

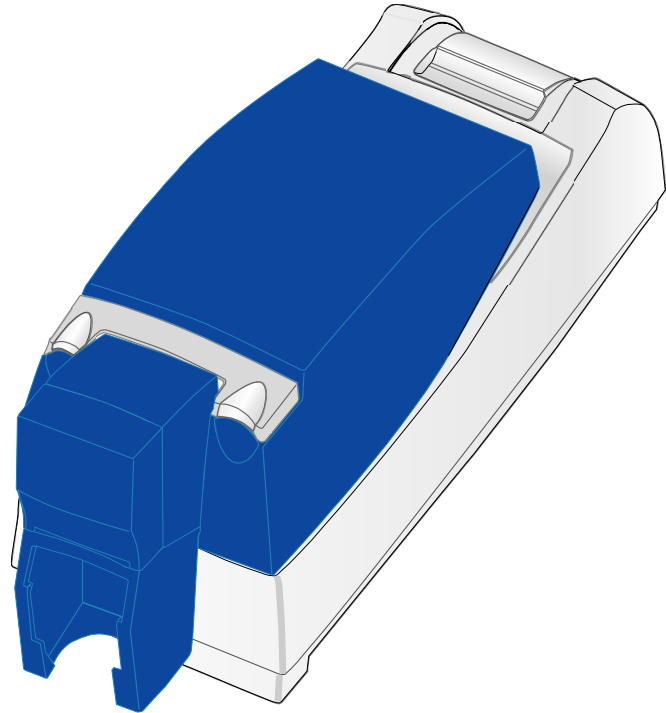
# SP55 Printer Guide



**intersider**

Intersider GmbH  
Neelandstraße 41  
49716 Meppen  
Telefon: (0 59 31) 88 39 0  
Telefax: (0 59 31) 88 39 10  
team@intersider.de  
www.intersider.de

**Datacard**<sup>®</sup>

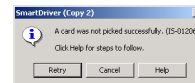


## Information resources for the SP55 Printer

**Installation** To install the printer:  
To install one printer on a PC using a USB cable, see the Installation Map, packed at the top of the printer carton.  
For detailed installation information or for special situations (such as network installation), see e-Guide/SP Series/SP\_Info\_Central.chm on the driver CD-ROM.



**Message Help** If you see a message, click Help on the message box. **Really!** Help topics are short and to the point.



**Printer Guide** The Printer Guide (this document) contains operating information for the printer and driver.



**SP Info Central and e-Guide** For in-depth information about using the printer or driver, click the *SP Info Central* icon on the desktop. (Insert the CD-ROM and choose User Information to install SP Series Info Central if the icon is not on the desktop.)



**FAQs** Service and Support FAQs at [www.datacard.com](http://www.datacard.com) provide answers to questions about the SP55 printer.

**Dealer** For help with questions not addressed by other SP55 information, contact your dealer.

**Customer Care** Contact the Datacard Customer Care Center at 1.800.328.3996 (U.S. & Canada) or 1.952.988.2316 (worldwide).

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## About the printer

### The outside of the printer

Duplex Module: Optional module at the back of the printer.

Printer Cover.

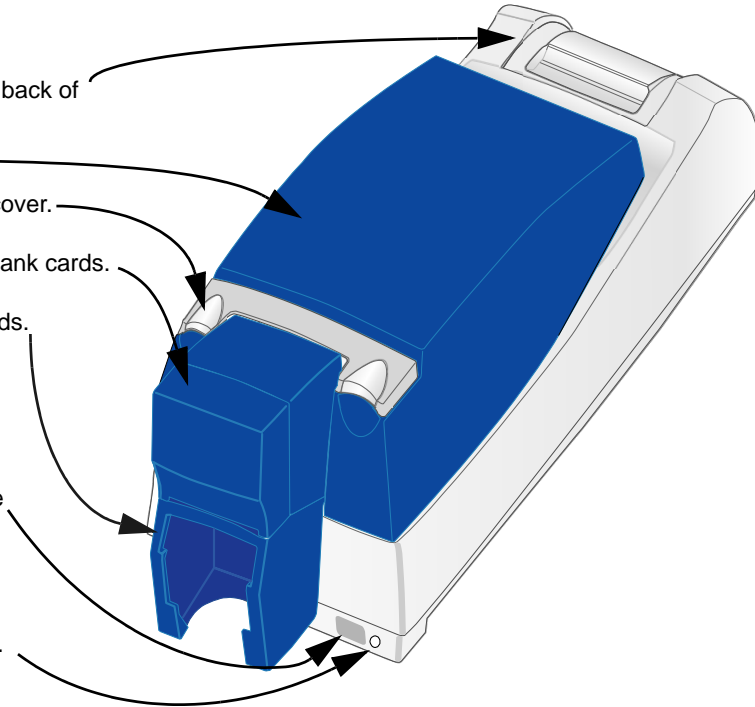
Latch: Lift the latch to open the printer cover.

