Installation and Administrator's Guide*.
	Cards have embedded particles, an uneven surface, or the card edge has burrs.	Use cards that meet the requirements for the printer. Refer to "Cards" in your printer's *Installation and Administrator's Guide*.
	The rollers are dirty or the card packaging contains debris.	Run a cleaning card. Refer to "Run a Cleaning Card" on page 26.

Problem	Probable Cause	Solution
Part of the printed image is discolored.	Cards might have fingerprints or other dirt on them.	Handle cards carefully. Refer to "Card Quality Guidelines" in your printer's *Installation and Administrator's Guide*.
	A signature panel is located on the other side of the card.	Design the card to avoid printing photos over signature panel residue.
	The rollers are dirty or the card packaging contains debris.	Run a cleaning card. Refer to "Run a Cleaning Card" on page 26. Use cards that meet the requirements for the printer. Refer to "Cards" in your printer's *Installation and Administrator's Guide*.

The printing is too light

Problem	Probable Cause	Solution
Photos look faded.	The image capture system needs adjustment.	Color settings might not be optimal. Adjust color settings. Refer to documentation for the image capture system; "Color Printing" in your printer's *Installation and Administrator's Guide*; and your printer's *Driver Guide*.
The printing is very light.	The ribbon is loaded incorrectly.	Load the print ribbon correctly. Refer to "Loading the Print Ribbon" on page 17.
	The card was previously printed and has topcoat on it.	Print only new cards. Refer to "Cards" in your printer's *Installation and Administrator's Guide*.
	The printhead is not installed correctly.	Contact your service provider for instructions on installing the printhead correctly.
	The printhead power is too low.	Log into the Printer Manager as a WebAdmin. Open the Printer Settings > Print menu. Increase the YMCPower setting, and press the Set Current button to save your changes.

The printing is too dark

Problem	Probable Cause	Solution
The card shows wrinkles in darkly colored areas.	The card's images or large blocks of color include very dark areas.	Change the design to use smaller areas of dark color.
	The printhead is not aligned correctly.	Contact your service provider.
All color printing is darker than intended.	Color adjustment is too dark. Using different card stock changes the appearance of printed cards.	Change the color adjustment settings.

The monochrome printing has flaws

Problem	Probable Cause	Solution
Text has broken (partly printed) characters.	The monochrome (K) power setting is balanced to print both fine text and bar codes.	If the card does not include a bar code, increase the monochrome intensity. If the card includes fine text and bar codes, change the text to improve printing. Refer to "Monochrome Printing" in the printer's *Installation and Administrator's Guide*.
	The text is formatted to print with color, and the card is being printed with monochrome ribbon.	Contact your service provider. Format text to print black so the text is not dithered.
Printing is uneven or is missing in some areas.	The monochrome (K) power setting is too low. The cards require a different setting.	Increase the monochrome intensity. Find a balance between printing all card data and causing wrinkles.
A black-and-white image prints using the color panels.	The Windows Picture Print Wizard or Picture and Fax Viewer is printing the file. Many applications use the Windows tool to preview and print graphics. The tool does not render to true black and white.	Use another application, such as ID software or MS Word, to create the card.

Magnetic Stripe Problems

To begin troubleshooting a magnetic stripe problem, first print a magnetic stripe sample card from the driver. For the steps to follow, refer to "Printing a Driver Sample Card" in the card printer's *Driver Guide*.

The printer uses the coercivity set using the LCD panel or Printer Manager, and the data format set using the Printer Manager.

