

# Installation

The SP35 printer is easy to install and use. It is also flexible; you can connect and use it in many different ways. Most often, one printer is connected to one PC. However, two or more PCs can connect to and use one printer, or more than one printer can be attached to a PC.

The information in this section has two purposes:

- If you are not familiar with installing a printer on a PC, this section provides detailed steps and information to help you.
- If you want to understand the connection choices available to you, or if you want use another connection method, this section explains what the choices are and how to implement them.



## Before you install

This chapter presents the following:

- Skills that installers need
- Site requirements and guidelines
- Requirements for the PC used with the Datacard® SP35 printer
- The preferred sequence for installing this printer as part of an identification system
- Choices for installing the printer, including using a network

## Installation audience

To perform the procedures in the installation section of this guide, you need the following skills:

- Ability to read and understand written and graphical instructions
- Experience and comfort installing hardware (such as a printer, scanner, expansion card, etc.) in a personal computer (PC)
- Experience with configuring applications and ports
- Experience installing and using Microsoft® Windows® 98, Windows Me, Windows 2000 or Windows XP (for Windows 2000 and XP, the installer must have administrator access to the PC)
- Ability to perform simple troubleshooting using written and graphical instructions

If you do not feel comfortable with installing the printer, find a network support or other technical professional to install the printer. Datacard-authorized service personnel also install printers.

## Site Requirements

The *Printer Guide* describes the [site requirements](#) for the SP35 printer.

## Common Sense Site Guidelines

When choosing a site for the printer and its supplies, consider these common sense guidelines:

- Keep all dust, dirt, food, liquids, etc. away from the printer at all times.
- Do not use supplies or cards that have been dropped on the floor or have otherwise become contaminated.
- Keep paper and foreign materials off the printer.
- Place the printer on a stable platform; keep it off the floor.
- Place the printer away from direct sunlight.
- Place the printer away from heating ducts, blowers, or other air vents.
- Do not use the printer for purposes other than its intended use.
- When cleaning around the printer, prevent debris from entering the printer.
- Place the printer in a clean office environment, protected from any type of construction.
- Store all supplies (ribbons, cards, etc.) in the original packaging until you load them in the printer. Keep the original packaging closed.
- Store all supplies in a clean, cool, dry location. See [Supplies Storage](#) for information about the storage environment for printer supplies.

## PC and software requirements

The printer must be used with a PC that runs the printer driver. The PC also runs a card creation application that captures and organizes the data to appear on each card.

To support the printing speed that the printer can deliver, the PC must meet the following requirements:

- Have a 233 MHz (or faster) Pentium MMX-, Pentium II-, Pentium III-, or Pentium IV-compatible processor. Datacard recommends a 500 MHz (or faster) processor.
- Have at least 128 MB of memory (RAM). Datacard recommends 256 MB or more of memory.
- Have 60 MB or more of hard disk space available to store the printer driver and provide working space for preparing card data. (Additional components might require more space.) Datacard recommends at least 100 MB of hard disk space before installing the printer driver.

The PC, including processor speed, memory, operating system, applications running, and available hard disk space, can have a dramatic effect on card processing speed. The operating system or applications can require more or faster resources than the printer driver. Meet the most demanding requirements for the operating system, application, and drivers running on the PC.

- Have a one of the following:
  - USB port
    - The PC might have more than one USB port, or USB devices already attached to the PC might provide USB ports to use.

Datacard recommends using the Windows 2000 or XP operating systems if you plan to connect more than one printer to a PC using USB ports or using a USB port and another connection method.
  - A network connection to support printer sharing or direct networking
- Have a CD-ROM drive to install the printer driver
- Have one of the following operating systems:
  - Windows Millennium Edition (Me) (recommended)
  - Windows 98 Second Edition (SE)
 

The Windows 98 printer driver is also designed to work on Windows Me or Windows 98 Second Edition.
  - Windows XP with service pack 1 (recommended)
  - Windows 2000 with service pack 3

The PC must also have a card creation application that formats and prepares the card data. For the PC requirements of your card creation application, see the application's documentation.

The SmartDriver cannot be used on a PC that also has an Express Class 1.x, Select Class 2.x or 3.x, Magna Class, or ImageCard IV printer driver installed on it. Delete the other printer driver, following the instructions that came with the driver, before installing the SmartDriver.

## ID system installation sequence

You might use this printer as part of an identification system (with a camera) or you might use it with existing data and applications. When you set up this printer along with other system components, install the printer driver after setting up the PC and before installing the card creation application and capture software and devices. Verify the success of each installation step before continuing.

## Installation choices

Most users install one printer on a PC, using the CD-ROM shipped with the printer for installation. However, more choices are available to meet the needs of a variety of users. Choices include:

- Installing two printers to one PC using USB ports  
USB allows devices to be connected to the PC through another USB device (daisy-chained). USB also uses hubs to which multiple USB devices (including other hubs) can be connected (cascaded). Up to five hubs can be used between the printer and the PC. (In a daisy chain, at least every other hub needs to be powered.) Datacard printers do not have ports to support daisy chaining. If you need to connect two Datacard printers to a PC with one USB port, obtain a USB hub to which both printers can be connected.  
See [Connecting more than one printer or more than one PC](#) for information about installing a printer using a USB port.
- Installing the printer using files downloaded from the Datacard Web site  
The printer driver for the Datacard® SP35 printer is available from Datacard web site ([www.Datacard.com](http://www.Datacard.com)). When downloading a driver, be sure to choose the most recent SmartDriver and the correct operating system for the PC on which the driver will run. The driver to download does not include some of the files that are available on the CD, including:
  - This *SP35 Info Central* (which can be downloaded from the same Datacard Web site)
  - Installation files for the SmartDriver™ Printer Diagnostic Utility, and the Cleanup Utility
  - Driver installation files for other PC operating systems
- Upgrading the printer driver by removing the existing driver and installing a new printer driver  
See [Reinstalling the driver](#) for the steps for removing the exiting printer driver and for installing the new driver.
- Installing a printer on a client PC when the printer is connected to a host PC and both PCs are connected to a network (using Windows printer sharing).  
See [Printer sharing](#) for setup and operating information for both the host PC and the client PC.
- Installing a printer on a network using a print server and then installing the driver on a PC on the network. This method is called direct networking.  
See [Direct network printing](#) for information on installing and using a directly networked printer.
- Installing two printers to a PC, when one is directly connected and another is connected through a network (using Windows printer sharing or direct networking)  
See [Direct network printing](#) for information on installing and using a networked printer.
- Installing printers using a combination of connection methods. For example, one or more printers can be directly connected to the PC and others can be connected through a network.  
See [Direct network printing](#) for information on installing and using a networked printer.
- Using more than one printer installed to a PC as a printer pool, when the PC is running Windows 2000 or XP. The operating system manages sending jobs to the printers so the next available printer receives the card.  
See [Printer pooling](#) for information on setting up and using printer pooling.



## Install the printer

This section describes how to install the Datacard® SP35 printer. It describes:

- Unpacking the printer
- Connecting the power cord
- Connecting the data cable
- Preparing for printer driver installation

### Unpacking the printer

The SP35 printer is small and easy to unpack.

- 1 Open the shipping carton.
- 2 Remove the installation map. The top side shows the accessories shipped with the printer. If the printer includes optional items, the options are checked on the installation map.
- 3 The cables, Printer Guide, and other supplies are contained in the accessories tray. Lift out the accessories tray.
- 4 The printer is located between two shipping supports. Lift off the top shipping support and put it aside.
- 5 Lift out the printer and place it on a work surface.
- 6 After connecting the printer, put the shipping carton, shipping supports, and accessories tray aside in case you need to ship the printer in the future.

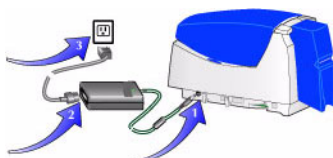
If any items are missing, contact your dealer to inform them.

### Connecting the power cord

- 1 Plug the power supply cord into the printer (1). The power receptacle is located on the side of the printer.
- 2 Plug the power cord into the power supply (2).

Do not power on the printer until supplies are loaded.

- 3 Plug the other end of the power cord into a single-phase, 3-wire grounded receptacle with 90-130V AC or 195-254V AC at 50 or 60 Hz (3).



The printer power supply automatically adjusts to the voltage of the input power.

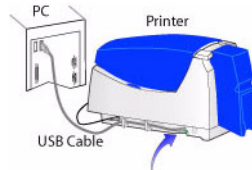
### Connecting the data cable

The printer has a USB data port and requires a data cable. A printer with smart card module has one or two additional ports. Do not connect smart card ports at this time!

The USB cable must be a type CM 30V cable, up to a maximum of 6.5 feet or 2 meters long. A longer cable might result in electrical interference.

If the printer is connected over a network using a print server, see [Direct network printing](#) for information about connecting the printer.

- 1 Attach the flat end of the USB cable to the USB data port on the PC (or to a device attached to the PC through a USB port).



- 2 After the printer is powered on and ready, attach the other end of the USB cable to the printer. **DO NOT** use the smart card USB port if it is installed in the printer. The smart card USB port is near to power receptacle.