Input Hopper: Open the cover to load blank cards.

Output Hopper: Remove completed cards.

Ready button: Push to pause or resume the printer.

The status light helps you understand printer operation. See "Status light" on page 11 for details.



Ports are located on the left side of the printer.

USB Data Port: Connect the data cable to the printer.  
*ALL* printers have this port.

Manual Advance Knob: Use to move a card in the printer or to turn rollers.

Power Receptacle: Plug in the power supply to power on the printer.

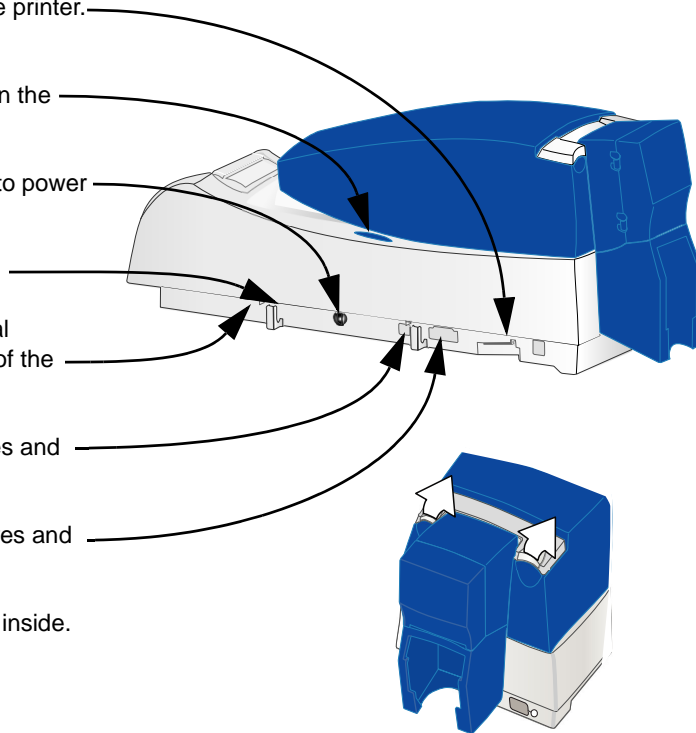
Cable Guides: Hold the data cable securely.

Security lock receptacle: Connect the optional security lock to the opening under the ledge of the printer (not visible in this drawing).

Optional Smart Card USB Port: See "Features and options" on page 4.

Optional Smart Card Serial Port: See "Features and options" on page 4.

**Tip:** Lift the latch to open the printer and see inside.



## The inside of the printer

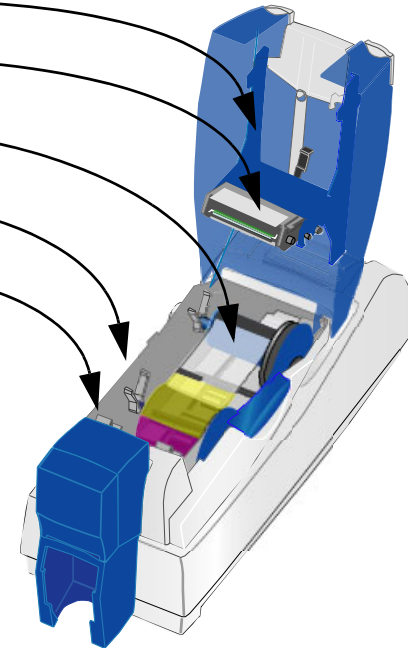
Cover Arm: Holds the cover and printhead cartridge in place.

Printhead Cartridge: Applies the image to the card. The label includes "YMC" for color or "K" for monochrome printheads.

Print Ribbon Cartridge (shown with color print ribbon).

Printer Label: Includes the serial number and model information (located on the left side of the printer and not visible in this drawing).

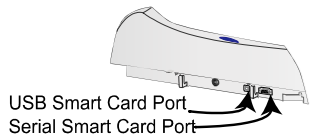
Cleaning roller (not visible in this drawing): Removes dust and debris from cards.




## Features and options

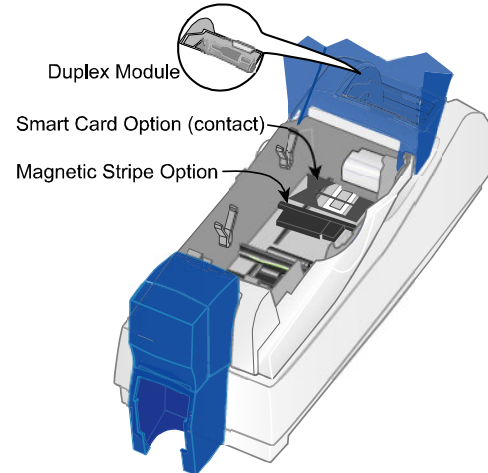
Features and options are identified on the printer label.

