Datacard® XPS Card Printer

Installation and User 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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Revision Log

DataCard XPS Card Printer
Installation and User Guide

Revision	Date	Description of Changes
A	January 2011	First release of this document as a single file.
B	October 2011	Includes features supported by driver version 2.1

Chapter 1: Welcome to Card Printer Information

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This manual describes the XPS Card Printer and how to use it.

Before you use the printer, install and set up the printer. In most cases, install the Windows driver for the printer as part of setup. See "Install the Printer" for the steps to follow.

Please read this XPS Card Printer Installation and User Guide thoroughly before you use the printer.

Each card program has specific features, and it is important for you to understand the features of your card program. Talk with your supervisor, system administrator, or other person to understand the features of your card program. It will help you to successfully print cards using the printer.

About the Printer

Card printers are compact printers that apply images and text to plastic cards. The card printer can print full-color and monochrome images, depending on the type of print ribbon installed.

There are several options available for the card printer including magnetic stripe, smart card, automatic duplex, and reject hopper. The configuration label on the printer can help you determine the options installed. See the "Printer Configuration Label" for more information about the factory-installed options.
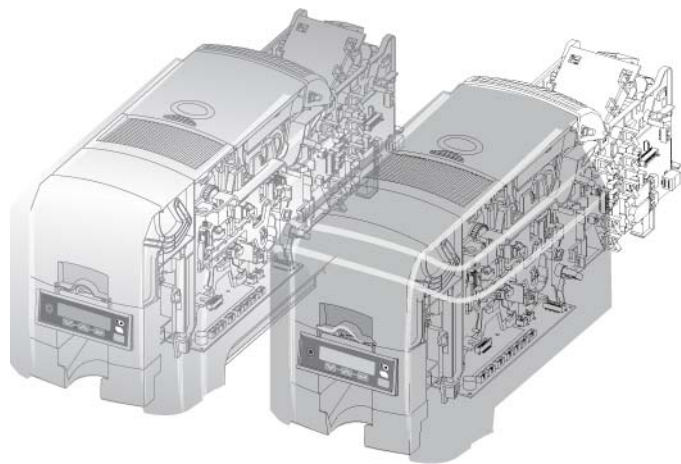
The card printer is available with an input hopper or with a single feed slot, and with or without automatic duplex. Click one of the following to view the different options:

- "Printer with Input Hopper"

- "Printer with Single-Feed Slot"

- "Printer with Duplex Option"

HINTS & TIPS

- The printer is designed to issue 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.

- A busy issuance site might issue up to 10,000 cards a month.

- Often, a site will have busy times and slow times. During busy times, the site might use more than one printer to keep up with demand.

Printer Components

Printer with Single-Feed Slot

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

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

Single card slot: Insert one card to print

Output hopper: Remove completed cards

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: Load cards to print. Holds up to 100 cards.

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

Output hopper: Remove completed cards. Holds up to 25 cards.

Inside a single-feed or hopper-equipped printer

Printhead: Transfers images to cards using the print ribbon

Printer information 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

Print 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

Printer with Duplex Option

Cover: Open the cover to load 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: Load cards to print. Holds up to 100 cards (0.030-in or 0.762mm thickness)

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

Output hopper: Remove completed cards.

Security lock receptacle

Manual advance knob

Power connection

USB connection

Network 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

Printer Configuration Label

The printer has a label on the side of the cover arm that shows the components installed. Find the label on the side of the cover arm:

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
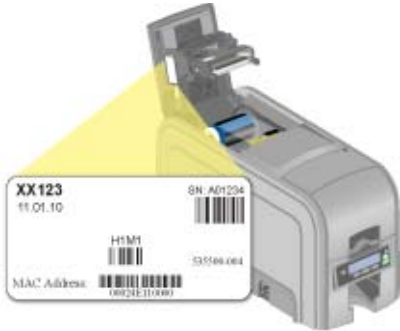
The printer label provides information that is useful when requesting service. It can also help you know the components installed. Some components might be installed by the dealer or sales group. The information for those items should be hand-written on the label.

Configuration

Input Hopper:
  H0=Manual Feed
  H1=100 Card
Magstripe:
  M1=ISO
  M2=JIS
  (blank=no option)
Duplex:
  D1=Long Duplex
  D2=Short Duplex
  (blank=no option)
Smart Card
  S1 Integrator
  S2 SCM Dual
  S3 HID PcProx Contactless
  S4 iClass Read Contactless
  S5 iClass Read/Write Contactless
  S6 Duali Dual
  (blank=no option)

Printer System

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. Ask about the requirements for cards that you produce, or see "Card Design and Setup" for typical requirements.

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®.

   - See "Installation Requirements".
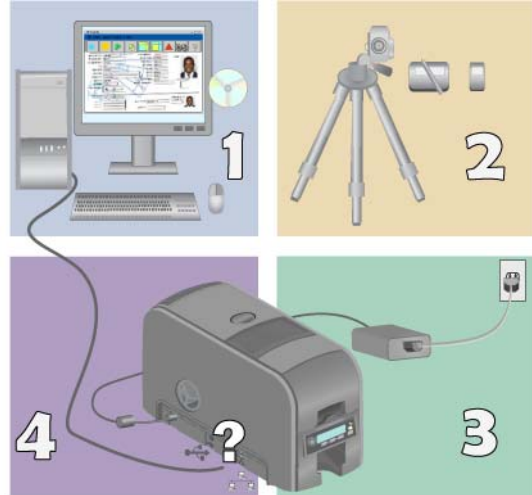
2. Capture devices, such as:

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

   - 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 connections with one printer.)

Tasks and Users

In most work places, more than one person uses the printer. Each person might use it differently.

- **The Operator** makes cards using the printer, loads supplies, and handles minor problems such as a card jam.

- **The Manager** sets up the card making system, sets up card designs, and might identify new ways to use the card printer in the organization.

Information for Users

This guide provides operator information and describes how to install, use the printer, and perform routine tasks.

An additional *Solution Guide* is available for use by Administrators or by professionals designing a new system for printing cards.

When the XPS Card Printer Driver is installed, the information is also installed. The installation creates a desktop icon called My XPS Card Printer. Use My XPS Card Printer to choose the user level. This sets the type of information you view.

Using My XPS Card Printer, you can also:

- Open the Printers Window to view the status of the printer and to view settings.

- Print a guide on a paper printer.

- Link to the web site.
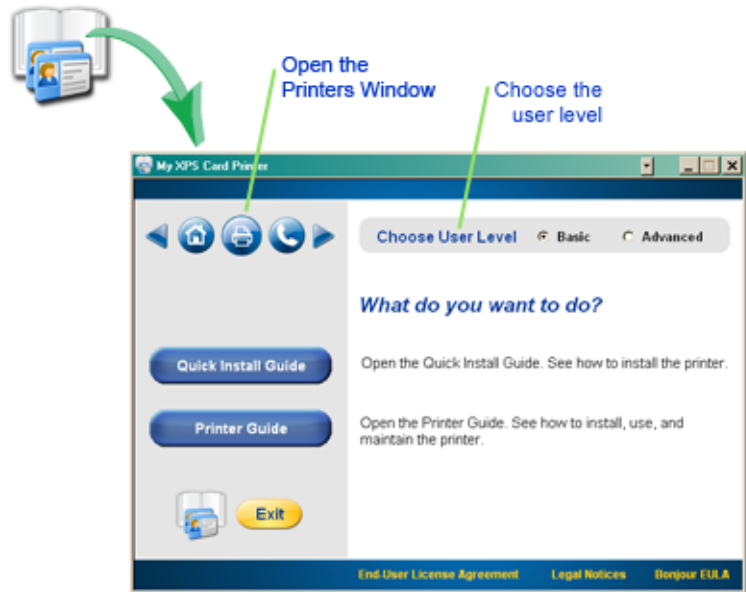
For Non-Windows Users

The information for the card printer can be viewed and printed from other operating systems, such as Linux.

Insert the Driver CD into the PC, open a file and folder browser, and open the Documentation folder. Select a document to view.

My XPS Card Printer is a Windows application. It does not run on non-Windows operating systems.

Chapter 2: Installation Requirements

Your installation method depends on how many users will print to the card printer, the operating system you will use to send card data and other decisions in your environment.

This section describes:

- "PC Requirements"
- "Site Requirements"
- "Electrical Requirements"
- "Choosing Your Installation Method"

PC Requirements

Use a PC that meets or exceeds the following:

- A 32- or 64-bit processor, running at 1 GHz or faster

- 2 GB or more memory (RAM) and at least 1GB free space on the hard drive

- The following operating systems are supported:

    Windows 7, 32- or 64-bit

    Windows Vista, 32- or 64-bit

    Windows XP, 32-bit. Windows MSXML 6.0 and the Windows XPS Essentials pack are required to install the printer driver. The driver installer checks the operating system for these files and installs them if needed.

    Windows 2003 Server, 32- or 64-bit

    Windows 2008 Server, 32- or 64-bit

- Apple® Bonjour® for Windows is required to install the printer driver. The driver installer checks the operating system for this application and installs it if needed.

- USB 2.0 port or Ethernet network connection

- ID software to capture and organize the data to appear on each card.

Network Requirements

To install a printer on a network, the following components are required:

- An Ethernet network that uses the TCP/IP protocol and can run at 100 megabits per second, also called 100base-T. Printers also support 10base-T.

- An Ethernet cable to connect the printer to the network. An Ethernet cable is not supplied with the printer.

- A PC that meets the requirements listed above, that is connected to and communicating with the network.

- You can connect many network printers to one PC. The maximum number of printers depends on the capacity of the network to deliver data to the printer.

USB Requirements

To install a printer using a USB connection, the following components are required:

- A high speed USB port. USB 2.0 is recommended.

- A USB cable to connect the printer to the PC. A USB cable is supplied with the printer.

- A PC that meets the requirements listed above.

- If you need to connect two card printers to a PC with one USB port, use a single, independently-powered USB hub to which both printers can be connected.

- Up to four card printers can be connected to a PC using USB cables.

Site Requirements

Set up and use the printer in an environment that meets the following requirements.

- Provide space for the printer and for clearance around the printer. The printer dimensions and clearance area is shown in the table below.
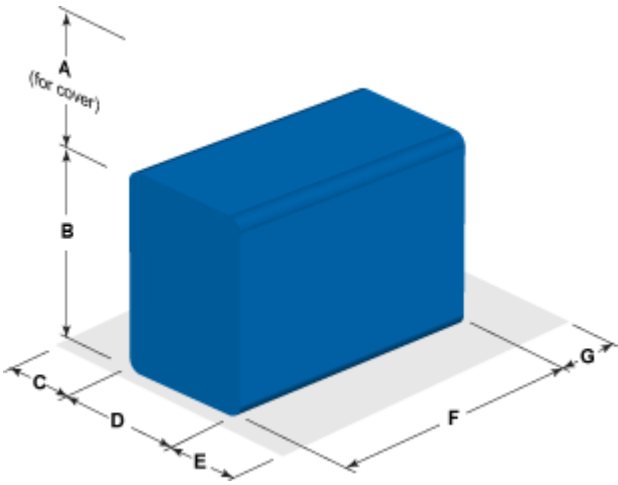
Printer Model	Dimensions (inches/mm)						
	A	B	C	D	E	F	G
SD260	10.00 / 254	8.80 / 224	4.00 / 102	6.85 / 174	4.00 / 102	15.37 / 390	4.00 / 102
SD360 with Smart Card	10.00 / 254	8.80 / 224	4.00 / 102	6.85 / 174	4.00 / 102	21.21 / 539	4.00 / 102
CD800S	10.00 / 254	8.80 / 224	4.00 / 102	6.85 / 174	4.00 / 102	21.21 / 539	4.00 / 102

Options such as a large output stacker and 200-card input hopper add height to the printer. Additional clearance is required when using these options.

- Place the printer in an environment with temperatures ranging from 60° F to 95° F (15° C to 35° C).

- Use a single phase, 3-wire, grounded receptacle.

- Keep all dust, dirt, food, and liquids away from the printer.

- Keep paper and foreign materials off the printer.

- Place the printer on a sturdy, level surface.

- Place the printer away from direct sunlight.

- Do not place printer near heating ducts, fans, or other air vents.

- Do not use the printer for purposes other than the intended use.

- Prevent debris from entering the printer.

- Place the printer in a clean office environment.

Electrical Requirements

The power supply has earned the ENERGY STAR$^{®}$ and is rated as follows:

Printer Model	Electrical Requirements
SD260	
SD360	110-240V/50-60 Hz/3.0 Amp
CD800	

The power supply detects the input voltage, and works within the range stated. The printer is ENERGY STAR qualified only when used with the included power supply.

Chapter 3: Install the Printer

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This section provides information about installing the printer and driver on a PC running a supported Windows operating system. Printer installation includes preparing the printer and then installing the driver.

Most often, the driver is installed using the installation CD shipped with the printer. The driver installation procedure prompts you to power on the printer and when to connect cables.

Installation includes the following steps:

1. Choosing Your Installation Method

2. Prepare the Printer

   - Load Cards

   - Load Print Ribbon

   - Load Cleaning Roller

3. Install the Printer Driver

Choosing Your Installation Method

Your installation method depends on how many users will print to the card printer, the operating system you will use to send card data, and other decisions in your environment.

The printer can be installed using one of the following installation methods:

Driver CD   The printer ships with a CD in the printer carton. In most cases, install the driver from the CD using one of the following connection types:
- USB Installation using the Installation CD
- Network Installation using the Installation CD

Download   If you do not have access to the installation CD, install the driver from a downloaded driver file:
- USB Installation using a downloaded driver)
- Network Installation using a downloaded driver)

Printer Sharing   Printer sharing allows one or more PCs (clients) to print cards to a printer installed on a different PC (host). The driver uses the built-in printer sharing capabilities of the operating system.
- Printer Sharing Requirements
- Operating Systems Supported

Printer Pooling   A printer pool is a group of printers that act as one printer. Print jobs are sent to the pool and are distributed among the available printers.
- Printer Pooling Requirements
- Operating Systems Supported
- Setup a Printer Pool, Windows 7 and Windows Vista

Connecting More Than One Printer

There are several choices for connecting more than one printer to a PC or for having more than one PC connected to a printer. You can connect to several printers installed on a network, or connect multiple printers to a PC using USB cables.

Use the following guidelines to install more than one printer using USB cables:

- Connect and install one printer at a time. The PC cannot run more than one installation program at a time.

- USB protocol allows devices to be connected to the PC through another USB device. USB protocol also uses hubs to which multiple USB devices can be connected.

  If you need to connect two card printers to a PC with one USB port, use an independently-powered USB hub to which both printers can be connected.

- Up to four card printers can be connected to a PC using USB cables.

- Use one powered high-speed (USB 2.0) hub. Do not daisy-chain multiple hubs.

- The printer(s) must be powered on for the PC to detect it. It must remain powered on during installation.

To Install Additional Printers

For each USB printer installed after the initial USB installation, follow these instructions:

1. Load supplies and then power on the printer. See "Prepare the Printer" for the steps to follow.

2. Log on to the PC as a user with Administrator access.

3. Connect the printer to the PC using a USB cable.

4. The operating system detects the new device. It might display a popup during installation.

5. If the operating system does not display a popup within a few minutes, check the Printers window to see if the icon for the new printer is displayed. At times, the software installs without displaying the popup.

6. The operating system usually uses the existing driver files to install the driver for this printer. Insert the driver CD only if you are prompted for it.

Using more than one printer on a PC

When using more than one printer on a PC, keep the following in mind:

- Select the printer to use in the ID software or other application. Card jobs will be sent to the selected printer even if more than one card printer is attached to the PC.

- When messages are displayed, the title bar of the message box displays the name of the printer causing the message. Keep track of the printer names.

- Each printer has its own icon in the Printers window, and each printer has separate Properties and Printing Preferences dialog boxes. Settings are not shared among printers.

Prepare the Printer

Prepare the printer to print cards by installing supplies including blank card stock, print ribbon, the cleaning roller, and optional equipment. For more information on optional equipment, see Install Printer Options.

Load Cards

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 (a).

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

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

3. Close input hopper (c).

Load Print Ribbon

Load the 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.

Load Cleaning Roller

Load a new cleaning roller 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 back onto the ribbon cartridge (b).

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

Install Ribbon Cartridge

Install the assembled print ribbon cartridge into the printer.

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

2. Check to see that the ribbon cartridge is correctly positioned in the guides.

3. Close the printer cover.

Install the Printer Driver

This section provides information about installing the printer driver on a PC running a supported Windows operating system. See "PC Requirements" for a list of supported operating systems.

Most often, the driver is installed using the installation CD shipped with the printer. The driver installation procedure prompts you to power on the printer and when to connect cables.

Use one of the following links to view instructions about how to install the printer driver:

- "USB Installation using the Installation CD"

- "USB Installation using a downloaded driver"

- "Network Installation using the Installation CD"

- "Network Installation using a downloaded driver"

USB Installation using the Installation CD

1. Log on to the PC as a user with Administrator access.

2. Insert the driver CD in the PC's drive. The driver install window opens.

3. Click the **Install a USB Printer** button.

4. The driver might require additional software, and present a license agreement for that software. Read the license agreement(s) presented, click the **Accept** box, and then click the blue arrow pointing to the right.

5. Follow the steps to "Prepare the Printer".

Use the green media controls to view step-by-step instructions about how to Prepare the Printer.

6. Click the blue arrow pointing to the right.

7. Plug in and power on the printer.
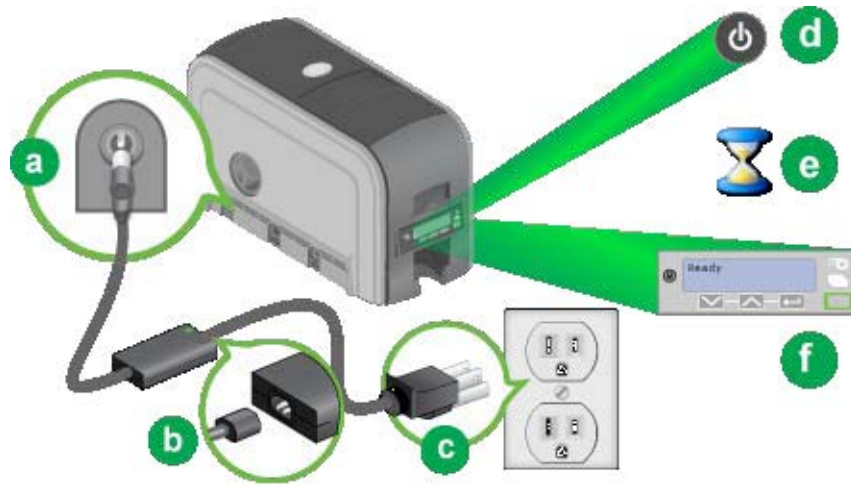
8. The installer will prompt you to connect the printer to the PC using a USB cable.
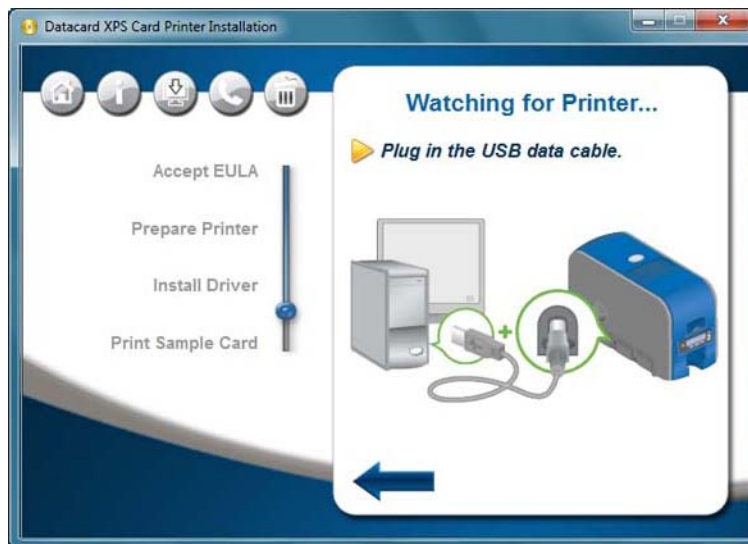
9. Connect the printer to the PC using a USB cable.
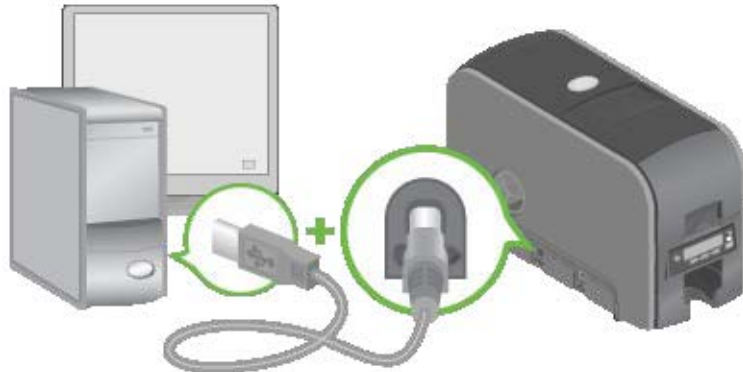
10. When installation is complete, the Print a Sample Card page appears. Check that "Ready" is displayed on the LCD panel and click the **Print Sample Card** button. Installation is complete when the sample card prints successfully.

For more information on how to print a sample card or a printer test card, see "Print Driver Sample Cards" or "Print a Printer Test Card".

USB Installation using a downloaded driver

The printer ships with an Installation CD in the printer carton. In most cases, install the driver from the Installation CD. If you do not have access to the Installation CD, follow these steps:

1. Log on to the PC as a user with Administrator access.

2. Obtain the download file on a portable storage medium, such as CD or USB drive, and copy it to your hard drive; by email and save it to your hard drive; or using a method such as the following:

   A. Browse to the Downloads area of the Web site (or the Products page for the printer) and choose the driver for your printer and operating system.

   B. Click the link.

   C. When the File Download dialog appears, click **Save**.

   D. Choose a location on your PC, such as C:\Temp and click **Save**.

   > Your network might prevent the download or installation of this file. Ask your network support personnel for help when downloading this file and when installing the driver.

3. Browse to the location of the file saved in Step 2 on your PC.

4. Double-click the downloaded file. The file will have a name similar to XPSCardPrinterDriver.exe. The card printer installer window opens.

5. Click the **Install a USB Printer** button.

6. The driver might require additional software, and present a license agreement for that software. Read the license agreement(s) presented, click the **Accept** box, and then click the blue arrow.

7. Follow the steps to "Prepare the Printer".

i Use the green media controls to view step-by-step instructions about how to Prepare the Printer.

8. Click the blue arrow pointing to the right.

9. Plug in and power on the printer.
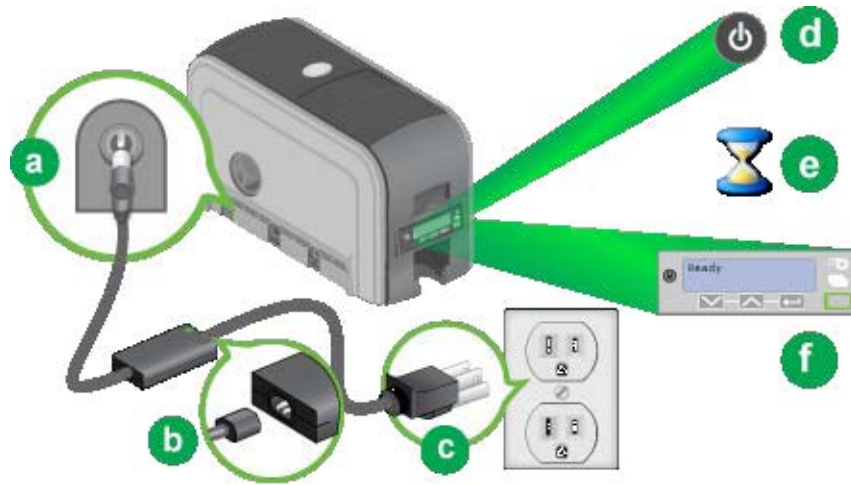
10. The installer will prompt you to connect the printer to the PC using a USB cable.
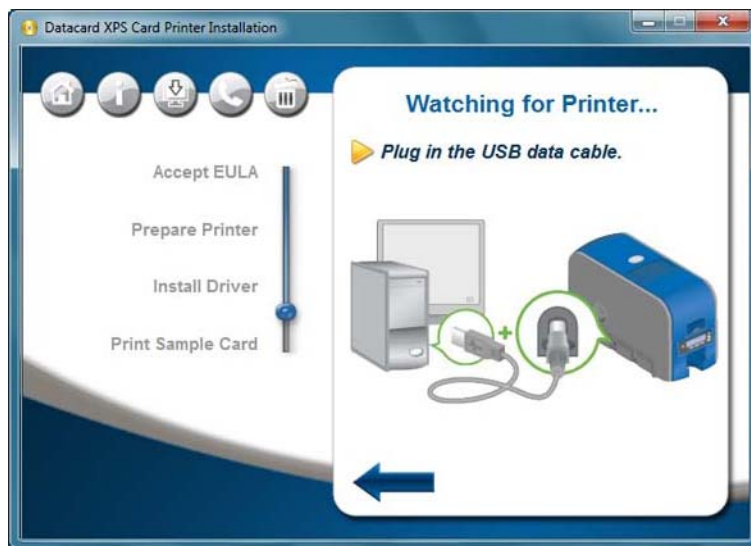
11. Connect the printer to the PC using a USB cable.
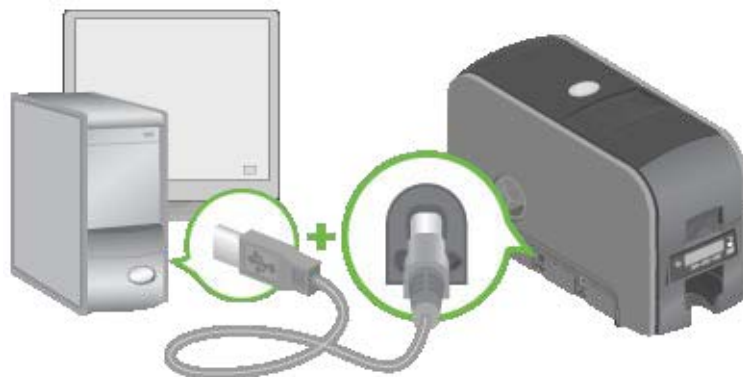
12. When installation is complete, the Print a Sample Card page appears. Check that "Ready" is displayed on the LCD panel and click the **Print Sample Card** button. Installation is complete when the sample card prints successfully.
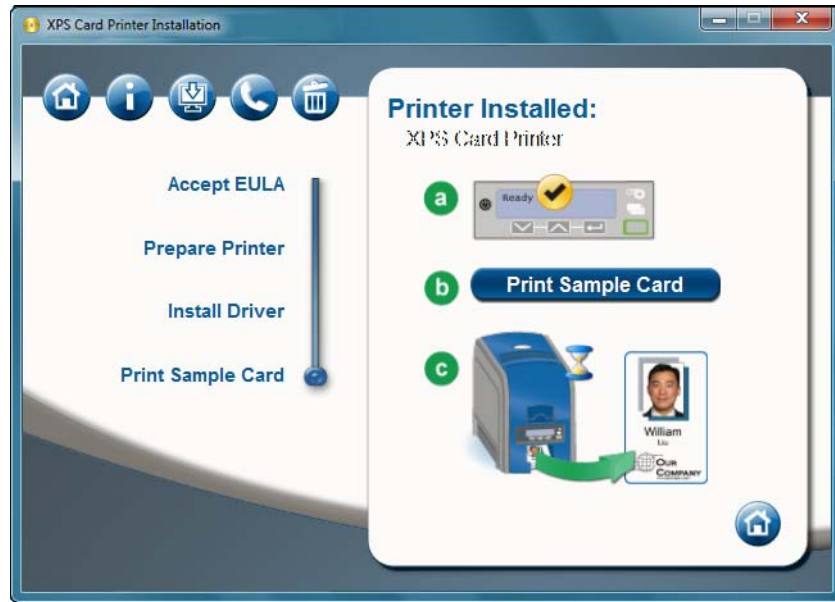
For more information on how to print a sample card or a printer test card, see "Print Driver Sample Cards" or "Print a Printer Test Card".

Network Installation using the Installation CD

1. Log on to the PC as a user with Administrator access.

2. Insert the driver CD in the PC's drive. The driver installer window opens.

3. Click the **Install a Network Printer** button.

4. The driver might require additional software, and present a license agreement for that software. Read the license agreement(s) presented, click the **Accept** box and then click the blue arrow.

5. Follow the steps to "Prepare the Printer".

ℹ️ Use the green media controls to view step-by-step instructions about how to Prepare the Printer.