If you are connecting the printer after the driver has been installed, the sequence for connecting and powering on the printer does not matter.

USB allows devices to be connected to the PC through another USB device (daisy-chained). USB also uses hubs to which multiple USB devices (including other hubs) can be connected (cascaded). Up to five hubs can be used between the printer and the PC. (In a daisy chain, at least every other hub needs to be powered.) Datacard printers do not have ports to support daisy chaining. If you need to connect two Datacard printers to a PC with one USB port, obtain a USB hub to which both printers can be connected.

## Is the printer ready for driver installation?

Before installing the printer driver, do the following:

- Load cards in the card tray. See the [Printer Guide](#) or Installation Map.
- Install the print ribbon and continuous cleaning roller. See the [Printer Guide](#) or Installation Map.
- Power on the printer and PC. Plug the power supply into the printer power receptacle. The printer should display a series of colors on the status light when it powers on. The printer status light becomes steady green when the printer is ready.
- For a directly networked printer, make sure that the printer is ready before installing the driver on a PC. See the [Direct network printing](#) for more information.
- For a shared printer, make sure that the printer is ready before installing the driver on the attached (host) PC. See [Printer sharing](#) for more information. You must install the driver on the host PC before installing the driver on any other attached PCs.



## Installing the driver

The printer is shipped with a CD-ROM that contains the printer drivers for the supported Windows operating systems. The supported operating systems are:

- Windows Millennium Edition (Me) (recommended)
- Windows XP with Service Pack 1 (recommended)
- Windows 2000, with Service Pack 3
- Windows 98 Second Edition (SE)

See [PC and software requirements](#) for details on operating system support and limitations.

### ***Installation choices***

- If the PC does not have a CD-ROM drive, request diskettes from your service provider. (Service providers can obtain the driver as diskette images from the partner page.) You also can download the printer driver from the Datacard Web site, at [www.datacard.com](http://www.datacard.com).
- If you have installed the printer driver and want to update to the most recent driver, follow the steps in [Reinstalling the driver](#).
- Several other connection methods are available, including printer sharing over a network, installing two printers on parallel ports on a PC, and installing multiple printers to a PC using the USB port. See [Connecting more than one printer or more than one PC](#) for information on these installation alternatives.
- You can also directly connect the printer to a network using a print server. See [Direct network printing](#) for more information.
- See [Printer pooling](#) for information on printer pooling on the Windows 2000 and XP operating systems.
- If the printer includes a smart card module, do not connect it at this time. See [Set up Smart Card](#) for details.

Choose the section that applies to the type of port and operating system on the PC:

- [Install the printer driver to a USB port on Windows 2000 or XP](#)
- [Install the printer driver to a USB port on Windows Me or 98](#)

### Install the printer driver to a USB port on Windows 2000 or XP

For Windows 2000 or XP, make sure you are logged in as the Administrator when you install the printer driver.

- 1 Close all applications. Do not close Windows.
- 2 Make sure printer is powered on.
- 3 Connect the printer to the PC using the USB data cable. The operating system detects the printer and displays the Found New Hardware Wizard.
- 4 With Windows running, insert the CD-ROM in the PC's drive.
  - On Windows XP, the Windows “Found New Hardware” wizard should read the CD-ROM and suppress the Datacard Group installation program. Use the Found New Hardware wizard to run the driver installation process. Do not use the Datacard Group installation program if it starts automatically.

- On Windows XP, the wizard might perform several steps automatically. It will require your action at step 10.
  - On Windows 2000, the Datacard Group installation program opens. Click on the Found New Hardware Wizard to use the Wizard.
    - If you are using diskettes, extract the files to the PC's hard drive.
- 5 On the Found New Hardware wizard, click Next.
  - 6 On the Install Hardware Device Drivers page of the wizard, make sure that "Search for a suitable driver for my device (recommended)." is chosen and then click Next.
  - 7 On the Locate Driver Files page, choose one of the following:
    - "CD-ROM drives" if you are installing the printer driver from CD.
    - "Specify a location" if you are installing the printer driver from the PC's hard drive.
  - 8 Click Next to continue with installation.

If you specified a location, a dialog box in which you can browse appears. Browse to find the DsPnp.inf file. Click Open and OK.
  - 9 The wizard searches for the file to start installation. When it has found the DsPnp.inf file, click Next to continue.
  - 10 A Windows message appears.
    - On Windows 2000, the Digital Signature Not Found message appears. Click Yes to continue with installation. Security on the PC might be set to prevent installation without a digital signature. See Windows help for "digital signature" to change the security setting.
    - On Windows XP, the Windows Logo Signing message appears. Click Yes to continue with installation. Security on the PC might be set to prevent installation without a digital signature. See Windows help for "Logo signing" to change the security setting.
    - If installation is cancelled or cannot continue, see the [Running the Cleanup utility](#) for steps to follow.
  - 11 The installation program copies files to the PC and updates entries to enable the printer.
  - 12 A message appears telling you that installation is complete. It also reminds you of important tasks to perform. Click OK to restart the PC.
  - 13 The Found New Hardware Wizard and Datacard Group installation program close and the PC restarts.
  - 14 After the PC restarts, the Printer Toolbox is displayed. Click the Print Sample Card button to verify printer and driver installation.
  - 15 If you are installing from CD-ROM, start the driver installation program to install information.
    - Remove the CD-ROM from the PC drive, and then insert it again. The Datacard Group installation program appears.
    - If the Datacard Group installation program does not start, locate the Demo32.exe file in the base directory of the CD-ROM.
    - If you are installing using files downloaded from the internet, you can locate the download file for SP35 Info Central and the e-Guide in the downloads area of the Datacard Web site at [www.datacard.com](http://www.datacard.com). Go to [Printing sample cards](#) to complete installation.
  - 16 To install information, click User Information on the Datacard Group installation program.
  - 17 Click SP35 Info Central and e-Guide.

- 18 Click OK to begin to extract the installation program.
- 19 Make sure the drive and folder for extracting files is acceptable. Click Unzip to extract files.
- 20 Click OK at the end of extraction. The installation program starts automatically.
- 21 Click Next to copy the e-Guide files.
- 22 Click Finish to close the installation program.
- 23 Click Exit on the Datacard Group installation program to close it.

If you will connect additional Datacard printers, you can install e-Guides for the Magna Class printer with AIT, the Select Class printer with AIT, and the ImageCard IV printer. The procedure is slightly different for these e-Guides. See the User Guide for the printer for details.

## Install the printer driver to a USB port on Windows Me or 98

- 1 Close all applications. Do not close Windows.
- 2 Make sure printer is powered on.
- 3 Connect the printer to the PC using the USB data cable. The operating system detects the printer and displays the Add New Hardware Wizard.
- 4 With Windows running, insert the CD-ROM in the PC's drive.

The Windows "Add New Hardware" wizard should read the CD-ROM and suppress the Datacard Group installation program. Use the Add New Hardware wizard to run the driver installation process. Do not use the Datacard Group installation program if it starts automatically.

- If you are using diskettes, extract the files to the PC's hard drive.

- 5 On Windows Me, the Wizard might open the SmartDriver installation program and display the License Agreement. If it does, go to step 9.

On Windows 98, click Next on the Wizard and make sure that "Search for the best driver for my device (recommended)." is selected.

- 6 Click Next. Choose the location for the driver to search.
  - If you are installing from a CD-ROM, click CD-ROM Drive.
  - If you are installing from the hard disk, choose "Specify a location," browse to the drive and folder in which the driver is located, and click OK.
- 7 Click Next and click Next again.
- 8 The wizard loads the installation program.
  - For some Windows Me and 98 PCs, Windows finds USBPrint.inf and installs USB printer support. If this occurs, the Add New Hardware Wizard appears again. Repeat these steps, beginning with step 5.
- 9 Click Yes to accept the software license.
- 10 The installation program displays a question asking whether you would like to view the Release Notes. Do one of the following:
  - Click Next to continue.
  - Click Yes and then Next to open the Release Notes in WordPad. Close the Release Notes when you have viewed the information.
- 11 Choose the information to install:

- Choose the SP35 e-Guide. If you will connect additional Datacard printers, you can install e-Guides for the Magna Class printer with AIT, the Select Class printer with AIT, and the ImageCard IV printer.
- 12 Click Next to copy driver files and to install the e-Guide(s) you selected.
  - 13 The installation program copies files to the PC and updates entries to enable the printer.
  - 14 If you chose the Magna, Select, or ImageCard IV e-guides, the installation program detects whether the Adobe Acrobat Reader program is installed on the PC. If it is not, the installation program asks if you want to install Acrobat Reader. Click Yes and then Next to install it.
    - a The Acrobat Reader installation program starts.
    - b Follow the prompts to install Acrobat Reader.
    - c The Acrobat Reader installation program returns you to the SmartDriver installation program when it is complete.
  - 15 The Finish dialog box appears.
  - 16 You must restart the PC before the driver can work with the printer. Click Finish to close the installation and restart the computer.
  - 17 On Windows Me, click Finish to close the Windows Add New Hardware Wizard and restart the PC.  
On Windows 98, the Windows Add New Hardware Wizard closes on its own. On both Windows Me and 98, the Datacard Group installation program closes when you restart the PC.
  - 18 After the PC restarts, the Printer Toolbox is displayed. Click the Print Sample Card button to verify printer and driver installation.