Problem	Solution
Cards are not loaded correctly.	Load cards with the magnetic stripe down and toward the right side of the printer. Refer to "Loading Cards" on page 16.
Cards do not have a magnetic stripe.	Load magnetic stripe cards in the card cartridge. If the cards have a magnetic stripe, check the quality of the cards. Change card stock, if needed.
The card has dirt or damage on the magnetic stripe.	Encode and print the card again. If the message appears again, run a cleaning card to clean the magnetic stripe head. Refer to "Run a Cleaning Card" on page 26.
The magnetic stripe on the card is low coercivity material and the High Coercivity setting is selected.	To use the cards you have, select low coercivity encoding. Refer to the Printer Manager "Printer Setting Menu" in the *Installation and Administrator's Guide* for more information. To encode with high coercivity, obtain cards manufactured for high coercivity encoding. Refer to "Print a Test Card" on page 15.
Message 106 displays. The magnetic stripe on the card is high coercivity material and the Low Coercivity setting is selected.	To use the cards you have, select high coercivity encoding. Refer to the Printer Manager's "Printer Setting Menu" in the *Installation and Administrator's Guide* for more information. To encode with low coercivity, obtain cards manufactured for low coercivity encoding.
The data for this job includes characters not allowed by the magnetic stripe format selected for the track.	Cancel the current print job. Make sure that you know what data is allowed on the track. Change the data to be encoded, and resend the print job. Refer to Magnetic Stripe Design in the printer's *Installation and Administrator's Guide* for more information.

Problem	Solution
The magnetic stripe data was sent in an encoding format not supported by the track.	Check the encoding format setting for the tracks by using Printer Manager. Refer to the Printer Manager's "Printer Setting Menu" in the *Installation and Administrator's Guide*. Make sure that the application is using the selected encoding format for the track. If the application and track are set to the same format, and the message appears repeatedly, contact the application provider for assistance.
The application sent track data for a track not supported by the magnetic stripe module.	Check the type of magnetic stripe option in the printer. If the printer label indicates a 3-track ISO module, you can send data for tracks 1, 2, and 3. If the printer label indicates a single-track JIS module, you can send data for track 1. The magnetic stripe option and cards must be capable of accepting and encoding each track of data the card production software sends.

Using Advanced Troubleshooting Tools

The Printer Manager provides access to card design settings and additional troubleshooting tools. Refer to "Printer Manager" in the printer's *Installation and Administrator's Guide* for more information. Printer Manager also allows you to perform advanced troubleshooting with the guidance of your service provider.

Card Jams

The card did not reach the position for the
next action, such as printing or ejecting the
card.

1. Open the printer and remove the ribbon
   cartridge.

2. Turn the knob to move the card.

3. Remove the card.

4. Replace the ribbon cartridge and close
   the printer.

5. Press the USER button on the printer or click **Retry** in the message box.

HINTS & TIPS

Check the ribbon to make sure that it is not torn. Refer to "109: Print ribbon
problem" on page 49 to repair or replace the ribbon, if needed.

Messages and Conditions

When the printer cannot process the card sent, it issues a condition. The LCD panel on the front panel shows these conditions. If your system uses the XPS Card Printer Driver, the printer driver also displays the condition as a message on the PC. In a shared printer environment, messages may be slightly different from the messages and conditions described in this section.

- Messages on the Printer LCD

- Messages from the XPS Card Printer Driver on the PC

- Messages from Printer Manager on page 45

- Other Messages on page 45

Messages on the Printer LCD

All messages are associated with a print job. The printer issues messages that focus on recovering from problems.

- The printer displays a message number and a short description for each message.

- If more than one message was issued, the next message displays after you correct the problem and press the USER button.

- If you cancel a job at the printer, the message is removed from the PC. Any additional messages for the canceled job, such as for a broken ribbon, do not display on the PC.

Messages from the XPS Card Printer Driver on the PC

- Messages the printer driver displays are similar to those on the printer LCD panel.

- Messages display on the PC that sent the card print job.

- Messages might be in the background, behind the application sending the card. On some operating systems, the message appears in the status bar. Click the blinking Explorer (folder) icon in the status bar to open the message.

- If more than one message was issued, the next message displays after you close the current message.

- If there is more than one card printer installed on the PC, messages are displayed one at a time. The title bar of each message shows the printer name.