- Printers with “**U**” **printing** can print one color (monochrome) only. “**C**” printing is full-color or monochrome printing.
- All SP55 printers have a **USB connection**.
- SP55 printers can include a **duplex** module.
- A **magnetic stripe** module can be a three-track (IAT) or single-track (NTT) module. It is visible inside the printer.
- SP55 Printers can have an 100-card (H1) or 200-card (H2) **Input Hopper**. The Input Hopper can have a **lock** (K1).
- An optional **smart card** module can have:
  - Contact coupler (SC1x0 on the label): Visible inside the printer. Includes a USB port on the printer.
  - Contactless (RF) coupler (SC20x): Includes a serial or USB port.
  - Combination smart card coupler (SC3xx): Contact and contactless couplers. Visible inside the printer, includes USB or serial port. See *SP Series Info Central* for codes.
  - Contact station (SC400): Visible inside the printer. Includes a serial port.



Model: SP55      SN:   
F50120  
  
Config: SP55C2IATH1K1USBSC110

Printing: C or U  
Duplex: 2  
Magnetic Stripe: IAT or NTT  
Hopper: H1 or H2, K1  
Connection: USB  
Smart Card



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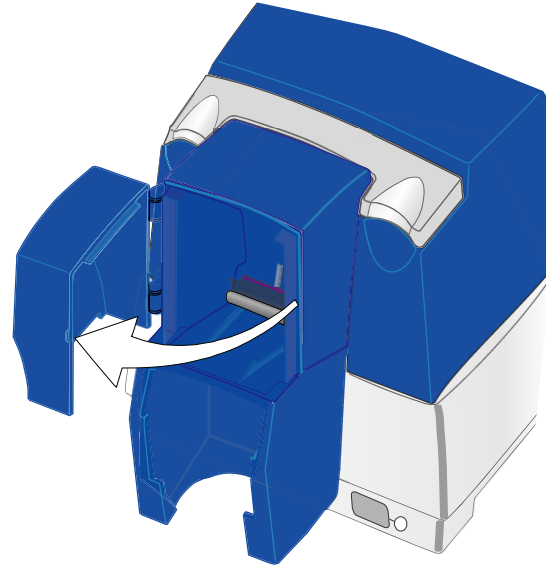
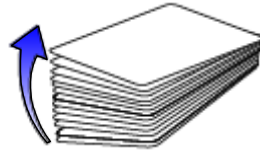
## Loading cards

- 1 Open the input hopper cover.
- 2 Remove cards from the original package.

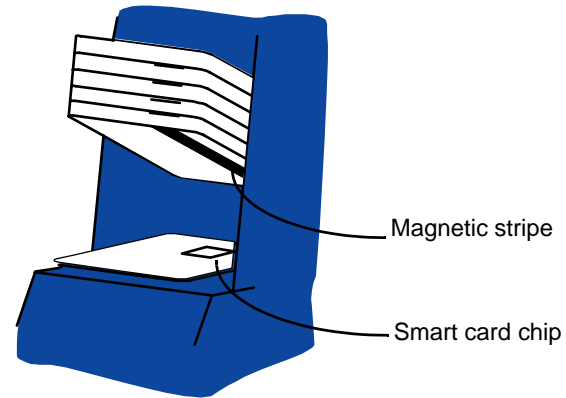
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### Tips: Handling cards

- Do not touch the surface of cards before printing them. (Oils on hands will reduce printing quality.)
- Handle cards by the edges or wear gloves.
- Cards can stick together: Slide or fan cards to separate the edges.
- Orient all cards the same way.



- 3 Place the cards in the input hopper.  
The diagram shows the typical locations for the magnetic stripe and smart card chip.
- 4 Push the input hopper cover closed until it latches.



See *SP Series Info Central* for current information about cards to use in the printer.

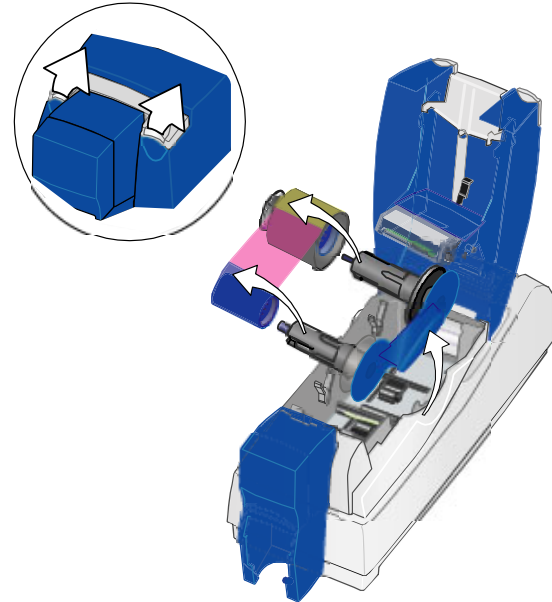
# Loading print ribbon

- 1 Open the printer.
- 2 Remove the ribbon cartridge.
- 3 Remove both used ribbon spools from the cartridge (if present).