## Printing sample cards

The printer is shipped with one or more cards that are printed in the factory. You can also print a sample card, which looks like one of the factory-printed cards, using the Printer Toolbox.

### ***Setup tips***

- The printer cover is closed and latched.
  - Cards are loaded in the card tray.
  - The data cable is connected to the USB port of the printer and the corresponding port of the PC.
  - The settings for the USB port (if used) are correct. See [PC port settings](#) for more information.
  - Supplies are installed in all cartridges and cartridges are loaded correctly. See the [Printer Guide](#) for more information.
  - The printer is ready to print. The status light on the printer should be steady green when you send a sample card. See [Open the Printer Toolbox](#) for more information.
  - Use the driver sample card, not a card from a card creation application, to verify that the printer and driver are working together.
- 1 Begin with the printer powered on and connected to the PC, supplies loaded, the printer driver installed, and Windows running.
  - 2 Make sure the Printer Toolbox is open.
    - After the PC restarts, the Printer Toolbox is displayed.

- The icon for the Printer Toolbox is located in the lower right corner of the Windows desktop. Double-click the icon to open it.
  - If the Printer Toolbox and its icon are not displayed, see the [Printer Guide](#) for steps to follow.
- 3 Click the Sample Card button.
    - The driver identifies the type of printer and whether it prints color or monochrome images, and then sends the appropriate sample card to print.
    - If the printer is a color printer and is using a monochrome (K) ribbon, the printed sample card will be mostly black, not full-color.
  - 4 Compare the cards you printed with the cards shipped with the printer.
  - 5 When you have printed the card, you can close the Printer Toolbox or leave it open.
  - 6 Use the card to evaluate how well the printer is operating:
    - If you have just completed installation, use the comparison to complete the Installation Report and mail or fax the report to Datacard.
    - If you are checking the operation of the printer, see [Troubleshooting](#).

## Setting printer permissions

If the PC to which the printer is attached has other users and runs the Windows 2000 or XP operating system, set permissions that:

- Allow users to use all features of the printer and driver, including messages. (Messages inform users when they need to change the ribbon, load cards, and fix problems.)
  - Prevent any access to the printer by unauthorized users.
- 1 From the Windows taskbar select Start, then Settings, and then Printer (and Faxes). The Printers (and Faxes) window appears.
  - 2 Highlight the SmartDriver icon by clicking on it once.
  - 3 From the menu bar, select File and then Properties. The Properties window for the SmartDriver appears.
  - 4 Select the Security tab.
  - 5 Review the Names list. If the names for which you want to specify permissions do not appear in the list, add the names.
    - a Select 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 done adding names, click OK. The Users and Groups dialog box closes.
  - 6 In the Names list, select the name for which you want to specify permissions.
  - 7 From the Permissions list, select the access:
    - For a local user of a local printer and for a user of a directly networked printer:
      - To enable printing, select Allow for Print, Manage Printers, and Manage Documents.
      - For a user who should not print on the SmartDriver printer, select Deny for all permissions.
      - Single permissions, such as the Print permission, are not supported.
    - For a user of a shared printer:

- For a local user of the printer on the PC connected to the printer, select Allow for Print, Manage Printers, and Manage Documents. The user will be able to see all messages. The user will also be able to perform other actions, such as deleting the printer driver. (Single permissions, such as Print, are not supported for local users of the printer driver.)
  - For a user who should not print on the printer, select Deny for all permissions.
  - For a user connected through a network using Printer Sharing, select Allow only for the Print permission. (Select Deny for Manage Printers and Manage Documents.)
- 8 Select Apply to save the change. Save changes for each name.
  - 9 Repeat steps 5 through 8 to add other users or groups.
  - 10 Select OK to close the Properties dialog box.

## Changing the type of printer connected

The SmartDriver supports SP35 printers, Select printers (Platinum Series or with Advanced Imaging Technology), Magna printers (Platinum Series or with Advanced Imaging Technology), and ImageCard IV printers. Each of these groups is considered a printer type. You can directly connect one type of printer to a PC, install the SmartDriver, and, at a later time, connect a different type of Datacard printer. If the printer is connect using a direct network connection, the PC will detect the printer connected and change driver settings.

- If another printer is connected to a USB port, the operating system detects the new printer and starts the Add/Detected New Hardware wizard.
- On the Windows XP operating system, the operating system can detect the changed printer and display the Add/Detect New Hardware wizard. Follow the wizard. If the wizard displays a message indicating that it cannot find the ds.ppd file, click Cancel on the message box to continue and use the printer.

This feature is designed for use in limited situations, such a connecting a backup printer when the main printer is out of service.

## Operating tips for changing the type of printer

- When the printer is powered up and connected, the SmartDriver detects the type of printer attached. The SmartDriver reads settings from the printer and updates values on the PC for the printer.
- The Properties or Printing Preferences dialog box includes a Printer Type setting. In addition, the Printer Toolbox displays the type of printer connected.
- You must set the Printer Type on the Client PC for a shared printer. The driver on a Client PC cannot communicate directly with the printer and so cannot determine the type of printer connected.
- If a printer is connected and running, the SmartDriver will detect it and change the Printer Type to match the machine connected. (Power off the printer or disconnect it if you do not want the SmartDriver to detect that type of printer.)

## Reinstalling the driver

After you have installed the printer driver for the first time, you might want to remove the current driver and install the driver again. Typical reasons for reinstalling the printer driver include:

- To fix a problem at the PC
- To install a more recent version of the driver (update the driver)

The Printer Toolbox displays the version of the printer driver, which can help you to decide whether to update the driver. See the [Printer Guide](#) if you need instructions on opening the Printer Toolbox.

You can download the current printer driver from the Datacard web site, at [www.datacard.com](http://www.datacard.com). Go to the downloads area and click Printer Drivers. Be sure to download the correct printer driver for your operating system. See [PC and software requirements](#) for information about the operating systems.

The specific tasks to perform depend on your purpose for reinstalling the printer driver:

Purpose	Operating System	Procedures
Update the driver	Windows 2000 and XP	<a href="#">Updating the printer driver for Windows 2000 and XP</a> (for each printer)
Update the driver	Windows Me and 98	<a href="#">Removing the existing printer driver</a> and <a href="#">Reinstalling the printer driver to a USB port on Windows Me and 98</a>
Update the driver (client PC, printer sharing)	All	<a href="#">Removing the existing printer driver</a> , <a href="#">Running the Cleanup utility</a> , and <a href="#">Installing the printer driver on the client PC</a>
Fix a problem on the PC	Windows Me and 98	<a href="#">Removing the existing printer driver</a> for all printers, <a href="#">Running the Cleanup utility</a> , and <a href="#">Reinstalling the printer driver to a USB port on Windows Me and 98</a>
Fix a problem on the PC	Windows 2000 and XP	<a href="#">Removing the existing printer driver</a> for all drivers, <a href="#">Running the Cleanup utility</a> , and <a href="#">Reinstalling the printer driver to a USB port on Windows 2000 and XP</a>

If you have installed more than one printer on a PC and one of them is a shared printer, delete the shared printer before any other printers.

## Removing the existing printer driver

### *Tips for success*

- If you are updating the printer driver, do not remove the existing printer driver if the operating system is Windows 2000 or XP. (If you are reinstalling due to a problem on Windows 2000 or XP, follow these steps.)

- Make sure all jobs have been printed or deleted from the Print Manager before removing the existing printer driver. See Windows help to use the Print Manager.
  - For Windows 2000 and XP only, the Administrator and users with Manage Printers permission can delete the printer driver.
  - The printer name and printer settings are deleted when you delete the printer driver. If needed for an application or printer sharing, you can record the printer name and settings you use before you delete the driver.
  - If you have more than one printer driver on the PC, first delete the printer driver installed most recently, if known.
- 1 If the printer is connected to the PC using a USB cable, unplug the cable from the printer before deleting the printer driver. If you do not, the operating system might install the printer again.
  - 2 Close all applications. Do not close Windows.
  - 3 Select Settings and then Printers from the Windows Start menu.
  - 4 In the Printers window, click once on the SmartDriver icon to select it. Press the Delete key.
  - 5 When the confirmation prompt appears, select Yes or OK to delete the printer driver. Follow any prompts that appear.
  - 6 Close the Printers window and close all applications.
  - 7 When the prompt to restart Windows appears, select Finish, Yes, or OK.
  - 8 Restart Windows. For Windows 2000 or XP, make sure you have permission to restart Windows and then log in as the Administrator.