- If there is more than one card printer installed on the PC and each has issued errors, the printer driver displays the messages received, even if you cleared the error at the printer.

- The driver can issue messages that are not displayed on the printer LCD panel.

Messages from Printer Manager

The Printer Manager issues messages that display in a Web browser window. Click **Continue** in Printer Manager to continue working with the printer. Refer to "Printer Manager" in your printer's *Installation and Administrator's Guide*.

Other Messages

- The card production application you use also may display messages.

- Other printers can cause messages if more than one model of card printer is installed.

Responding to Messages

You can respond to printer messages using the printer front panel buttons or by clicking the appropriate response in the message box displayed by the Card Printer Driver on your PC.

Names of message box buttons on the PC can differ slightly depending on the operating system installed on your system.

100: Request not supported

The printer does not support the personalization being requested for the card. The card will be canceled.

Change the card data to match the printer's options and settings, or print to a printer that is configured to support the personalization being requested.

Click **OK** in the message box to clear the error.

101: Job could not complete

The card took too much time to complete.

The card will be canceled.

Press the USER button on the printer, or click **OK** in the message box to clear the error message.
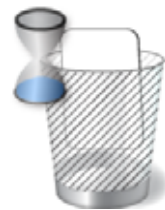
102: Card not in position

The card is not positioned in the printer correctly.

1. Open the printer and remove the ribbon cartridge.

2. Turn the knob to remove the card.

3. Replace the ribbon cartridge and close the printer.

Press the USER button on the printer, or click **Retry (the card)** in the message box. Click **Cancel (the card)** if you need to cancel the card.

103: Printer problem

The printer had an error. The card will be canceled.

1. Press the printer Power button to power off the printer.

2. Press the Power button again to power on the printer.

Click **OK** in the message box to clear the error message.
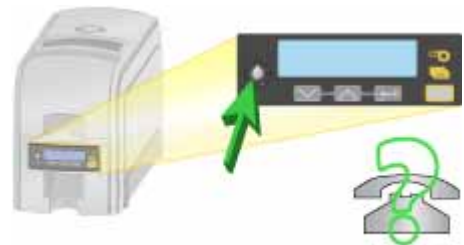
104: Critical problem

The printer had a serious error. The card will be canceled.

1. Press the printer Power button to power off the printer.

2. Request service.

The system must remain powered off.

Click **OK** in the message box to clear the message.

105: Magstripe data error

The printer failed to verify that the correct magnetic stripe data was written on the card.

1. Make sure that you are using magnetic stripe cards that match the printer settings.

2. Make sure that the cards are placed in the printer correctly.

Press the USER button on the printer, or click **Retry (the card)**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

- The card might have been turned the wrong way.

- The card might not have a magnetic stripe.

106: Magstripe data not found

The printer did not find magnetic stripe data on card.

1. Make sure that you are using magnetic stripe cards that match the printer settings.

2. Make sure that the cards are placed in the printer correctly.

Press the USER button on the printer, or click **Retry (the card)** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

- The card might not match printer settings or the data sent.

- Ask the system administrator to verify that the card, the data, and the printer settings match.

107: Magstripe read data error

The printer failed to read the magnetic stripe data from the card. The card will be canceled.

1. Make sure that you are using magnetic stripe cards that match the printer settings.

2. Make sure that the cards are placed in the printer correctly.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

- The data might use a different format than the current printer setting.

- Ask the system administrator to verify that the card, data, and printer settings match.

108: Magstripe read no data

The printer did not find any magnetic stripe data on card. The card will be canceled.

1. Make sure that you are using magnetic stripe cards that match the printer settings.

2. Make sure that the cards are placed in the printer correctly.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

- The card might have been turned the wrong way.