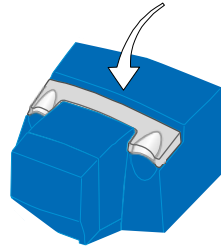
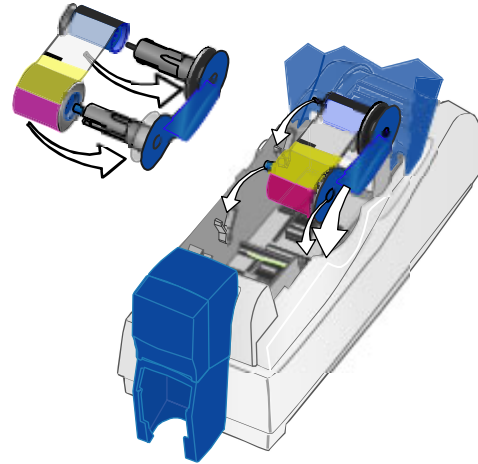
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## Tips: Handling print ribbon

- Keep unused ribbon in the original package.
  - Don't place ribbon on a dusty or dirty surface—dirt could damage the printhead.
- 
- 4 Run a cleaning card and replace the cleaning sleeve at the same time that you load a new print ribbon. See “Cleaning the printer” on page 17 for the steps to follow.



- 5** Load the new roll of print ribbon on the cartridge.
  - Put the full spool of ribbon on the supply spindle of the ribbon cartridge. Push until the spool clicks onto the spindle.
  - Put the empty take-up spool on the spindle with the solid black gear. Push until the spool clicks onto the spindle.
- 6** Replace the loaded ribbon cartridge in the printer.
  - Make sure both spindles rest in the black supports on the left side of the printer.
  - Make sure the ribbon cartridge handle rests in the supports on the right side of the printer.
  - Make sure to install the full, new spool toward the input hopper of the printer.
- 7** Close the printer cover. Press down firmly to latch it.



## Check the PC connection

The printer and PC are connected when the printer is set up. Before beginning card processing, make sure the connection is complete.

The USB data cable should be connected to a USB port on the PC and to the USB data port on the printer.

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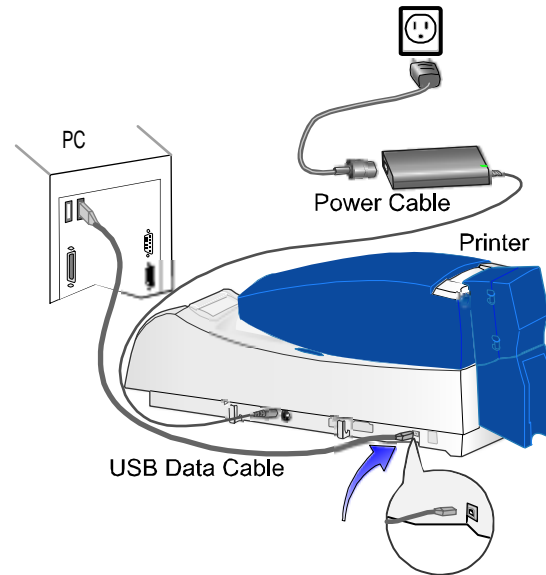
The printer can be connected in these other ways:

Through a direct network connection, where the printer is connected to a network (using a print server) and the PC is connected to the same network.

As a shared printer, where the printer is connected to another PC on the network and the user's PC is connected to the network.

See *SP Info Central* for more information about connecting the printer.

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## Power on the printer

Plug in the printer to power it on.

### **The printer does not have a power switch.**

- 1 Make sure the power supply cord connects to the printer power receptacle (1).
- 2 Connect the power cord to the power supply (2).
- 3 Connect the power cord to the power outlet (3).
- 4 The printer powers on and initializes.

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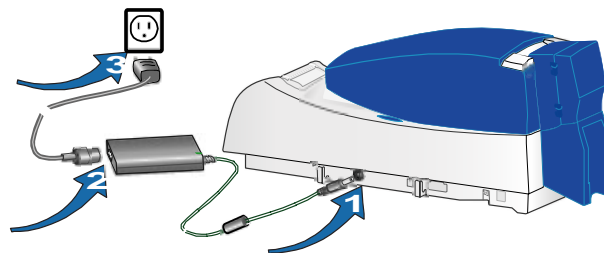
### **Tips for printer power**

Wait while the printer initializes.