## Running the Cleanup utility

### *Tips for success*

- Download the Cleanup Utility from the downloads area of the Datacard Web site at [www.datacard.com](http://www.datacard.com).
  - The cleanup utility is also available on the printer driver CD-ROM.
  - If you have attempted to delete the printer and the icon remains, run the Cleanup utility as though the driver was deleted.
- 1 Begin with all printer drivers deleted from the PC. Make sure you have restarted Windows after deleting the drivers.
  - 2 Start the Cleanup process:
    - If you downloaded the Cleanup Utility, double-click the Cleanup.exe file to extract and start the utility.
    - Insert the SmartDriver CD-ROM in the PC's drive. Select Driver Support Programs and then click Cleanup Utility.
  - 3 Click OK and then Unzip to extract files and start the Cleanup Utility.
  - 4 Click OK when files are extracted. The Cleanup Utility starts automatically.
  - 5 Click Yes on the Question box to open the Cleanup.pdf file using Acrobat Reader. This file provides specific instructions on running the Cleanup utility. Follow the instructions carefully.
  - 6 Exit the Datacard Group installation program and remove the CD-ROM.



## Updating the printer driver for Windows 2000 and XP

### *Tips for success*

- These steps apply to printers attached through a USB port and to directly networked printers.
  - Make sure you are logged in as the Administrator when you install the printer driver.
  - To update the driver, do not remove the existing printer driver if the operating system is Windows 2000 or Windows XP.
  - On a PC running Windows 2000, use the printer driver only with Service Pack 1 or 2 installed.
- 1 Begin with the PC powered on and Windows running. Also, make sure the printer is connected to the PC and powered on.
  - 2 Close all applications. Do not shut down Windows.
  - 3 From the Start menu, select Settings and then Printers. The Printers window opens.
  - 4 Click once on the printer icon to select it.
  - 5 Select Properties from the File menu. The printer Properties dialog box opens.
  - 6 Click the Advanced tab to display the Advanced page.
  - 7 Select the New Driver button to display the New Driver dialog box.
  - 8 Click the Browse button and locate the folder containing files for the printer driver.
  - 9 Select the DsPnp.inf file and click OK. Windows copies files to the PC and updates entries to enable the printer. The Setup Complete dialog box appears.
  - 10 You must restart the PC before the driver can work with the printer. Click Finish to close the installation and restart the PC.
  - 11 Follow instructions to update the printer firmware if prompted. Make sure the printer is connected to the PC and powered on before running the Firmware update utility.

If you downloaded the driver from the Internet, you can delete the SmartDriver folder from your hard drive after installing the printer driver. You can also delete the downloaded Smartdriver.exe file.

## Reinstalling the printer driver to a USB port on Windows Me and 98

- 1 Begin with the PC powered on and Windows running.
- 2 Close all applications. Do not shut down Windows.
- 3 Make sure the printer is powered on and ready.
- 4 Start the setup program.
  - If the driver is on CD-ROM, insert the CD-ROM in the PC's drive. The setup program starts automatically.
    - Remove and reinsert the CD-ROM if it was in the drive when the PC powered up.
  - If the driver was downloaded, do the following:
    - Make sure the downloaded driver is in a folder where you can extract it.
    - Double-click the file name in Windows Explorer to start the extract.
    - The extract program creates a folder, extracts the files, and starts the installation. The folder must have a path name of 8 characters or fewer, for example C:\SD4 (6 characters).

- 5 Connect the printer to the PC using the USB cable.
- 6 The operating system detects the printer and displays the Add New Hardware wizard.
- 7 Insert the printer driver CD-ROM, if used, in the PC.
- 8 Click Next. On the next page of the wizard, do one of the following:
  - Make sure that the recommended choice (“Automatic Search for a better driver” or “Search for a suitable driver for my device”) is selected if you are installing from CD-ROM. Go to step 9.
  - If you are installing from files on the hard drive, click “Specify the location of the driver.”
  - On the next page, select “Search for the best driver for your device” and “Specify a location” Browse to find the DsPnp.inf file.
- 9 Click Next. The wizard loads the installation program.
- 10 Click Yes to accept the software license.
- 11 The installation program displays a question asking whether you would like to view the Release Notes. Do one of the following:
  - Click Next to continue.
  - Click Yes and then Next to open the Release Notes in WordPad. Close the Release Notes when you have viewed the information.
- 12 If driver files are on the Datacard-provided CD-ROM, the installation program displays a list of e-Guides to install. Select the e-Guide(s) to match the printer(s) attached to the PC.
- 13 The installation program copies files to the PC and updates entries to enable the printer.
- 14 Install information if needed.
  - The installation program detects whether the Adobe Acrobat Reader program is installed on the PC. If it is not, the installation program asks if you want to install Acrobat Reader. Click Yes and then Next to install it.
  - If you are installing from the hard drive, you might see a message explaining that the e-Guides and Acrobat Reader are not available. If you ran the Cleanup utility, install the e-Guide for your printer type(s).
    - Insert the printer driver CD-ROM.
    - Click User Information and then e-Guides.
    - Follow the instructions to extract the files to a temporary location and start the Setup program.
    - In the setup program, clear the check boxes for the e-Guides you do not need. The installation program copies the e-Guide files to the folder that contains driver help.
- 15 The Finish dialog box appears.
- 16 You must restart the PC before the driver can work with the printer. Click Finish to close the installation and restart the computer.

The Windows Add New Hardware wizard, if open, closes on its own when you restart the PC.
- 17 Follow instructions to update the printer firmware if prompted. Make sure the printer is connected to the PC and powered on before running the Firmware update utility.

## Reinstalling the printer driver to a USB port on Windows 2000 and XP

Make sure you are logged in as the Administrator when you install the printer driver.

- 1 Close all applications. Do not close Windows.
- 2 Make sure the printer is powered on.
- 3 Connect the printer to the PC using the USB data cable. The operating system detects the printer and displays the Found New Hardware Wizard.
- 4 Make sure the driver files are available:
  - If the driver is on CD-ROM, insert the CD-ROM in the PC's drive.
  - If the driver was downloaded, do the following:
    - Make sure the downloaded driver is in a folder where you can extract it.
    - Double-click the file name in Windows Explorer to start the extract.
    - The extract program creates a folder, extracts the files, and starts the installation. The folder must have a path name of 8 characters or fewer, for example C:\SD4 (6 characters).
- 5 On the Found New Hardware Wizard, click Next.
- 6 On the next page of the wizard, make sure that "Search for a suitable driver for my device (recommended)" is selected.
- 7 On the Locate Driver Files page, select one of the following:
  - "CD-ROM drives" if you are installing the printer driver from CD-ROM. Click Next to continue.
  - "Specify a location" if you are installing the printer driver from the PC's hard drive.
- 8 Click Next to continue with installation.

If you specified a location, a dialog in which you can browse appears. Browse to find the Dspnp.inf file. Click Open and OK.
- 9 The wizard searches for the file to start installation. When it has found the Dspnp.inf file, click Next to continue.
- 10 A Windows message appears.
  - On Windows 2000, the Digital Signature Not Found message appears. Click Yes to continue with installation. Security on the PC might be set to prevent installation without a digital signature. See Windows help for "digital signature" to change the security setting.
  - On Windows XP, the Windows Logo Signing message appears. Click Yes to continue with installation. Security on the PC might be set to prevent installation without a digital signature. See Windows help for "Logo signing" to change the security setting.
  - If installation is cancelled or cannot continue, see [Removing a device from the Device Manager](#) for the steps to follow.
- 11 The installation program copies files to the PC and updates entries to enable the printer.
- 12 A message appears telling you that installation is complete. It also reminds you of important tasks to perform. Click OK to restart the PC.
- 13 The installation program restarts the PC.
- 14 If you ran the Cleanup Utility, the e-Guide was removed from the PC. Install the e-Guide from the SmartDriver CD-ROM or download the most current e-Guide from the Datacard Web site at [www.datacard.com](http://www.datacard.com).



## Troubleshooting Installation Problems

This section describes some problems users have reported when installing the printer and provides solutions to those problems.

### Troubleshooting any installation

The following problems might occur when installing the printer using any type of connection. Address the possible causes in the order listed.

<b>Problem</b>	<b>Cause</b>	<b>Possible solution</b>
The light on the power supply does not come on within 30 seconds after plugging in the power supply.	The power outlet does not work.	Connect the power supply to another power source that you have verified, for example by connecting a lamp. If the other device works, assume the outlet functions correctly.
	The power strip, surge protector, or similar device is not powered on or is defective.	If you are using a power strip, surge protector, or similar device, make sure it is powered on and that other devices connected through it power on.
	The power supply or power cord does not work.	Request a replacement power supply or power cord from your dealer.
The light on the front of the printer does not come on within 2 minutes after plugging in the printer.	The printer is defective.	Contact your service provider for assistance.

### Local (USB) installation troubleshooting

This section describes possible problems and their solutions when using a USB connection. Address the possible causes in the order listed.

<b>Problem</b>	<b>Cause</b>	<b>Possible solution</b>
Windows XP displays "USB device not recognized" when you power on the printer.	The printer status light was not steady green when the printer and PC were connected.	This is a short-term condition while all internal elements of the printer become functional. The message disappears by itself when the printer is ready.
The PC does not detect the printer when it is connected.	The printer is not powered on.	Remove one end of the USB cable. Power on the printer. When the printer Ready light is steady green, connect the USB cable.
	The USB cable is defective.	Use a different USB cable that is up to 6.5 feet or 2 meters long.