- The card might not have a magnetic stripe.
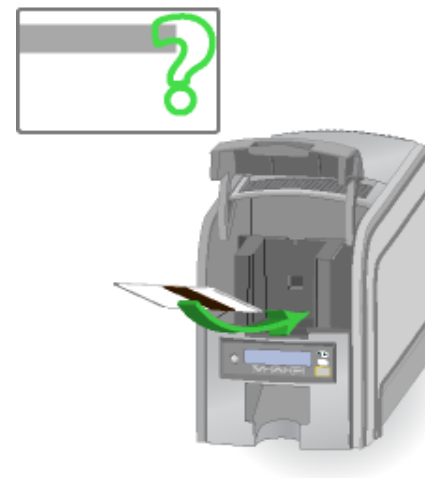
109: Print ribbon problem

The print ribbon is not moving properly.

1. Open the printer and remove the ribbon cartridge.

2. Reposition, repair, or replace the ribbon and advance the repaired area one full turn.

3. Replace the ribbon cartridge and close the printer.
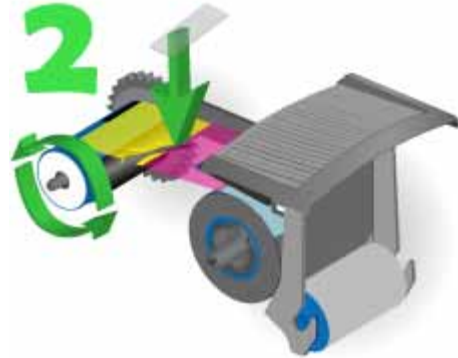
Press the USER button on the printer, or click **Retry (the card)** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

110: Print ribbon out or missing

The printer does not have usable ribbon. To complete the current card:

1. Open the printer and remove the ribbon cartridge.

2. Install a new ribbon and cleaning roller.

3. Replace the cartridge and close the printer.
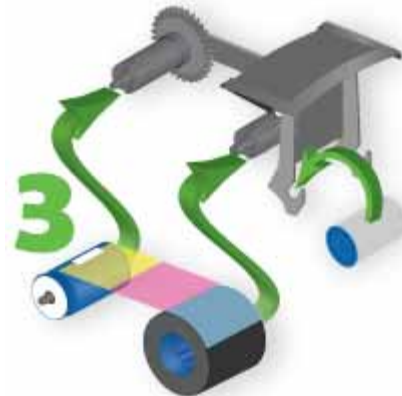
Press the USER button on the printer or click **OK** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

Used ribbon has negative images of printed data. To keep the data confidential, follow your company policy to discard used ribbon.

111: Card not picked

The printer did not pick a card. To complete the current card:

For printers with an input hopper, open the input hopper, add or reposition cards, and close the hopper.

For printers with single-card feed, push the card in until the printer picks it.

Press the USER button on the printer or click **OK** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

112: Card hopper empty

The printer did not detect cards in the input hopper.

Add cards to the input hopper.

Press the USER button on the printer or click **OK** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

113: Close cover to continue

The printer cover must be closed to print.

Push down on the cover to latch it.

Press the USER button on the printer or click **OK** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

Make sure that the ribbon cartridge is installed with the cartridge handle even with the edges of the printer.

114: Cover opened during job

The printer cover was opened while printing.

Push down on the cover to latch it.

Press the USER button on the printer or click **Retry (the card)** in the message box.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

Make sure that the ribbon cartridge is installed with the handle even with the edges of the printer.

115: Wait for print temperature

The printer is not at the correct temperature to print the card.

1. Printing the card may resume on its own
   OR
   Press the USER button on the printer or click **OK** in the message box.

2. Discard any incomplete cards.

Click **Cancel (the card)** in the message box if you need to cancel the card.

HINTS & TIPS

Make sure that you have selected the correct printer in the application. Ask the system administrator for assistance if needed.

116: Magstripe not available

The printer does not have a magnetic stripe option. The card will be canceled.

Remove magnetic stripe data from the card or use a printer that has a magnetic stripe option installed.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

To remove magnetic stripe data, you or your system administrator may need to:

- Clear a check box in the card production application.