The printer Status Light displays steady green when the printer is ready to print cards. See “Status light” on page 11 for details.

Follow the guidelines for your organization about when to power the printer on and off.





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## Status light

The front of the printer has a light that provides information about the current state of the printer.

At startup, the status light displays steady amber for several seconds, a red-amber-green sequence, and then blinking green for several seconds. When the printer is ready to print, the status light is steady green.

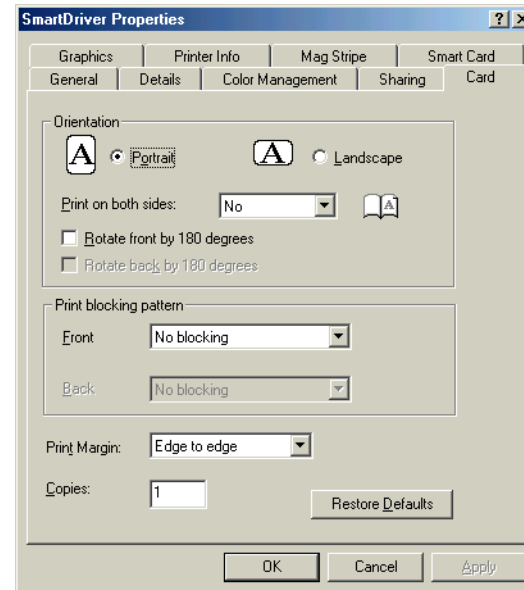
Status Light	Description	Meaning
	Red-Amber-Green	The printer is starting. The light displays colors while the printer initializes.
	Steady Green	The printer is ready and waiting to print cards.
	Blinking Green	The printer is busy, such as when printing cards or initializing.
	Steady Amber	The printer is paused (without an error) or is initializing.

<b>Status Light</b>	<b>Description</b>	<b>Meaning</b>
	Blinking Amber	The printer has an error. Check the following: <ul style="list-style-type: none"><li>• See the PC for a message.</li><li>• If you used the Power-on/Ready sequence to print a test card, check the printer for problems.</li><li>• If you changed the printer name, power the PC off and on.</li></ul>
	Steady Red	The printer has a condition that requires service or the printer did not power-on correctly. To attempt to correct the condition, power the printer off and on before calling for service.
	Off	The printer power is off.

## Opening Properties or Printing Preferences

Begin with the printer connected to the PC and powered on so values are saved correctly.

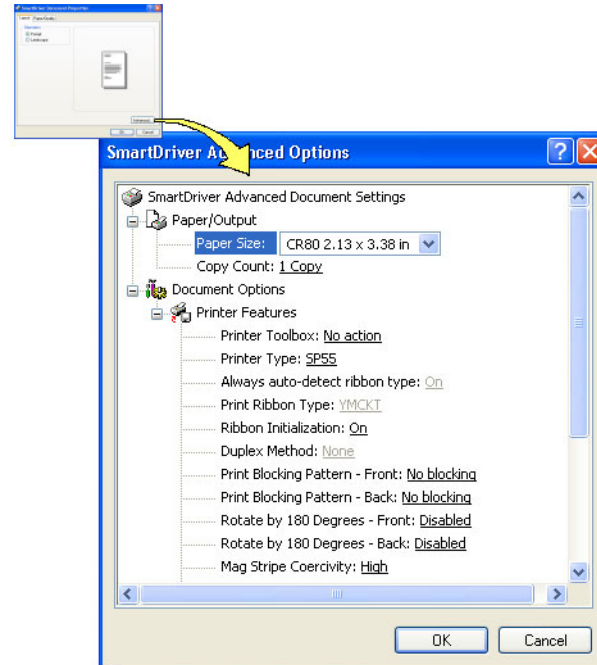
- 1 Choose Start from the Windows task bar.
- 2 Choose Settings and then Printers (and Faxes). The Printers (and Faxes) window opens.
- 3 Click once on the SmartDriver printer icon to select it.
  - The driver must be installed for the printer icon to be present.
  - SmartDriver is the default name of the printer. The name of your printer might be different.
- 4 From the menu bar, choose File and then one of the following:
  - For Windows Me or 98, choose Properties.
  - For Windows 2000 or XP, choose Printing Preferences, and then click the Advanced button.