<b>Problem</b>	<b>Cause</b>	<b>Possible solution</b>
	The printer is connected through more than 5 hubs (or devices) or through 2 or more unpowered hubs (or devices).	Remove hubs until the printer is connected through 5 or fewer hubs (or devices) or directly to the PC. Make sure every other hub is powered.
	The printer is connected through a USB hub or device that is defective.	Replace the USB hub or, if the printer is connected through another device, connect both devices through a USB hub.
	The printer is connected with a cable that is longer than specified.	Use a USB cable that is up to 6.5 feet or 2 meters long. If the printer is connected through a USB hub or device, use a shorter cable between the PC and USB hub.
The PC does not detect the printer when you connect it.	The operating system identified the printer but you cancelled the Add/Found New Hardware wizard.	Remove the printer from the Device Manager, run the Cleanup Utility, and then try again.
On Windows XP, the Detect New Hardware wizard does not identify the printer driver on the CD-ROM.	The operating system identified the printer but you cancelled the Found New Hardware wizard.	Remove the printer from the Device Manager, run the Cleanup Utility, and then try again.
The Add/Found New Hardware wizard appears when the printer is connected or powered on, after the printer is installed.	Windows is associating the printer with its existing printer database.	The wizard closes. No action is necessary.

## Troubleshooting a direct network installation

The following problems might occur when installing the printer using a direct network connection. Address the possible causes in the order listed.

<b>Problem</b>	<b>Cause</b>	<b>Possible solution</b>
Test LED does not light up on power up the print server.	The power or network connection for the print server is not working.	Make sure that the print server is connected to a power source and that the network connection is good. See the guide for the print server.
On Windows 2000 or XP, the DCNETn port does not appear in the Ports list when installing the printer.		The network port driver installation did not complete successfully.
Port status is: The port mode has not been detected.		The network address or name of the printer has not been defined.

Port status is: Network not responding.	The print server is not responding to a query by the printer driver.	Check the power to the print server, and the connections from the printer, print server and network Also verify the PC connection to the network.
Port status is: Status module suspended.	The printer has been busy or the network has not responded for more than 30 seconds.	Resume the Printer Toolbox to see whether the printer is busy or the network is not responding. If the status remains, check the printer. Make sure it is powered on. See if another PC is displaying a message. Address the printer problem if possible.

## Support for Direct Network Connections

If you need assistance with the installation or use of the Direct Network Kit, do the following in the order listed:

- Closely review this Installation e-Guide to see if it addresses your issue.
- Read the guide(s) for the print server, which addresses many common situations not specifically covered in this e-Guide.
- View the Technical Support section of the print server manufacturer's Web site.
- Request assistance from your Datacard service provider.

## Removing a device from the Device Manager

Remove a device from the Device Manager if the Add/Detect New Hardware wizard was cancelled (or another installation problem occurred), or you want to reinstall the printer driver.

- 1 Disconnect the printer from the PC.
- 2 If the printer driver was installed, make sure the printer driver has been deleted and that you have rebooted the PC after deletion.
- 3 Select Start from the Windows task bar.
- 4 From the Windows Start menu, select Settings and then Control Panel. The Control Panel appears.
- 5 Double-click the System icon to open it. The System dialog box opens.
- 6 Open the Device Manager.
  - On Windows Me and Windows 98, click the Device Manager tab.
  - On Windows 2000 and Windows XP, click the Hardware tab, and then click the Device Manager button.
- 7 Make sure "View devices by type" is selected.
  - On Windows 2000 and Windows XP, select "View hidden devices" from the View menu.
- 8 Locate the device to delete. The device might be called "Unknown device" or "SmartDriver." If neither of these types of devices is displayed, go to step 10.
  - On Windows Me and Windows 98, click on the device name or icon to select it, and then click the Remove button.
  - On Windows 2000 and Windows XP, click on the device name to select it, and then right-click to display a pop-up menu. Select Remove from the pop-up menu.

- 9 Click Yes or OK to confirm removal of the device.
- 10 Click OK to close the Device Manager. Close any other windows.



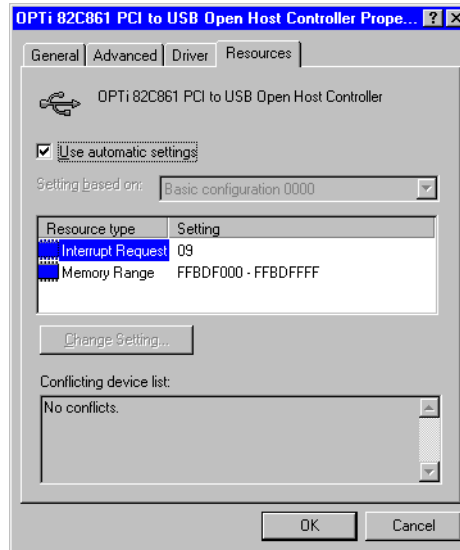
## PC port settings

This section describes how to configure ports on the PC attached to the printer. For a local connection, the PC uses a USB port. If the printer includes a smart card module, that module connects to a USB or serial port on the PC. (This section does not address any network setup issues.)

### Set up a Universal Serial Bus (USB) port on all operating systems

These steps apply to the USB data port and to an optional smart card USB port. If the printer includes two USB ports, follow these steps for each port. The ports are not connected inside the printer to preserve the data security of the smart card port.

- 1 Right-click on the My Computer icon on the desktop and then select Properties from the popup menu. The System Properties dialog box appears.
- 2 Select the Device Manager tab to view a list of devices. (On Windows 2000 and Windows XP, select the Hardware tab and then click the Device Manager button.)
- 3 Select "View devices by type" if needed.
- 4 Click the + next to Universal Serial Bus controllers to display the USB port controllers.
- 5 Click USB Root Hub, and then select the Properties button. (On Windows 2000 and Windows XP, right-click USB Root Hub and then select Properties from the pop-up menu.) The USB Root Hub Properties dialog box appears.
- 6 Make sure that the device is enabled.
  - For Windows 2000, Me, and 98 make sure that "Disable in this hardware profile" is not selected.
  - On Windows XP, make sure that "Use this device (enable)" is selected from the Device Usage drop-down menu.
- 7 Click OK to close the dialog box.
- 8 Click the other entry, which includes the name of the installed USB device and ends with "Host Controller," and then select the Properties button. (On Windows 2000 and Windows XP, right-click USB Host Controller and then select Properties from the pop-up menu.) The Properties dialog box appears.
  - Make sure that the device is enabled:
    - For Windows 2000, Me, and 98 make sure that "Disable this hardware profile" is not selected.
    - On Windows XP, make sure that "Use this device (enable)" is selected from the Device Usage drop-down menu.
  - Click the Resources tab. The "Conflicting device list" should show "No conflicts."



If the Resources tab shows conflicts, select another configuration or change the settings for the port, following port instructions.

- 9 Click OK on the Properties dialog box and on the System Properties dialog box to save settings and close the dialog boxes.

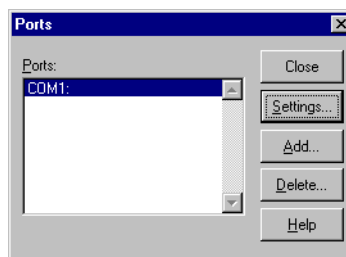
## Serial port settings

This section describes how to set serial port values. A serial port might be used with a smart card module. For some smart card applications, you connect the PC to the serial port on the printer. The PC should be set to match the printer serial port settings.

If you use a contact station with the printer, see the information about the contact station for port settings.

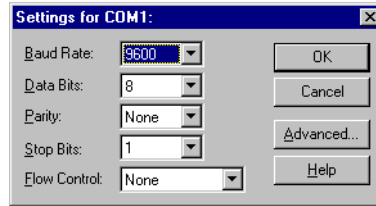
### Setting the serial port on Windows 2000

- 1 From the Control Panel, select Ports.
- 2 From the Ports dialog box, select the port, such as COM1 or COM2.



- 3 Select the Settings button to display the port settings.

If the PC has more than one serial port, make sure you view the settings for the serial port to which the printer is attached.



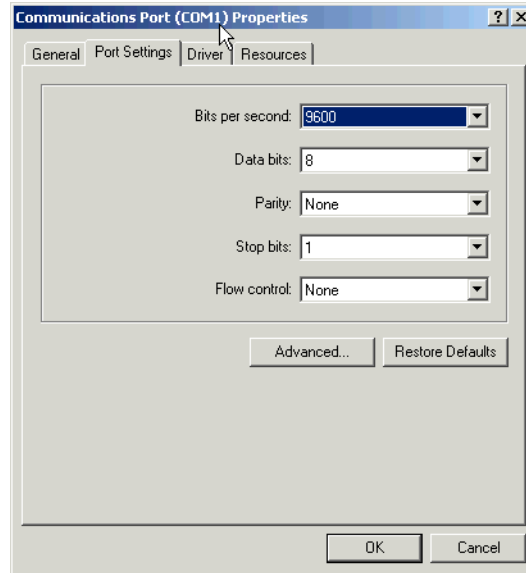
- 4 Select the following settings:

Setting	Value
Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

- 5 When the settings are correct, click OK to save settings and close the dialog box.