6. Click the blue arrow pointing to the right.

7. Connect the printer to the network using an Ethernet cable.
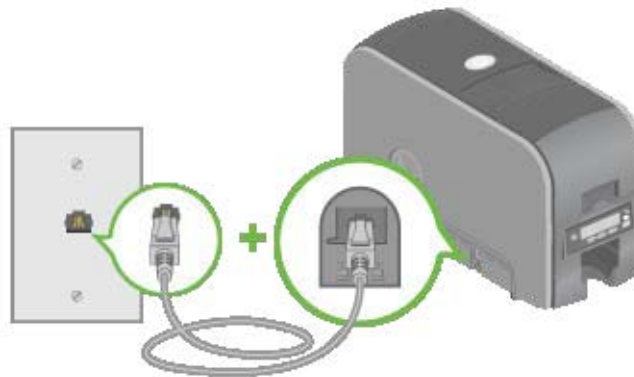
8. Plug in and power on the printer.
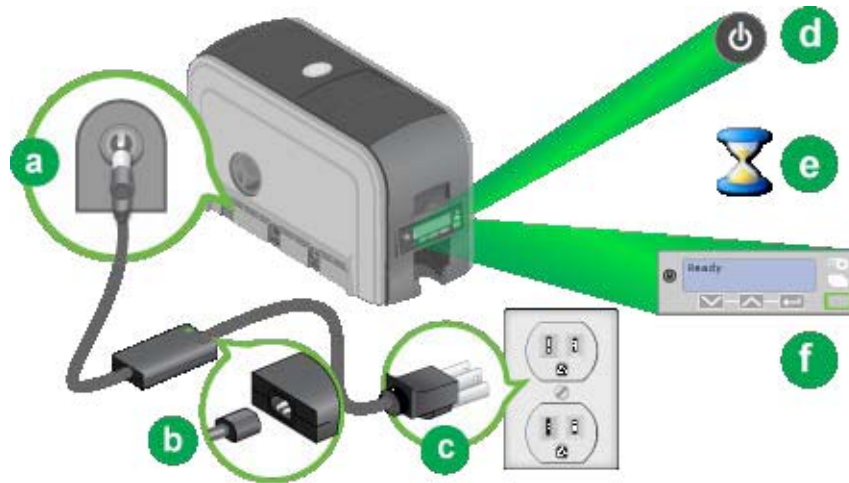
9. Use the LCD panel to retrieve the printer's IP Address. For step-by-step instructions, see "Retrieve the Printer IP Address".
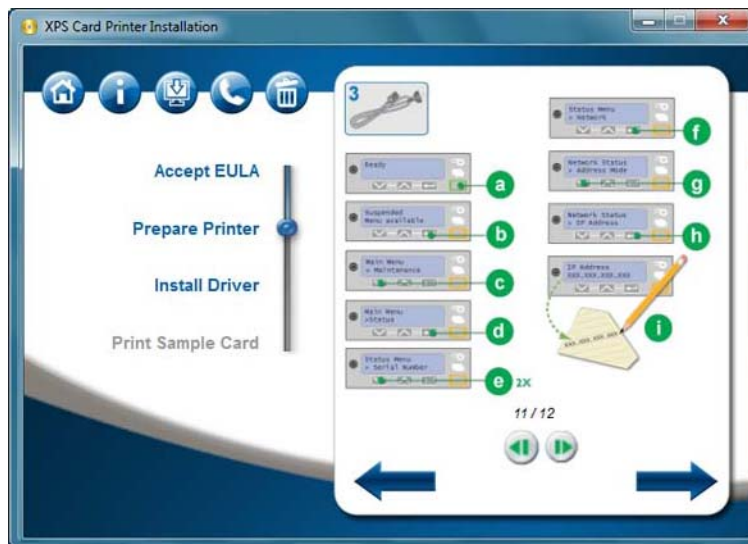
10. Return to the Main menu on the LCD display. Check that "Ready" is displayed and the **User** button glows green.

11. The Card Printer installer opens the Printer Properties window automatically. When this window opens, click the **Configure Port** button and enter the IP Address retrieved in Step 9 in the Printer Name or IP Address area.

IMPORTANT!

In some cases, the Port Number changes when the printer's IP address is entered. If a number other than 9100 is displayed in the Port Number field, delete the number and type 9100. The printer uses Port 9100.

12. When installation is complete, the Print a Sample Card page appears.

13. Check that "Ready" is displayed on the LCD panel and click the **Print Sample Card** button to verify that the installation is complete. Installation is complete when the sample card prints successfully.

For more information on how to print a sample card or a printer test card, see "Print Driver Sample Cards" or "Print a Printer Test Card".

Network Installation using a downloaded driver

The printer ships with an Installation CD in the printer carton. In most cases, install the driver from the Installation CD. If you do not have access to the Installation CD, follow these steps:

1. Log on to the PC as a user with Administrator access.

2. Obtain the download file on a portable storage medium, such as CD or USB drive, and copy it to your hard drive; by email and save it to your hard drive; or using a method such as the following:

   A. Browse to the Downloads area of the Web site (or the Products page for the printer) and choose the driver for your printer and operating system.

   B. Click the link.

   C. When the File Download dialog appears, click **Save**.

   D. Choose a location on your PC, such as C:\Temp and click **Save**.

E. When the File Download dialog appears, click Save.

i Your network might prevent the download or installation of this file. Ask your network support personnel for help when downloading this file or when installing the driver.

3. Browse to the location of the file saved in Step 2 on your PC.

4. Double-click the downloaded file. The file will have a name similar to XPSCardPrinterDriver.exe. The driver installer window opens.

5. Click the **Install a Network Printer** button.

6. The driver might require additional software, and present a license agreement for that software. Read the license agreement(s) presented, click the **Accept** box and then click the blue arrow.
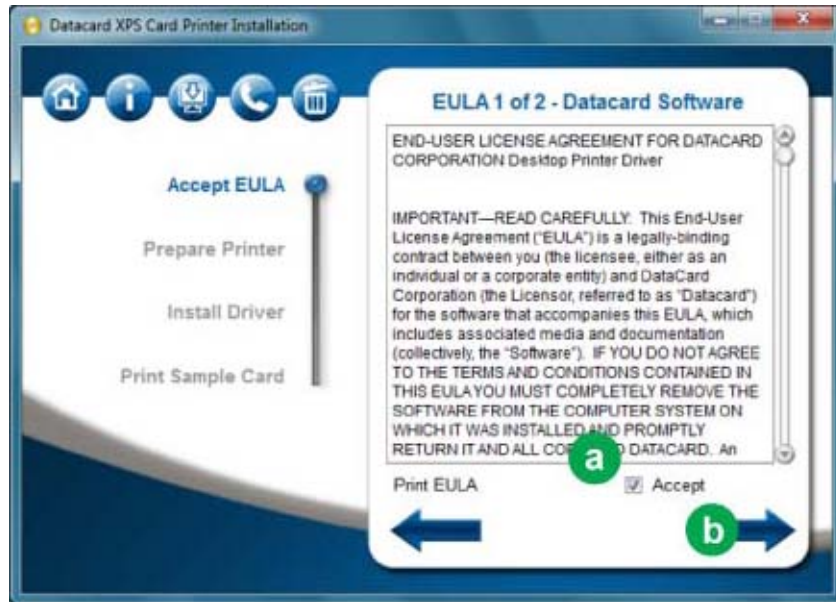

7. Follow the steps to "Prepare the Printer".

    Use the green media controls to view step-by-step instructions about how to Prepare the Printer.

8. Click the blue arrow pointing to the right.

9. Connect the printer to the network using an Ethernet cable.
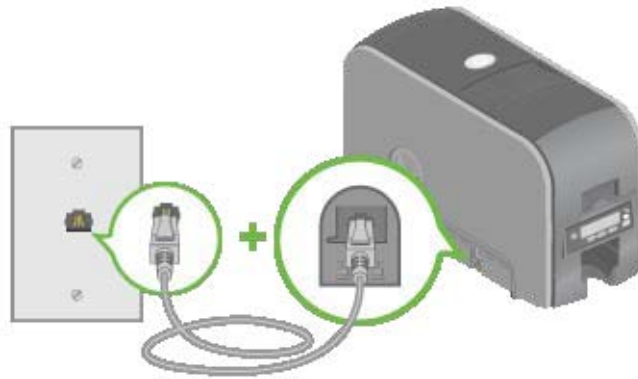
10. Plug in and power on the printer.

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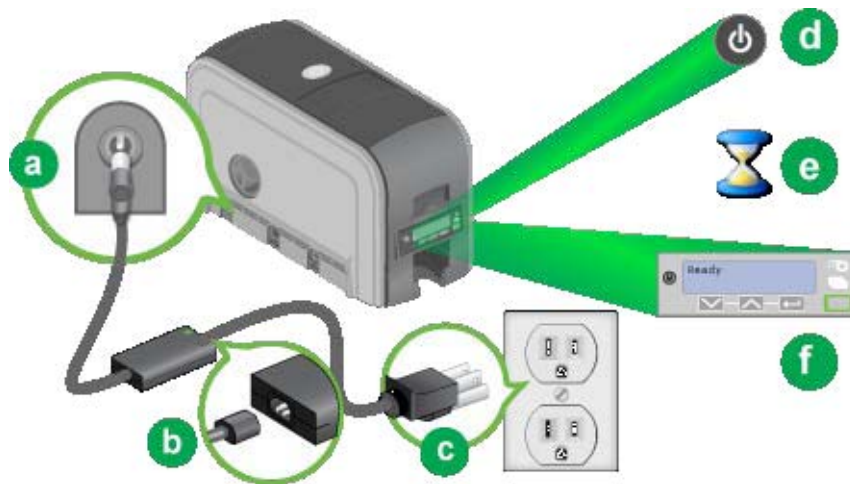
11. Use the LCD panel to retrieve the printer's IP Address. For step-by-step instructions, see "Retrieve the Printer IP Address".
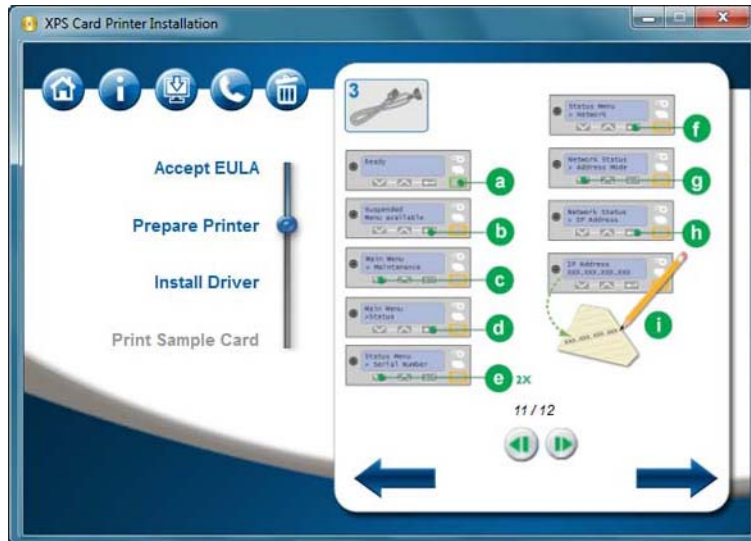
12. Return to the Main menu on the LCD display. Check that "Ready" is displayed and the **User** button glows green.

13. The Card Printer installer opens the Printer Properties window automatically. When this window opens, click the **Configure Port** button and enter the IP Address retrieved in Step 11 in the Printer Name or IP Address area.
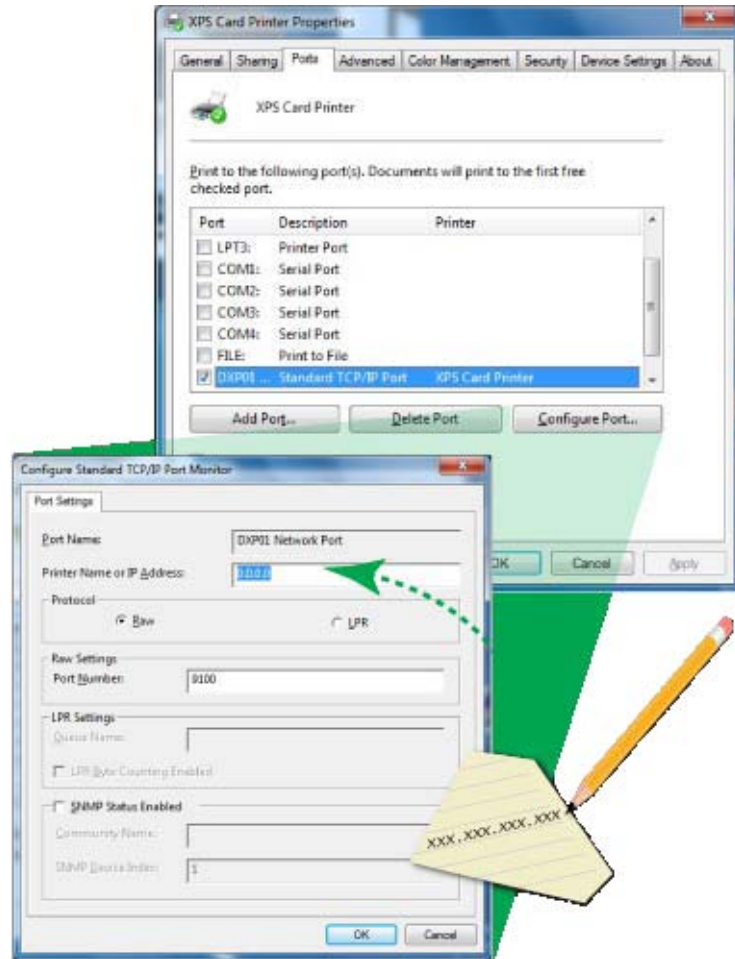
IMPORTANT!

In some cases, the Port Number changes when the printer's IP address is entered. If a number other than 9100 is displayed in the Port Number field, delete the number and type 9100. The printer uses Port 9100.

14. When installation is complete, the Print a Sample Card page appears.
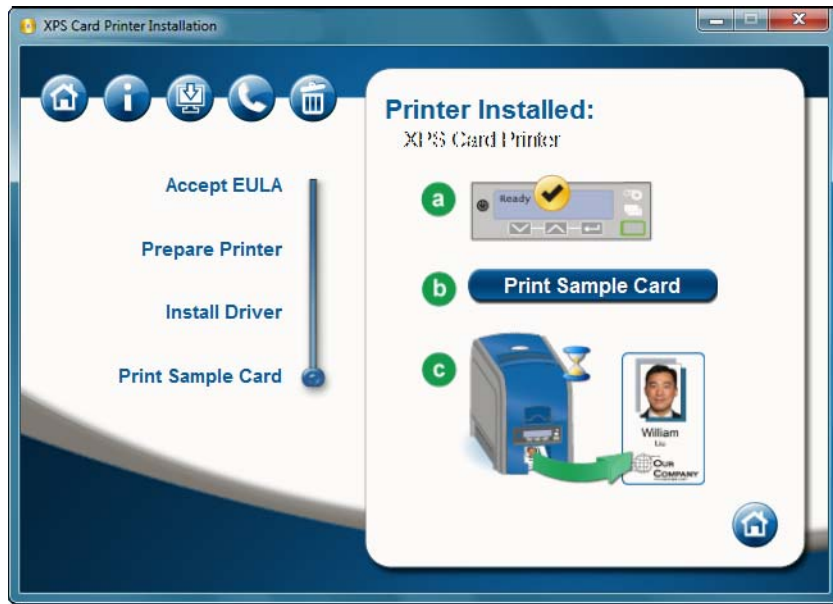
15. Check that "Ready" is displayed on the LCD panel and click the **Print Sample Card** button to verify that the installation is complete. Installation is complete when the sample card prints successfully.

   For more information on how to print a sample card or a printer test card, see "Print Driver Sample Cards" or "Print a Printer Test Card".

Retrieve the Printer IP Address

The Address Mode determines how the network address of the printer is assigned. The choices are DHCP and Static IP. DHCP stands for "Dynamic Host Configuration Protocol" and means that the network assigns the IP Address to the printer. Static IP means that you set the IP Address assigned by your network support personnel. Network support personnel can tell you whether the network uses DHCP or static IP addressing.

1. Begin when the LCD panel shows "Ready" on Line 1 of the display.

2. Press the USER button (a).

   "Suspended" appears on Line 1, "Menu available" appears on Line 2, and the USER button glows amber.

3. Press the ENTER key (b).

   "Main Menu" is displayed on Line 1 and "Maintenance" appears on Line 2.

4. Press the down arrow key (c).

   "Main Menu" displays on Line 1 and "Status" is displayed on Line 2.

5. Press the ENTER key (d).

   "Status" appears on Line 1 and "Serial Number" displays on Line 2.

6. Press the down arrow key two times (e).

   "Status" will be displayed on Line 1 and "Network Status" will be shown on Line 2.

7. Press the ENTER key (f).

   "Network Status" will be displayed on Line 1 and "Address Mode" will show on Line 2.
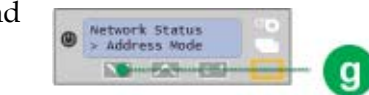
8. Press the down arrow key (g).

   "Network Status" appears on Line 1 and "IP Address" is shown on Line 2.

9. Press the ENTER key (h).

   "IP Address" appears on Line 1 and the printer's IP Address will be displayed on Line 2.

10. Record the printer's IP Address (i).

11. Exit the menu system by pressing the USER button repeatedly until "Ready" is displayed on Line 1 and the USER button changes from amber to green.

Printer Sharing

This section describes how to use a printer over a network using Microsoft File and Printer Sharing. Shared printing includes a host PC and up to ten client PCs. The printer is connected to a host PC with the printer driver installed. Client PCs print to the shared printer over a network. Client PCs do not have the same level of access to the printer driver as the host PC.

- Printer Sharing Requirements

- Set Up the Host PC for Printer Sharing, Windows 7, 64-bit

  - Install the Driver on the Client PC, Windows 7

- Set Up the Host PC for Printer Sharing, Windows XP, 32-bit

  - Install the Driver on the Client PC, Windows XP, 32-bit

- Set Up the Host PC for Printer Sharing, Windows Server 2003, 32-bit

  - Install the Driver on the Client PC

- Set up the Host PC for Printer Sharing, Windows Server 2008, 64-bit

  - Install the Driver on the Client PC

- Set Up the Host PC for Printer Sharing, Windows Server 2003, 32-bit

- Management Tasks at the Host PC

- Tips for Success

Printer Sharing Requirements

Before sharing a printer over a network, the following requirements must be met:

- Each PC that will use the printer must have a working network card installed.
- Operating systems and combinations supported:
  - Windows 7, 64-bit Host PC
    - Windows 7, 64-bit Client PCs.
  - Windows XP, 32-bit Host PC
    - Windows XP, 32-bit Client PCs.
  - Windows Server 2003 R2, 32-bit Host PC
    - Windows XP SP3, Windows Vista, or Windows 7, 32-bit Client PCs
  - Windows Server 2008 R2, 64-bit Host PC
    - Windows XP SP3, Windows Vista, or Windows 7, 64-bit Client PCs
- The Host and the Client PC must be using the same type of processor, either 32 or 64-bit.
- The Host PC must be configured and enabled for sharing.
- The Host PC must remain on, with the Windows operating system running.
- The Host PC must grant permissions for users that will print to the shared printer.

Set Up the Host PC for Printer Sharing, Windows 7, 64-bit

1. Install the printer on the host PC:

   A. See "Network Installation using the Installation CD"

   B. See "Network Installation using a downloaded driver"

2. Configure the host PC for printer sharing:

   A. From the Windows Start menu, open the **Control Panel**.

   B. Select **Network and Internet** and then **Network and Sharing Settings**.

   C. Click the **Advanced Sharing Settings** button:

      a. Set the Network Discovery to ON.

      b. Set the File and Printer Sharing to ON.

      c. Set the Password protected sharing to ON.

3. Enable printer sharing:

   A. From the Windows Start menu, choose **Devices and Printers**. The Printers window opens.

   B. Right-click on the printer and select **Properties**. The Printing Properties window opens.

   C. Click on the Sharing tab to display the settings.

      a. Select the "Share this printer" checkbox to enable sharing.

      b. Write down the printer name or rename the printer.

         This step is important to success! The client PC installation requires the printer name to install the driver.

      c. Make sure that the "Render print jobs on client computers" checkbox has a checkmark in it.

      d. Click the **Apply** button to apply these settings.

      e. Close Printer Properties.

4. Configure security:

   A. Open Printer Properties. See "Open Printer Properties".

   B. Choose the Security tab.

   C. Review the Group or User Names list. If the names or group for which you want to specify permissions do not appear in the list, add the names or create a group:

a. Choose the **Add** button to open the Users and Groups dialog box.

b. Click on the name and click **Add**. Repeat for each name to add.

c. When finished adding names, click **OK**. The Users and Groups dialog box closes.

D. In the Names list, select the name or group for which you want to specify permissions.

a. Select *Manage this printer* for the Everyone group.

b. To restrict users, remove the check from the All Print permission in the Everyone group and set permissions for each user.

Note: Do not use the *Manage documents* or the *Deny* checkboxes for any name or group.

c. Select **Apply** to save the change. Save changes for each name.

d. Close Printer Properties.

5. Use the tabs and settings in Printing Preferences and Printer Properties to reflect the card design including ribbon type, print mode, and magnetic stripe options. Write the settings down so you can make the same settings on the client PC.

Install the Driver on the Client PC, Windows 7

The Client PC must have a user account and password that matches an account on the Host PC.

1. Install the driver on the client PC:

A. Login to the client PC with an account that has administrator privileges and matches an account on the host PC.

B. From the Windows Start menu, select **Devices and Printers**.

C. Choose File> Add a printer.

D. Select *Add a network, wireless, or Bluetooth printer*.

E. The client driver will be installed from the host PC.

- If the printer is not discovered automatically, select "The printer that I want wasn't listed" entry.

- In the address bar, type the name of the Host PC and the printer name following this format: *host PC name\shared printer name*.

2. Install the following support files from the driver CD, if needed.

- Install magnetic stripe fonts if the client PCs will be processing magnetic stripe cards.

- Copy the printer documentation folder to each client PC.

- Install the ID Works XPS Card Printer Plug-in, if necessary.

3. Configure the Client PC:

Settings on the client PC, such as ribbon type and print resolution, must be configured to match the settings of the host PC. The client PC will not automatically detect the type of ribbon installed in the printer; instead it will default to YMCKT ribbon and 300 x 300 dpi resolution. Follow these steps to change the default settings:

A. Set Ribbon Type:

   a. Open Printing Preferences for the shared printer.

   b. Click the Layout tab and then click the **Advanced…** button.

   c. Select the type of ribbon from the Ribbon Type drop-down list.

   d. Click the **Apply** button.

   e. Close Printing Preferences.

B. Set Print Resolution:

   a. Open Printing Properties for the shared printer.

   b. Click the Print Mode tab.

   c. Select the resolution from the Color and Monochrome drop-down lists.

   d. Click the **Apply** button and then close Printing Preferences.

   e. For more information about print resolution, see "Set the Print Resolution".

Set Up the Host PC for Printer Sharing, Windows XP, 32-bit

1. Install the printer on the host PC.

   A. See "Network Installation using the Installation CD"

   B. See "Network Installation using a downloaded driver"

2. Set Simple File Sharing:

   A. Open Windows Explorer.

   B. Click the Tools menu and select Folder Options…

   C. Click on the View tab and scroll down to bottom of the Advanced settings list. Check the Use simple file sharing (Recommended) checkbox.

3. Enable printer sharing:

   A. From the Windows Start menu, choose **Settings> Printers and Faxes**. The Printers window opens.

   B. Right-click on the printer and select **Properties**. The Printing Properties window opens.

   C. Click on the Sharing tab.

   D. Click *If you understand the risks but wnat to share printers without running the wizard, click here.*

   E. Click *Just enable Printer Sharing* in the Enable Printer Sharing dialog box and click OK.

F. On the Printer Properties Sharing tab, click the "Share this printer" radio button to enable sharing.

4. Enter a printer name.

5. Write down the name of the Host PC.

   This step is important to success! The client PC installation requires the printer name to install the driver.

6. Click **OK** to save the settings.

7. Configure security:

   A. Open Printer Properties. See "Open Printer Properties".

   B. Choose the Security tab.

   C. Review the Group or User Names list. If the names or group for which you want to specify permissions do not appear in the list, add the names or create a group.

      a. Choose the **Add** button to open the Users and Groups dialog box.

      b. Click on the name and click **Add**. Repeat for each name to add.

      c. When finished adding names, click **OK**. The Users and Groups dialog box closes.

   D. In the Names list, select the name or group for which you want to specify permissions.

      a. Select *Manage this printer* for the Everyone group.

      b. To restrict users, remove the check from the *All Print* permission in the Everyone group and set permissions for each user.

         Note: Do not use the *Manage documents* or the *Deny* checkboxes for any name or group.

      c. Select **Apply** to save the change. Save changes for each name.

      d. Close Printer Properties.

   E. Enable bidirectional support.
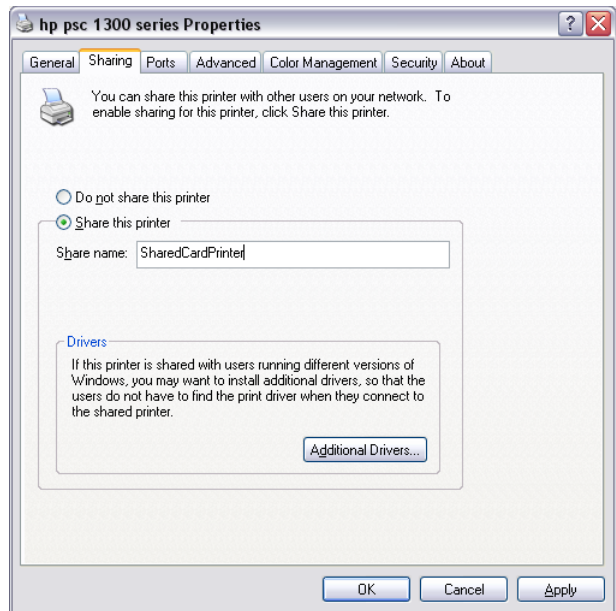
a. Open Printer Properties and select the Ports tab

b. Confirm that the *Enable bidirectional support* check box is checked.

Install the Driver on the Client PC, Windows XP, 32-bit

1. Install the driver on the client PC:

   The Client PC must have a user account and password that matches an account on the Host PC.

   A. Login to the client PC with an account that has administrator privileges and matches an account on the host PC.

   B. From the Windows Start menu, select **Printers and Faxes**.

   C. Choose File> Add printer.

   D. Click **Next** on the Add Printer Wizard window.

   E. Click the "A network printer, or a printer attached to another computer" radio button.

   F. Click **Next**.

   G. In the *Searching for available printers* window, choose Connect to this printer and click **Next**.

   H. Type the name of the Host PC and the shared printer name following this format: *host PC name\shared printer name*.

   I. Choose the shared printer from the drop-down list and then click **Next** .

   J. Click **Yes** in the *Connecting to printer* window.

   K. In the Default printer window, click **Next**.

   L. Click **Finish** to close the wizard.

2. Install the following support files from the driver CD, if needed:

   • Install magnetic stripe fonts if the client PCs will be processing magnetic stripe cards.

   • Copy the printer documentation folder to each client PC.

   • Install the ID Works XPS Card Printer Plug-in, if necessary.

- Install the support files XPS Essential Pack and MSXML v6.

3. Configure the Client PC:

Settings on the client PC, such as ribbon type and print resolution, must be configured to match the settings of the host PC. The client PC cannot detect the type of ribbon installed in the printer; instead it default to YMCKT ribbon and 300 x 300 dpi resolution. Follow these steps to change the default settings.

A. Set Ribbon Type:

   a. Open Printing Preferences for the shared printer.

   b. Click the Layout tab and then click the **Advanced…** button.

   c. Select the type of ribbon from the Ribbon Type drop-down list.

   d. Click the **Apply** button.

   e. Close Printing Preferences.

B. Set Print Resolution:

   a. Open Printing Properties for the shared printer.

   b. Click the Print Mode tab.

   c. Select the resolution from the Color and Monochrome drop-down lists.

   d. Click the **Apply** button and then close Printing Properties.

   e. For more information about print resolution, see "Set the Print Resolution".

Set Up the Host PC for Printer Sharing, Windows Server 2003, 32-bit

1. Install the printer on the host PC.

   A. See "Network Installation using the Installation CD"

   B. See "Network Installation using a downloaded driver"

2. Enable printer sharing:

   A. From the Windows Start menu, choose **Settings> Printers and Faxe**s. The Printers window opens.

   B. Right-click on the printer and select Properties. The Printing Properties window opens.

   C. Click on the Sharing tab and click the "*Share this printer*" radio button to enable sharing.

   D. Enter a printer name.

   E. Write down the name of the Host PC.

      This step is important to success! The Client PC installation requires the printer name to install the driver.

   F. Click OK to save the settings.

Install the Driver on the Client PC

The Client PC can be using Windows XP, Windows Vista, or Windows 7, 32-bit operating systems. The following instructions may be slightly different based on the operating system of the client PC.

1. Install the driver on the client PC:

   The Client PC must have a user account and password that matches an account on the Host PC.

   A. Login to the client PC with an account that has administrator privileges and matches an account on the host PC.

   B. From the Windows Start menu, select **Printers and Faxes**.

   C. Choose File> Add printer.

   D. Click **Next** on the Add Printer Wizard window.

   E. Click the "A network printer, or a printer attached to another computer" radio button.

   F. Click **Next**.

G. In the *Searching for available printers* window, choose Connect to this printer and click **Next**.

H. Type the name of the Host PC and the shared printer name following this format: *host PC name**shared printer name*.

I. Choose the shared printer from the drop-down list and then click **Next** .

J. Click **Yes** in the Connecting to printer window.

K. In the Default printer window, click **Next**.

L. Click **Finish** to close the wizard.

2. Install the following support files from the driver CD, if needed:

- Install magnetic stripe fonts if the client PCs will be processing magnetic stripe cards.

- Copy the printer documentation folder to each client PC.

- Install the ID Works XPS Card Printer Plug-in, if necessary.

- Install the support files XPS Essential Pack and MSXML v6.

3. Configure the Client PC:.

Settings on the client PC, such as ribbon type and print resolution, must be configured to match the settings of the host PC.

A. Set Ribbon Type:

a. Open Printing Preferences for the shared printer.

b. Click the Layout tab and then click the **Advanced...** button.

c. Select the type of ribbon from the Ribbon Type drop-down list.

d. Click the **Apply** button.

e. Close Printing Preferences.