- Change the font from Mag Track X XPS Card Printer to a printable font such as Arial, Verdana, or Calibri. Refer to "Magstripe Formats" in your printer's *Installation and Administrator's Guide*.

117: Reader not available

The printer does not support the personalization being requested for the card. The card will be canceled.

Change the card data to match the printer's options and settings or print to a printer that is configured to support the personalization being requested.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

To remove the reader request, you or your system administrator may need to clear a check box in the card production application.

118: Print ribbon type problem

The printer cannot use the ribbon installed. The card will be canceled.

Use ribbon designed for this printer.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

- Use ribbon designed for your printer's brand and model.

- Check the website for newer firmware that supports new ribbon types.

119: Print ribbon not supported

The printer cannot use the ribbon installed. The card will be canceled.

Use ribbon designed for this printer.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

- Purchase ribbon from your dealer or authorized reseller.

- Use ribbon designed for this printer brand and model.

120: User paused the printer

The printer was paused while printing.
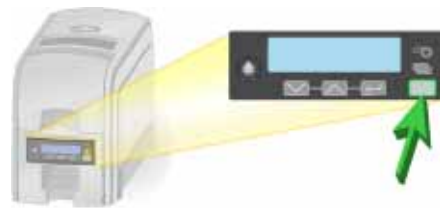
To complete the current card press the printer's USER button.

Or, click **OK** in the message box. Click **Cancel (the card**) in the message box if you need to cancel the card.

HINTS & TIPS

- If the user pressed the button for several seconds, the card has been canceled.

- If this message occurs often, ask your system administrator to set the button sensitivity to a lower value.

121: Print ribbon not identified

The printer cannot use the ribbon installed. The card will be canceled.

Use ribbon designed for this printer.

Press the USER button on the printer or click **OK** in the message box.

HINTS & TIPS

Ask your dealer or authorized reseller for a replacement.

122: Magstripe format problem

The magnetic stripe data sent does not match the format set in the printer. The card will be canceled.

Press the USER button on the printer or click **OK** in the message box.

123: Insert new card side 1 up

1. Insert a new card in the printer with side 1 facing up.

2. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

124: Insert same card side 2 up

1. Take the card from the printer.

2. Turn the card over end to end so side **2** is facing up.

3. Insert the card in the printer.

4. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

149: Option not installed

The printer does not support the personalization being requested for the card. The card will be canceled.

Change the card data to match the printer's options and settings, or print to a printer that is configured to support the personalization being requested.

Press the USER button or click **OK** in the message box.

HINTS & TIPS

Don't include references in the card format to hardware that cannot be accessed by the system. For more information, refer to your ID software documentation or your system administrator.

152: Insert new card side 2 up

1. Turn a new card over end to end so side 2 is facing up.

2. Insert the card in the printer.

3. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

153: Insert same card side 2 up

1. Take the card from the printer and turn it over end to end so side 2 is facing up.

2. Insert the card in the printer.

3. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

170: Insert new card side 1 up

1. Insert a new card in the printer with side 1 facing up.

2. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

171: Insert same card side 1 up

1. Take the card from the printer and turn it over end to end so side 1 is facing up.

2. Insert the card in the printer.

3. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the card.

172: Insert cleaning card

1. Insert cleaning card.

2. If the card is not immediately picked, press the printer's USER button or click **OK**.

Click **Cancel (the card)** in the message box if you need to cancel the cleaning card.

173: Improper shutdown

Always use the power button to power off the printer.

Click **OK** in the message box.

Chapter 7: Supplies and Parts

7

This section includes card specifications and information on card handling and storage, and describes the supplies and replacement parts used with the printer.

Cards

For best results, use high-quality cards that meet the specifications and recommendations described in this section.

Card Size

Use ISO ID-1 size cards, also called CR80 cards. These cards have the following dimensions:

- 3.37 inches long by 2.125 inches wide (85.60mm long x 53.98mm wide).