### Setting the serial port on Windows XP

- 1 From the Start menu, select Settings and then Control Panel.
- 2 From the Control Panel, select the System icon.
- 3 Select the Hardware tab, and then select the Device Manager button.
- 4 Press the "+" next to Ports and double click the Communications Port to open the Communications Port Properties dialog box.



- 5 Select the Port Settings tab.

If the PC has more than one serial port, make sure you view the settings for the serial port to which the printer is attached.

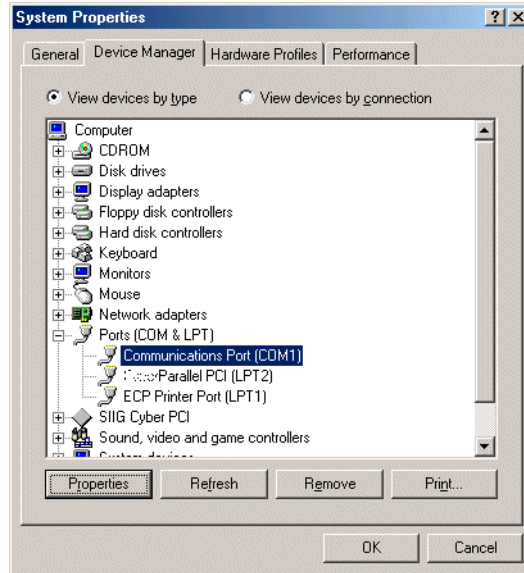
- 6 Select the following settings:

Setting	Value
Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

- 7 When the settings are correct, click OK to save settings and close the dialog box.

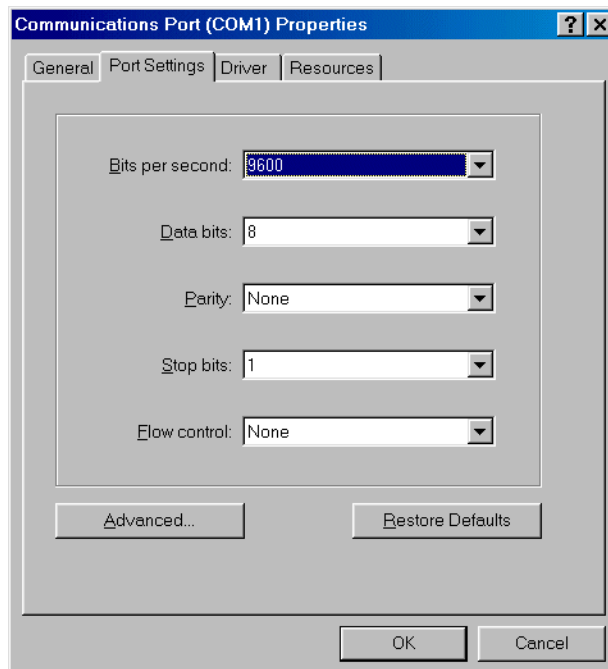
### Setting a serial port for Windows Me & 98

- 1 From the Start menu, select Settings and then Control Panel.
- 2 From the control panel, select System.
- 3 On the system Properties dialog box, select the Device Manager tab.



- 4 Click the Plus sign + next to Ports (COM & LPT) to display a list of ports.
- 5 From the Ports list, select the port, such as COM1 or COM2.
- 6 Select the Properties button to display the port settings.

If the PC has more than one serial port, make sure you view the settings for the serial port to which the printer is attached.



- 7 Select the Port Settings tab.

- 8 Select the following settings:

<b>Setting</b>	<b>Value</b>
Bits per second	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None

- 9 When the settings are correct, click OK to save settings and close the dialog box.

## Connecting more than one printer or more than one PC

You have several choices for having more than one printer connected to a user or for having more than one user connected to a printer. Choices include:

- Installing two printers to one PC using USB ports See [Install more than one printer using a USB connection](#) for details.
- Installing a printer on a client PC when the printer is connected to a host PC and both PCs are connected to a network (using Windows printer sharing). See [Printer sharing](#) for details.
- Installing a printer on a network using a print server and then installing the driver on a PC on the network. This method is called direct networking. [Direct network printing](#) for details.
- Installing multiple printers to a PC using a combination of connection methods. For example, one or more printers can be directly connected to the PC and others can be connected through a network (using Windows printer sharing or direct networking).
- Using more than one printer installed to a PC as a printer pool, when the PC is running Windows 2000 or XP. The operating system manages sending jobs to the printers so the next available printer receives the card. See [Printer pooling](#) for details.

### Install more than one printer using a USB connection

#### *Tips for success*

- More than one USB-connected printer on a PC running Windows 98 (including SE) is not fully supported. See the ReleaseNotes98.rtf file on the driver CD-ROM for the latest information.
  - Connect and install one printer at a time. The PC cannot run two or more installation programs at the same time.
  - USB allows devices to be connected to the PC through another USB device (daisy-chained). USB also uses hubs to which multiple USB devices (including other hubs) can be connected (cascaded). Up to five hubs can be used between the printer and the PC. Datacard printers do not have ports to support daisy chaining. If you need to connect two Datacard printers to a PC with one USB port, obtain a USB hub to which both printers can be connected.
  - The printer must be powered on for the PC to detect it. It must remain powered on so the operating system can keep track of the printer if the printer is moved from one USB port or connection to another.
- 1 Begin with the PC powered on and running. Existing Datacard printers can be powered on or powered off.
  - 2 Exit the Printer Toolbox for existing printers. Right-click on the printer icon (in the lower right corner of the desktop) to display a pop-up menu. Select Exit from the pop-up menu.
  - 3 Attach the flat end of the USB cable to the USB port on the PC or on a device connected to the PC.
  - 4 Power on the printer and wait until it is ready (the printer light is steady green).
  - 5 Attach the square end of the USB cable to the printer.
  - 6 The operating system should detect the new device and display the Add/Detect New Hardware wizard.

If the operating system does not detect the printer and display the Add/Detect New Hardware wizard within a few minutes, check the Printers window to see if the icon for the new printer is displayed. At times, the Wizard runs quickly and you might not notice it. If the Wizard does not appear and the icon is not present, see [Troubleshooting Installation Problems](#) for more information.

For Windows 98 and Me, the Add New Hardware wizard might appear twice; to install USB printer support and then to install the printer driver.

- 7 The operating system will use the existing driver files to install the driver for this printer: On Windows Me, the Copying Files dialog box might appear. If it does, browse to the location on the hard disk for the Windows\System folder to continue. The printer driver CD-ROM is usually not necessary.

## 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 application. Card jobs will be sent to the selected printer even if more than one Datacard 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 which printer has which name.
- Each printer has its own icon in the Printers window, and each printer has a separate Properties or Printer Preferences dialog box. Settings are not shared among printers.
- A Printer Toolbox dialog box for each printer is displayed on the desktop (unless you minimize it).

## Printer pooling

Printer pooling is a feature of the Windows 2000 and Windows XP operating systems. A printer pool treats a group of printers as one printer and distributes print jobs among the available printers.

### Requirements for a printer pool

To create a printer pool for Datacard printers, you must:

- Install the printers (connect the printers and install the SmartDriver) to the same PC. You can use one or more of the following methods to install the printers:
  - Install the printer locally using a USB port
  - Install the printer using a direct network connection
- A printer pool that is installed without having an actual Datacard printer and its driver installed will not print cards.
- Use the Windows 2000 or Windows XP operating system on the PC. (Windows NT includes support for printer pooling; however the Datacard SmartDriver does not support printer pooling on Windows NT and the SP35 printer is not designed for use on Windows NT.)
- All printers must have the same features to be part of the pool. Printers can be installed before or after the printer pool is set up and will be included in the pool. By default, all directly connected Datacard printers are included in the pool, so all printers must support and use the same card features.
- For example, if the cards will have magnetic stripe data encoded, all printers must have the same type of magnetic stripe module.
- Use the Datacard method for setting up printer pooling, not the Enable Printer Pooling check box on the Properties dialog box for the printer. Windows permits checking this box but does not permit displaying a message if the printer does not support it.
- Special features that require interactive mode, including reading magnetic stripe and programming smart cards, do not work with printer pooling. (The PC must communicate directly with the printer about a specific job, and this information is not available to the PC.)
- Shared printers cannot be part of a printer pool.



## Set up printer pooling

To set up a printer pool on a PC:

- 1 Install each printer and its driver on the PC. See [Install the printer](#) and [Installing the driver](#) for steps to follow.
- 2 Set up each printer with the same settings, especially print ribbon type, print on both sides, magnetic stripe settings, and topcoat or overlay “apply material.” See [Printer Setup](#) if needed.
- 3 Verify the operation of each printer on its own.
- 4 Install the SmartDriver printer pool (described in the following procedure).
- 5 Set up the pool with the same values that each printer uses. See [Printer Setup](#) if needed.
- 6 Verify the operation of the printer pool.