B. Set Print Resolution:

a. Open Printing Properties for the shared printer.

b. Click the Print Mode tab.

c. Select the resolution from the Color and Monochrome lists.

d. Click the **Apply** button and then close Printing Properties.

e. For more information about print resolution, see "Set the Print Resolution".

Set up the Host PC for Printer Sharing, Windows Server 2008, 64-bit

1. Install the printer on the host PC.

   A. See "Network Installation using the Installation CD"

   B. See "Network Installation using a downloaded driver"

2. Configure the host PC for printer sharing:

   A. From the Windows Start menu, open the **Control Panel**.

   B. Select **Network and Internet** and then **Network and Sharing Settings**.

   C. Click the **Advanced Sharing Settings** button.

      a. Set the Network Discovery to ON.

      b. Set the File and Printer Sharing to ON.

      c. Set the Password protected sharing to ON.

3. Enable printer sharing:

   A. From the Windows Start menu, choose **Devices and Printers**. The Printers window opens.

   B. Right-click on the printer and select Properties. The Printing Properties window opens.

   C. Click on the Sharing tab to display the settings.

   D. Select the "Share this printer" checkbox to enable sharing.

   E. Name the printer.

   F. Write down the name of the printer.

      This step is important to success! The Client PC installation requires the printer name to install the driver.

   G. Make sure that the "Render print jobs on client computers" checkbox has a checkmark in it.

   H. Click the **Apply** button to apply these settings.

   I. Close Printer Properties.

4. Configure security:

   A. Open Printer Properties. See "Open Printer Properties".

   B. Choose the Security tab.

C. Review the Group or User Names list. If the names or group for which you want to specify permissions do not appear in the list, add the names or create a group.

    a. Choose the Add button to open the Users and Groups dialog box.

    b. Click on the name and click Add. Repeat for each name to add.

    c. When finished adding names, click OK. The Users and Groups dialog box closes.

D. In the Names list, select the name or group for which you want to specify permissions.

    a. Select *Manage this printer* for the Everyone group.

    b. To restrict users, uncheck the *All Print* permission in the Everyone group and set permissions for each user.

       Note: Do not use the *Manage documents* or the *Deny* checkboxes for any name or group.

    c. Select **Apply** to save the change. Save changes for each name.

    d. Close Printer Properties.

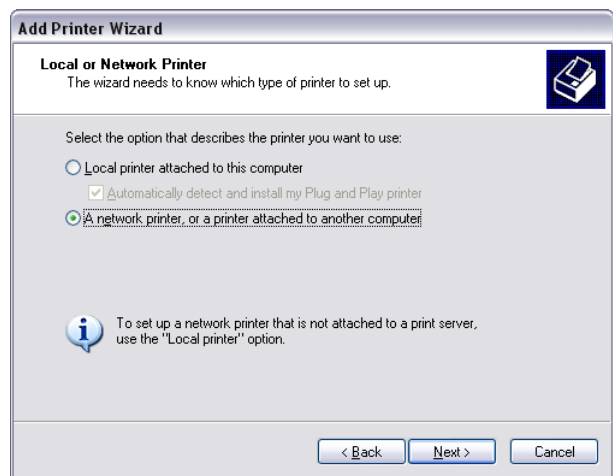5. Use the tabs and settings in Printing Preferences and Printer Properties to reflect the card design including ribbon type, print mode, and magnetic stripe options. Write the settings down so you can make the same settings on the client PC.

Install the Driver on the Client PC

The Client PC can be using Windows 7 or Windows Vista, 32-bit operating systems.

1. Install the driver on the client PC:

   The Client PC must have a user account and password that matches an account on the Host PC.

2. Login to the client PC with an account that has administrator privileges and matches an account on the host PC.

3. From the Windows Start menu, select **Devices and Printers**.

4. Choose File> Add a printer.

5. Select *Add a network, wireless, or Bluetooth printer*.

6. The client driver will be installed from the host PC.

- If the printer is not discovered automatically, select "*The printer that I want wasn't listed*" entry.

- In the address bar, type the name of the Host PC and the shared printer name following this format: *\\host PC name\shared printer nam*e.

7. Install the following support files from the driver CD, if needed:

- Install magnetic stripe fonts if the client PCs will be processing magnetic stripe cards.

- Copy the printer documentation folder to each client PC.

- Install the ID Works XPS Card Printer Plug-in, if necessary.

8. Configure the Client PC:

Settings on the client PC, such as ribbon type and print resolution, must be configured to match the settings of the host PC. The client PC will not automatically detect the type of ribbon installed in the printer; instead it will default to YMCKT ribbon and 300 x 300 dpi resolution. Follow these steps to change the default settings:

A. Set Ribbon Type:

a. Open Printing Preferences for the shared printer.

b. Click the Layout tab and then click the **Advanced...** button.

c. Select the type of ribbon from the Ribbon Type drop-down list.

d. Click the **Apply** button.

e. Close Printing Preferences.

B. Set Print Resolution:

a. Open Printing Properties for the shared printer.

b. Click the Print Mode tab.

c. Select the resolution from the Color and Monochrome lists.

d. Click the **Apply** button and then close Printing Properties.

e. For more information about print resolution, see "Set the Print Resolution".

Use the Printer from the Client PC

Users at the client PC can perform several actions, including:

- Print a card. The client sends cards to print from an application by selecting the printer in the application.

- Print a card using an application and magnetic stripe fonts. The fonts are available on the driver CD and must be installed on the client PC. When printing from an application such as Microsoft Word, text for magnetic stripe encoding can be formatted using the magnetic stripe fonts. See "Use Magnetic Stripe Fonts" for more information.

- Change card design settings. Selecting a landscape or portrait card orientation is one of the settings that can be changed from the client PC. Many settings are read from the host PC and cannot be changed from the client PC. The *Always use best possible* resolution setting is not available from the client PC.

- Pause or delete print jobs submitted from the Windows Print Manager. Client PC print jobs can be paused or deleted from the Print Manager. The card job remains in the print queue until it is sent to the printer. See Windows help for information on using Print Manager.

- The printer status and card count information shown in Printer Properties are not available at the client PC. Use the options in Printer Manager to view card counts and printer status of the shared printer. See "Open the Printer Manager" for more information.

Management Tasks at the Host PC

The user at the host PC has more control over the printer and more information about the printer. This section describes some tasks performed at the host PC.

- Manage all jobs in the print queue. Use the Windows Print Manager to view all jobs in the print queue and to pause or delete any jobs in the print queue. The job remains in the print queue until it has been sent to the printer.

- See and respond to messages. A message window is displayed on the host PC if the printer is not able to process and print a card.

- View printer status and set values using the Printing Preferences dialog box.

- Use all features of the Printing Preferences, Properties, and Printer Manager.

Tips for Success

- Error messages are displayed differently depending on the permissions set for the user's account. Accounts with Manage Printer permissions will receive an error message. The message displays the printer name in the title bar and a description of the error. The message window also contains a Retry and a Cancel button.

- The Cancel button will dismiss the error message and clear the error at the printer. If the error is corrected using the LCD screen, the error message on the PC will automatically close.

- Accounts with Print permissions can view error messages from the Windows Print Manager. The message will appear in the Status column of the Print Manager on client PCs. The print job with the error can be deleted from the Print Manager; however, the error must be cleared at the printer. Clearing the error at the LCD screen will automatically remove the error message from the Print Manager.

- The printer status and card count information shown in Printer Properties may not be available on client PCs. Use the options in the Printer Manager to view card counts and printer status if needed. See "Open the Printer Manager" for more information.

Printer Pooling

A printer pool treats a group of printers as one printer and distributes print jobs among the available printers. Printer pooling is used in card production environments in which an application prints to a group of printers. The user chooses to print to the pool and the pool distributes the print jobs to the next available printer.

- "Printer Pooling Requirements"
- "Operating Systems Supported"
- "Setup a Printer Pool, Windows 7 and Windows Vista"
- "Setup a Printer Pool, Windows XP and Windows Server 2003 (32-bit)"
- "Setup a Printer Pool, Windows Server 2008, 64-bit"
- "Tips for Success"

Printer Pooling Requirements

- All printers in the pool must be the same model with the same features installed.

- Interactive mode print jobs such as smart card processing or magnetic stripe read commands cannot be processed on printers belonging to a printer pool. These features require a printer to PC direct connection.

- All printers should have the same type of supplies installed and the same settings applied.

- Use the settings in Printer Manager to set magnetic stripe values for each printer and for the printer pool. Set all printers and the printer pool to the same values. See "Open the Printer Manager" for more information.

- All printers must be connected using an Ethernet cable. Printer pooling is not supported for USB-connected printers.

Operating Systems Supported

Printer pooling is supported on all driver-supported operating systems. For more information on supported operating systems, see "PC Requirements".

Setup a Printer Pool, Windows 7 and Windows Vista

1. Install the printer:

   A. To install the printer using the driver CD, see "Network Installation using the Installation CD"

   B. To install the printer using a downloaded driver, see "Network Installation using a downloaded driver".

2. Connect each printer that will be included in the pool to the network using an Ethernet cable.

3. Write down the IP address of each printer. See "Retrieve the Printer IP Address" for the steps to follow.

4. Configure for Printer Pooling:

   A. Open Printer Properties. For more information see "Open Printer Properties".

   B. Click the **Add Port…** button on the Ports tab.

   C. Click once on the Standard TCP/IP Port to select it and then click the **New Port...** button.

   D. Click **Next**.

E. Type the IP address of one of the unassigned printers.

F. Enter a name in the Port Name field. Enter a name such as XPS Pool Printer 2.

G. Click **Next**.

H. Click Finish to complete the wizard.

I. Repeat these steps for each printer that will be added to the pool.

J. Click Close when all printers and ports have been added.

5. Enable printer pooling:

A. From the Properties> Ports tab, make sure there is a check in the box next to the original printer port. Click once on the original printer port and check the Enable Printer Pooling checkbox.

B. Check the boxes next to the ports added in Step 4.

C. Click **Apply** to save the settings.

6. Close Printer Properties.

Setup a Printer Pool, Windows XP and Windows Server 2003 (32-bit)

1. Install the printer:

    A. To install the printer using the driver CD, see "Network Installation using the Installation CD"

    B. To install the printer using a downloaded driver, see "Network Installation using a downloaded driver".

2. Connect each printer that will be included in the pool to the network using an Ethernet cable.

3. Write down the IP address of each printer. See "Retrieve the Printer IP Address" for the steps to follow.

4. Configure for Printer Pooling:

    A. Open Printer Properties. For more information see "Open Printer Properties".

    B. Click the **Add Port...** button on the Ports tab.

    C. Click once on the Standard TCP/IP Port to select it and then click the **New Port...** button.

    D. Click **Next**.

A. Type the IP address of one of the unassigned printers.

B. Enter a name in the Port Name field. Enter a name such as Pooled Printer 2.

C. Click **Next**.

A. Choose Custom in the Additional Port Information Required window and then click **Next**.

B. Click **Finish** to complete the Add Port wizard.

C. Repeat these steps for each printer that will be added to the pool.

D. Click **Close** when all printers and ports have been added.

5. Enable printer pooling:

A. From the Properties> Ports tab, make sure there is a check in the box next to the original printer port. Click once on the original printer port and check the Enable Printer Pooling checkbox.

B. Check the boxes next to the ports added in Step 4.

C. Click **Apply** or **OK** to save the settings.

6. Close Printer Properties.

Setup a Printer Pool, Windows Server 2008, 64-bit

1. Install the printer:

   A. To install the printer using the driver CD, see "Network Installation using the Installation CD"

   B. To install the printer using a downloaded driver, see "Network Installation using a downloaded driver".

2. Connect each printer that will be included in the pool to the network using an Ethernet cable.

3. Write down the IP address of each printer. See "Retrieve the Printer IP Address" for the steps to follow.

4. Set up the print server properties:

   A. Open the Device and Printers folder and select the printer.

   B. Click **Print Server Properties** from the menu bar.
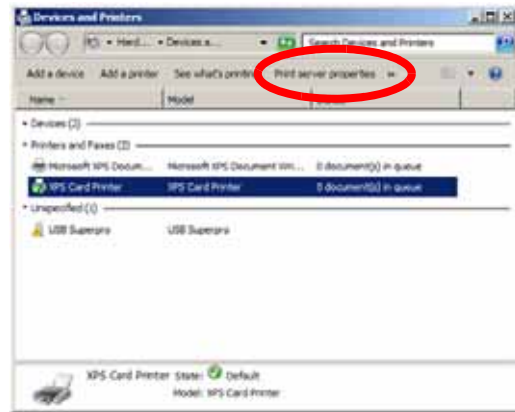
C. Click the Ports tab.

D. Click the **Add Port…** button.

E. Click once on the Standard TCP/IP Port to select it and then click the **New Port...** button.

F. Click **Next**.

G. Type the IP address of one of the unassigned printers.

H. Enter a name in the Port Name field. Enter a name such as Pooled Printer 2.

I. Click **Next**.

J. Click **Finish** to complete the wizard.

K. Repeat these steps for each printer that will be added to the pool.

L. Click **Close** when all printers and ports have been added.

5. Enable printer pooling:

A. From the Print Server Properties> Ports tab, make sure there is a check in the box next to the original printer port. Click once on the original printer port and check the Enable Printer Pooling checkbox.

B. Check the boxes next to the ports added in Step 4.

C. Click **Apply** or **OK** to save the settings.

6. Close the Print Server Properties window.
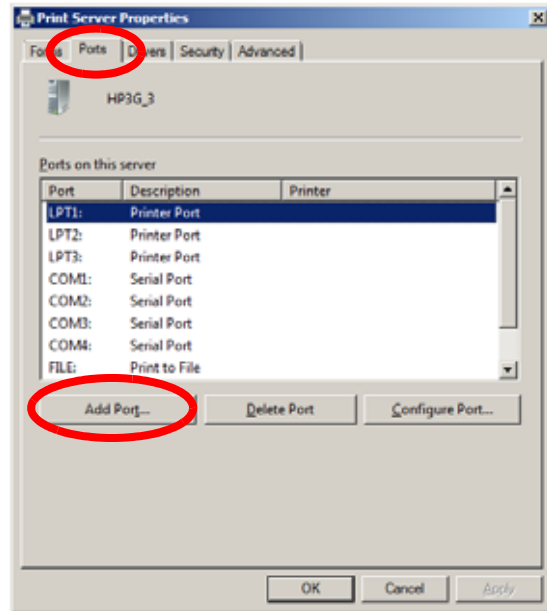
Tips for Success

- The name of the printer that was assigned when the XPS Card Printer Driver was installed will be displayed in the title bar of Error messages on the PC. The messages will not display the name of the printer in error.

  - To locate the printer with the error condition, look at each printer in the pool for warning indicators or LCD messages.
  - Card jobs will be held at the printer with the error condition. All subsequent cards jobs will print to other printers in the pool. The printer with the error will not be used by the pool until the error condition is corrected.
  - After correcting the error at the printer, resume or cancel the print job using the error message on the PC. Cancelling or resuming print jobs from the front panel will not clear the error message from the PC.

- The printer status and card count information shown in Printer Properties are not available to printers belonging to a printer pool. For these printers, the Status tab will display "Printer pooling" which indicates that the printer belongs to a printer pool. Use the options in Printer Manager to view card counts and printer status of the individual printers in the pool. See "Open the Printer Manager" for more information.

- The Print Sample Card and Magstripe Test Card buttons on the Printer Properties Status page are not available for a printer belonging to a printer pool. Print sample cards or test cards from the LCD panel on the printer. For more information on printing sample cards from the LCD panel, see "Print Driver Sample Cards" or "Print a Printer Test Card".

- A printer that cannot process jobs will continue to get jobs assigned to it by the pool controller. The XPS Card Printer driver does not determine if each printer in the pool is ready to receive card jobs.
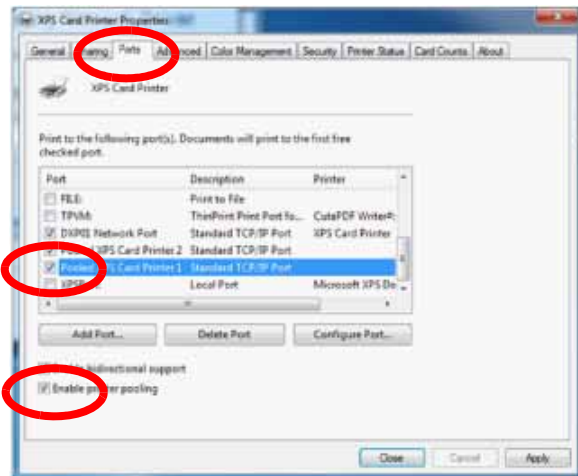
  - Remove printers that are not available from the pool until they are functioning and ready to receive print jobs.
  - To remove a printer from the pool, open Printer Properties and click on the Ports tab.
  - Remove the check from the port assigned to the printer.

- Some software, such as Microsoft Word, send multiple-card (batch) files as a single card job. In this case, the pool will send all cards in the batch to the same printer. ID software, or software designed specifically for card production, sends each card in the batch as a single print job. The printer pool will distribute single print jobs among the available printers.

Chapter 4: Printing Cards

This section explains how to:

- Print a card to a printer with an input hopper. See "Printing Cards: Printer with Input Hopper" for details.

- Print a card to a printer with a single feed slot. See "Printing Cards: Printer with Single Feed Slot" for details.

- Print on both sides of a card. See "Print on Both Sides of the Card" for details.

- Print a sample card. "Print Driver Sample Cards" for details.

Make sure:

- The printer system is set up. See "Printer System" for details.

- The card design is set up. See "Card Design and Setup" if you need to set up the design.

- Ribbon is loaded in the printer. See "Load Ribbon" for the steps to follow.

HINTS & TIPS

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

You can also print a test card from the printer. See "Print a Printer Test Card".

Printing Cards: Printer with Input Hopper

Make sure cards are loaded in the input hopper. See "Load Cards" for the steps to follow.

Printing from ID Software

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

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

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

4. Capture the photo for this card, if used.

5. Click the **Print** button to send the card to the printer.
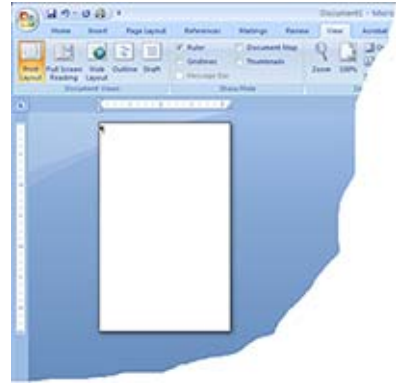
Printing from Other Software

1. Open the software application.

2. Select the XPS Card Printer as the current printer.

3. Use "Page Setup" to choose the "ID1" page size.

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

5. Create the card design:

   A. Add graphics such as a company logo or photos.

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

   C. For information about additional card features, see "Card Design and Setup".

6. Make sure that the input hopper contains blank cards.

7. Click **Print** to send the card to the printer.
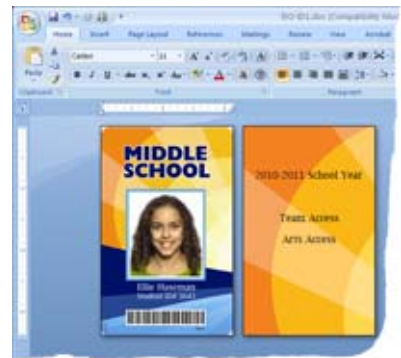
HINTS & TIPS

The printer can get cards from more than one PC. It takes cards in the order received.

Printing Cards: Printer with Single Feed Slot

Make sure that cards are available to insert.

Printing from ID Software

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

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

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

4. Capture the photo for this card, if used.

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 choose the "ID1" page size.

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

4. Create the card design:

   A. Add graphics such as a company logo or photos.

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

   C. For information about additional card features, see "Card Design and Setup".

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

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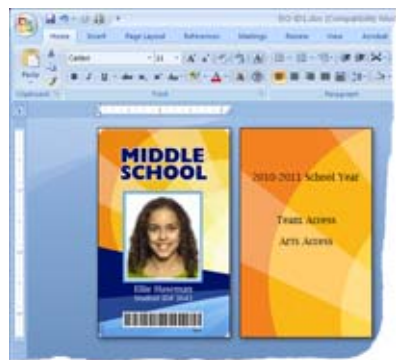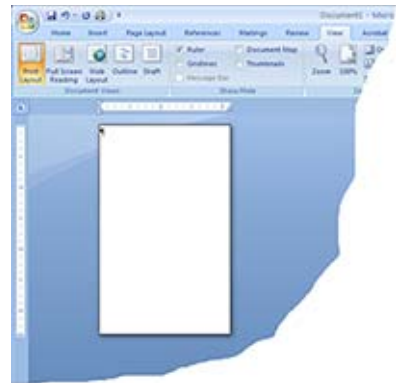
HINTS & TIPS

- Push the card in until the printer moves it.

- Orient all cards the same way.

- Do not touch the card surface to be printed.

- Handle cards by their edges or wear gloves.

Chapter 5: Using the Printer

5

This section includes information on using the printer and driver. It details information on using the Front Panel and LCD Menus, responding to error conditions, and printer maintenance such as cleaning the printer.

- *"Use the Front Panel"*
- *"Use the LCD Menus"*
- *"Messages and Conditions"*
- *"Clean the Printer"*

Use the Front Panel

The front panel of the printer provides the controls you need to operate the printer. It includes the following:

Power switch

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

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

If the printer is processing cards, you can press for 2 or more seconds to power the printer off immediately. You hear the power-down tone. Cards in the printer are not completed.
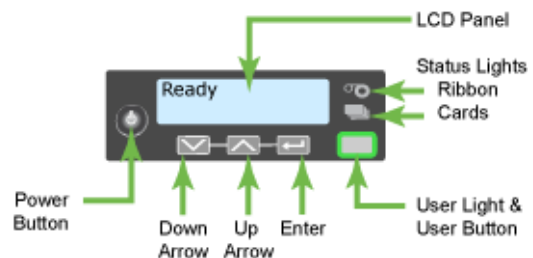
LCD panel

The LCD panel shows the printeer's menu system and also displays printer messages or conditions as they are issued. See *"Responding to Messages"* for information.

The menu system contains several choices for viewing and changing printer settings, and performing simple maintenance tasks such as running a cleaning

card or printing a test card. See "Use the LCD Menus" and "Clean the Printer" for more information.

User button and light

The printer has a USER button with a ring of light:

- Press the USER button to suspend the printer when it displays "Ready".

- Press to clear a message.

- Press for 2 seconds or more to clear all messages.

- Press again for 2 seconds or more to clear all cards currently printing.

- Make sure this action is allowed in your card system.

- The light shows whether the printer is ready, busy printing, or not available.

Off	Printer is off	
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 keys

Use the arrow keys to move through the printer menu system and the ENTER key to make a selection. See "Use the LCD Menus" for details.

Ribbon Light

The ribbon light glows green when the print ribbon is low and glows amber when there is a problem with the ribbon, such as out of ribbon.

Off	Ribbon is okay	
Green	Ribbon is low - less than 10% remains	

Amber	Ribbon is out or broken.	
Blinking Amber	The printer problem applies to ribbon.	

Card Light

The card light blinks amber when the printer has a card problem, such as out of cards. For printers with a single-feed slot, the card light blinks green when a card needs to be inserted.

Off	Cards are okay.	
Green	Ribbon is low - less that 10% remains.	
Blinking Green	Insert cleaning card.	
Rapid Blinking Green	Insert card.	
Blinking Amber Green	The printer is equipped with an optional card present sensor and no card is detected.	
Blinking Amber	The printer problem applies to cards.	

Use the LCD Menus

The front panel of the printer includes an LCD display with keys. When the printer is not actively printing cards, the LCD menu is available. See "Use the Front Panel" for more information about other features of the front panel.

Use the menu for tasks, including:

- See "Get the Printer Network IP Address".

- View the printer USB IP Address. See "Get the Printer USB IP Address".

- View the printer serial number. See "Find the Printer Serial Number".

- Run a cleaning card. See "Run a cleaning card".

- See "View Card Counts from the Printer LCD Menu".

- Set the IP address type. See "Set IP Address Type".

- Set the Magstripe Coercivity. See "Set Magnetic Stripe Coercivity".

- Print a test card. See "Print a Printer Test Card".

- Change the LCD backlight. See "Change the LCD Backlight".

LCD Menus

The menu system has three 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.

HINTS & TIPS

- The menu system can be opened when "Ready" is displayed on Line 1 of the LCD panel.

- The printer returns to the "Printer Ready" status after two minutes of no activity. Changes not applied will be lost.

- To leave a selection without changing the value, press the up or down arrow key to scroll to Exit and then press the ENTER key.
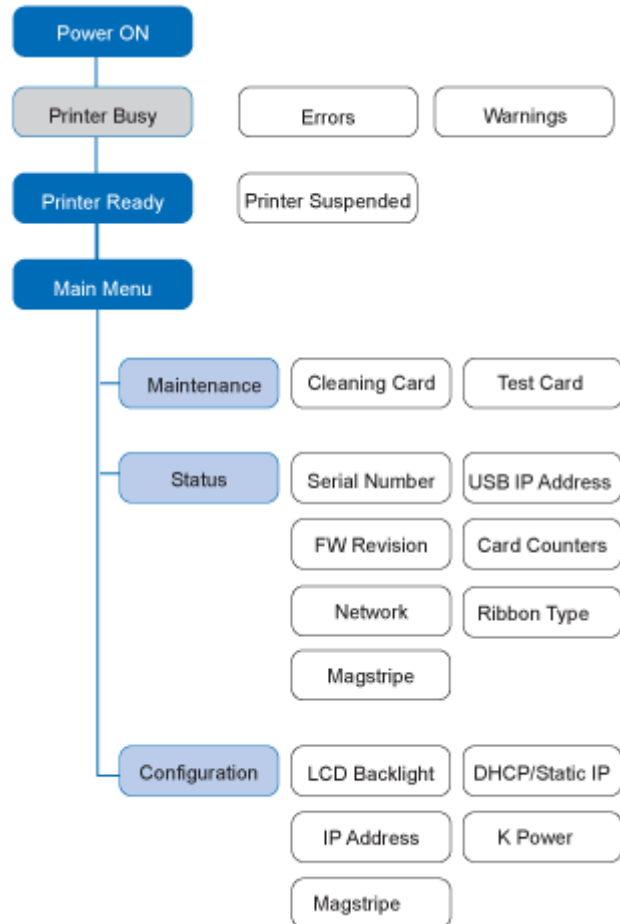
Messages and Conditions

When the printer cannot process the card sent, it issues a condition. Conditions are displayed on the LCD display on the front panel. In most cases, the driver also displays the condition as a message on the PC. See "Printer Driver Messages" for information about the messages the driver displays.

In a shared printer environment, messages may be slightly different from the messages and conditions described in this section. See "Printer Sharing" for information about messages that appear at a client PC.

Messages on the Printer

- All messages are associated with a card job.

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

- If more than one message was issued, the next message is displayed after you correct the problem and click the USER button.

- The printer issues messages that focus on recovering from problems. As a result, there are just a few messages.

- If you cancel a job at the printer, the message will be removed from the PC. Any additional messages for the cancelled job, such as for a broken ribbon, will not appear on the PC.

Messages on the XPS Card Printer Driver

- Messages displayed by the driver are similar to those on the printer.

- Messages appear on the PC sending the card.

- Messages might be in the background, behind the application sending the card. On some operating systems, the message might appear in the status bar. Click the icon in the status bar to open the message.

- If more than one message was issued, the next message is displayed after you click the button to close the current message.

- If you have 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 you have more than one card printer installed on the PC and both have issued errors, the XPS Card Printer Driver will display the messages received even if you cleared the error at the printer.

- The driver can issue messages which are not displayed on the printer front panel. See "Printer Driver Messages".

Messages on the Printer Manager

The Printer Manager can issue messages that are displayed in a web browser window. Click the Continue button in Printer Manager to continue working with the printer.

Other Messages

- The application you use can display messages.

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

- If SP or similar card printers are installed and use the 7.x driver, message DR00914 might be displayed. To correct this, remove the 7.x driver and install the 4.x Card Printer Driver.

Responding to Messages

Quick Link to a Message:

- "100: Request not supported"

- "101: Job could not complete"

- "102: Card not in position"

- "103: Printer problem"

- "104: Critical problem"

- "105: Magstripe data error"

- "106: Magstripe data not found"

- "107: Magstripe read data error"

- "108: Magstripe read no data"

- "109: Print ribbon problem"

- "110: Print ribbon out or missing"

- "111: Card not picked"

- "112: Card hopper empty"

- "113: Close cover to continue"

- "114: Cover opened during job"

- "115: Wait for print temperature"
- "116: Magstripe not available"
- "117: Reader not available"
- "118: Print ribbon type problem"
- "119: Print ribbon not supported"
- "120: User paused the printer"
- "121: Print ribbon ID problem"
- "122: Magnetic stripe format problem"
- "123: Insert new card then continue"
- "124: Insert same card then continue"
- "500: The printer is not available. The card cannot print."
- "501: The printer connection was lost. Printing the card is canceled."
- "502: The card data is missing or is not usable. The card cannot print."
- "503: The magnetic stripe data is missing. The card cannot print."
- "505: Bonjour is not installed. Cannot connect to the printer."
- "506: A card is currently processing."

100: Request not supported

To print the card:

1. Change the data to match printer features and settings.
2. Send the new card to print again.

HINTS & TIPS

- The card, if it started to print, should be discarded.
- Make sure you have chosen the correct printer in the application. Ask your Manager for assistance if needed.
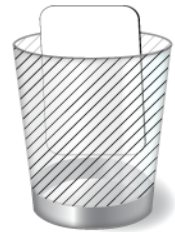
101: Job could not complete

The card took too much time. Press the USER button on the printer to clear the error.