- 0.010 to 0.030 inches thick (0.254 to 0.762mm thick).

For encoding magnetic stripe, use cards:

- 3.37 inches long by 2.125 inches wide (85.60mm long x 53.98mm wide).

- 0.010 to 0.030 inches thick (0.508mm to 0.762mm thick).

Actual card thickness can vary by up to ten percent from the sizes listed. Typically, card bow must be less than the thickness of the card.

Card Material

Use cards with a glossy PVC surface, either 100% PVC cards or composite cards with a PVC surface. Cards can have a magnetic stripe on one side of the card.

Pre-Punched Cards

Cards can have a punched area within 1 inch (25mm) of the left edge, as the cards are loaded in the printer. If the card has a magnetic stripe, the card must not be punched anywhere in the stripe.
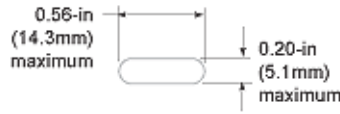
New Cards for Color Printing

The printer is designed to print on new card stock. If you print on cards twice, be careful to avoid getting dirt, fingerprints, or other contaminants on cards before the second printing. Previous printing can interfere with printing and result in cards that do not have the appearance you want. Printing on cards that have been issued might introduce substances that interfere with card printing or damage the printer. If a previously printed card has been printed with topcoat, the card cannot be printed a second time.

Adhesive-Backed Cards

Adhesive-backed cards are printed, and then adhered to proximity cards when the card surface is not flat enough to print. Use only Datacard adhesive-backed cards with the printer. Follow these guidelines:

- Store cards in a cool place (such as a refrigerator) to avoid adhesive migration.

- Clean the printer's card tracks to remove any adhesive residue. Use the printhead cleaning pen or isopropanol and a swab to remove the residue.

- Use a print margin of at least 0.05 inch when using adhesive-backed cards.

Card Quality Guidelines

Cards must meet the following card quality guidelines for the printer to print high-quality graphics successfully.

Card Surface

The card must be smooth and even, and free of irregularities such as raised burrs or particles embedded in the surface. Surface irregularities can cause printing voids, especially when printing edge to edge.

Card Handling

These guidelines apply to unprinted cards.

- Any debris or particles on an unprinted card's surface can reduce print quality and damage the printhead.

- Grease or oils, such as oils from your fingers, also reduce print quality. Keep cards completely clean. Do not touch the print surface of a card with your fingers or hands.

- Do not use a rubber band to bind blank cards together.

- If you drop a card on the floor, do not insert it into the printer.

Card Storage

These guidelines apply to both printed and unprinted cards.

- Cards must be stacked so that they do not shift and rub against each other.

- When storing cards, make sure that no two cards contain images or blocks of color that come in contact with each other.

- Make sure that the magnetic stripe on one card does not come in contact with the magnetic stripe on another card.

- Make sure that cards with magnetic stripes are stored away from magnets and other magnetic objects.

- Store cards in a cool, dry, and dark place. Excessive light can cause yellowing of cards on exposed edges.

- Keep cards in their original packaging.

- Cards should be at room temperature when they are used. If cards are stored in a cooler environment than the printer, allow them to reach room temperature before using.

Supplies

Print Ribbon

Print ribbon kits are available from your dealer. Kits include a print ribbon, a cleaning card, and a replaceable cleaning sleeve. For best results, run a cleaning card and replace the cleaning sleeve with each new print ribbon.

Color Print Ribbon

Color print ribbon is available in either full-panel or short-panel options. Both full-panel and short-panel print ribbons use the following color panels: Y (yellow), M (magenta), C (cyan/blue), K (black), and T (topcoat).

Full-Panel Color Print Ribbon

Use full-panel print ribbon when the card design calls for color printing on the entire card.