## Install the SmartDriver printer pool

- 1 From the Windows Start menu, select Settings and then Printers. The Printers Window appears.
- 2 Double-click Add Printer to start the Add Printer Wizard.
- 3 Select “Local printer” and make sure “Automatically detect and install my Plug and Play printer” is not checked. Click Next.
- 4 Instead of selecting a printer port from the list presented, select “Create a new port” and select “Local Port” for the Type. (If you are repeating these steps and have created the port, select the previously created port from the port list.)
- 5 Click Next. The Enter Port Name dialog box appears.
- 6 Enter “SmartDriver Printer Pool” as the port name and click OK. Wait while the wizard creates the port.
- 7 From the Manufacturers list, select Datacard. The Printers list changes to display Datacard drivers.
- 8 Select SmartDriver Printer Pool from the Printers list, and then click Next.
- 9 Keep the default name of “SmartDriver Printer Pool” unless this name will cause confusion. Select No for the “Do you want your Windows-based programs to use this printer as the default printer?” question. Click Next.
- 10 Select the choice you want for printer sharing, and then click Next.
- 11 Select No for the “Do you want to print a test page?” question, and then click Next.
- 12 Review the choices you have selected and then click Finish to install the driver.
- 13 Click Yes on the Digital Signature Not Found message to complete installation.
- 14 If the Wizard displays a test page dialog box, click OK to complete installation.

## Use a printer pool

Begin with the PC powered on and the driver and port installed.

### ***Tips for success***

- To use the printer pool effectively, each different card must be sent from the application as a separate job. Some applications, such as Datacard’s ID Works, send each card in a batch as a separate job, while others send the batch as one job. (Multiple copies of the same card are sent

as one job.) Test the application you use to determine the best way to send multiple cards to the printer pool.

- If you do not want one or more printers to print cards as part of the pool, power off that printer. The printer pool will identify a printer as available even when the printer status is Suspended or Not Responding if the printer is powered on. If you need to use a printer separately from the printer pool, install it on another PC or contact your service provider for assistance.
- Some applications track card completion status, and this data is available for cards sent to the printer pool. The application can query the printer pool and obtain status for all cards processed through the pool. Card completion status does not indicate which printer actually printed the job.
- In the Printing Preferences dialog box for the printer pool, select SP35 as the printer type.
- For magnetic stripe encoding, use the same coercivity and magnetic stripe format values for all printers and the printer pool. (If you select “Use printer settings,” make sure the settings in the printers are the same; use the SmartDriver Diagnostics Utility to view magnetic stripe values if needed.)

To use a printer pool:

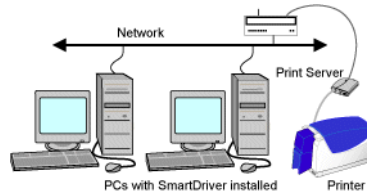
- 1 In the application used to print cards, select the name assigned to the printer pool when it was installed.
- 2 Make sure that all printers you want to receive card data and print cards have the same type of supplies loaded and the same settings.

For example, to print color and encode magnetic stripe, load YMCKT ribbon in the printer and use high-coercivity magnetic stripe cards. Each printer identifies the ribbon type as YMCKT, but the pool cannot identify the Print Ribbon Type so you must set the Print Ribbon Type.

- 3 Make sure the printers are powered on and ready.
- 4 Select Print in the application. The application sends the cards to the printer pool, which randomly distributes the card jobs among the available Datacard printers. When all printers are busy, the printer pool keeps the card jobs in a queue until the next printer is not busy. It will send the next card job as soon as any printer in the pool is available.
  - A printer is available if:
    - The number of jobs active in the printer is less than the number of jobs supported for that printer type
    - No jobs are pending in the spooler for that printer
    - The printer is not paused
    - The printer is not set to “work offline”
    - The printer status is not “User Intervention Required”
    - The Printer Toolbox is not in Advanced Setup mode
- 5 After a card is sent by the printer pool to a specific printer, it cannot be removed from that printer and assigned to another printer.
- 6 When a printer issues a message, the message appears on the PC with the name of the printer in the title bar of the message box. The printer will be unavailable to print cards until the situation causing the message is corrected. Other printers in the pool will continue to receive card jobs and print cards.

## Direct network printing

A directly networked printer is connected to a print server which is then connected to the network. A PC can connect several directly networked printers at a time. All users receive status and message information from the printer.



To connect an SP35 printer directly to a network, you need the following:

- **Print Server**  
The HP jetdirect 175x printer server uses a USB cable to connect to the printer and can be used with the SP35 printer.
- **Print Server Software**  
The print server is shipped with a CD-ROM that includes the print server software you will need to set up and administer the HP jetdirect 175x print server.
- **Power supply and power cord for the print server**  
The power supply and cord are shipped with the print server.
- **USB cable to connect the printer and print server**  
The USB cable is shipped with the print server.
- **Network cable to connect the print server to the network**  
You must provide the cable to connect to your network.
- **PC**
  - The PC must be an X86 MMX-compatible PC, running Windows Me or Windows XP (preferred) or Windows 98SE or Windows 2000. (See the [PC and software requirements](#) for service pack requirements.) The PC must be connected to and working on an Ethernet network.
  - The printer driver will be installed on a PC to enable the user to print to the Datacard printer. (If a previous version of the SmartDriver is currently installed on the PC, remove the driver and run the most recent SmartDriver Cleanup Utility before following these steps.)
  - More than one PC on the network can print to the printer. Datacard recommends that one PC be used for administrative tasks, such as running the setup utility and, if needed, Diagnostics.
  - For Windows XP and 2000, users must have the same permissions as for a locally attached printer. (Power users cannot perform all the tasks required.) See [Setting printer permissions](#) for information about permissions.
- **Ethernet Network**
- The Ethernet Network can be either a 10baseT or a 100baseT Ethernet network. The print server is attached to the hub using a "T" connector and is configured using the TCP/IP protocol. See the documentation for the print server for details about network requirements.
- **SP35 Printer**

- An SP35 printer works with the SmartDriver, version 5.0 or higher, which supports a direct network connection.
- Future releases of the printer driver will be tested for direct network support. See the Release Notes file for future drivers for details about printers supported by the driver.

## Installation

- 1 Connect the print server to the printer, using the USB cable shipped with the print server.
- 2 Connect the print server to the network. See the setup information provided with the print server.
- 3 Connect the print server to a power source.
- 4 Power on the printer. See the [Printer Guide](#) for steps to follow.
- 5 Insert the print server CD-ROM in the drive of the administrative PC. The CD-ROM automatically starts. Click on Install to run the utility that sets up the print server and network printer. Follow the prompts to complete print server setup.
  - Be sure to record the server name or IP address, which you will use when you install the SmartDriver on the PCs that send print jobs.
- 6 For Windows 2000 and XP only, install the network port driver on the PC.
  - a Insert the SmartDriver CD-ROM in the PC drive.
  - b Select Driver Support Programs from the Datacard Group installation program.
  - c Select Direct Network Support on the driver Support Programs Page.
  - d Follow the prompts to install the network port.
- 7 On each PC that will send jobs to the printer, beginning with the Admin PC, install the SmartDriver. See [Installing the driver](#) and follow these guidelines:
  - For Windows 2000 and XP, choose to install a local printer (not a network printer). Be sure that "Automatically detect and install my Plug and Play printer" is not checked.
  - Select the network port during installation. The network port is named DCNETn on Windows 2000 and XP, and Directly Networked for other operating systems.
  - Make sure that each printer has a unique name on the PC. One PC can connect to multiple Datacard printers on the network.
- 8 Configure the port to define the connection between the printer and PC.
  - a After installing the driver, open the printer Properties dialog box.
  - b In the Properties dialog:
    - On Windows 2000 and XP, make sure you are logged in as the Administrator. (Users and Power Users cannot complete this task successfully.) Select the Ports tab. Click the Configure Port button.
    - On Windows Me and 98, select the Details tab. Click the Port Settings button.
  - c Enter the server name or IP address of the print server (from step 5). If your network uses DHCP, use the server name (not the IP address, which the network changes).
  - d Click OK to save the setting. Open the Enter Network Address dialog box again.
  - e Click the Test button to verify that the PC can communicate with the print server. If the PC does not communicate with the printer, see [Troubleshooting a direct network installation](#).

- 9 With the Properties dialog box open, select the General tab. Click the Print Test Page button to send a Windows test page to the printer. If the test page prints, the printer has been successfully installed.

## Printer setup

- The Printer Type, Print Ribbon Type, and Print on both sides (or Duplex method) settings depend on the printer attached. Use the settings supplied by the printer.
- From the Admin PC, make sure the following settings in the Properties (Windows Me and 98) or Printing Preferences (Windows 2000 or XP) dialog box are correct for the printer:
  - Mag stripe coercivity
  - Mag stripe encoding format
- Consider a policy that only the Admin PC is used to make changes in the following, which make changes in the printer:
  - Firmware Update utility
  - SmartDriver Printer Diagnostics
  - The Printhead tab in the Advanced Setup area of the Printer Toolbox. Any user can retrieve values using the Printer Values tab, and the Color Settings tab affects processing on the PC.