To print the card again:

1. Make sure all data for the card is available.

2. Send the card to print again.

HINTS & TIPS

- The card, if it started to print, should be discarded.

- Make sure that data, such as a photo, is on the PC before printing. If you are connected to a database, verify the connection.

- Ask your Manager for assistance if needed.

102: Card not in position

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

1. Open the printer and remove the ribbon cartridge.

2. Turn the knob to move the card so the printer can eject it.

3. Replace the ribbon cartridge and close the printer.

HINTS & TIPS

- Check the ribbon to make sure it is not torn. See "110: Print ribbon out or missing" to fix the ribbon if needed.

- Remove any debris from the print area.

- Ask your Manager for assistance if needed.

103: Printer problem

The printer has a problem that prevents it from completing the card.

1. Press the printer POWER button to power it off.

2. Press the printer POWER button to power it on again.
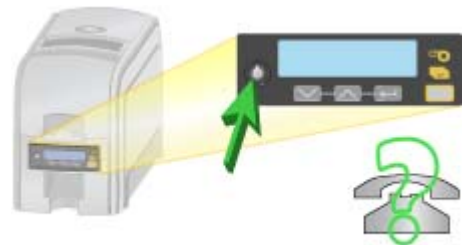
HINTS & TIPS

- If the printer works, the problem was temporary.

- If the printer does not work, troubleshoot the problem.

104: Critical problem

1. Press the printer POWER button or click **OK** to power the printer off.

2. Request service.
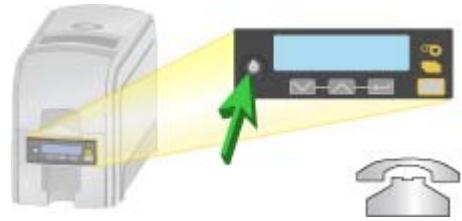
HINTS & TIPS

- The printer needs to remain off due to an internal problem.

- Pressing either the POWER button or the USER button will power off the printer.

105: Magstripe data error

The printer could not verify the magnetic stripe data written on the card. The printer encoded data on the card but could not verify all of the data.

To print the card again:

1. Insert a magnetic stripe card that matches the printer settings.

2. Press the USER button on the printer or click "Retry" in the Message box.

HINTS & TIPS

- The card might have been turned the wrong way.

- The card might not have a magnetic stripe.

- Send the new card to the printer.

106: Magstripe data not found

The printer could not find magstripe written data on card.

To print the card again:

1. Insert a magnetic stripe card that matches the printer settings.

2. Position the card with the magnetic stripe down and to the right side of the printer.

3. Press the USER button on the printer or click "Retry" in the Message box.

HINTS & TIPS

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

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

107: Magstripe read data error

The printer could not read the magstripe data on the card. To read the card:

1. Insert a magnetic stripe card with data.

2. Insert the card with the magnetic stripe down and to the right side of the printer.

HINTS & TIPS

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

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

108: Magstripe read no data

The printer did not find any magstripe data on the card.

To read the card:

1. Insert a magnetic stripe card with data.

2. Position the card with the magnetic stripe down and to the right side of the printer.

3. Send the new card to the printer.

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. To fix the ribbon:

1. Open the printer and remove the ribbon cartridge.

2. Fix the ribbon and move the repaired area one full turn.

3. Replace the ribbon cartridge and close the printer.

HINTS & TIPS

- Remove any debris from the print area.

- If the card is in the printer, turn the knob to move the card so the printer can eject it.
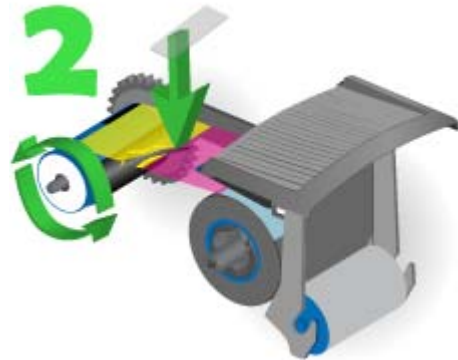
110: Print ribbon out or missing

The printer does not have usable ribbon. Load the ribbon or replace the ribbon.

1. Open the printer and remove the ribbon cartridge.

2. Remove the existing ribbon and cleaning roller, if present.

3. Install the ribbon. Replace the cleaning roller.

4. Replace the ribbon cartridge and close the printer.
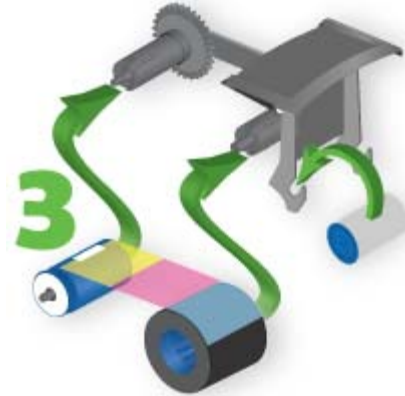
HINTS & TIPS

- Used ribbon can have "negative" images of printed data. To keep the data confidential, follow your policy to discard used ribbon.

111: Card not picked

The printer did not pick a card. To load cards:

1. Open the input hopper.

2. Insert cards in the input hopper. Cards can stick together; slide or fan cards to separate the edges before loading the input hopper.

3. Close the input hopper and resume printing.

4. For printers with single card feed, push the card in until the printer moves it.
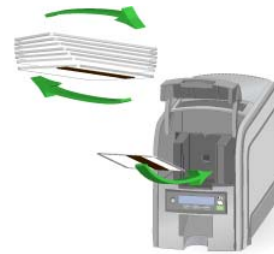
HINTS & TIPS

- Orient all cards the same way.

- Do not touch the card surface to be printed:

    - Handle cards by their edges

    - Wear gloves

112: Card hopper empty

The printer does not detect cards in the input hopper.

1. Open the input hopper.

2. Insert cards in the input hopper. Cards can stick together: Slide or fan cards to separate the edges before loading the input hopper.

3. Close the input hopper and resume printing.

HINTS & TIPS

- Orient all cards the same way.

- Do not touch the card surface to be printed:

    - Handle cards by their edges

    - Wear gloves

113: Close cover to continue

The printer cover must be closed to print.

1. Close the cover.

2. Push down on the cover to latch it.

HINTS & TIPS

- Make sure the ribbon cartridge is installed.

- Make sure the cartridge handle is even with the edges of the printer.
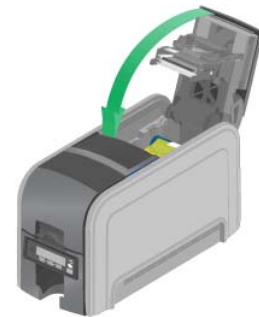
114: Cover opened during job

The printer cover must be closed to print.

1. Close the cover.

2. Push down on the corners of the cover to latch it.

HINTS & TIPS

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

- The card, if it started to print, should be discarded.
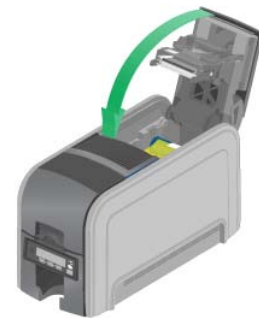
115: Wait for print temperature

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

Printing the card will resume on its own.

HINTS & TIPS

- The card, if it started to print, should be discarded.

- Make sure you have chosen the correct printer in the application. Ask the Manager for assistance if needed.

116: Magstripe not available

Look at the "config" area of the label inside of the printer cover. Does the label show "M" or "J"?

1. If yes, the printer has a magstripe option that is not working. Request service.

2. If no, the printer does not have a magstripe option.

3. To print the card without magstripe, remove magstripe data from the card and send it again.

HINTS & TIPS

To remove magstripe data, you might need to:

- Uncheck a box in the application.

- Change the font from "Mag Track X XPS Card Printer" to a printable font such as Arial, Verdana, or Calibri.

117: Reader not available

The printer does not have a reader option.

1. To print the card without using a reader option, remove the reader request from the card and send it again.

HINTS & TIPS

- To remove the reader request, you might need to uncheck a box in the application.

118: Print ribbon type problem

The printer cannot use the ribbon installed.

1. Use ribbon designed for this printer brand and model.

2. Check the Web site for newer firmware, which might support new ribbon types.

HINTS & TIPS

When the printer recognizes that a supported ribbon is installed, all enhanced product features are enabled and successful card printing can begin.

119: Print ribbon not supported

The printer cannot use the ribbon installed.

1. Purchase ribbon from your dealer or authorized reseller.

2. Use ribbon designed for this printer brand and model.
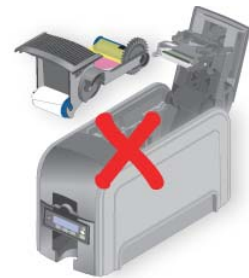
HINTS & TIPS

- When the printer recognizes that a supported ribbon is installed, all enhanced product features are enabled and successful card printing can begin.

120: User paused the printer

A person pressed the USER button on the printer and a card was in process.

1. The card can continue processing without damage.
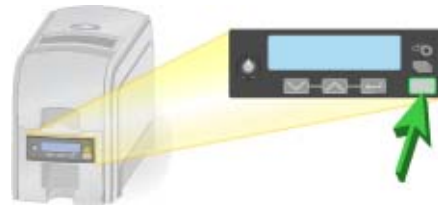
HINTS & TIPS

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

- If this message occurs often, ask your Manager or Systems Administrator to set the button sensitivity to a lower value.

121: Print ribbon ID problem

The ribbon data is damaged.

1. The ribbon cannot be used. Ask your dealer or authorized reseller for a replacement.

2. Use ribbon designed for this printer brand and model.
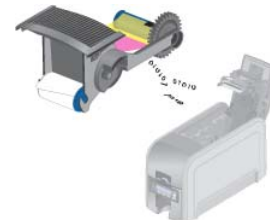
HINTS & TIPS

- When the printer recognizes that a supported ribbon is installed, all enhanced product features are enabled and successful card printing can begin.

122: Magnetic stripe format problem

The magstripe data sent does not match the format set in the printer.

1. Ask your Manager for information about the data to send.

HINTS & TIPS

The printer has format settings for the data that can be encoded on the card. The magstripe data sent does not match those settings.

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

- See Magnetic Stripe for information about data allowed for specific formats.

- Make sure fonts or escapes are used correctly.

123: Insert new card then continue

The card requires you to insert a new card in the exception slot.

1. Insert the card in the printer.

2. Resume.

HINTS & TIPS

- Make sure to use the correct type of new card for this job.

- Do not touch the card surface to be printed:

    - Handle cards by their edges

    - Wear gloves

124: Insert same card then continue

The card must be turned by hand to print the second side.

1. Turn the card over.

2. Insert the card in the printer.

3. Resume.

Printer Driver Messages

The driver can create and display the following messages.

500: The printer is not available. The card cannot print.

The driver cannot communicate with the printer. Make sure the printer is powered on and connected to the PC.

1. Connect the power cord. Use the power switch to power on the printer.

2. Connect the cables from the PC to printer.

   Use either a USB cable OR a network cable, not both.

3. Make sure all connections are complete.

4. Ask network support for help, if needed.
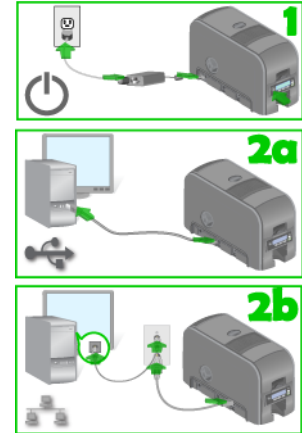
HINTS & TIPS

- Make sure you have chosen the correct printer in the application.

- Ask the Manager for assistance if needed.

501: The printer connection was lost. Printing the card is canceled.

The printer connection was lost. Printing the card is canceled.

To print the card, make sure the printer is powered on and connected to the PC.

1. Connect the power cord. Use the power switch to power on the printer.

2. Connect the cables from the PC to printer.

3. Use either a USB cable OR a network cable, not both.

4. Make sure all connections are complete.

5. Ask network support for help, if needed.
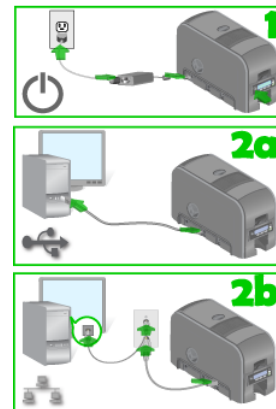
If this message is followed by "101: Job could not complete", clear message 101 at the printer.

502: The card data is missing or is not usable. The card cannot print.

The driver could not use the prepared data.

The PC did not process the data successfully.

Make sure the data is present. Send the card to print again.

If the card does not print the second time, troubleshoot the problem.

A mistake in using magnetic stripe escapes or blocking escapes can cause this message.

503: The magnetic stripe data is missing. The card cannot print.

The driver is set to encode magnetic stripe data only.

- The card did not contain any magnetic stripe data.

- Make sure the magnetic stripe data is present.

- Identify the magnetic stripe data using escapes or fonts. See "Use Magnetic Stripe Escapes" or "Use Magnetic Stripe Fonts".

- To print on the card, change the setting in Printing Preferences to disable Encode Only. See "Encode Magnetic Stripe without Printing".

505: Bonjour is not installed. Cannot connect to the printer.

- The driver uses Bonjour for Windows to connect to a printer using a USB cable.

- If you previously installed a network-connected printer and then installed a USB-connected printer, Bonjour might not be installed.

- Bonjour might have been removed from the PC by another program or by a user.

To solve the problem:

- Remove the driver, using the Remove icon on the driver CD installer. Install the USB printer following the steps in the *Quick Install Guide*.

- Find a Bonjour for Windows download and install it.

506: A card is currently processing.

The driver is currently processing an interactive job.

Wait until the current card is complete and then send the card again.

Clean the Printer

The printer performs best when it is cleaned on a regular basis. The printer should be cleaned when:

- The number of cards printed since last cleaning reaches the number for your site

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

- You notice debris, such as lint, on completed cards

- You install a new roll of print ribbon

Follow the cleaning guidelines for your site to keep the printer in good working condition.

You can perform the following cleaning tasks:

- "Run a cleaning card"

- "Clean the printhead"

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. Begin with the printer powered on.

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

3. Close the cover. The Ribbon Light will blink rapidly.

4. Open the input hopper and remove unprinted cards. The Card light will blink rapidly if the printer has the Card Present option.

5. Begin with the printer "Ready". The USER button shows steady green.

6. Press the USER button to display "Suspended" on Line 1 of the LCD panel.

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

8. Press the ENTER key to enter the Maintenance menu.

9. Press the ENTER key to choose Cleaning Card.

10. With Cleaning Card displayed on Line 2, press the ENTER key to display Start on Line 2.

11. Press the ENTER key to display "Insert Cleaning Card" in the LCD panel. The USER button and the Card light blink.

12. Open the cleaning card package. Place the cleaning card in the input area and press the USER button to start the cleaning cycle.

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

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

14. Replace the cards in the input hopper.

15. Replace the cleaning sleeve with a new sleeve, and remove the protective cover. See "Load Cleaning Roller" for the steps to follow.

16. Replace the ribbon cartridge and close the printer. The printer is ready to print cards again.
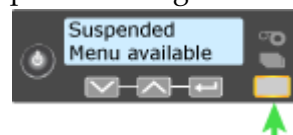
17. Discard the used cleaning card and cleaning sleeve.

HINTS & TIPS

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

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

- You can also clean the printhead. See "Clean the printhead" for the steps to follow.

Clean the printhead

Clean the printhead when you notice unprinted lines on the finished card. This usually indicates dirt or contamination on the printhead. Clean the printhead after replacement or if it has been accidently touched. The oils from hands could affect print quality.

1. Begin with the printer powered off.

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 printhead when installing the print ribbon cartridge.
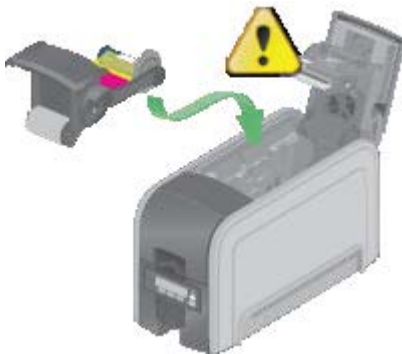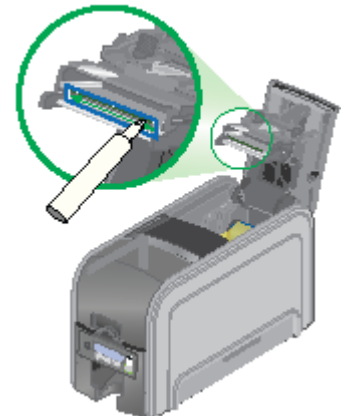
6. Power on the printer.

7. Print a sample card to verify the quality of printing.

HINTS & TIPS

- Avoid touching the printhead edge with your fingers.

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

- Only use 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.

Chapter 6: Card Design and Setup

6

Card design is the name given to the combined features of the printed cards. Cards are useful only when all cards contain the required information.

Card design includes:

- The different types of data such as name and ID number, images including company logo or employee or other photos, and special features such as bar code or magnetic stripe.

- The layout of the data.

- Processes to improve card life such as topcoat.

- Corporate style guidelines. For example, a corporate style guide can specify a particular shade of red for the logo.

This section describes the card design components available and provides detailed information about them.

- "Color Printing"

- "Monochrome Printing"

- "Topcoat Printing"

- "Card Design: Magnetic Stripe"

- "Card Design: Smart Card"

- "Printing and Non-Printing Areas"

HINTS & TIPS

- An organization might have more than one card design. For example, a health club can use member cards and employee ID cards.

- Print several samples of your card design and use them to evaluate the quality of the design.

- Use high quality (300dpi) photos and graphics.

Card Components

The printer can personalize cards with the following components:

- "Color Printing"
- "Monochrome Printing"
- "Topcoat Printing"
- "Card Design: Magnetic Stripe"
- "Card Design: Smart Card"
- "Printing and Non-Printing Areas"

The arrangement or layout of components helps to determine how well your card design works for users.

The settings you choose define how the software manages the card components. The software you use to produce cards affects the settings available and how you might use them.

Color Printing

This section includes:

- "Print Ribbon"
- "Managing Color"
- "Printing Text"
- "Printing Graphics"
- "Types of Color Images"
- "Set the Print Resolution"

Print Ribbon

Color printing uses a print ribbon with three color panels: Y (yellow), M (magenta), and C (cyan). The ribbon also includes a black (K) panel and a topcoat (T) panel. The printer applies the YMC color panels to the card first, prints black components using the K panel, and then applies the topcoat (T), which helps protect the color image from damage.

Full-panel YMCKT ribbon

Color print ribbon is available in full panel or short panel. 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.

Short-panel YMCKT ribbon

When printing with short panel print ribbon, the location of the color area is defined in the card design. Color printing begins when the driver detects a color pixel and continues for the length of the ymc panels.

For more information on print ribbon, see "Supplies and Parts".

Managing Color

Many people think that a color on the monitor and the printed color "should be the same." Color management is the technical process of making color in two different places (such as on the PC monitor and printed on the card) as similar as possible. A widely used color standard is sRGB color, and the card printer also uses sRGB color. (sRGB is the name for the standard Red, Green, and Blue color space.)

Other color characteristics include brightness and contrast. The Windows driver includes settings to fine-tune the brightness and contrast for the card. See "Settings" for more information. In a non-Windows environment, color management or graphics software can be used to manage images.

Printing Text

The printer can print text in any color. Small characters are likely to be more readable if they are formatted as black and printed with the black (K) panel. The printer supports 6 point or larger text. with a sans-serif font such as Arial.

Printing Graphics

The printer produces full-color images from most types of graphics. It can use BMP, JPEG, TIFF, and PNG file formats for photos and logos.

Vector graphics, such as WMF and SVG files, have components such as shapes with lines and fills. The XPS Card Printer Driver separates each component. Components defined as black in the file are likely to print with the K panel.

For the best appearance of graphics, use a color that appears black but is not, so all parts of a graphic print with YMC panels. In the RGB color space, 0, 0, 0 is black (and prints with the K panel), but 0, 0, 5 is not black (and prints with the YMC panels).

Backgrounds that are black might print over colored images or text. Use a color that appears black for the background to prevent overprinting, or use white text over the black background. The printer uses the YMC panels of full-color ribbon to print grayscale graphics.

Types of Color Images

Cards can include both color photos and a color logo or text. The logo is usually the same on each card, and the photo is unique. Follow these guidelines to obtain the best results for printing both logo and photos.

- First, check the color quality of the photos:

  - Change the image capture system to get the best quality photos; work with distance, lighting, and camera settings to obtain consistent, high quality photos.

  - Evaluate the quality of printed photos after the image capture system is optimized.

  - Use the Color Settings tab in Printing Preferences to adjust the printed output, if necessary.

- Next, evaluate the other color areas of the card, such as text or logo:

  - The application might have settings that can help improve the printed color of text.

  - Image editing applications, such as Photoshop®, can be used to change the color of a logo file for optimal printing.

  - If the cards do not have the colors you want, ask your administrator or service provider for assistance.

HINTS & TIPS

- See "Card Layout" for information about different components, such as a logo or photo, and how to manage colors.

- See "Printing Text" in the "Monochrome Printing" topic for information about how the driver separates color and monochrome components for printing.

Monochrome Printing

This section describes:

- "Monochrome Panels in Full-Color Ribbon"
- "Monochrome Ribbon"
- "Printing Bar Codes"
- "Printing Text"
- "Printing Graphics"
- "Set the Print Resolution"

The printer driver or application on the PC prepares the data for the printer to use. The type of data and the type of ribbon installed determine how the XPS Card Printer Driver renders it.

Monochrome Panels in Full-Color Ribbon

Full-color print ribbon includes a black panel. The black panel transfers to the card differently than the YMC panels, Text and bar codes are often printed with the black panel. It also prints any monochrome or one-bit-per-pixel graphics using the K panel.

Full-panel YMCKT ribbon

Y	M	C	K	T
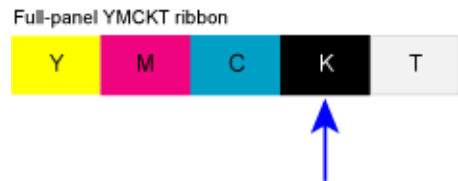
Monochrome Ribbon

Monochrome ribbon produces single color cards. Monochrome ribbon can be:

KT ribbon

K	T

- Alternating black and topcoat panels (KT or KTT ribbon)

   The printer applies Black and two topcoat panels on the same side of the card.

KTT ribbon

K	T	T

- Continuous black (K ribbon)

Monochrome (K) ribbon—Black

- A continuous color, such as green or silver (also K ribbon)

Monochrome ribbon—Green
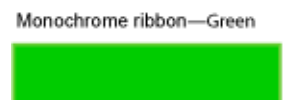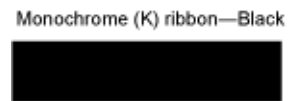
Continuous monochrome printing with certified ribbon uses the Ribbon Saver feature. The printer begins using ribbon at a location that corresponds to the leading edge of the card. The printer continues to spool ribbon for the length of the image but no farther. (The printer leaves a small margin between each card to avoid image overlap.)

Printing Bar Codes

Bar code design is usually completed by your systems administrator and follows a set of standards based on the type of bar code produced. Bar codes usually contain a series of black lines (bars) separated by white areas (spaces). Each character of encoded data is represented by a set of bars and spaces. The standard specifies how many bars and spaces encode a character. The standard also specifies the minimum size of the white area, or quiet zone that surrounds the barcode.

To achieve the best quality printing and improve the readability of the bar code, the black bars should be printed using the K (black) panel of color print ribbon. Bar codes printed with YMC panels will not be as crisp and sharp as when printed with K only.

When an application prints bar codes, the data is often sent to the printer as an image. The format in which the application sends the image determines how the driver will render the image. If the data sent is a one-bit-per-pixel image, such as pure black text on a white background, the driver processes it using the K panel of the print ribbon. If the data contains a pixel of color other than pure black or pure white, such as the various colors in a JPEG image, it processes the image using the YMC panels of the print ribbon.

The XPS Card Printer driver can be set to detect bar code data before printing and if discovered, proceess the data using the K panel of the print ribbon. See "Types of Bar Codes Detected" and "Print Bar Codes Using Monochrome"for more information.

Bar codes will print more successfully when you follow these guidelines:

- Maintain the required quiet zone around the actual bar code.

- Locate bar codes at least 0.25 inch (6.3mm) from other printing and from the edge of the card.

- Test the printed bar code in your bar code reader to make sure they are readable.

- Infrared readers require that the K panel be used to print the bar code.

- For best results, orient the card so the bars are parallel to the long edges of the card, as shown. This orientation is the most accurate one for printing readable bar codes.

- Bar codes are usually more readable when they are printed with less power.
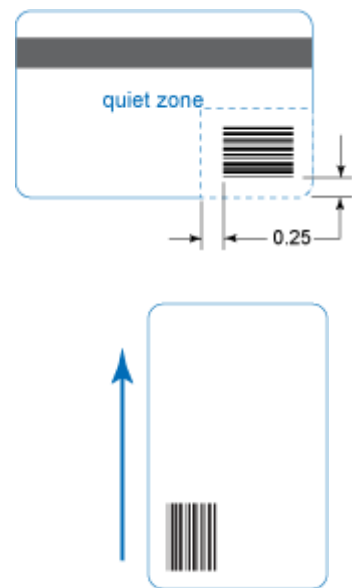
Types of Bar Codes Detected

The printer driver can detect the following 1-D, 2-D, and Postal bar codes:

1-D Bar Codes:

- Code 11
- Code 39
- Code 39 Extended
- Code 93
- Code 128
- 2of5 Interleaved
- Codabar
- Patch Code
- EAN 8
- EAN 13
- UPC A
- UPC E
- Add 2
- Sdd 5

Postal Bar Codes:

- PostNet
- Planet
- RM4SCC
- AustraliaPost
- IntelligentMail

2-D Bar Codes:

- PDF417
- Data Matrix
- QR CodE
- Micro QR Code

Printing Text

Printing text using a K panel can make text look crisp, because only one panel is used for printing. Fine text is often more readable when printed with more power.

The font you choose also affects how easy it is to read printed text. The printer reliably prints 6 pt Arial font. Bold, sans-serif fonts are more readable after printing than serif fonts, or fonts with thin strokes, as shown at right. Fonts that print well are shown toward the top of the card.

When printing one-color cards, make sure text is formatted as black. Text formatted with a color (such as blue) in the ID software is dithered by the driver and characters may have a broken appearance.

Printing Graphics

When printing one-color cards, the XPS Card Printer Driver dithers color and grayscale graphics. Dithering converts areas other than black or white to dots, so the single-color ribbon can approximate the lightness and darkness of the original graphic.

HINTS & TIPS

Monochrome means one-color. When printing cards, the opposite of monochrome is full-color or YMC printing.

Topcoat Printing

When a ribbon with a topcoat or "T" panel is installed, the printer can apply topcoat to the card using the printhead. Full color (YMCKT), KT, and KTT ribbons include topcoat panels.

Topcoat protects the printed image on the card. Full-color printing will fade if it lacks topcoat protection. Make sure that the printing is covered with topcoat (except for areas such as magnetic stripe, smart card, or signature panel).

Topcoat must be requested by the application or driver sending the card to the printer. When you use theXPS Card Printer Driver, it automatically requests topcoat for YMCKT, KT, and KTT ribbons. Most ID software also requests topcoat automatically.

Topcoat should not be applied over the magnetic stripe, smart card chip, or signature panel of a card. To prevent topcoat application, see "Printing and Non-Printing Areas" for more information.

HINTS & TIPS

Topcoat is applied as an even, consistent film.

Card Design: Magnetic Stripe

This section covers the following topics:

- "About Magnetic Stripe"
- "Magnetic Stripe Formats"
- "Use Magnetic Stripe Escapes"
- "Use Magnetic Stripe Fonts"

About Magnetic Stripe

Magnetic stripe is an option available in the printer. See the Printer Status page of Printer Properties for the printer to see if your printer has a magnetic stripe option. The cards you use must also have a magnetic stripe. The magnetic stripe is a brown or black stripe close to one long edge of the card.
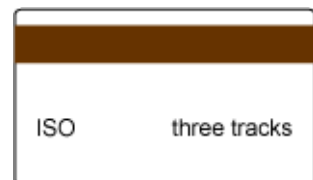
See the package containing new cards for details about the magnetic stripe.

The magnetic stripe option is set up to define the coercivity, number of tracks, and data format. The coercivity and data format are set in the printer. The installer sets these values and they remain the same for all cards printed using the same design. See "Set Magnetic Stripe Coercivity" if you need to change the coercivity.

The data format determines how many characters can be encoded on a track. It also determines which characters can be encoded. See "Three-Track Option"to see the characters available with the default ISO three-track format.

See "Single-Track Option"to see the characters available with the JIS single-track format.

Your cards can use the default format for each track, or can use a different combination of tracks and data formats.

Magnetic Stripe Formats

Three-Track Option

The default data formats for a three-track magnetic stripe option are:

- Track 1 — IATA
- Track 2 — ABA
- Track 3 — TTS

This combination is often abbreviated IAT. This format is called ISO format.

IATA (International Air Transport Association)

The maximum number of characters for IATA format is 76 characters. These characters can include spaces, upper case alphabetic characters, numeric characters, and the following special characters:

! # $ % ' ( ) * + , - . / ; : < @ > = ^] \ [" & _

ABA (American Bankers Association)

The maximum number of characters for ABA format is 37 characters. Numeric characters and the following special characters are allowed:

: ; < = >

TTS (Thrift Third Standard)

The maximum number of characters for TTS format is 104 characters. Numeric characters and the following special characters are allowed:

: ; < = >

Single-Track Option

The default data encoding format for a single-track magnetic stripe module is the JIS Type II format.