Full-panel YMCKT ribbon

Short-Panel Color Print Ribbon

Use short-panel print ribbon when only a portion of the card design calls for color. For example, a card design may have a color photo on the top or left of the card,

Short-panel YMCKT ribbon

and black text on the bottom of the card. The color area for short-panel ribbon is 1.57 inches (40mm). The YMC panels of short-panel ribbon are approximately half the length of a full card.

For more information, refer to your printer's *Installation and Administrator's Guide*.

Color Print Ribbon Kits

For more information, refer to your printer's *Installation and Administrator's Guide*.

Monochrome Print Ribbon

For more information, refer to your printer's *Installation and Administrator's Guide*.

Monochrome Print Ribbon Kits

For more information, refer to your printer's *Installation and Administrator's Guide*.

Print Ribbon Storage Guidelines

- Store print ribbon in the original package until you load it in the printer. Keep the original packaging closed until you are ready to use the ribbon.

- The print ribbon maintains its quality for about one year. For optimum card quality, purchase and store quantities that can be used within one year.

- The print ribbon and card stock might require secure storage and tracking. Follow your policy for storing and tracking the supplies used to make cards.

- Choose a location away from direct sunlight, with a temperature between 32° and 77°F (0° and 25°C). A range of 40% to 60% non-condensing humidity is recommended.

- Install supply rolls at room temperature. If supplies are stored in an environment that is cooler than the printer environment, allow supplies to reach room temperature before using.

- If the printer will not be used for an extended period, remove supplies from the printer and store them with new supplies.

Cable Lock Option

For more information, refer to your printer's *Installation and Administrator's Guide*.

Cleaning Supplies

For more information, refer to your printer's *Installation and Administrator's Guide*.

Hopper Options

200-Card Input Hopper

The 200-card input hopper kit includes the larger hopper with cover attached. The standard hopper is easily removed, and the 200-card hopper can be installed without using tools.

Large Output Hopper

The printer can use a large output hopper, which holds about 100 cards. The user can replace the small standard hopper with the large hopper without using tools.
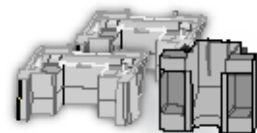
Power Supply, Cables, and Cords

Power Supply

The power supply is rated at 100-240 VAC, 50-60Hz and uses up to 3 amps. It is self-adjusting within the rated input voltage.

Data Cables and Power Cord

The printer uses a data cable and a power cord.

Data Cable

The data cable connects the printer to the network or PC sending cards. The data cable can be:

- a USB cable.

- a network cable.

Use only one data cable with a printer. If you need to connect more than one PC to a printer, use a network connection.

USB Cable

Use a 6-ft. USB data cable to connect the printer to the PC. Be sure to use a cable rated for USB 2.0 data transmission.

Network Cable

Use a standard network cable, sometimes called a Category 5 or Cat 5 cable, to connect the printer to a network port.

Smart Card Cable

Use a USB cable up to a maximum of 6 feet (2 meters) long to connect the smart card port to the PC.

Power Cord

The power cord connects to facility power and the printer power supply. Be sure to use a cord that grounds to the facility power source.

The printer can use one of the following power cords:

- USA power cord

- European power cord

- Australian power cord

- United Kingdom power cord

- Danish power cord

- Indian power cord

- Israeli power cord

- Italian power cord

- Swiss power cord

- Chinese power cord

- Japanese power cord

Replacement Parts

The following printer replacement parts are available.

Printhead Cartridge

The printer has a replaceable printhead cartridge. The printhead is subject to wear or damage and has a direct impact on print quality.

Do not touch the printing edge of the printhead in the printhead cartridge. Clean the printhead following the steps in "Clean the Printhead" on page 24.

Print Ribbon Cartridge

The ribbon cartridge holds the print ribbon and the replaceable cleaning sleeve in the printer.

Cleaning Roller Spindle

The cleaning roller spindle holds the replaceable cleaning sleeve.