Properties dialog box for Windows 98 SE and Windows Me

- 5 The dialog box opens.
- 6 View settings or change settings.
  - Make sure that driver settings match printer features and supplies used.
  - The Print Ribbon Type setting is read from the printer and cannot be changed (for most connection types).
  - If you change the card design, review and update all settings for the new card design.
  - Use the default settings of “Spool printing so program finishes printing faster.” and “Enable bi-directional support.”
- 7 Choose OK to save and close or choose Cancel to close without saving changes.

See *SP Series Info Central* for detailed setup information, including information about settings for card features.



Printing Preferences dialog box for Windows 2000 and Windows XP

## Open the Printer Toolbox

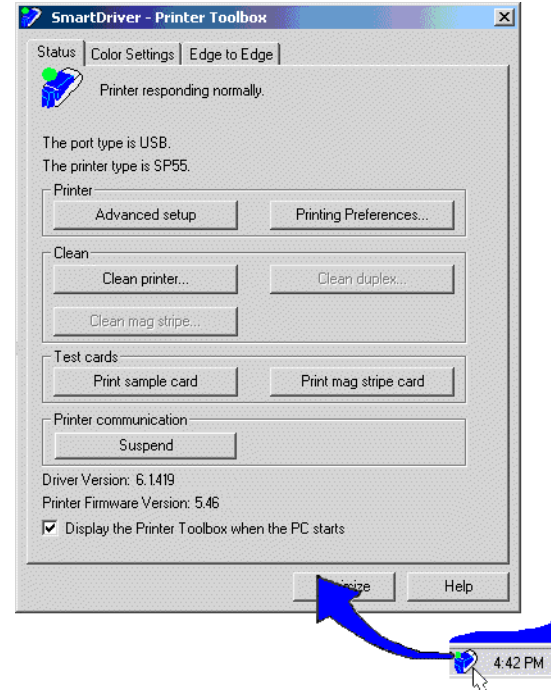
The Printer Toolbox icon is located in the lower right corner of the Windows desktop. The icon shows the status of communication between the printer and driver. See *SP Series Info Central* for details about the icon.

By default, the Printer Toolbox dialog box is displayed. If it is not, do one of the following to display it:

- Open the Properties or Printing Preferences dialog, and click Printer Toolbox.
- Double-click the icon.

Use the Printer Toolbox to:

- Run a cleaning card.
- Change color settings.
- Print a sample card or magnetic stripe card.
- View the status of communication between the printer and PC.
- Suspend communication when not printing a card.
- Change edge to edge settings.
- Use Advanced Setup to change printing intensity.



The Printer Toolbox displays:

- The current state of communication between the driver and printer.
- Message text, if there are any messages.
- The current port mode, which can be USB, Shared Mode, or Directly Networked.
- The printer type.
- The driver and printer firmware version numbers.

Communication automatically resumes when you print a card, or when you open the Properties or Printing Preferences dialog box.

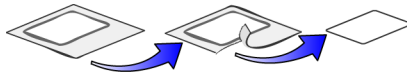
Buttons on the Printer Toolbox are grayed out when a card is ready to print or is printing, when there is a message, or when the printer is powered off. Wait until printing is done before printing a sample card, running a cleaning card, or using advanced setup. Some buttons do not apply to this printer and are always gray.

See *SP Series Info Central* for more information about the Printer Toolbox.

## Cleaning the printer

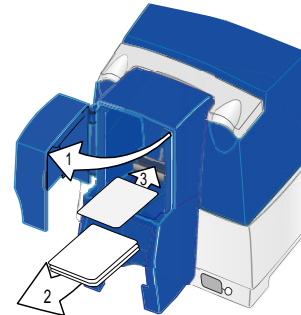
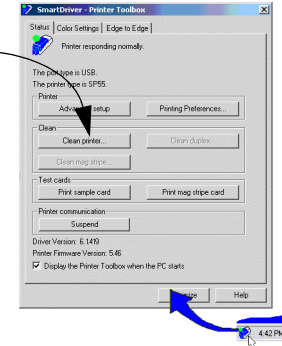
Run a cleaning card and change the cleaning sleeve when changing the print ribbon. Make sure that all cards sent to the printer have completed printing before cleaning.

- 1 Open the printer cover and remove the ribbon cartridge.
- 2 Remove the replaceable cleaning roller.
- 3 Open the input hopper cover (1).
- 4 Remove unprinted cards from the input hopper (2).
- 5 Open the Printer Toolbox (if needed, see page 15).
- 6 Click the Clean Printer button. A prompt to insert the cleaning card appears.
- 7 Open the cleaning card package and remove the cleaning card.



- 8 Insert the cleaning card into the input hopper (3), just past the roller.
- 9 Click OK on the message box. The printer moves the card through the printer several times and ejects the card. Wait a few minutes to allow the rollers to dry.