JIS (Japanese Industrial Standard)

The maximum number of characters for the JIS format is 69 characters. These characters can include spaces, numeric characters, upper case alphabetic characters, lower case alphabetic characters, and the following special characters:

! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [ ] ^ _ ~ { | } ~

From a PC running a Japanese edition of a supported Windows operating system Japanese-language characters are also supported. They include the following special characters:

。 『 』 、 ・ ー ゛ ゜

45 Katakana characters:

アイウエオ
カキクケコ
サシスセソ
タチツテト
ナニヌネノ
ハヒフヘホ
マミムメモ
ヤ　ユ　ヨ
ラリルレロ
ワ　　　ン

and the following 10 Katakana characters:

ヲ ァィゥェォャュョッ

Each time you start using Japanese-language characters, or stop using them, a hidden character is added. Each hidden character reduces the number of characters you can encode by one character.

Card Design: Smart Card

About Smart Card

This section presents basic information about personalizing smart cards. Smart card processing is different from other types of personalization, because the "smart card" step of personalization is controlled by an application that is different from the rest of card personalization.

Normally, smart card setup is provided by a value-added reseller or service provider. Information about the smart card module installed and the type of cards to use can be requested from your service provider or value-added reseller.

Requirements

The following items are required when personalizing smart cards:

- A direct local connection between the printer and the PC.

- Smart card reader in the printer.

- A smart card cable for the smart card port used. The illustration shows the location of the smart card connection on the printer.

- Card application that is customized to work with the printer and the smart card application (using the driver SDK or ID software application with a smart card application manager).

- Smart cards that work with the reader in the printer.

Smart Card Codes on the Printer Label

The configuration label includes codes to identify the type and model of the smart card module installed in the printer. The following table lists the codes used on the configuration label.

Code on Label	Type of Smart Card Module
S1	Integrator
S2	SCM Dual Interface Reader
S3	HID PcProx Contactless
S4	iClass Read Contactless
S5	iClass Read/Write Contactless
S6	Duali Dual

The S1 value on the configuration label indicates that the printer was ordered from the factory with the basic smart card components installed. Basic components include the mounting hardware only. An integrator must install a contactless reader supplied by others.

If the S2 value is included in the configuration code, the printer has shipped from the factory with the basic components of an S1, plus the SCM Dual (Contact/Contactless) Interface installed.

Printing and Non-Printing Areas

The card design can have areas where printing is not allowed. Such areas include a magnetic stripe, signature panel, or smart card chip. ID software often manages such non-printing areas automatically.

If you use other applications to print cards, such as Microsoft© Word, define non-printing areas using the XPS Card Printer Driver or escape codes. The XPS Card Printer Driver includes standard non-printing areas, such as three-track magnetic stripe and smart card chip. Both printing and topcoat are blocked in these areas.

- See "Set the Print Area" to define standard non-printing areas.

- See "Use Print Blocking Escapes" for other areas.

Standard Magnetic Stripe Area

Use the following dimensions to prevent printing in the magnetic stripe area.

The 3-track magnetic stripe is usually on the back of the card, while the single-track magnetic stripe is usually on the front of the card. The green arrow shows the direction the card travels through the printer.

	A	B	C
3-track	3.37 in 85.6mm	1.46 in 37.1mm	0.66 in 16.8mm
2-track	3.37 in 85.6mm	1.57 in 39.9mm	0.55 in 14mm
Single-track (JIS)	3.37 in 85.6mm	1.60 in 40.6mm	0.52 in 13.2mm

Smart Card Non-printing Area

Use the following dimensions to prevent printing in the smart card area. The smart card area is usually on the front of the card. The green arrow shows the direction the card travels through the printer.

A	B	C	D
0.88 in 22.4mm	1.17 in 29.8mm	0.88 in 22.4mm	1.47 in 37.3mm
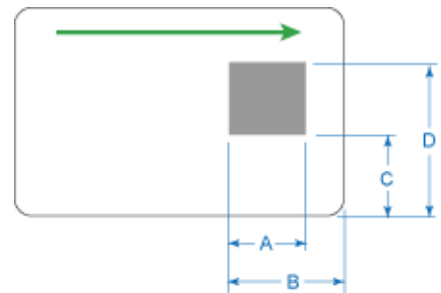
Other Areas

If you want to specify more than one area on the same side of the card or want an area other than the standard ones, see "Use Print Blocking Escapes".

HINTS & TIPS

- Blocking typically extends 0.1 inch beyond the edges of a feature. The dimensions listed include the extended blocking region.

- Print several cards using your card design and application to verify that printing and topcoat are applied as you intend.

- If you do not use the driver or ID software, you can use the dimensions provided for smart card and magnetic stripe to customize your print and topcoat areas.

- Use ID software, a custom application, or escapes to define custom nonprinting areas for one or more of the following:

    - Blocking printing but not topcoat

    - Non-standard areas, such as a preprinted logo or a signature panel

    - More than one area on the same side of the card

Card Layout

The arrangement or layout of components helps to determine how well your card design works for users. Follow these guidelines to position card design components for best results.

Backgrounds

- Consider using a white background for the card to achieve consistent professional results.

- Consider using smaller blocks of color, patterned areas, or gradients to highlight printed card features such as a name, photo, or logo.

- Avoid using a solid color background or half tone over a large area of the card. It can show flaws on the card (such as uneven surface) or the location of card features (such as a smart card chip).

Image Placement

- Important images can include the photo, logo, and bar code.

- Do not place an important image on the front of the card in the same area as a magnetic stripe or other machine-readable feature. Frequent use of a card in a reader can wear away the image on the opposite side of the card.

- Do not place an important image directly on the other side of a signature panel. Residue from the panel can cause printing problems on an adjacent card. Place the image above, below, or to the side of the panel.

- Avoid uneven areas that can result in inconsistent print quality.

- Do not place an important image directly on the other side of a smart card chip. The card might not be as flat in that area and printing voids can occur.

Badges

If cards are used as badges, you might want to punch a hole or slot after printing so cards can be attached to clips. The illustration shows the maximum size for a slot. A smaller slot will be stronger and contribute to durability in the slotted area.

0.56-in (14.3mm) maximum

0.20-in (5.1mm) maximum
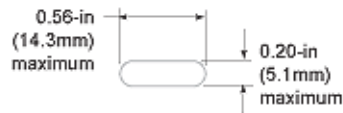
Settings

Settings are available through the XPS Card Printer Driver for Operators and Managers.

Managers also can use the Printer Manager to perform setup tasks.

Windows Properties and Preferences

The XPS Card Printer Driver includes the following interfaces:

- Printing Preferences, which provides card design settings, such as Orientation and one sided or two-sided printing. See "Open Printing Preferences".

- Printer Properties, which provides status information about the printer. It also has port setup, permissions, and update tools. See "Open Printer Properties".

Printer Manager

- The printer includes the Printer Manager, which displays information about the printer. The manager or installer uses it to set up the magnetic stripe option and to work with your service provider when troubleshooting problems. See "Open the Printer Manager".

- Operators can use the printer front panel and the Properties page of the driver to view card counts and status information. Operators should use the Printer Manager only at the direction of their manager.

Chapter 7: Printer Driver

7

The XPS Card Printer uses Microsoft XPS print technology to support printing from currently available applications. It also supports applications being developed using the newer architecture of Windows Vista and Windows 7 operating systems.

The XPS Card Printer Driver:

1. Receives card data from an application

2. Processes it for personalizing a card

3. Sends the prepared data to the printer

4. Checks the printer for card completion

5. Displays any conditions (messages) associated with the card

See "Using the driver" for tasks you can perform using the driver interfaces.

HINTS & TIPS

See the *Quick Install Guide* for the steps to follow to install the printer and driver correctly.

The installation assigns a default printer name. If you want to use a different name, you can change the name from the Printer (and Devices) window. If you have changed settings in Preferences, the settings return to default values. For best results, change the printer name, if needed, after installation and before changing settings.

Communication with the Printer

How the XPS Card Printer Driver and printer communicate:

- The printer can be connected to a PC using a USB cable or an Ethernet cable. For both connection types, the printer treats communication as if the PC (driver) is connected over a network.

- The driver requires the current printer IP address when it is connected to the printer over a network. See "View Network Information" for more information.

- When both the printer and PC use the organization's network, the network affects the speed of data transmission, and can affect who can use the printer.

- When the printer and PC are connected using a USB cable, the printer and PC automatically set up a local network. The printer has an IP address, which can be used to view the Printer Manager. (See "Open the Printer Manager".) Each time another card printer is connected to the PC, the local network is updated to include the new printer. For best results, do not connect another printer while using Printer Manager.

- Applications can also be customized to communicate with the printer through the driver. If the application you use is customized, follow instructions in the application.

HINTS & TIPS

- The printer can have many PCs connected to it.

- Each PC can have up to 4 printers connected using USB cables.

- Each PC can be connected to many printers over the network.

- Each printer has a separate instance of the driver.

- Each printer needs to have a different name. The driver takes care of this requirement.

Using the driver

The XPS Card Printer Driver provides the Windows dialogs for Printing Preferences for setting the page or card design, and Printer Properties to manage the printer in the Windows environment.

Using settings in Printing Preferences, you can:

- Adjust the colors printed (see "Adjust the Colors Printed")

- Change card design settings (see "Change a Card Design")

- Send cards with only mag stripe data for encoding (see "Encode Magnetic Stripe without Printing")

- Print on both sides of the card (see "Print on Both Sides of the Card")

- Rotate the card (see "Rotate the Card")

- Set the print area (see "Set the Print Area")

- Set the number of copies of the same card design (see "Print More Than One Copy of a Card")

- Enable bar code detection (see "Print Bar Codes Using Monochrome")

Printer Properties provides status information and sample cards. Using Printer Properties, you can:

- View or set the printer network port address (see "View Network Information")

- Print driver sample cards (see "Print Driver Sample Cards")

- View printer and supplies status (see "View Printer Status")

- View card counts (see "View Card Counts using the Driver")

- View the driver version (see "View the Driver Version")

- Set Windows Permissions (see "Printer Permissions")

HINTS & TIPS

The Ports tab of the Printer Properties dialog includes an "Enable Bidirectional Support" checkbox. The driver always uses bi-directional communication with the printer. Changing the checkbox prevents all printing from the driver.

Chapter 8: Updates, Upgrades, and More

8

This section describes:

- "Updates"
- "Upgrades and Printer Options"
- "Deviations"

Updates

An update replaces part of the product you have — usually software — with a newer release. Driver updates and firmware updates are the most common types of update.

- Driver Update

  Driver updates are available from the website or from your service provider.

- Firmware Update

  In most cases, you should update firmware when your service provider recommends it. Be careful to choose a firmware file that exactly matches your printer type.

Updating the Driver

If a newer printer driver is released, it can be downloaded from the Web site listed in the bar at the bottom of the page.

Important! Do not use any of the following methods to remove or replace the existing driver:

- The Printer Properties > Advanced tab >New Driver button
- Delete the printer from the Printers or Hardware window.

After downloading the driver, follow the steps in "Removing a Printer from a Windows PC" to remove this driver and install the new one. Removing and installing the driver requires a user with Windows Administrator-level or Creator/Owner rights or permissions.

When you update the driver, the driver also updates:

- My XPS Card Printer
- The documentation folder

In most cases, software used by the driver, including an mDNS responder such as Bonjour®, and Microsoft components such as the XPS framework, are not updated.

Upgrades and Printer Options

Printer upgrades and options add functionality to your printer. Upgrades come with installation instructions and are designed to be installed by trained service providers. Printer options are usually installed by operators.

The following upgrades and printer options are available:

- Magnetic Stripe Field Upgrade

- Smart Card Field Upgrade

- High-Capacity Output Hopper Option (see "Install a Large Output Hopper")

- 200-Card Input Hopper Option (see "Install the 200-Card Input Hopper")

- Lock Option (see "Install the Lock Option")
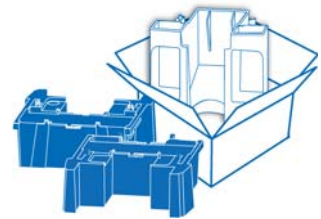
Deviations

Deviations are specially adapted products, created as a special-order. Most often, the driver or the firmware is deviated; sometimes the hardware (printer) is also changed. If you have a deviated driver, firmware or printer, be very careful about updating the driver or firmware. A deviated driver or firmware will have a version number with "d" near the end, similar to the following:

Firmware Version: 1.3.d1

Driver Version: 1.0.d2

Always check with your service provider to determine whether to install the update. Do not update until you are sure that the update supports the special features of your product.

Deviations might be called by a different name in your organization. Other names might include RPQ, custom, or special. RPQ stands for Request for Price Quotation, which is one of the first steps in developing an agreement to create the deviated product.

Chapter 9: Removing a Printer from a Windows PC

9

This section includes instructions to remove the XPS Card Printer Driver from a Windows PC.

If the PC is going to be used for another purpose or reason, you may want to remove the printer and all driver files. When the XPS Card Printer Driver is removed, all files associated with the driver such as printer documentation and magnetic stripe fonts, are also removed.

To remove the XPS Card Printer Driver from a Windows PC:

1. Log on to the PC as a user with Administrator access.

2. Open the Windows Printers window:

   - Windows 7, choose **Start > Devices and Printers**

   - Windows Vista and Windows Server 2008, choose **Start > Control Panel > Hardware and Sound > Printers**

   - Windows XP and Windows Server 2003, choose **Start > Settings > Printers and Faxes**

3. Make sure all cards sent to the printer have printed. You cannot delete a printer that has jobs in the print queue. Double-click the printer icon to open the Print Manager and view the print jobs. If any jobs appear, do the following:

   A. If the job is paused and you want it to print, click the job and then choose **Document > Resume**. Wait for the jobs to complete.

   B. If you want to delete a job in the queue, click the job and then choose **Document > Cancel**. Click **Yes** to confirm.

   C. If the printer is paused or offline, the title bar for the window will include that status. Choose **Printer** and clear the appropriate choice to enable printing.

   D. To cancel all jobs, choose **Printer > Cancel All Documents**. Click **Yes** to confirm.

4. Power off the printer.

5. Insert the driver CD into the PC's drive.

6. Click the Remove Printer Driver icon on the main installer screen.

7. Click the **Remove the Driver** button.

8. Wait until the driver is removed. The installer will show you the progress of the uninstall.

9. You may be prompted to restart the PC. If a restart is required, remove the USB cable and then click the **Restart Now** button.
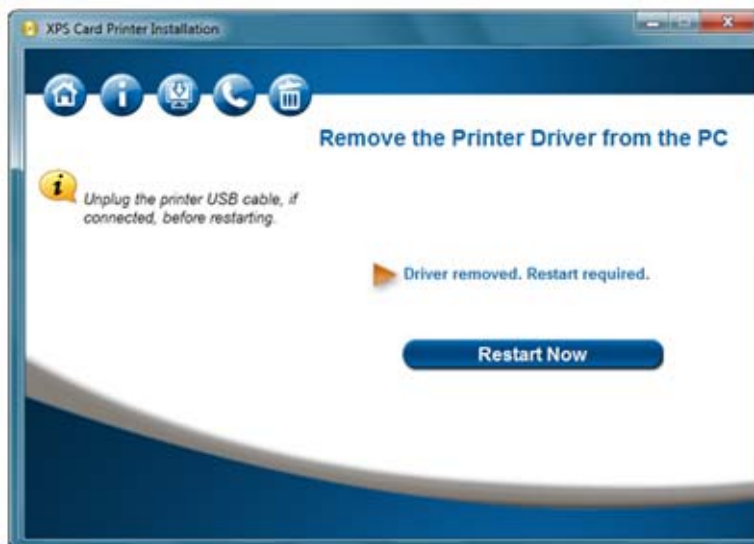
Chapter 10: Troubleshooting

10

This section describes:

- "Tools for Troubleshooting"

- How to locate the problem (see "Locate the Problem")

- Installation problems (see "Fixing the Printer System")

- Card appearance problems (see "Card Appearance")

- Magnetic stripe problems (see "Magnetic Stripe ")

- Driver communication problems (see "Installation Troubleshooting")

- "For Managers Only"

Tools for Troubleshooting

The tools for troubleshooting a problem are similar to the supplies and equipment you use to print cards:

- Cards to print, used at several stages of troubleshooting

- Print ribbon

- Cleaning supplies, especially printer cleaning cards and a cleaning pen

- The XPS Card PrinterDriver, if you use it when printing cards

- The Printer Manager, for use by managers with the guidance of your service provider

- Procedures to identify where a problem is occurring

Locate the Problem

When you think the printer is not working correctly, use the following procedure to locate the source of the problem.

The printer, printer driver, and ID software work together to produce cards. If the system is not working as you expect, follow these steps, in the order listed, to isolate the source of the problem before contacting your service provider.

1. Check that the power cable is connected and the printer is powered on.

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

   If yes, the printer powers on. Continue to step 3.

   If the printer powers on but does not display "Ready" the printer is not working properly; If the printer does not power on, make sure the printer is connected to a functioning power source.

   Remove the printer power cord from the outlet.

   Connect another device, such as a light, to the same outlet to verify that the power source functions correctly.

   Connect the printer to a functioning outlet and repeat, beginning with step 1.

3. Make a printer test card. See "Print a Printer Test Card" for the steps to follow.

   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 4.

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

4. Connect the printer data cable, if needed. Make sure you use the same type of cable – USB or network – used when the printer was installed.

5. If you use the XPS Card Printer driver, print the driver sample card. See "Print Driver Sample Cards" for the steps to follow.

   Does the sample card print?

   If yes, the printer and driver are working correctly. Continue to step 6.

   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.

6. Using your ID software, print a card. Click the type of printer – with an input hopper or with a single-feed slot – and follow the instructions to print a card.

Does the card print?

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

If no, check the following:

- In the application, is the correct printer chosen 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.

HINTS & TIPS

This process will not help with card appearance problems. See "Card Appearance" for possible problems and solutions.

See "Magnetic Stripe " if the card includes magstripe data and it causes a magstripe message.

Fixing the Printer System

See "Printer System" for typical components of the system. If any one component does not work properly, printing cards can be affected.

- The XPS Card Printer Driver

- ID Software

- Using the printer plug-in

- Other components of the system

The XPS Card Printer Driver

The XPS Card Printer Driver is provided in the CD Folder, included in the shipping carton. If the CD is not available, you can download the driver from the Web site link at the bottom of this page. Choose Support & Drivers > Drivers & Download from the menu. Enter your printer model in the Enter Product Name or Number area, and click Go.

ID Software

ID software formats the types of data used to print cards. Contact the dealer or distributor from whom you purchased your printer to obtain ID software.

ID software does not know the capabilities of the printer and you are responsible for selecting card features that work with the printer you have.

If you do not use ID software, make sure the software you use supports the requirements for creating cards. If you use magnetic stripe data, you must 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 text be sent from the application as text.

Using the Printer Plug-in

ID software might include a printer plug-in, which takes the data in the ID 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 can include other capture devices such as those for biometric data. Using and maintaining these components is important to the quality of cards you produce.

Installation Troubleshooting

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

- "USB Installation Troubleshooting"
- "Network Installation Troubleshooting "

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.	USB extension cables can cause communication problems. The recommended USB cable is 6-ft (2 meters) long. Be sure to use a cable rated for USB 2.0 data transmission.
The card printer does not install when the USB cable is connected.	If the printer is not recognized by the PC, or if installation was interrupted, the Device Manager might have an entry for the printer that needs to be removed before the printer can be installed. Disconnect the printer from the PC. If the printer was installed, make sure it is deleted. See "Removing a Printer from a Windows PC" for the steps to follow. Open the Windows Device Manager. 1. Locate the device to delete. The device might be called "Unknown device" or it might be located under the Printers or Network Adapters folder. The device might be marked with a yellow question mark or exclamation mark. 2. Click on the device name to select it, and then right-click to display a pop-up menu. 3. Choose Remove from the pop-up menu. 4. Click Yes or OK to confirm removal of the device. 5. Close the Device Manager. Close any other windows. 6. Re-install the printer. See "USB Installation using the Installation CD".
I get an error message saying USB not detected.	The USB installer timed out and a printer was not detected. Remove the printer driver before re-installing the printer. For more information on how to remove the driver, see "Removing a Printer from a Windows PC".

Problem	Solution
The USB cable is connected before the driver is installed.	The first printer installed on a PC using a USB connection must be installed from the driver CD or downloaded driver. Remove the driver before re-installing the printer. For more information on how to remove the driver, see *"Removing a Printer from a Windows PC"*.
The Print Sample Card button is gray.	The Print Sample Card button in the Printer Properties is enabled when the printer and driver communicate normally. If the Print Sample Card is gray, check that the USER button on the front of the printer is steady green and that "Ready" is displayed on the LCD panel.
The PC USB port does not communicate reliably 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.
The printer does not install or print on the PC when the PC is connected to a network using VPN Client software.	VPN Client software can prevent the installation and use of other devices. Choose one of the following solutions: Connect the printer using an Ethernet cable and follow the instructions in *"Network Installation using the Installation CD"*. Disconnect the VPN Client software from the network, and then install the USB printer and driver or resume printing.

Network Installation Troubleshooting

Problem	Solution
The 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 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. See "Get the Printer USB IP Address" for the steps to follow. Check that "Ready" is displayed on the printer's LCD panel.

Driver Problems
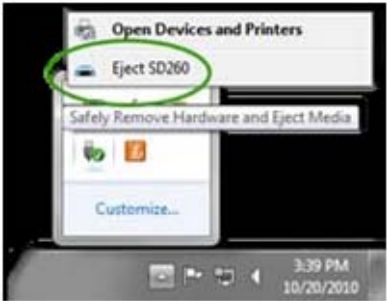
The driver and printer can have the following communication problems:

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

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

- "Unexpected messages appear"

- "Driver status or Windows print queue does not provide expected data"

The driver does not detect the network-connected printer

Problem	Solution
The Printer Properties > Status tab shows the printer is not available.	Make sure 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. Check the current Printer IP Address. Update the IP Address on the Printer Properties > Ports tab.
Message 500 appears after you send a card to print.	If this happens often, consider switching from DHCP network addressing to Static IP addressing. See *"Set the Driver Network Port Value"* for more information.
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 both ends of the data cables are connected. See *"Data Cable"*. Replace defective cables if needed.

The driver does not detect the USB-connected printer
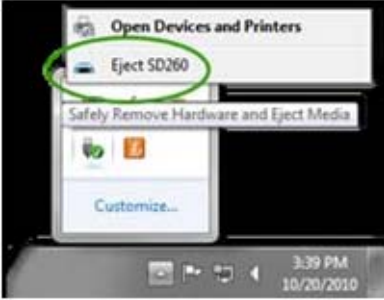
Problem	Solution
The Printer Properties > Status tab shows the printer is available, but Message 500 appears after you send a card to print.	Make sure you are using the same type of data cables – USB or network – that were used when installing the printer. You cannot switch the type of data cables after installing. Make sure both ends of the data cable are connected. See "Data Cable". Replace a defective USB cable if needed.
Message 505 appears after you send a card to print.	The Bonjour software is disabled or not installed. Check the Windows Add/Remove Programs list to see if Bonjour is installed. If Bonjour is not installed and the printer is connected using a USB cable, the driver must be removed and the printer must be installed again. A user with administrator (Windows XP) or Owner/Creator (Windows Vista and 7) permissions is required to remove and install the printer. See the Quick Install Guide, available through My XPS Card Printer, for the required sequence.
The SD260 device was removed from the Safely Remove Hardware list.	Power off the printer. Wait a minute. Power on the printer. The device should be detected again. The device always appears in the Safely Remove Hardware list.

Unexpected messages appear

When using the XPS Card Printer Driver on a PC with some older card printers installed, the older printer driver can display message DR00914 "The printer driver was not started successfully." naming the XPS Card Printer as a printer that did not get installed correctly.

Clear the message. The printer works as designed.

Driver status or Windows print queue does not provide expected data

Problem	Solution
In the print queue (Windows Print Manager), print jobs are shown as done and are removed, when they have not started in the printer.	The print queue shows jobs that Windows is still tracking. Those jobs can be in the queue at the printer, waiting for other jobs to complete
The Driver Sample Card or mag stripe test cards do not print.	The "Enable bidirectional support" choice in Printer Properties is unchecked. This must be checked to allow printing from the driver.
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.
In the print queue (Windows Print Manager), print jobs show an error and are removed without printing.	The print queue shows jobs that Windows is still tracking. Those jobs can be in the queue at the printer, waiting for other jobs to complete.
The Driver Sample Card or mag stripe test card do not print.	The "Print directly to printer" choice in Printer Properties is checked. Uncheck the value to allow printing of the driver sample cards.
A print job disappears from the print queue, but does not print.	The printer USB cable was disconnected after the application sent the job.
The Eject SD260 device appears in the Safely Remove Hardware list.	The USB adapter in the printer appears in the list. This cannot be changed.
The print job prints, but remains in the print queue.	The printer might be shared with another PC. The printer driver does not support sharing. Close the print queue and open it again to clear it.

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"

- "Printing includes unexpected data"

- "The color printing has flaws"

- "The printing is too light"

- "The printing in too dark"

- "The monochrome printing has flaws"

Something did not print

Problem	Solution
Nothing is printed on the card.	The magnetic stripe Encode Only option is set to On. Open Preferences and change Encode Only 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. In the application, use Print set up to choose the card printer. The correct page size will be available after choosing the printer. See "Printing Cards" for details.
Color printing on top of a black background does not appear on the card.	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 will print 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.	See "Use Magnetic Stripe Fonts".
	The escape code was typed incorrectly.	See "Use Magnetic Stripe Escapes".
	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. See "Clean the Printhead".
One color panel is not aligned correctly with other color panels.	The cards are slipping in the track.	Run a cleaning card. See "Run a Cleaning Card".
	The cards are not the correct size for the printer.	Use cards that meet the size requirement for the printer. See "Cards" for specifications. If you must use the cards you have, ask your manager for help.
Part of the printed image is a different size than on the monitor.	Applications and operating systems can handle scaling differently. The PC is set to use a display setting other than 100 percent.	For best results, use an image-editing program to create the correct size image for the card. Use a screen resolution to set the size of icons and text on the monitor.

Problem	Probable Cause	Solution
Printing is blurred.	The cards have a matte, not glossy, finish.	Use cards that meet the requirements for the printer. See *"Cards"* for specifications.
	The rollers are dirty.	Run a cleaning card. See *"Run a Cleaning Card"*.
	The printhead is dirty.	Clean the printhead. See *"Clean the Printhead"*.
The printed card has small unprinted areas.	Unprinted cards have scratches.	Handle cards carefully. See *"Card Quality Guidelines"*.
The printed card has small unprinted areas.	Cards have embedded particles, an uneven surface, or the card edge has burrs.	Use cards that meet the requirements for the printer. See *"Cards"* for specifications
	The rollers are dirty or the card packaging contains debris.	Run a cleaning card. See *"Run a Cleaning Card"*. If needed, obtain a different supply of cards.
Part of the printed image is discolored.	Cards might have fingerprints or other dirt on them.	Handle cards carefully. See *"Card Quality Guidelines"*.
	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 contamination.	Run a cleaning card. See *"Run a Cleaning Card"*. Use cards that meet the requirements for the printer. See *"Cards"* for specifications. If needed, obtain a different supply of cards.

The printing is too light

Problem	Probable Cause	Solution
Photos look faded.	The image capture system needs adjustment.	Color settings might not be optimal. See information for the image capture system. Change color settings. See "Adjust the Colors Printed".
The printing is very light.	The ribbon is loaded incorrectly.	Load the print ribbon correctly. See "Load Ribbon".
	The card was previously printed and has topcoat on it.	Print only new cards. See "Cards" for specifications.
	The printhead is not installed correctly.	Contact your service provider for instructions on installing the printhead correctly.

The printing in too dark

Problem	Probable Cause	Solution
The card shows wrinkles in darkly colored areas.	The card includes 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. See *"Monochrome Printing"*.
	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

To begin troubleshooting a magnetic stripe problem, first print a magnetic stripe sample card from the driver. See "Print Driver Sample Cards" for the steps to follow.

The printer uses the coercivity set using the LCD panel or Printer Manager, and uses 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. See "Load Cards".
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 mag stripe head.
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. To encode with high coercivity, obtain cards manufactured for high coercivity encoding. See "Print a Printer Test Card".
Message 106 is displayed. 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. 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 you know what data is allowed on the track. Change the data to be encoded, and resend the print job.

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. See "Open the Printer Manager". Make sure 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. See "Printer Configuration Label " to understand the options in your 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 ID software sends.

For Managers Only

The Printer Manager provides access to settings that you can use when setting up card designs, and access to troubleshooting tools. See the Solution Guide, available to users who choose "Advanced" on My XPS Card Printer, for information about using the Printer Manager. See "Open the Printer Manager" to access the printer manager.

In most cases, you can perform advanced troubleshooting with the guidance of your service provider.

Chapter 11: Supplies and Parts

11

This section describes the supplies used with the printer and parts for the printer. It includes:

- "Print Ribbon "
- "Cards"
- "Cleaning Supplies"
- "Replacement Parts"
- "Cables used with the Printer"

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. Use full panel print ribbon when the card design calls for color printing on the entire card. Short panel print ribbon is for use 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, and black text on the bottom of the card.

Full-panel YMCKT ribbon

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.

Short-panel YMCKT ribbon

When printing with short panel print ribbon, the location of the color area is defined in the card design. Color printing begins when the driver detects a color pixel and continues for the length of the ymc panels. When using short panel

ribbon, check Printing Preferences to make sure that the selection 'Front side rotate image 180 degrees' is disabled.

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, clear).

The following color print ribbon kits are available:

- YMCKT Color Ribbon, 250 images per roll

- YMCKT Color Ribbon, 500 images per roll

- ymcKT (short panel) Color Ribbon, 650 images per roll

- YMCKT-K Color Ribbon, 375 images per roll

- YMCKT-KT Color Ribbon, 300 images per roll

Monochrome Print Ribbon

A monochrome ribbon prints the entire card in one color.

Monochrome ribbon can be:

- Alternating black and topcoat panels (KT or KTT ribbon)

- Continuous black (K ribbon)

- A continuous color, such as red or silver

A roll of certified monochrome ribbon enables the Ribbon Saver feature in the printer. Ribbon Saver can increase the number of cards printed with each roll of ribbon.

The following ribbon kits are available:

- Alternating black and topcoat panels (KT ribbon), 1000 images per roll

KT ribbon

- Black with two topcoat panels (KTT ribbon), 650 images per roll

  The printer applies Black and two topcoat panels on the same side of the card.

KTT ribbon

- Continuous black (K ribbon), up to 500 images per roll

- Continuous black (K ribbon), up to 1500 images per roll

- Continuous dark blue, up to 1500 images per roll

- Continuous gold, up to 1500 images per roll

- Continuous gold metallic, up to 1500 images per roll

- Continuous red, up to 1500 images per roll

- Continuous white, up to 1500 images per roll

- Continuous green, up to 1500 images per roll

- Continuous silver, up to 1500 images per roll

- Continuous silver metallic, up to 1500 images per roll

- Continuous scratch-off, up to 1500 images per roll

Print Ribbon Storage Guidelines

- Store print ribbon in the original package until you load it in the printer.

- Keep the original packaging closed.

- 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° F and 77° F (0° C and 25° C). A humidity range from 40% to 60% non-condensing is recommended.

- Supply rolls should be at room temperature when installed in the printer. 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.

Cards

This section describes the cards to use with the printer. 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. Such 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 with a magnetic stripe on one side of the card.

Pre-Punched Cards

For best results, punch cards after printing them. The cards can have a punched area within 1-inch (25mm) of the left-hand edge, as the cards are loaded in the printer. If the card has a magnetic stripe, the card cannot be punched anywhere in the stripe.
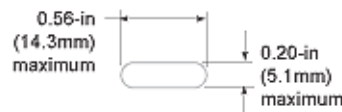
New Cards for Color Printing

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 contamination 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. The printing surface (white side) of adhesive-backed card meets the material requirements for use in some printers. Use the following 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 on them successfully.

Card Surface

- The card must be free of irregularities such as particles embedded in the surface.

- The card surface must be smooth and even. Surface irregularities can cause loss of contact, resulting in printing voids.

- The printing surface must be glossy.

- Card edges must be free of raised burrs, which can cause printing voids. This is especially true 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 will not shift and rub against each other.

- When storing cards, make sure that no two cards contain images or blocks of color that will 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.

Replacement Parts

The following replacement parts for use with the printer 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".

Print Ribbon Cartridge

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

Cleaning Supplies

The print ribbon kit includes a cleaning card and a replaceable cleaning sleeve. For best results, keep additional cleaning supplies on hand.

The following additional cleaning supplies are available:

- Packages of 5 Replaceable Cleaning Sleeves

- Packages of 10 Printer Cleaning Cards.

- A Cleaning Pen: Use the cleaning pen to clean the printhead and other internal parts of the printer. A cleaning pen can be used eight times.
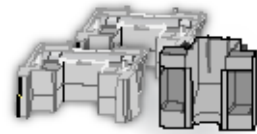
Cleaning Roller Spindle

The cleaning roller spindle holds the replaceable cleaning sleeve.

Large Output Hopper Option

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.

Lock Option

The printer can be used with a cable lock. Obtain the lock from your dealer, because it includes an added security plate.

Power Supply

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

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.

Cables used with the Printer

The printer uses a data cable and a power cable.

Data Cable

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

- USB cable
- Network cable

USB Cable

Use a USB data cable, 6 feet (2 meters) long, 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 Cable

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

The printer can use one of the following power cords:

- USA power cable
- European power cable
- Australian power cable
- United Kingdom power cable
- Danish power cable
- Indian power cable
- Israeli power cable
- Italian power cable
- Swiss power cable

- Chinese power cable

- Japanese power cable

HINTS & TIPS

- Use only one data cable with a printer.

- If you need to connect more than one PC to a printer, use a network connection.

Chapter 12: How-To Topics

12

- "Install a Large Output Hopper"

- "Install the 200-Card Input Hopper"

- "Install the Lock Option"

- "Adjust the Colors Printed"

- "View Card Counts using the Driver"

- "View Card Counts from the Printer LCD Menu"

- "Change a Card Design"

- "Run a Cleaning Card"

- "Clean the Printhead"

- "Set the Driver Network Port Value"

- "Encode Magnetic Stripe without Printing"

- "Change the LCD Backlight"

- "Get the Printer Network IP Address"

- "Get the Printer USB IP Address"

- "Load Cards"

- "Load Ribbon"

- "Open Printing Preferences"

- "Open the Printer Manager"

- "Open Printer Properties"

- "Print Driver Sample Cards"

- "Print a Printer Test Card"

- "Print on Both Sides of the Card"

- "Rotate the Card"

- "View Printer Status"

- "Find the Printer Serial Number"

- "Set Magnetic Stripe Coercivity"

- "Set the Print Area"

- "Set IP Address Type"

- "Use Print Blocking Escapes"

- "Use Magnetic Stripe Escapes"

- "Use Magnetic Stripe Fonts"

- "View the Driver Version"

- "View Network Information"

- "Print More Than One Copy of a Card"

- "Set the Print Resolution"

- "Print Bar Codes Using Monochrome"

Install a Large Output Hopper

The output hopper included with the printer holds about 25 cards. The printer can be used with an optional large output hopper that holds up to 100 cards.

The large output hopper kit includes two base sections and a large output hopper. The two base sections are the same; turn them back to back to use them. Each base has hooks, marked by green circles, to attach it to the printer base.

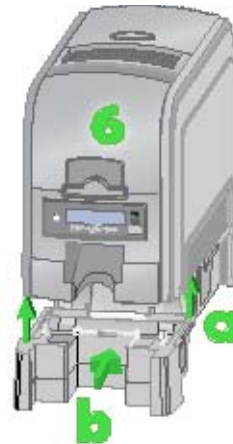**Base Sections**   **Large Output Hopper**
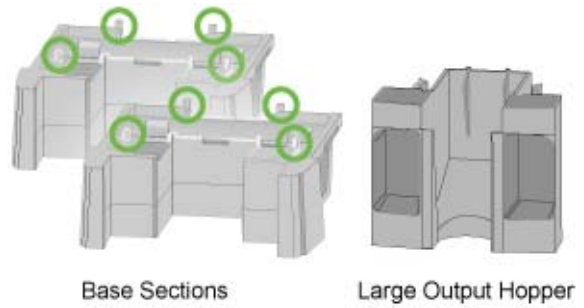
You can remove the standard hopper and attach the large output hopper without using tools.

Follow the steps in this topic to attach the printer to the bases, and to install the larger output hopper.

1. Position one base section with the open end facing the back of the printer.

2. Lift the printer over the base section.

3. Align the tabs in the base with the slots in the bottom of the printer.

4. Push up (a) to insert the four tabs in the slots and then push the base forward (b) to lock it to the printer.

5. Position the other base section with the opening to the front of the printer.

6. Push up (a) to insert the four tabs in the slots and then push the base back (b) to lock it to the printer.

7. Remove the 25-card output hopper from the printer. Slide it out, similar to a drawer.

8. Slide the 100-card output hopper into the assembled base and printer. Make sure the tabs (in circles) secure the hopper to the printer.
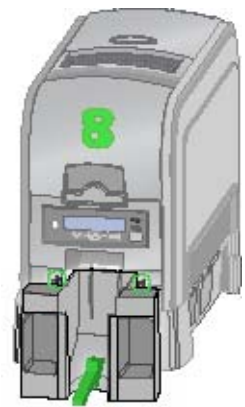
HINTS & TIPS

• The base sections contain drawers, useful for holding cards, cleaning pen, or other frequently-used items. The drawers can be opened from the left or right side of the printer.

• The base and large output hopper remain attached when the printer is moved or carried.

Install the 200-Card Input Hopper

The standard input hopper can hold about 100 cards. Some printers can be upgraded to use a 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.

1. Open the input hopper.

2. Press the release tab located on the back wall of the hopper while lifting the hopper up and off the printer.

3. Install the 200-Card input hopper by aligning the tabs with the slots on the printer.

4. Push the hopper down until it clicks into place.
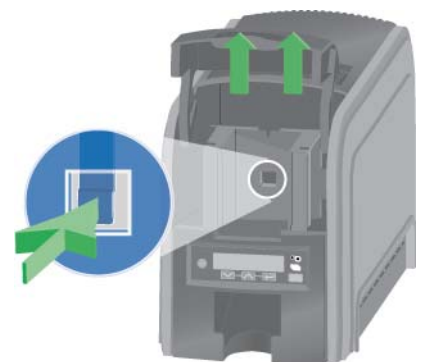
5. Load up to 200 cards in the hopper and close the cover. The printer is ready to print cards.
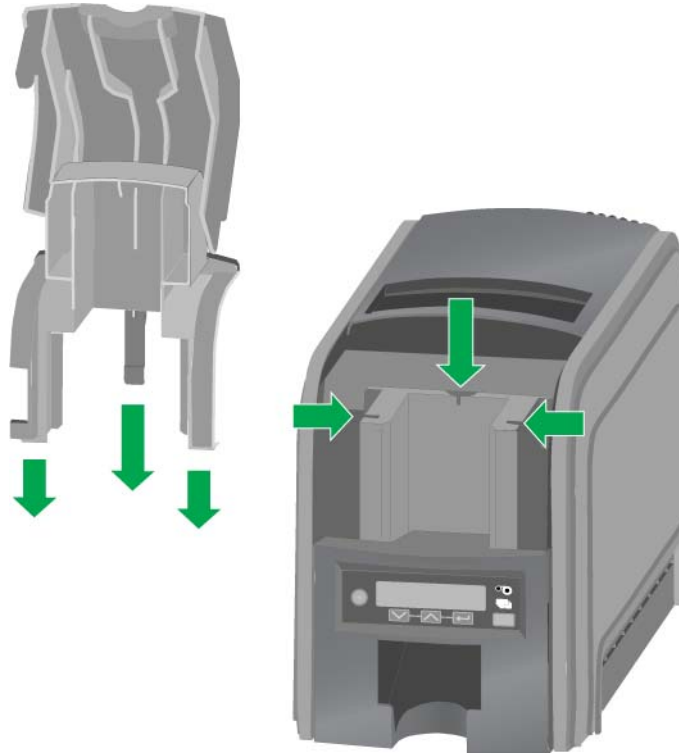
Install the Lock Option

The lock option is a user-installed feature that does not require special tools to install. The package contains a Kensington® Lock with keys, instructions, and a metal security plate. The security plate is installed in the printer and is designed to accommodate the T-bar of the Kensington lock.

1. Prepare the printer by installing the metal security plate and then follow the instructions included in the packaging.

2. The security plate receptacle is located on the underside of the printer towards the back left-hand side.

3. Insert the security plate into the receptacle with the open end toward the printer.

4. Follow the instructions included with the lock to complete the installation.
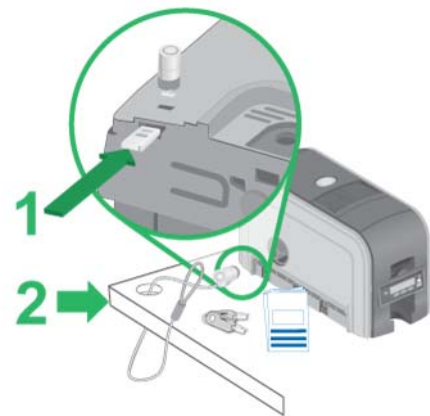
Adjust the Colors Printed

The XPS Card Printer driver for use with Windows operating systems includes a Color Adjustment feature in Printing Preferences.

Using the Color Adjustment tab, you can:

* Change the brightness of color printing on the card

* Change the contrast of color printing on the card

* Change the color balance of color printing on the card

1. Open the Preferences dialog in the following ways:

    A. Using the **Open Printers Window** button in My XPS Card Printer

    B. From the Start Menu in Windows 7 or Vista

    C. From the Start Menu in Windows XP

2. Click the Color Adjustment tab to view it.

3. The tab contains two similar images: the original image and the adjusted image. They show how the changes might look on a card.

4. Check **Enable Color Adjustment** if needed to use the settings.
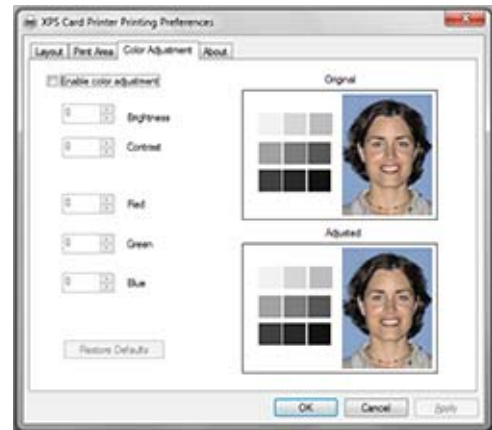
Brightness

To change the overall lightness or darkness of the card, change the Brightness setting.

1. Click the Up arrow to make the image lighter, or the Down arrow to make the image darker.

2. The Adjusted image shows the effect of the new setting.

3. Click the **Apply** button after each change to save it.

4. Print one or more cards to verify your changes:

5. Print one or more cards from the ID software.

6. Print a sample card from the Properties Status page.

7. Evaluate the appearance of the cards.

8. Repeat these steps until the cards meet your requirements.

9. Click the **Apply** button to save the new values.

Contrast

To change the degree of difference between the light and dark values of an image, change the Contrast setting.

1. Click the Up arrow to increase contrast, or the Down arrow to decrease contrast.

2. The Adjusted image shows the effect of the new setting.

3. Click the **Apply** button after each change to save it.

4. Print one or more cards to verify your changes:

5. Print one or more cards from the ID software.

6. Print a sample card from the Properties Status page.

7. Evaluate the appearance of the cards.

8. Repeat these steps until the cards meet your requirements.

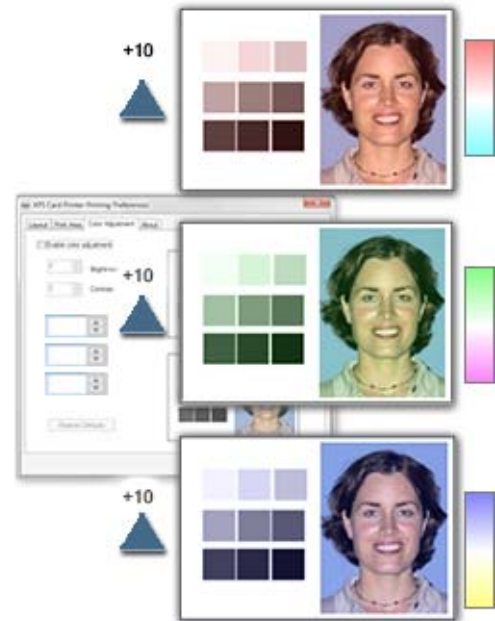9. Click the **Apply** button to save the new values.
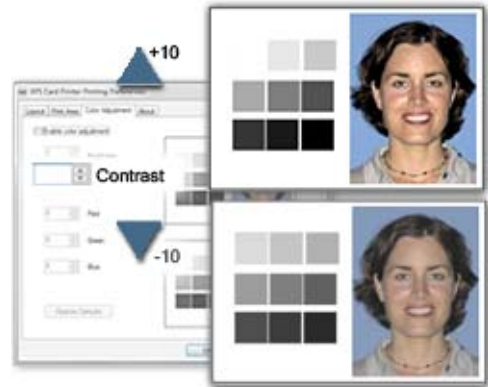
Color Balance

Before you use color adjustment, read and understand the "Color Printing" topic.

1. Evaluate the image for color balance. Does the card have a yellow cast or do photos have a greenish tint?

   If most of the card prints with the correct colors, consider using a graphics application to change the logo or other part of the card that needs color improvement.

2. Determine which color needs adjustment:

   - Increase red, or decrease red to add cyan (light blue).

   - Increase green, or decrease green to add magenta (red-purple).

   - Increase blue, or decrease blue to add yellow.

   - If changing the obvious color does not produce the desired effect, try changing the other two.

3. Click the Up arrow to increase a color, or the Down arrow to decrease contrast.

4. The Adjusted image shows the effect of the new setting.

5. Click the **Apply** button after each change to save it.

6. Print one or more cards to verify your changes:

   A. Print one or more cards from the ID software.

   B. Print a sample card from the Properties Status page.

7. Evaluate the appearance of the cards.

8. Repeat these steps until the cards meet your requirements.

9. Click the **Apply** button to save the new values.

HINTS & TIPS

- The settings on the Color Adjustment page affect the color printing of all cards sent from the PC using the driver.

- Printing formatted as black (K) is not affected by color adjustment.

- Each click changes the setting by 1 percent (%).

- If you use adjusted colors on some cards, you can uncheck **Enable Color Adjustment** for those that do not need the adjustment.

View Card Counts using the Driver

The XPS Card Printer Driver displays card counts in the Printer Properties dialog. Follow the steps in this topic to view card counts using the XPS Card Printer Driver.

1. Open the Printer Properties dialog.

2. Click the Card Counts tab.

3. The Printer Properties shows current and total counts.

4. Click the **Ask Printer for Update** button to see the counts if additional cards have printed.

About Card Counts:

- Total counts are all the cards the printer has processed.

- Current counts are all cards since the last time the count was reset. Current counts are resettable by the printer manager.

- The printer only sends updated card counts when you click the **Ask Printer for Update** button.

- The printer includes cards picked for test cards and cleaning cards in the Cards Picked count, but not in Cards Completed count.

- Card counts cannot be viewed from a shared Client PC.

View Card Counts from the Printer LCD Menu

The printer front panel has an LCD menu system that displays information about the printer, including card counts. See "Use the Front Panel" for information on all the LCD menu system.

1. Begin with the printer powered on and in the "Ready" state.
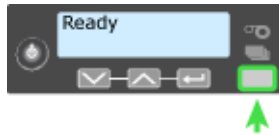
2. Press the USER button. The LCD panel display shows "suspended".

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

4. Press an arrow key to display "Status" on line 2 of the LCD panel.

5. Press the ENTER key to enter the Status menu.

6. Press an arrow key to display "Card Counters" on Line 2.

7. Press the ENTER key to display "Card Count" on Line 2.

8. Press the ENTER key to view the total number of cards picked on this printer.

9. Press the ENTER key to display "Cycle Count" on line 2.

- A cycle is one pass of the printhead.

- With monochrome (K) ribbon, one cycle prints the front of the card. A second cycle might print the back of the card.

- With YMCKT ribbon, each color panel and topcoat panel uses one print cycle.

10. Press the ENTER key to view the cycle count.

11. Press the ENTER key to display "Completed Card" on Line 2.

12. Press the ENTER key to view the Completed Cards count.

13. Press the ENTER key to display "Rejected Cards" on Line 2.

14. Press the ENTER key to display the Rejected Cards count.

15. Press the ENTER key to display to display "Lost Cards" on Line 2.

16. Press the ENTER key to display the Lost Cards count.

17. Press the ENTER key to display "Exit" on Line 2.

18. To print cards, press the ENTER key repeatedly to return to the "Suspended / Menu Available" display.

19. Press the USER button to display "Ready" on the LCD panel.

Change a Card Design

Card design is the name given to the combined features of the printed cards. See "Card Design and Setup" for more information.

An organization can change:

- The arrangement of card components, such as moving a photo from the center to the left side of the card

- The source for card components, such as using a different camera for taking photos, or using a new file for a logo.

- The components on the card, such as adding magnetic stripe, logo, or bar code.

Whenever the card design changes, review the settings used for the card. Use this checklist to guide your changes. Always:

- Use high quality (300dpi) photos and graphics.

- Print several samples of the updated card design.

- Use cards with a magnetic stripe or bar code in a reader to verify the data works as expected.

- If you print large groups of cards (batches), print a typical group of cards and check cards printed at the beginning, middle, and end to make sure they all work.

If changing:

- A graphic (logo) on the card

- The camera for taking photos

- The location for taking photos

Then:

- Check the Color Adjustment setting.

- See "Color Printing" for information about how to improve the appearance on one element on a card.

If changing:

- A bar code

- A magnetic stripe

Then:

- See "Monochrome Printing" if printing bar codes.

- See Magnetic Stripe if adding or changing a magnetic stripe.

- Print several samples of the updated card design.

- Use the cards in a reader to verify the data works as expected.
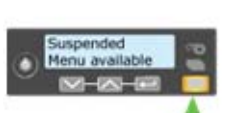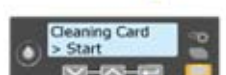
Run a Cleaning Card

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. Begin with the printer powered on.

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

3. Close the cover. The Ribbon Light will blink rapidly.

4. Open the input hopper and remove unprinted cards. The Card light will blink rapidly if the printer has the Card Present option.

5. Begin with the printer "Ready". The USER button shows steady green.

6. Press the USER button to display "Suspended" on Line 1 of the LCD panel.

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

8. Press the ENTER key to enter the Maintenance menu.

9. Press the ENTER key to choose Cleaning Card.

10. With Cleaning Card displayed on Line 2, press the ENTER key to display Start on Line 2.

11. Press the ENTER key to display "Insert Cleaning Card" in the LCD panel. The USER button and the Card light blink.

12. Open the cleaning card package.

    Place the cleaning card in the input area and press the USER button to start the cleaning cycle.

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

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

14. Replace the cards in the input hopper.

15. Replace the cleaning sleeve with a new sleeve, and remove the protective cover.

16. Replace the ribbon cartridge and close the printer. The printer is ready to print cards again.

17. Discard the used cleaning card and cleaning sleeve.

Clean the Printhead

1. Begin with the printer powered off.

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.

6. Power on the printer.
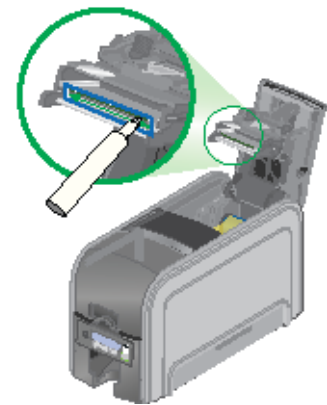
7. Print a sample card to verify the quality of printing.
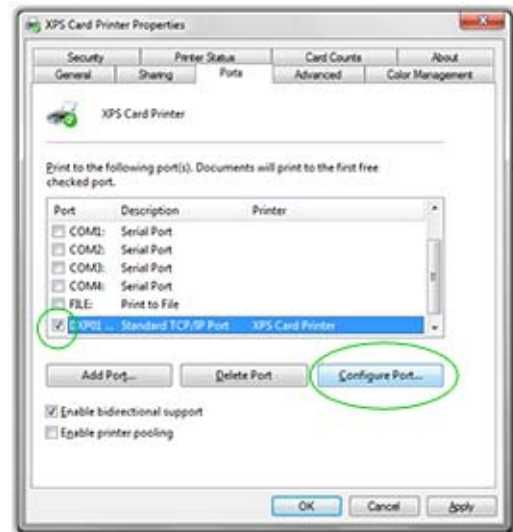
HINTS & TIPS

- Avoid touching the printhead edge with your fingers.

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

- Only use the cleaning pen to clean the printhead. Other materials can stick to the printhead.

- Use the cleaning pen up to 8 times, and then replace it.
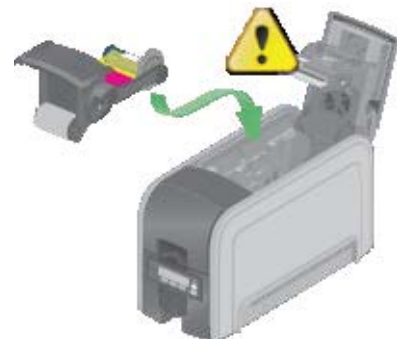
Set the Driver Network Port Value

The XPS Card Printer Driver uses the Printer IP Address to communicate with the printer when using a network connection. Follow these steps to view or change the IP Address that the driver uses.

1. If needed, obtain the printer IP Address. See "Get the Printer Network IP Address".

2. Open Printer Properties. See "Open Printer Properties".

3. Click the Ports tab.

4. Locate the DXPnn Standard TCP/IP Port for this printer.

5. Click the **Configure Port** button to open the Enter Network Address (XP and Vista) or Configure Port (Windows 7) dialog.

6. The Printer Name or IP Address shows the current IP Address of the printer (if assigned).

7. Enter the current IP Address if needed.

8. Click **Apply** or **Close** to close the Ports dialog.

   • Print a sample card from the driver to confirm printer and driver communication. See "Print Driver Sample Cards".

9. Click **OK** or **Close** to close the Properties dialog when done.

HINTS & TIPS

The IP address can change when the printer is powered off and powered on, and the Address Method is DHCP. If the IP Address method is Static, then the IP Address is assigned using the printer LCD panel and the address does not change.

If the printer changes address often and that causes problems, ask your manager or network support person to assign a printer name, and enter the printer name using these steps. See "Set IP Address Type".

The Ports tab shows the Windows "Enable Printer Pooling" checkbox. The XPS Card Printer driver does not support pooling.

The Ports dialog shows the RAW port as 9100. The dialog allows you to change the port number but port 9100 is always used.

Encode Magnetic Stripe without Printing

Using the XPS Card Printer Driver, you can use the printer to encode magstripe data on a card without printing on it. If you are using ID software to produce cards, these steps are not necessary and you can use the settings in the software to encode without printing.

1. Open Printing Preferences. See "Open Printing Preferences" for the steps to follow.

2. On the Layout tab, click the **Advanced** button.

3. Click the **Encode Only** choice and choose "On" as the setting. Skip this step if you are using ID Software.

4. Click **OK** to save the setting and close the Advanced page, and then click **Apply** on the Layout page.

5. The driver discards all printable data and sends only the magnetic stripe data to the printer.

6. Format the data:

   • If using ID software, use a magnetic stripe field if available.

   • Using other PC software, format the data using magstripe fonts or magstripe escapes.

   • The card shown has the text "Sports Arts" formatted with a magstripe font. It will be sent as encoded data. The other images and text on Page 1 will be discarded.

7. Send the card to the printer.
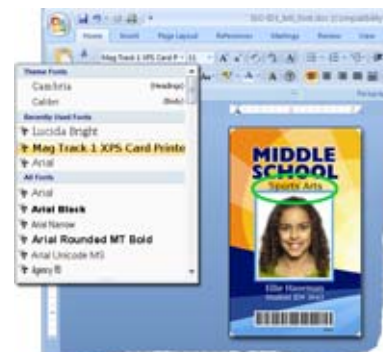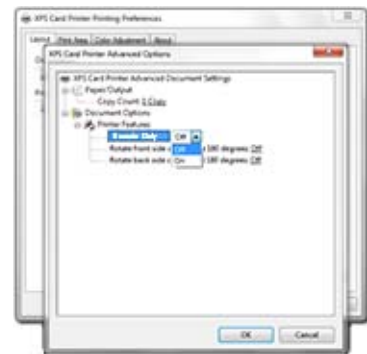
How-To Topics

- In a PC application, use only one page if sending Encode Only data. A two-page document will cause an error and the card will not be encoded.

- See How"Use Magnetic Stripe Fonts" for information on formatting data using fonts.

- See "Use Magnetic Stripe Escapes" for information on using escapes to format data.

- You are responsible for using characters supported by the track format. The driver discards line returns before and after data.

Change the LCD Backlight

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

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

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

3. Press the down arrow key to scroll to the Configuration menu.

4. Press the ENTER key to enter the Configuration menu. LCD Backlight is the first choice on the menu.

5. Press ENTER to change the LCD Backlight.

6. Press the down arrow key to lower the light level, or press the up arrow key to increase the level.

7. When the light is the level you want, press the ENTER key. The printer saves the setting and returns to the Configuration menu.

8. Press an arrow key repeatedly to display "Exit" on line 2.

9. With "Exit" displayed on Line 2, press the ENTER key repeatedly to exit the menu system.

10. With "Suspended" displayed on Line 1, press the USER key.

11. The printer is ready.
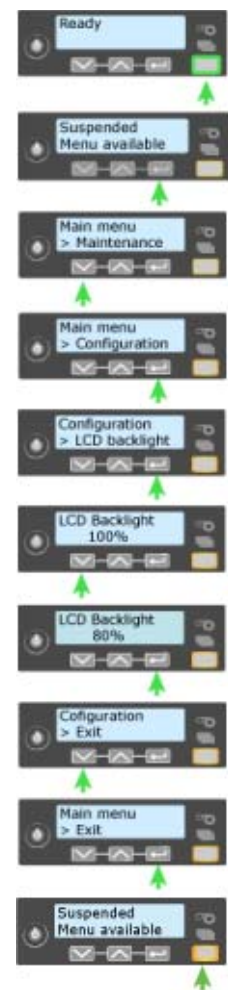
Get the Printer Network IP Address

The printer can display the IP address it uses when connected to the network. It also displays the Subnet Mask, Gateway Address, and MAC Address.