Clean Printer button



- 10 Slide the used cleaning sleeve off the spindle.
- 11 Discard the used cleaning card and used sleeve.
- 12 Place a new cleaning sleeve on the spindle (1).
- 13 Remove the protective cover from the sleeve (2).
- 14 Insert the replaceable cleaning roller (with a new cleaning sleeve) into the printer (3).
- 15 Replace the ribbon cartridge, close the printer cover, load cards, and resume printing.

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### Cleaning tips

Use the cleaning card as soon as you open the package. The cleaning solution on the card evaporates after a few minutes.

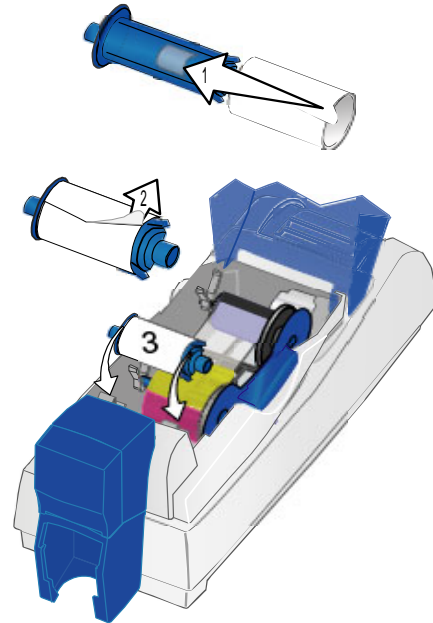
Some card features, such as signature panels and magnetic stripes, can require more frequent cleaning of the printer.

Clean printer rollers regularly, such as every time you change the ribbon.

If you use Stick!Cards™, use a cleaning card after every 100 cards. The printer might also need additional cleaning.

See *SP Series Info Central* for more cleaning information.

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## Printer supplies

Datacard-certified ribbon kits and cleaning supplies are available for the printer. Ribbon kits contain a roll of print ribbon, a cleaning card, and a replaceable cleaning sleeve. Datacard recommends that you run a cleaning card and replace the cleaning sleeve each time you change the print ribbon.

### Color print ribbon

Color print ribbon for the printer is available as follows:

- YMCKT Color Ribbon Kit, part number 552854-204, prints up to 250 images
- YMCKT Color Ribbon Kit, part number 552854-504, prints up to 500 images
- YMCKT-KT Color Ribbon Kit, part number 552854-506, prints up to 300 images (for duplex printing)

Color print ribbons are designed for full-color card printing. The ribbons use the following color panels: Y=yellow, M=magenta, and C=cyan/blue, a K=black, and a T=topcoat (clear). Datacard color print ribbon for SP Series printers uses Advanced Imaging Technology™ for high quality printing.

### Monochrome and Topcoat ribbon

Ribbon with alternating Black (K) and Topcoat (T) panels is available as part of the KT Ribbon Kit, part number 552854-509, which prints up to 1000 images.

### Monochrome print ribbon

Several colors of monochrome (single-color) print ribbon are available for the SP Series printer. A roll of ribbon prints 1500 or more images. The Ribbon Saver feature is enabled by Datacard-certified monochrome ribbons.

Ribbon Saver increases the number of cards printed with each roll of ribbon. Available monochrome colors include:

<b>Color</b>	<b>Part number</b>	<b>Color</b>	<b>Part Number</b>
Black	552954-501	Silver	552954-507
Black HQ*	552954-601	Gold	552954-508
Dark Blue	552954-502	Metallic Silver	552954-607
White	552954-503	Metallic Gold	552954-608
Red	552954-504	Scratch-off	552954-513
Green	552954-506	Metallic Holo Fleck	552954-609

\*. For use only in SP Series color card printers

## Cleaning supplies

In addition to the cleaning supplies included in the ribbon kit, Datacard recommends that you order additional cleaning supplies to have on hand to address unusual situations.

- A package of 5 replaceable cleaning sleeves is available. The part number is 549716-002.
- A package of 10 cleaning cards is available. The part number is 552141-002.

See *SP Series Info Central* for complete information about supplies and replacement parts for SP Series printers.

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## Getting the most out of your printer

To get the best quality cards and to maintain printer performance, follow these tips for success:

- Use the best quality cards available with a smooth, glossy PVC surface and print them only once. Make sure options, such as a Mylar® signature panel or a magnetic stripe, are high quality.
- Match the card design and the supplies you use to obtain the results you want.
  - Edge to edge printing requires high-quality cards and can require fine-tuning the printer (using the SmartDriver) and the card design (using the card creation application).
  - Avoid placing an image or important data on the other side of the card from a magnetic stripe, smart card chip, or signature panel.
  - Locate bar codes at least 0.25 inches from other printing and from the edge of the card. Make sure the color used to print the bar code works in your bar code readers.
  - Do not print closer than 0.1 inch from a signature panel, magnetic stripe, or smart card chip.
  - Do not apply topcoat over a magnetic stripe, signature panel, or smart card chip.
- Follow instructions carefully when replacing supplies, correcting problems, cleaning the printer, and replacing parts.

- Use cables that meet specifications and connect them correctly.
- Keep cards and Datacard-certified supplies on hand and store them safely.
- Keep the printer clean and keep the area around the printer clean.

See *SP Series Info Central* for detailed information about:

- Setting up the printer for the card design
- Making cards
- Changing printer settings
- Troubleshooting
- Supplies and parts, and specifications for them

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# Troubleshooting

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**What is the problem?**

- 1 A message appeared on the PC or LCD panel.
- 2 The printed cards do not look the way that I want them to.
- 3 Cards jam often.
- 4 The ribbon has broken.

**Try this:**

- Click the Help button on the message box to see possible causes and the solution for each cause. See the “Related Topics” to fix the problem.
  - If you moved the ribbon while the printer was powered off, print another card. If the problem persists, see the *SP Series Info Central* for detailed information about solving card appearance problems.
  - The brand of cards might be dirty, heavily powdered, or bowed (curved). Consider buying a different brand of cards or clean the printer more often to use the cards.
  - The printer rollers might be dirty. See “Cleaning the printer” on page 17 for steps to clean the printer rollers.
  - Trim the end of the broken ribbon evenly. If ribbon on the take-up spool is not wound firmly or is uneven, remove it. Tape the end of the ribbon onto the *same* take-up spool, making the edges of the ribbon and spool even.
  - If the ribbon breaks repeatedly, settings might not be correct for the card design and ribbon. See Setup in *SP Series Info Central*.
-

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**What is the problem?**

- 5** The printer does not respond when I print a card or when I click “Resume” on the Printer Toolbox.

**Try this:**

- Make sure the printer is plugged in. See “Power on the printer” on page 10.
  - Make sure the printer is connected to the computer. “Check the PC connection” on page 9.
  - If the Status Light on the printer is blinking amber (yellow), press the Ready button.
  - Power off the printer and power it on to see if communication resumes.
  - See *SP Series Info Central* for more detailed communication troubleshooting information.
- 6** The printer cover will not close.
- Push down firmly on the front edge of the cover to latch it.
  - Make sure no extra items are inside the printer.
  - Make sure the print ribbon cartridge is installed correctly. See “Loading print ribbon” on page 7.
  - If you installed or bumped the printhead cartridge, make sure it is installed correctly. See *SP Series Info Central*.
-

# Site requirements

## Operating environment

- Relative humidity: 20% to 80% non-condensing
- Temperature: 60° F to 95° F (15° C to 35° C)

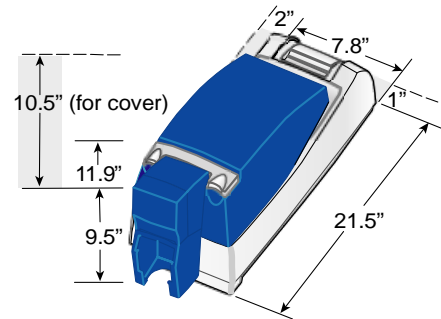
## Electrical requirements

- The external power supply is rated at 100-240 VAC, 50-60 Hz, 1.8 amp. (It adjusts to any power within this range.)
- Single phase, 3-wire, grounded receptacle only.

## Physical requirements

- The printer weighs less than 11.5 pounds (5.3 kg). The weight depends on the supplies and options installed.
- Printer dimensions are 21.5 inches (546 mm) long and 7.8 inches (198 mm) wide. The 100-card input hopper is 9.5 inches (241 mm) high and the 200-card hopper is 11.9 inches (302 mm) high.
- The clearance required 1 inch (25 mm) at the back, 2 inches (5 cm) on the left side, and 10.5 inches (267 mm) above the printer latch to open the cover.

Do not use the printer in a dirty environment. Do not use the printer in a closed compartment. Do not block air flow around the printer.



## Legal Notices (FCC)

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.

### Liability statement

This Datacard® product has been built to the high standards of DataCard® Corporation. See *SP Series Info Central* for the statement of liability.

### Regulatory compliance

This Datacard® product conforms to FCC and regulatory requirements as specified in North America, Europe, and Asia. See *SP Series Info Central* for detailed regulatory compliance information.

### Trademark acknowledgments

Trademark, service mark, and copyright acknowledgments are listed in *SP Series Info Central*.

### Proprietary Notice

All drawings and information herein are the property of DataCard® Corporation.

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# Datacard Group

11111 Bren Road West  
Minnetonka, MN 55343-9015  
952.933.1223  
952.933.7971 FAX  
[www.datacard.com](http://www.datacard.com)

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