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

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

3. Press the USER button to suspend the printer.

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

5. Press the down arrow to display "Status" on line 2.

6. Press ENTER to enter the Status menu.

7. Press the Down Arrow to display Network Status on line 2.

8. Press ENTER to display the Network Status menu.

9. Press the Down Arrow to display "IP Address" on line 2.

10. Press ENTER to display the IP Address. Record the IP Address.

11. Press ENTER to return to the Network menu. Subnet Mask is displayed on line 2.

12. If all you need is the IP address, skip to step 18.

13. Press ENTER to display the Subnet Mask value.

14. Press ENTER to return to the Network menu. Gateway Addr is displayed on line 2.

15. Press ENTER to display the Gateway Address (if any).

16. Press ENTER to return to the Network menu.

17. Press the Down Arrow to scroll to Exit on line 2.

18. Press ENTER repeatedly until "Ready" is displayed on line one and the USER button glows green.
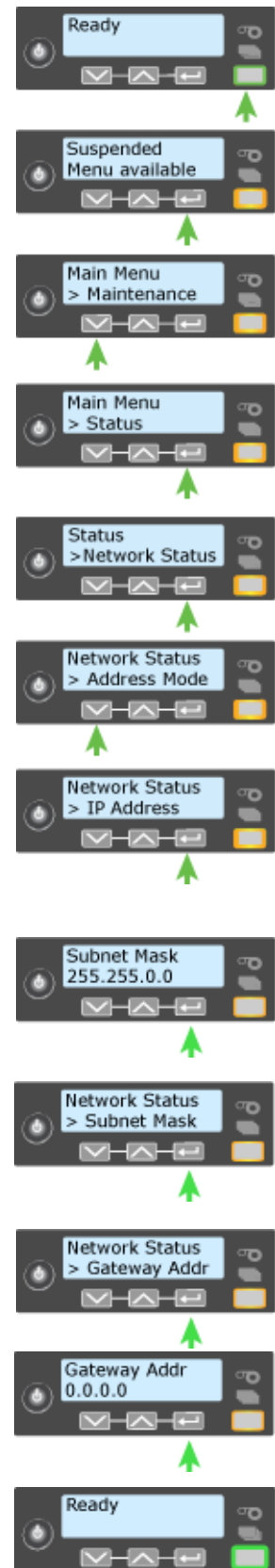
Get the Printer USB IP Address

Follow these steps if the printer is connected using a USB cable and you want to use the Printer Manager.

1. Begin with the printer power connected, and the printer connected to the PC using a USB cable.

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

3. When the printer is ready, press the USER button to suspend the printer.

4. Press the ENTER button to enter the menus.

5. Press the down arrow to display "Status" on line 2.

6. Press ENTER to enter the Status menu.

7. Press the down arrow to display USB IP Address on line 2.

8. Press ENTER to display the USB IP Address.

9. Press the down arrow repeatedly to display Exit on line 2.

10. Press ENTER repeatedly to exit the menu system. The LCD panel displays Suspended.

11. Press the USER button to display "Ready" on the LCD panel.
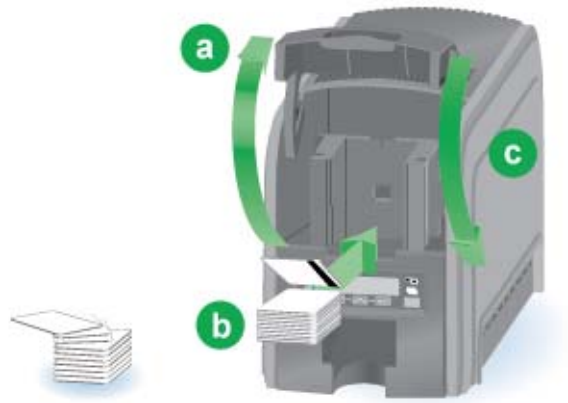
12. The printer is ready.
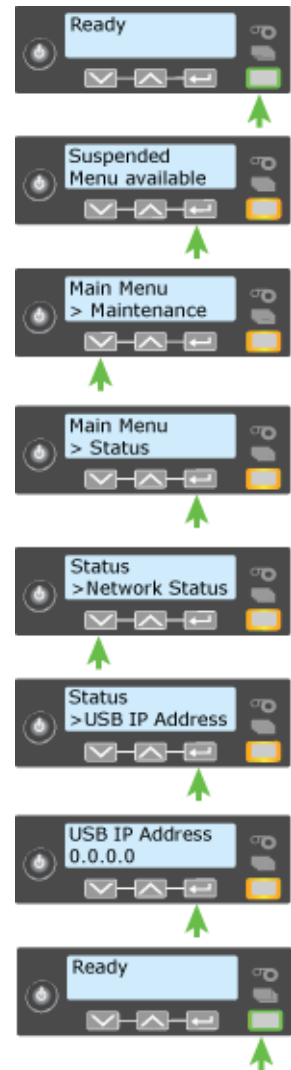
Load Cards

If you are using a manual feed printer, 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 (a).

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

3. Insert magnetic stripe cards with the stripe down and toward the right-hand side of the input hopper.
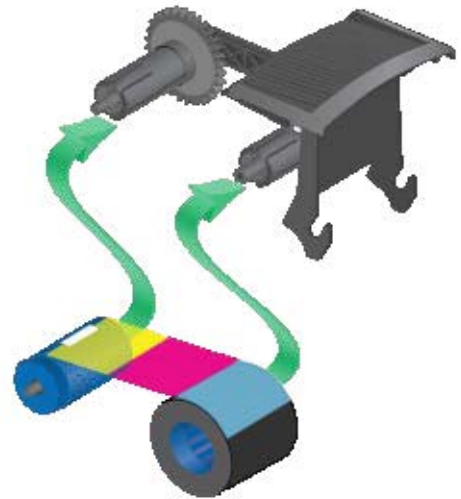
4. Close input hopper (c).

Load Ribbon

Load the 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.

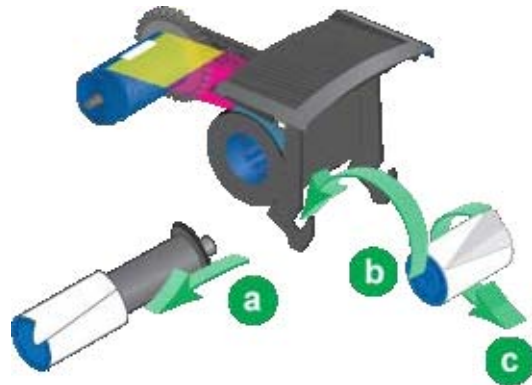5. Wind the empty spool counter-clockwise one full turn.

Load Cleaning Roller

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

The printer ships with the cleaning roller spindle installed on the print ribbon cartridge.
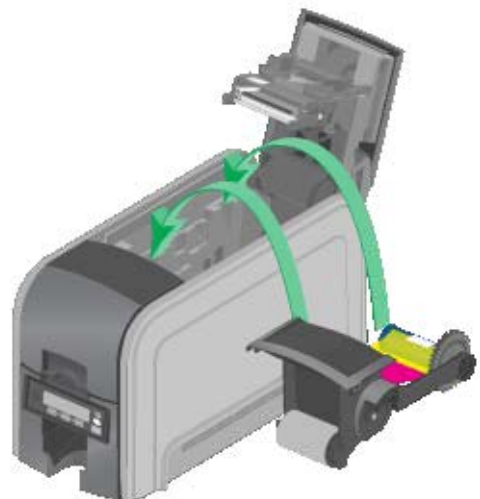
1. Remove the cleaning roller spindle from the ribbon cartridge and slide the continuous cleaning sleeve onto the spindle (a).

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

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

Install Ribbon Cartridge

Install the assembled print ribbon cartridge into the printer.

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

2. Check to see that the ribbon cartridge is correctly positioned in the guides.

3. Close the printer cover.

Open Printing Preferences

You can open the Printing Preferences dialog in the following ways:

- Using the **Open Printers Window** button in My XPS Card Printer

- From the Start Menu in Windows 7 or Vista

- From the Start Menu in Windows XP

Open Preferences from My XPS Card Printer

1. Open My XPS Card Printer from the desktop icon.

2. Click the **Open Printers Window** choice.

3. On the Printers Window, right-click the icon for the printer to select it.

4. Choose **Preferences** from the Pop-up Menu.
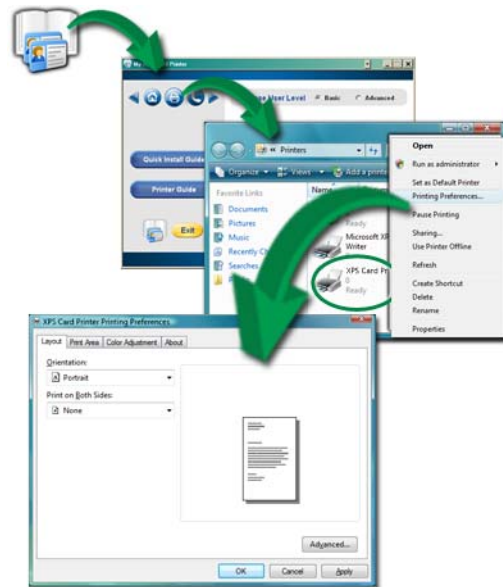
5. The Printing Preferences dialog opens.

Open Preferences from the Start Menu in Windows 7 or Vista

1. From the Windows Start menu, choose **Control Panel**.

2. Click the **Hardware (Printers)** choice to open the Printers Window.

3. Right-click the icon for the printer to select it.

4. Choose **Printing Preferences** from the Pop-up Menu.

5. The Printing Preferences dialog opens.

Open Preferences from the Start Menu in Windows XP

1. From the Windows Start menu, choose **Printers and Faxes** to open the Printers Window.

2. On the Printers Window, right-click the icon for the printer to select it.

3. Choose **Preferences** from the Pop-up Menu.

4. The Printing Preferences dialog opens.
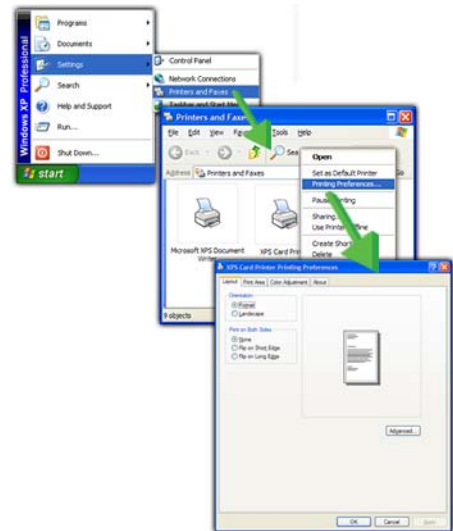
HINTS & TIPS

- To save a setting, click the **Apply** button before moving to another tab. Windows discards settings that are not applied.

- The Preferences dialog contains settings that Windows uses to manage your card design. The Preferences dialog has the following tabs:

  - Layout: See "Print on Both Sides of the Card"

  - Layout: See "Print More Than One Copy of a Card"

  - Print Area: See "Set the Print Area"

  - Print Mode: See "Set the Print Resolution"

- Color Adjustment: See "Adjust the Colors Printed"

- About: See "View the Driver Version"

- Advanced button:

  - See "Rotate the Card"

  - See "Encode Magnetic Stripe without Printing"

- Settings return to default values if the printer name is changed in the Printers (and Devices) window.

Open the Printer Manager

The printer includes the Printer Manager, which displays information about the printer. The manager or installer uses it to set up the magnetic stripe option and to work with your service provider when troubleshooting problems.

1. Get the printer IP Address:

- For a network connection, see "Get the Printer Network IP Address".

- For a USB connection, see "Get the Printer USB IP Address".

2. Open the Web Browser on the PC.
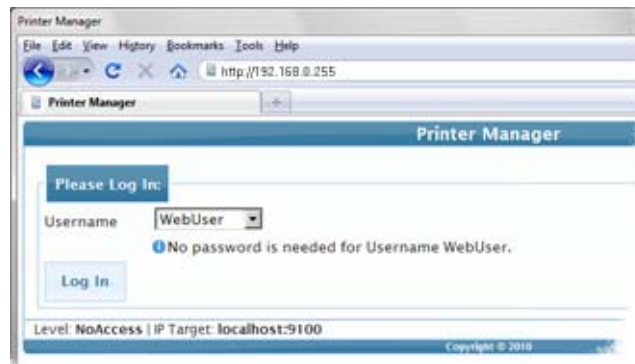
3. In the Address area of the browser, type the following:

http://printer IP address

For example: http://123.1.23.123 where 123.1.23.123 is replaced by the printer IP address.

4. Press the ENTER key.

5. In the Please Log In: area, enter the Username and Password.

- The default Username is WebUser.

- The default name does not require a password.

- Your printer might require a password.

6. Click the **Log In** button.

7. The Welcome to Printer Manager page appears.

8. Choose the Access Level that matches your job responsibility and click the **Enter** button.

9. The Printer Manager confirms your request and displays the menu.
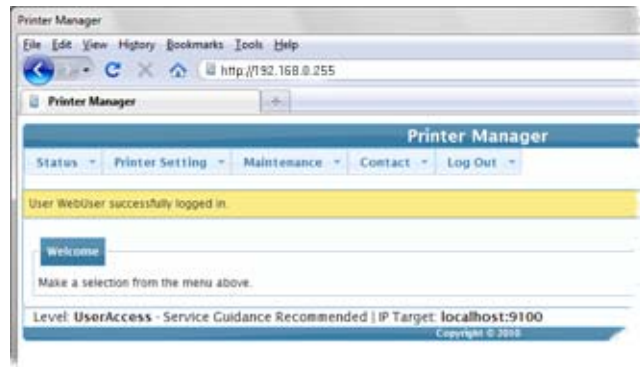
HINTS & TIPS

- The access level controls the information displayed and the changes that can be made.

- If the Browser cannot connect to the printer, make sure:

  - The printer display shows "Ready".

  - Another user does not have a Print Manager session running.

- WebUsers can use the Status menu to view:

  - Printer Status: Choose **Status > Printer Status**

  - Card Counts: Choose **Status > Audit Data**

  - Model, versions and other information about the printer: Choose **Status > VPD**

  - The Supplies installed and information about them; Choose **Status > Supplies**.

- For the safest printer, use the **Log Out** button in Printer Manager and close the browser after logging out.

Open Printer Properties

You can open the Printer Properties dialog in the following ways:

- Using the **Open Printers Window** button in My XPS Card Printer

- From the Start Menu in Windows 7 or Vista

- From the Start Menu in Windows XP

HINTS & TIPS

The Printer Properties dialog contains settings and values that Windows uses to communicate with and manage the printer. The Printer Properties dialog has the following tabs:

- General

- Ports (See "Communication with the Printer")

- Sharing (See "Printer Sharing")

- Advanced

- Color management (See "Adjust the Colors Printed"

- Security (See "Printer Permissions")

- Device settings

- Printer Status (See "View Printer Status")

- Card Counts (See "View Card Counts using the Driver")

- About

Open Printer Properties from My XPS Card Printer

1. Open My XPS Card Printer from the desktop icon.

2. Click the **Open Printers Window** choice.

3. On the Printers Window, right-click the icon for the printer to select it.

4. Choose **Printer Properties** from the Pop-up Menu.
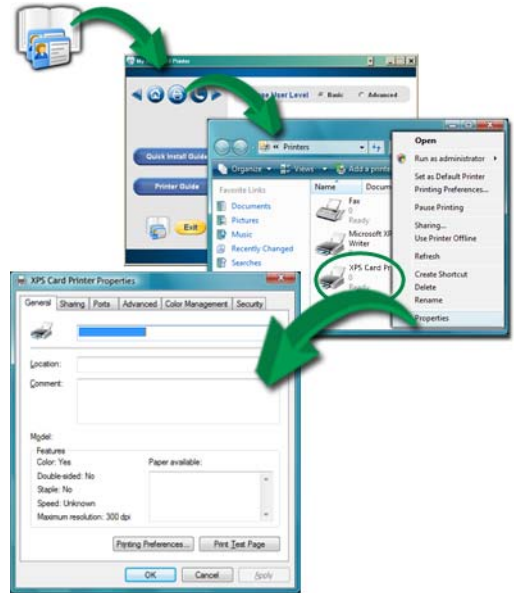
5. The printer Properties dialog opens.

Open Printer Properties from the Start Menu in Windows 7 or Vista

1. From the Windows Start menu, choose **Control Panel**.

2. Click the **Hardware (Printers)** choice to open the Printers Window.

3. On the Printers Window, right-click the icon for the printer to select it.

4. Choose **Properties** from the Pop-up Menu.

5. The printer Properties dialog opens.

HINTS & TIPS

Windows 7 includes a priority feature, where 1 is low priority and 99 is high priority. If you have multiple users, or submit multiple cards at about the same time, this Windows feature does not override the timing of jobs or the order of jobs in the printer. As a result, higher priority cards might print after lower priority cards.

Windows 7 includes a **Keep printed documents** choice on the Printer Properties Advanced tab. The XPS Card Printer Driver does not support this setting.

Open Printer Properties from the Start Menu in Windows XP

1. From the Windows Start menu, choose **Printer and Faxes** to open the Printers Window.

2. On the Printers Window, right-click the icon for the printer to select it.

3. Choose **Properties** from the Pop-up Menu.

4. The printer Properties dialog opens.
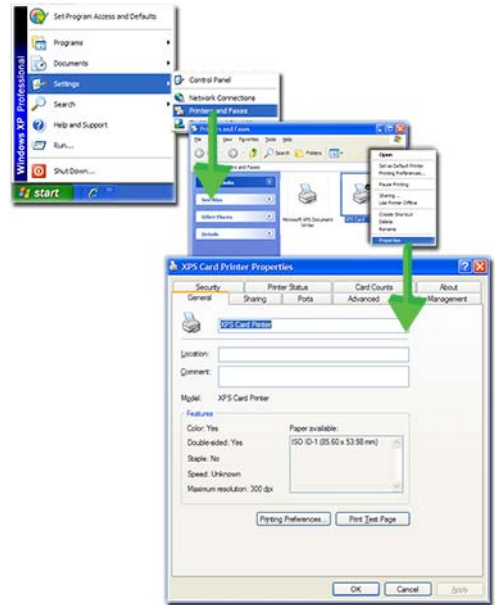
Printer Permissions

The Windows operating systems include security settings. A user with Administrator (Windows XP) or Creator/Owner (Vista and Windows 7) access rights uses them to give or limit access for users to the printer.

If the PC to which the printer is attached has more than one user, set permissions that:

- Give users access to all features of the printer and driver, including messages.

- Messages inform users when they need to change the ribbon, load cards, or fix problems.

- Prevent any access to the printer by unauthorized users.

To Set Printer Permissions

1. Login to the PC as the Creator/Owner (Vista and Windows 7) or with Administrator permissions (Windows XP).

2. Open Printer Properties. See "Open Printer Properties".

3. Choose the Security tab.

   A. Review the Group or User Names list. If the names for which you want to specify permissions do not appear in the list, add the names.

   B. Choose the **Add** button to open the Users and Groups dialog box.

   C. Click on the name and click **Add**. Repeat for each name to add.

4. When done adding names, click **OK**. The Users and Groups dialog box closes.

5. In the Names list, select the name for which you want to specify permissions.

6. From the Permissions list, select the access:

    A. To enable printing, select **Allow for Print**, **Manage Printers**, and **Manage Documents**.

    B. For a user who should not print to the card printer, select **Deny** for all permissions.

    C. Select **Apply** to save the change. Save changes for each name.

7. Repeat steps 5 and 6 to add other users or groups.

8. Select **OK** to close the Printer Properties dialog box.

Print Driver Sample Cards

The XPS Card Printer Driver includes a sample card, which shows a basic ID card. The card can be printed with any ribbon the printer supports.

The driver also includes a magnetic stripe test card, available when the printer includes a magnetic stripe option. The card has the same data printed on it and encoded on the magnetic stripe.

1. Open Printer Properties. See "Open Printer Properties".

2. Click the Status tab.

3. The Status tab shows the printer status. The printer should be "Ready" or "Busy". If the printer is not available, troubleshoot the problem.

4. Click the button for the card you want:

   - **Print Sample Card** button

   - **Print Mag Stripe Test Card** button

5. The printer picks the card and prints it. If the card does not print, troubleshoot the problem.
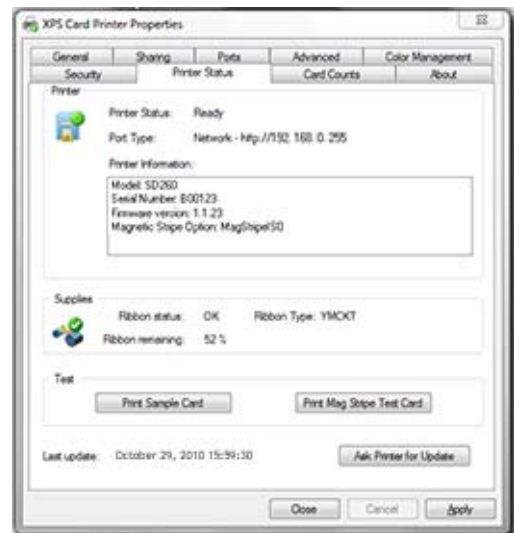
- The sample card verifies communication between the driver and the printer. The images and text do not change.

- The magnetic stripe test card verifies that the driver sends magnetic stripe data to the printer and that the printer encodes it. The data cannot be changed.

- The magnetic stripe data sent by the driver requires that the printer be set to encode the three-track ISO format for a three-track module, or the JIS-II format for the single-track module.

- The sample card buttons will print one copy of the selected card. The Number of Copies entry on the Printing Preferences > Advanced page does not apply to the sample cards.

Print a Printer 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 the ENTER key to enter the menu system.

4. Press the ENTER key to enter the Maintenance menu.

5. Press the down arrow key to display "Test Card" on line 2.

6. With Test Card displayed on Line 2, press the ENTER key to display "Start" on Line 2.

7. After the card prints, press the USER button to return the printer to Ready.
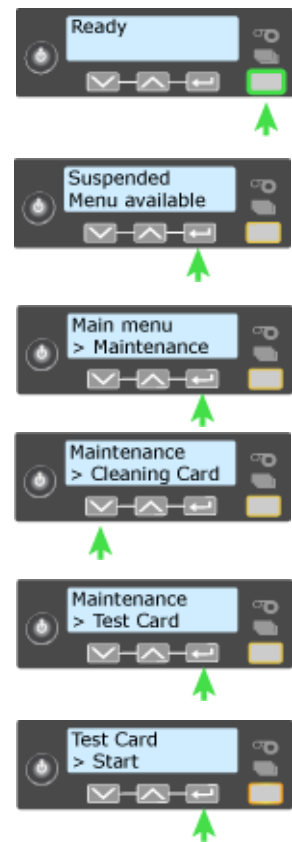
8. After the card prints, press the USER button to return the printer to Ready.

# Print on Both Sides of the Card

Some printers include an automatic duplex module which automatically turns the card to print both sides. Check the configuration label located on the left side of the printer to verify if the printer includes a duplex module. See "Printer Configuration Label " for more information. The method for printing on both sides depends on the printer model:

- Printers that have a duplex module installed, automatically turn the card to print on both sides.

- Simplex printers support manual duplex printing. The printer prints one side of the card, places the card in the card output stacker, and displays a message. The card must be turned and inserted into the hopper or manual feed slot to print the back of the card.

Using the XPS Card Printer Driver, you can print on both sides of the card. Use ID software or another PC application to format and save the card data.

To set up manual duplex:

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

2. Use the application's page setup feature:

    - Set the paper size to ISO-ID1 2.13 x 3.38 in

    - Reduce the margin settings to 0

    - Choose the orientation — portrait or landscape
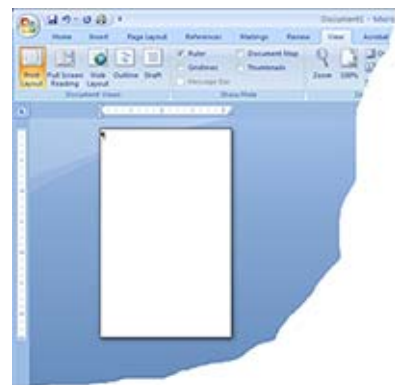
3. Create the card:

   - Add graphic elements such as a logo or background

   - Add a photo

   - Add text, such as name, address, or ID number

   - As you add elements, place them on page 1 or page 2
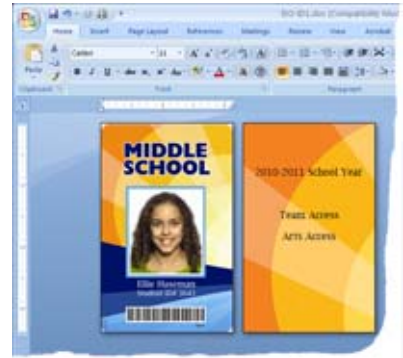
4. Open Printing Preferences from the Start menu. See "Open Printing Preferences" for the steps to follow.

   - On the Layout tab, choose **Flip on Short Edge** for the Print on Both Sides setting. Click **Apply**. The driver uses the "Short Edge" setting for both "Flip on Short Edge" and "Flip on Long Edge" settings.

5. Put a card in the input hopper or single feed slot.

6. Click **Print** to send the card to the printer.

7. The printer processes the first side of the card.

8. The printed card exits to the output hopper.

9. The Front Panel shows "Insert same card side 2 up" and the User and Card lights flash.

10. Pick the card up by the edges and turn it over. Insert it under all cards in the input hopper and push until it drops into place.

11. Press the USER button to complete the card. The printer picks the card again and prints the second side.

HINTS & TIPS

The driver uses the "Short Edge" setting for both "Flip on Short Edge" and "Flip on Long Edge" settings.

Print More Than One Copy of a Card

The Layout tab of Printing Preferences contains a Number of Copies entry area used for printing several copies of the same card design. You can print from 1 to 255 copies of the same card.

To print more than one copy

1. If you are using a card design application, set the number of copies in the application. The application settings will override the settings in Printing Preferences.

2. Open Printing Preferences. See "Open Printing Preferences" for more information.

3. On the Layout tab, click the **Advanced** button.

4. Type the number of copies you want to print in the Number of Copies area. You can print from 1 to 255 copies of the same card design.

5. Click the **Apply** button.

6. Click the **OK** button to close Printing Preferences.

7. Send the card(s) to print.

Rotate the Card

1. Open Printing Preferences. See "Open Printing Preferences" for the steps to follow.

2. On the Layout tab, click the **Advanced** button.

3. Click the **Rotate 180** selection for the side to rotate. Choose **On** as the setting.

4. For the card shown, rotate the back so the text prints below the magnetic stripe, not on top of it.

5. Click **Apply** to save the setting, and then click **Close** on both the Advanced page and the Layout page.

6. Send the card to print. See "Print on Both Sides of the Card" for more information.
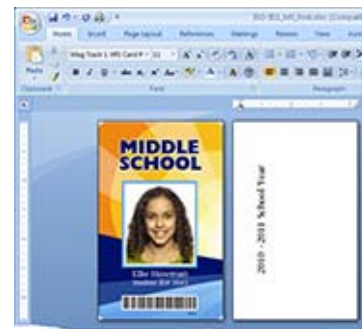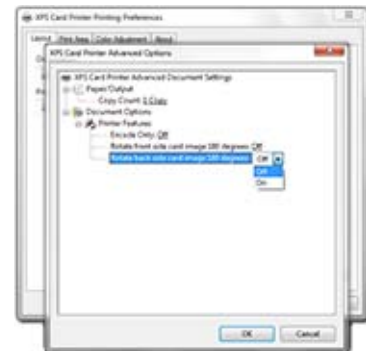
View Printer Status

The XPS Card Printer Driver includes the Properties Status page, which shows the printer status, any messages that apply to the printer, and the ribbon installed.

The following types of information are available:

1. Open the Printer Properties dialog. See "Open Printer Properties".

2. Click the Printer Status tab.

3. In the lower left area, the tab shows the date and time the information was retrieved from the printer.

4. To get the latest information from the printer, click the **Ask Printer for Update** button.
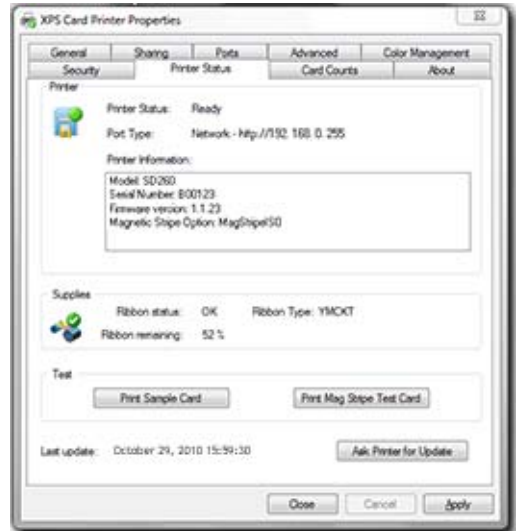
Printer Status

The Icon and Printer Status line show:

Icon	Printer Status
	Ready The printer is not processing a card.
	Suspended The printer was paused, or is processing a card from another PC which has an error.
	Busy The printer is processing a card or a command, or the printer menu system is being used.
	Message If the printer has issued a message for a card sent from this PC, the message text is displayed.

Icon	Printer Status
	Initializing The printer is powering on.
	The printer is off, is shutting down, or is not connected.

Port Type

The Port Type line shows:

- "USB" for a locally connected printer.

- "Network" for a printer connected using a network connection. The line also displays the printer IP address.

Printer Information

The Printer Information box shows:

Model   Model name of the printer.

Serial Number   The serial number, assigned at the factory, of the printer.

Firmware Version   The build version of the firmware currently running in the printer

Option Information

The options or features included in this printer.

Supplies

The Supplies area shows:

Icon	Printer Status
	OK The printer has ribbon, and at least 10% of the roll remains. Ribbon remaining shows the estimated percentage of ribbon not used.
	Low The printer has ribbon, and less than 10% of the roll remains. Ribbon remaining shows the estimated percentage of ribbon not used.

Icon	Printer Status
	Unknown The ribbon is missing or is printer is not processing a card. Ribbon remaining shows 0% (percent).
	Ribbon Type For supported ribbons, the type of ribbon, such as YMCKT or K, is shown. ymcKT is short-panel ribbon. If the ribbon is missing or is not a supported ribbon, "Missing" is displayed.

Test

The Test area shows the **Print Sample Card** button and the **Print Mag Stripe Test Card** button. See "Print Driver Sample Cards" for more information.

Find the Printer Serial Number

The printer serial number is available from several sources.

- When the printer is powered off, the printer configuration label is the easiest way to find the serial number. See "Printer Configuration Label " for information.

- The XPS Card Printer Driver provides the serial number on the Printer Properties > Printer Status tab. See "View Printer Status" for more information.

- The printer menu system, available from the front panel of the printer, shows the printer serial number.

Viewing the Serial Number from the Front Panel

1. Begin with the printer powered on and in the "Ready" state.

2. Press the USER button. The LCD panel display shows "Suspended".

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

4. Press the down arrow to display "Status" on line 2.

5. Press the ENTER key to enter the Status menu.

6. Status is displayed on Line 1 and Serial Number is displayed on Line 2.

7. Press the ENTER key to show the serial number.

8. To print cards, press the ENTER key repeatedly until "Ready" is displayed on Line 1 and the USER button glows green.
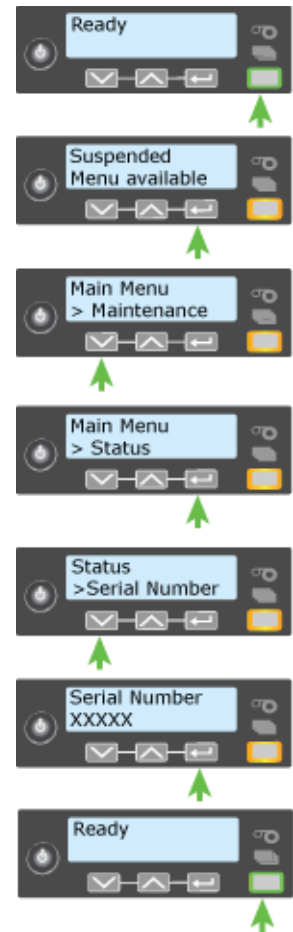
Set Magnetic Stripe Coercivity

The printer setting for coercivity can be changed from the LCD panel, if needed. Usually, coercivity is a system-wide decision and does not change.

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 the ENTER key to enter the menu system.

4. Press the down arrow key to scroll to the Configuration menu.

5. Press the ENTER key to enter the Configuration menu.

6. Press the down arrow key to display "Magstripe" on Line 2.

7. Press the ENTER key to enter the menu. "Coercivity" is displayed on line 2.

8. Press the ENTER key to enter the Coercivity menu. "Coercivity" is displayed on line 1 and the current setting is displayed on line 2.

9. Press an Arrow to display the intended coercivity.

10. Press the ENTER key. "Apply" is displayed on line 2.

11. Press the ENTER key to save the value. "Exit" is displayed on Line 2.

12. Press ENTER repeatedly to exit the menu system. The LCD panel displays "Ready" and the USER button glows steady green.
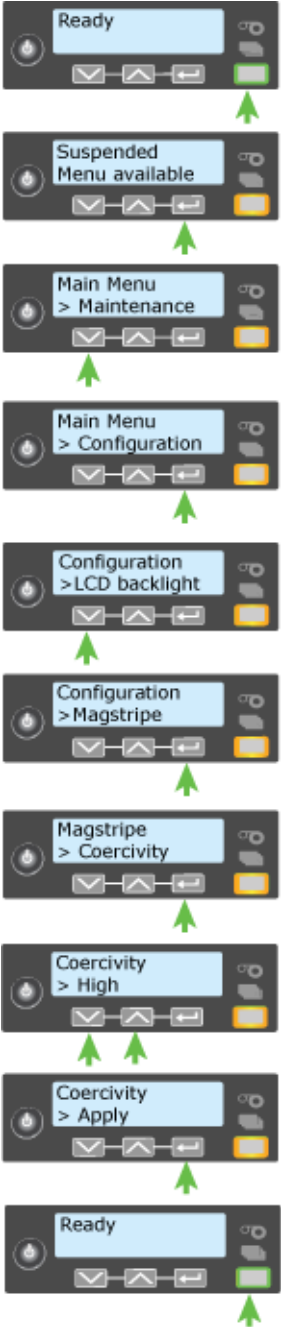
Set the Print Area

The XPS Card Printer Driver can prevent printing and topcoat on specific areas of the card. By default, the entire side of the card is printed. If your cards include a magnetic stripe, a smart card chip, or other area, define the area to block printing.

For custom print areas, see How to Use Blocking Escapes. For standard areas, follow these steps:

1. Open Printing Preferences from the Start menu. See "Open Printing Preferences" for the steps to follow.

2. Click the Print Area Tab.

3. For the side of the card with the non-printing area, click the "Print and topcoat entire side of card except" list and choose the area.

4. For the example shown, do not print the ISO 3-Track Magnetic Stripe area on the back of the card. (Text shown on the back is formatted with a mag stripe font and will be encoded.)

5. Click Apply to save the setting, and then click Close.

6. Send the card to print.

   The back of the completed card looks like this:

Notice the narrow white area above and below the magnetic stripe. The non-printing area is slightly larger than the feature, in this case the magnetic stripe.

Set the Print Resolution

The card printer can be set to print at standard resolution, high resolution, or a combination of resolutions. For example, the black text of a card design can print at high resolution while the color images print at standard resolution.

The ability of a printer to support high resolution printing is set at the factory. If the printer includes the High Resolution Print option, the available resolutions will be listed on the Status tab of Printer Properties.

The print resolution can be set for color images and/or monochrome card designs.

To set the print resolution

1. Open Printing Properties.

2. Click the Print Mode tab.

3. Choose from the following options:

    *   Always use standard resolution (300 x 300 dpi)

        The Always use standard resolution setting is the default setting. It will print all card elements at standard (300 x 300 dpi) resolution.

    *   Always use best possible resolution

        The Always use best possible resolution settings will print the card at the highest possible resolution.

    *   Custom

        Selecting the Custom Print Mode allows you to set the resolution of color and monochrome printing. The resolution for color and monochrome printing can be set independent of one another. The selections are:

        *   Color:

            *   300 x 300

            *   300 x 600

        *   Monochrome:

            *   300 x 300

            *   300 x 600

            *   300 x 1200
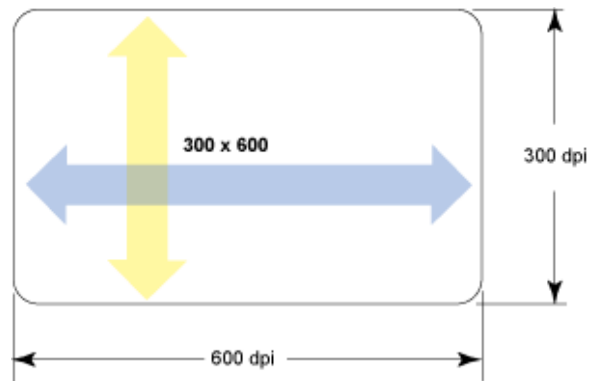
        The first number is the resolution along the short edge of the card. The second value is the resolution along the long edge of the card.

Set IP Address Type

The Address Mode determines how the network address of the printer is assigned. The choices are DHCP and Static IP.

DHCP stands for "Dynamic Host Configuration Protocol" and means that the network assigns the IP Address to the printer. The printer is set to DHCP in the factory. See "Get the Printer Network IP Address" if you use DHCP addressing.

Static IP means that the IP Address is assigned, usually by your network support personnel. If the IP Address is assigned, then the Subnet Mask, and Gateway Address are assigned also.

1. Obtain the IP Address, Subnet Mask, and Gateway Address for each printer before you begin this procedure.

2. Begin with the printer "Ready". The USER button glows steady green.

3. Press the USER button to display "Suspended" on Line 1 and Menu available on Line 2.

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

   "Main Menu" appears on Line 1 and "Maintenance" is shown on Line 2

5. Press the down arrow key to scroll to the Configuration menu.

6. Press the ENTER key when "Configuration" appears on Line 2.

7. Press the down arrow key until "DHCP/Static IP" is displayed on Line 2.

8. Press the ENTER key to enter the DHCP/Static IP menu.

9. Press an arrow key to scroll to display "Static IP" on Line 2.

10. Press the ENTER key to apply the setting.

    "Configuration" will be displayed on Line 1 and "DCHP/Static IP" is displayed on Line 2.

11. Press the down arrow key to display "Network" on Line 2.

12. Press the ENTER key and "Network" is displayed on Line 1 and "IP Address" on Line 2.

13. Press ENTER and the IP address appears on Line 2.
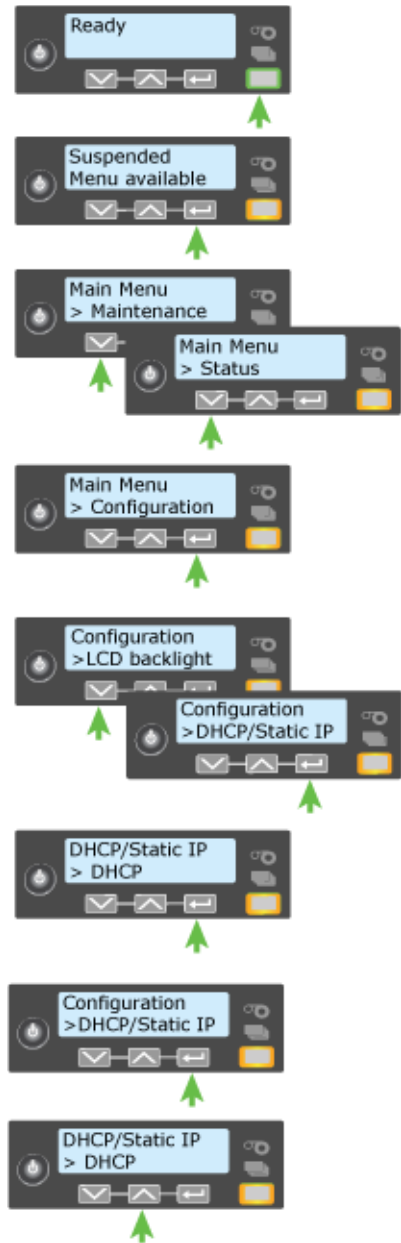
14. Enter the assigned address:

- The IP Address has 4 bytes, separated by periods.

- A curser appears under the digit that will change.
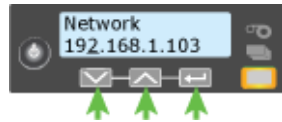
a. Use the arrow keys to change one digit at a time.

b. Use the ENTER key to navigate through the address bytes. The address byte shows three digits when it can be changed and the cursor is under the right-most digit.

c. When all four bytes are correct, press the ENTER key.

15. Repeat Steps 12 through 14 to enter Subnet Mask and Gateway Address information.

16. Press ENTER when finished entering all address information.

17. Press ENTER to Apply/Restart.

18. Press the USER button repeatedly to exit the menu system. "Ready" is displayed and the USER light glows steady green.
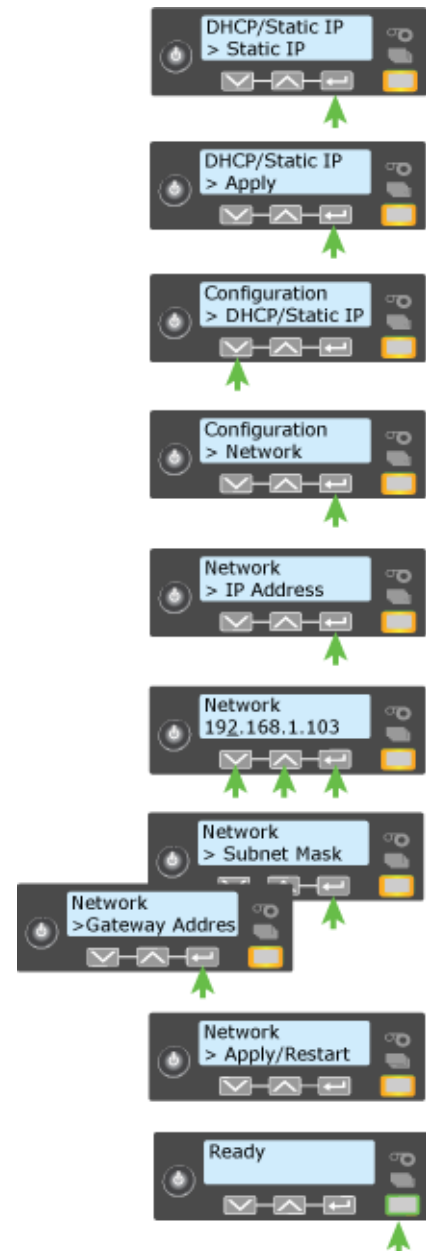
Use Print Blocking Escapes

TheXPS Card Printer Driver provides two methods to prevent printing and topcoat on specific areas of the card. See "Printing and Non-Printing Areas" for more information.

By default, the entire side of the card is printed. If your cards include a magnetic stripe, a smart card chip, or other area, do not print or apply topcoat to the area. You might have other areas, such as a signature panel or hologram, to prevent printing and topcoat.

For magnetic stripe and smart card areas, see "Set the Print Area". For custom areas which you define, use this topic.

The XPS Card Printer Driver recognizes escape statements to define print areas. Escape statements are specific sequences of characters that mark data with a special purpose. Areas defined using escapes override driver settings, unless no area is defined. The driver provides the following types of escape statements:

- Block print

- Add topcoat

- Remove topcoat

About Printing Areas

Using driver settings, you can define one non-printing area per side of the card. If the card has more than one area on a side, define both non-printing areas using escapes. An escape statement applies to the side of the card where in appears in the document.

The syntax or structure of each escape statement is ~XX%n1n2n3n4?

- ~ is the beginning of the statement

- XX represents the type of action – Block Print, Add Topcoat, or Remove Topcoat.

- n1 is the distance from the top of the card to the start of the area

- n2 is the distance from the left edge of the card to the start the area

- n3 is with width of the area

- n4 is the height of the area
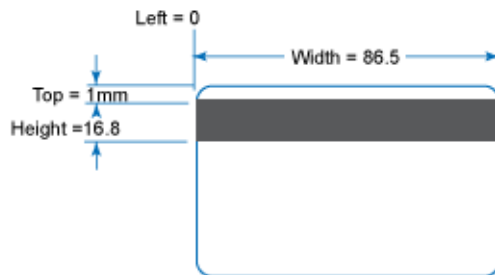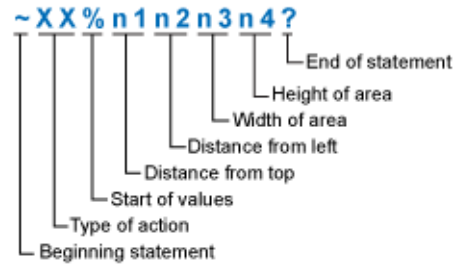
Each area is a square or rectangular shape

The card in this example shows the dimensions of a three-track magnetic stripe area.

An escape statement can take the place of settings made in Preferences, by omitting the dimension values. For example. ~PB%? prevents print blocking on a card.

The escape statement can specify more than one area of the same type by placing a semicolon (;) character between the sets of values.

Print Blocking

A print blocking escape statement begins with **~PB%**

Examples:

~PB%10 10 55 15?	Printing is blocked in one area and any print blocking set in Preferences is not used.
~PB%10 10 5 5;30.5 45.23 15 15?	Printing is blocked in two areas and any print blocking set in Preferences is not used.
~PB%?	No printing is blocked and any print blocking set in Preferences is not used.

Topcoat Add Statement

The topcoat add statement **prints topcoat in the area defined in the statement**. All other areas of the card do not have topcoat. All full-color printing must be covered with topcoat. Use this option with care.

The topcoat add statement begins with **~TA%**

Examples:

~TA%0 0 86.5 37?	Topcoat is applied to one large area of the card and any topcoat setting in Preferences are not used.
~TA%16.8 0 37.1 5;30.5 45.23 15 15?	Printing is blocked in two areas and any topcoat setting in Preferences is not used.

Topcoat Remove

With a topcoat remove escape, the topcoat is omitted in the areas defined by the escape.

- The topcoat remove statement begins with **~TR%**

- Each blocking area is defined as a series of four values (in millimeters) separated by a space: top left width height.

- A semicolon (;) is used to separate topcoat rectangles if more than one area is specified within the same escape.

  For example: ~TR% rect1top rect1left rect1width rect1height;rect2top rect2left rect2width rect2height?

- After the last rectangle, the ? character is used to end the escape sequence.

Full Card Topcoat Options

- The application can use the string ~TR%? to override the driver preset masks and **topcoat the entire card side**.

- The application can use the string ~TA%? to override the driver preset masks and **apply no topcoat to the entire card side**.

HINTS & TIPS

- Blocking typically extends 0.1 inch beyond the edges of a feature. The dimensions listed include the extended blocking region.

- Print several cards using your card design and application to verify that printing and topcoat are applied as you intend.

- If you do not use the driver or ID software, you can use the dimensions provided for smart card and magnetic stripe to customize your print and topcoat areas.

- Use ID software, a custom application, or escapes to define custom non-printing areas for one or more of the following:

  - Blocking printing but not topcoat

  - Non-standard areas, such as a preprinted logo or a signature panel

  - More than one area on the same side of the card

Use Magnetic Stripe Escapes

The data to encode on a magnetic stripe is entered as text and can look like data to print. The XPS Card Printer Driver uses special characters called Escape Codes to identify data to encode. Data within escape codes is not printed. The driver supports several Escape Code systems to allow easy compatibility with other card printers. See "Supported Escape Codes".

Using Magnetic Stripe Escapes

1. Use ID software or other application to create a card design.

2. Format the text and graphics to print on the card.

3. Choose a location on the card where typing the data to encode will not affect other card design components.

4. Type the encode data (text) for one track. The example shown uses the ~<track#><Start Sentinel><Data> <End Sentinel> syntax.

    - The text for track 1 looks like this: ~1%Zachary Hamilton 12345 Finance?

    - Press ENTER to end a line.

5. Repeat Steps 3 and 4 for each track of magnetic stripe data.

    - End each line with an ENTER keystroke.

    - Do not put data for two tracks on the same line.

    - Do not allow text to encode to wrap to another line.

    - You can use two or more lines of text for one track. Each line must start and end with escape codes. The driver will add (append) lines for the same track together.

    - Data to encode can be on side 1 (front) or side 2 (back) of the card.

    - Do not enter data to print on the same line as data to encode. It will not print.

6. With magnetic stripe cards in the printer, send the card to print.

7. Verify the encoding success by passing the card through a card reader.

How-To Topics
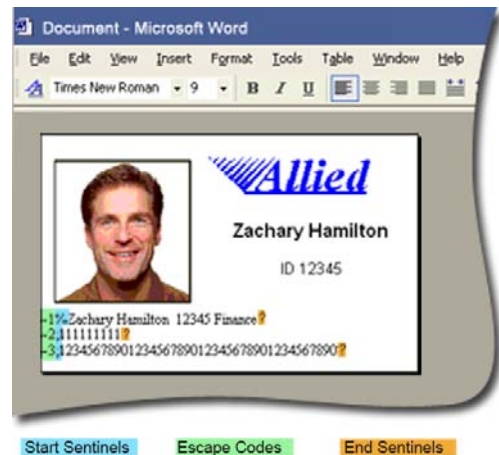
Supported Escape Codes

The Escape Code defines the track for the data. The data format for each track is set in the printer, and you must enter the type of data the format requires. The table below shows the default ISO format data, and how the data looks when formatted. The syntax column shows the general statement for how the data must be provided. For each track there is an example of how the data looks.

Syntax	Track	Example	Manufacturer
~<track#><data>	1 (IATA)	~1ENCODING WITH ESCAPES	Eltron/Zebra
	2 (ABA)	~21234567890	
	3 (TTS)	~31234567890	
~<track#>=<data>	1 (IATA)	~1=ENCODING WITH ESCAPES	Atlantek
	2 (ABA)	~2=1234567890	
	3 (TTS)	~3=1234567890	
~<track#> <Start Sentinel> <data> <End Sentinel>	1 (IATA)	~1%ENCODING WITH ESCAPES?	Datacard HiFX, RP90x, and SRxxx; JVC; and Fargo
	2 (ABA)	~2;1234567890?	The only Start Sentinel permitted for tracks 2 and 3 is ; (semicolon)
	3 (TTS)	~3;1234567890	

HINTS & TIPS

- The driver recognizes all supported escape codes.

- Use a small font size to shorten lines of text to encode.

- Keep text to print on a different line from text to encode.

- When the driver adds lines of text for the same track, the sequence is determined by the application. Test your application with the driver to make sure the data is in the correct order.

- Magnetic stripe data sent by the driver is always encoded on side 2 of the card.

- Magnetic stripe data will be converted to uppercase (capital) letters if needed.

- If not-allowed characters are sent within the magnetic stripe data, the printer displays a message.

Use Magnetic Stripe Fonts

The driver provides fonts to format magnetic stripe data. Use these fonts with applications such as Microsoft Word that do not usually support magnetic stripe data.

1. Use the application's page setup feature to set the paper size to ISO ID-1. Reduce the page margins to match the card design.

2. Format the text and graphics to print on the card.

3. Type the data to encode.

   - Use a small font size to minimize the amount of space used for encoded data.

   - End each line with an ENTER keystroke.

   - Do not put data for two tracks on the same line.

   - Do not allow text to encode to wrap to another line.

   - You can use two or more lines of text for one track. Each line must start and end with escape codes. The driver will add (append) lines for the same track together.
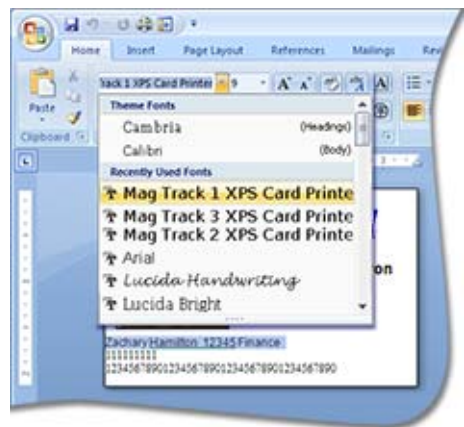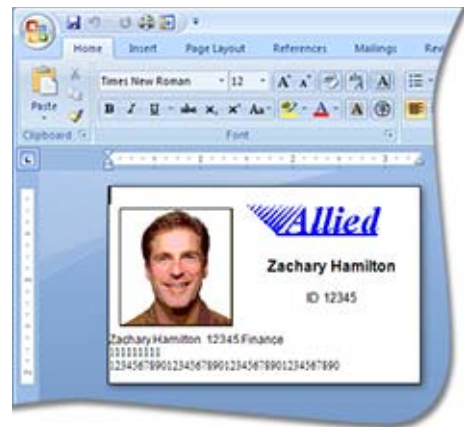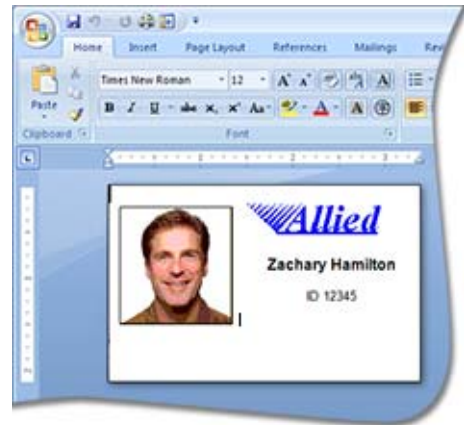
   - Data to encode can be on side 1 (front) or side 2 (back) of the card.

4. Select a line of data and apply one of the following fonts:

   - Mag Track 1 XPS Card Printer

   - Mag Track 2 XPS Card Printer

   - Mag Track 3 XPS Card Printer

   - Mag Track JIS XPS Card Printer

5. Repeat Step 4 for each line of text to encode.

6. Send the card to print.

7. Verify the encoding success by passing the card through a card reader.

HINTS & TIPS

- Do not use character formatting, such as kerning.

- Do not use smart quotes.

- Use an application in which you can enter and save text, and then edit it after saving.

- Use a RETURN or ENTER keystroke to end a line.

- Use a small font size to shorten lines of text to encode.

- Keep text to print on a different line from text to encode.

- When the driver adds lines of text for the same track, the sequence is determined by the application. Test your application with the driver to make sure the data is in the correct order.

- Magnetic stripe data sent by the driver is always encoded on side 2 of the card.

- Magnetic stripe data will be converted to uppercase (capital) letters if needed.

- If not-allowed characters are sent within the magnetic stripe data, the printer displays a message.

-

View the Driver Version

1. Open Printer Properties. See "Open Printer Properties".

2. Click the About tab.

3. The About tab shows the driver version.

4. Click **Close** to close the Printer Properties dialog.

View Network Information

When the printer and PC using the XPS Card Printer Driver are connected using a network, the network settings on the PC and the printer must match.

The driver Printer Properties dialog includes the Ports tab for specifying or viewing the printer IP Address being used. See the "Port Type" section of "View Printer Status" to view the setting.

If the printer is set to use DHCP (Dynamic Host Configuration Protocol), the IP address of the printer can change when the printer is powered off and then powered on. The XPS Card Printer Driver will issue message 500.

To check the IP address that the printer is using, see "Get the Printer Network IP Address". If the printer IP Address changes often, using Static IP addressing might provide a more reliable connection. Work with your network support group to identify the IP Address, Subnet Mask and Gateway Address (if used). Then, see "Set IP Address Type".

Print Bar Codes Using Monochrome

The card printer can be set to detect bar codes that could be embedded in an image and send the data to print using the K panel of color print ribbon. See "Types of Bar Codes Detected" for the type of bar codes that can be detected by the driver. For more information on printing bar codes, see "Printing Bar Codes"

Set the bar code detection using the settings in the Advanced Options window of Printing Preferences.

1. Open Printing Preferences. See "Open Printing Preferences"

2. Click the Advanced button.

3. Set the **Print bar codes using monochrome** to ON.

4. Click OK to close the Advanced Options window.

5. Click OK to close Printing Preferences.
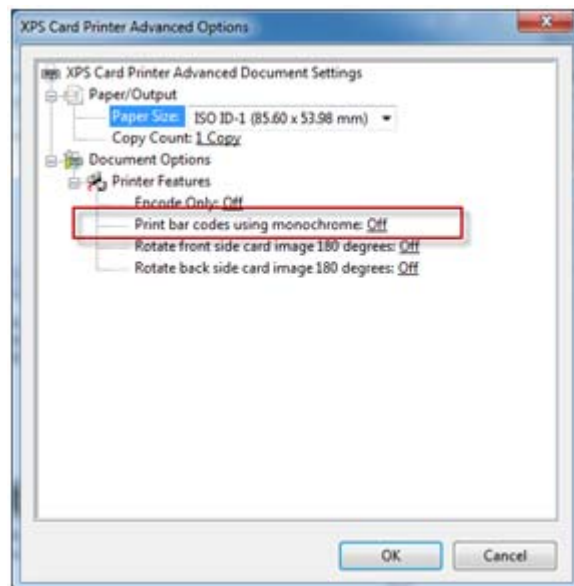
Chapter 13: Legal Notices

13

Safety and Compliance

Please note and heed the WARNING and CAUTION labels that have been placed on the equipment for your safety. Please do not attempt to operate or repair this equipment without adequate training.

Regulatory Compliance

Notice for USA (FCC notice)

This equipment has been tested and found to be within the limits for Class A computing devices, pursuant to Subpart J of Part 15 of FCC rules, designed to provide reasonable protection against radio interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with this instruction manual, it may interfere with 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 digital apparatus does not exceed the Class A limits for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

The term "IC:" before the radio certification number only signifies that Industry Canada Technical specifications were met.

Notice for Europe

We hereby certify that this printer complies with EMC Directive 89/336/EEC, R&TTE Directive 1999/5/EC, and the EU RoHS Directive EU Directive 2002/95/EG. 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 user, at their own expense, will be required to take whatever measures are necessary to correct the problem.

Notice for Taiwan

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
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被要求采用某些适當的對策。

Notice for Japan

This equipment is in the Class A category of information technology equipment based on the rules of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). When used in a residential area, radio interference may be caused. In this case, the user may be required to take appropriate corrective actions.

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

Notice to All Users

The printer emits radio-frequency waves and must be used as installed and recommended by the printer manufacturer. You may not modify the printer or how it is used without written permission. You may not operate the printer after modifying it or its method of operation.

Liability Statement

This product has been built to the high standards of ScreenCheck. Please note and heed the WARNING and CAUTION labels that 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. By acceptance of this system you hereby assume all liability consequent to your use or misuse of this equipment. ScreenCheck assumes no liability for incidental, special, or consequential damage of any kind. Equipment specifications, applications and options are subject to change at the sole discretion of ScreenCheck without notice.

Safety

All Datacard Group brand products are built to strict safety and reliability specifications in accordance with UL60950 and Canadian requirements, and the Low Voltage Directive 73/23/EEC. Therefore, safety issues pertaining to operation and repair of Datacard Group brand equipment are primarily environmental and human interface.

The following basic safety tips are given to ensure safe installation, operation and maintenance of Datacard Group brand equipment and are not to be considered as comprehensive on all matters of safety.

Safe environment

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.

Safe human interface

Use proper lifting techniques when moving or installing the equipment.

Use standard electrostatic discharge (ESD) precautions when working on or near electrical circuits.

Do not disconnect safety interlocks on covers. Operate the printer with the cover closed.

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