## Printing

- To send print jobs from a PC on the network to the printer, make sure the printer is set up, the driver is installed on the PC, and the Windows test page has printed successfully.
- Open the Properties (Windows Me or 98) or Printing Preferences (Windows 2000 or XP) dialog box. Select card design settings, such as rotation and topcoat pattern.
- Select the printer in the application, and print. The print server will handle jobs from more than one PC at a time. See [Status](#) for details.

## Status

The Printer Toolbox is displayed by default when the PC starts. The icon for the printer appears in the system tray, usually in the lower right corner of the Windows desktop. (Double-click the icon to open the Toolbox, if needed.) The Printer Toolbox displays the port mode and printer status. The port mode for a printer connected using a network print server is "The port type is directly networked." The possible printer statuses are:

- Printer responding normally.
  - The printer is powered on, connected to and communicating with the network. The printer is not currently printing cards.
- Printer is busy.
  - The printer is printing, is communicating with another PC, has an error, or is powered off.
  - Users can submit print jobs. When the printer is available, the PC will send the jobs to the printer.
- Network not responding.
  - The print server is not responding to a query by the printer driver.
- Communication with the printer is suspended.
  - The printer has been busy or the network has not responded for more than 30 seconds.

- The status might change to "Printer is busy" or "Network is not responding" after communication resumes.

## Messages

- The printer driver displays messages when the driver has a problem sending a card or when the printer has a problem completing a card. Any PC with the driver installed and connected to the printer over the network using a print server can display messages from the printer.
- Messages not associated with a job, such as startup and out of ribbon messages, can appear on all PCs that send jobs to the printer.

## Administration

- Several tasks should be performed only from the Admin PC. In addition, Datacard recommends that other PCs connected to the printer not use the printer while administration tasks are performed on the Admin PC. (The PCs can be powered off or users can exit from the Printer Toolbox and avoid printing. If the Printer Toolbox is active, it can display messages that result from the administrative tasks.)
- Actions you take while performing administrative functions can cause messages to be issued. At times, the messages will not be displayed on the Admin PC but can be displayed on other PCs if the Printer Toolbox is active.

## Printer sharing

This section describes how you can print to a printer over a network using Microsoft File and Printer Sharing. A shared printer is connected to a PC with the printer driver installed (host PC). Users at other PCs on the network (clients) can print to the shared printer over the network. Up to 10 client PCs can share the printer at one time. Users at client PCs do not have the same level of access to the printer driver as a user at the host PC.

The following operating system configurations are supported:

- Both the client and host PCs run Windows 2000.
- Both the client and host PCs run Windows XP.
- Both the client and host PCs run Windows Me or Windows 98 (Second Edition).

## Requirements for local printer sharing

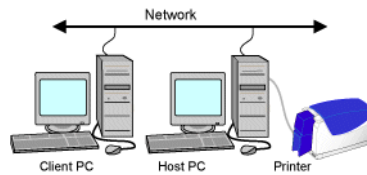
Before sharing a printer over the network, meet the following requirements:

- A network card is installed in and working on each PC to use the printer.
- The same Windows operating system is installed on and operating on each PC.
- If you are installing both a network card and a service pack or Windows upgrade, install the network card first and then install the service pack or upgrade. If you installed a service pack or upgrade before installing a network card, you must install the service pack or upgrade again.
- The printer must be enabled for sharing. See Windows help for information on enabling printer sharing.
- The PC with the printer attached must remain on, and the Windows operating system must be running. For Windows 2000 and XP, a user with Print, Manage Printers, and Manage Documents permissions to the printer must be logged on at the host PC so that other users can print.
- If more than one printer is connected to a PC and one is a shared printer, the printers must have different names.

- For Windows 2000 and Windows XP, you must set up permission for users at the client PC and permission for users at the host PC. See [Setting printer permissions](#) for more information.

## Printer and PC setup

This section describes the components you need to use the SP35 printer with local printer sharing.



**Network:** A network must be set up and working before you begin. This guide does not address network setup or requirements.

**Host PC:** The host PC has the printer attached to it. The host PC must be connected to the network. For Windows 2000 and Windows XP, you need to set up users and access.

**Port connection:** The printer is connected to a USB port on the host PC, in the same way as though you were using it just from the host PC.

**Client PC:** The client PC is connected to the host PC over the network.

## Setting up printing sharing

To set up printer sharing, do the following:

- 1 Install the printer driver on the host PC. See the [Installing the driver](#) for more information.
- 2 With the printer power on, change settings to reflect your card design, including printer features such as ribbon type and magnetic stripe settings. Record the settings so you can also make those settings on the client PC.
- 3 Enable printer sharing. See Windows help for more information.
- 4 For Windows 2000 and Windows XP, set up an account for each user.
  - At the host PC set up accounts for users who log onto the host PC and for users who log onto the client PC(s).
  - At the client PC set up an account for the user who logs onto the client PC.
- 5 For Windows 2000 and Windows XP, grant users' permission to the printer from the host PC, including:
  - Client PC users who have Print permission to the printer.
  - Host PC users who also have Print, Manager Printers, and Manage Documents permissions to the printer.
  - Host PC users (if any) who are denied permission to the printer.
- 6 Make sure client PC users can access the host PC from the network.
- 7 Install the printer driver on the client PC. See the following procedure.
- 8 At the client PC, set the printer type in the Properties or Printing Preferences dialog box.
- 9 Change driver settings on the client PC to match settings on the host PC.

## Installing the printer driver on the client PC

### *Tips for success*

- If an Express Class v1.x, Select Class v2.x or v3.x, Magna Class v2.x, or ImageCard IV printer driver is installed on the client PC, delete the printer driver and reboot the PC before continuing.
  - For Windows 2000 and Windows XP, log onto the client PC as a user with access rights to the host PC. You also need Print permission to the shared printer to open the Printing Preferences dialog box and to print test cards.
  - A PC can have a locally connected (USB) Datacard printer attached, a directly networked Datacard printer attached, and be connected to a shared printer as a client PC. All printers connected to the PC must be supported by and use the current version of the SmartDriver.
  - If you use more than one connection method on a PC, install the locally and/or directly-network connected printer(s), and then follow the steps in this section to install the shared printer last. The shared printer must have a different name from the other printers.
- 1 Make sure that the printer and driver on the host PC are working properly before beginning this task.
  - 2 Start Windows at the client PC and log onto the network.
  - 3 Use Windows Explorer, Network Neighborhood, or My Computer to locate the host PC.
  - 4 When you locate the host PC, click the icon for the host PC to display the Enter Network Password dialog box. Type your password and click OK to log on to the host PC. Keep the window open during printer driver installation.
  - 5 In the Printers window, double-click the Add Printers icon.
  - 6 In the Add Printers wizard, select the following choices:
    - a Choose the "Network printer" button, not the "My Computer" or "Local printer" button.
    - b Choose to browse for the printer. An expandable list of printers and/or PCs appears.
    - c If needed, double-click a server or PC name to see the names of printers attached.
    - d Choose the printer to which the user will print. The printer name appears in the Printer box.
    - e Change the name of the printer if needed so it is different from the name of other Datacard printers attached to the PC.
    - f Continue to follow the prompts on the Add Printers Wizard.
    - g If you have not logged into the PC with the printer attached, you will receive a message. Return to step 3 and repeat the procedure.
    - h If you are prompted, choose "Replace existing driver," not "Keep existing driver (recommended)."
    - i If you are prompted to print a test page, click No. You must set values in the Properties or Printing Preferences dialog box before printing.
  - 7 When the printer has been installed on the client PC, change settings on the client PC to reflect the printer and your card design. Open Properties (Windows Me and 98) or Printing Preferences (Windows XP or 2000) to change settings.
    - Set the printer type and click OK or Apply.
    - Set the ribbon type to match the ribbon in the printer and the setting on the host PC.



- Change settings that apply to the printer, such as magnetic stripe, so they do not conflict with the host PC and printer features.
  - Change settings to reflect your card design, such as portrait or landscape orientation. These settings can be different from the settings on the host PC.
- 8 From the Properties or Printing Preferences dialog box for the shared printer, print a Windows test page from the client PC.

## Perform 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.

For Windows 2000 and XP, the user must be logged in as a user with Full Control permission.

- **Manage all jobs in the print queue.** You can use Print Manager to view all jobs in the print queue and to pause or delete any jobs in the print queue, no matter who submitted the job. The job remains in the print queue until it has been sent to the printer. See Windows help for information on using Print Manager.
- **See and respond to messages.** If the printer is not able to process and print a card, the printer driver displays a message on the host PC, not the client PC. You can see the message and view help, which guides you in resolving the situation. Printing for all users is suspended until the situation is resolved.
- **On Windows 2000 and XP, set printer values, such as ribbon type, for all users.** The values you set in the Properties or Printing Preferences dialog box apply to all users. Several values can be changed at client PCs, but those values apply only to the print jobs being sent. Values you set are used at client PCs after the client PC queries the host PC. Open the Properties or Printing Preferences dialog box at each client PC after setting values at the host PC to query the host PC. (You can close the dialog box at the client PC after viewing it.) If you do not open the Properties dialog box, the client PC does not query the host PC, the first card printed will not use the new settings, and you will need to send the card to print again.
- **On Windows Me and 98, set or view values that control card processing for all users.** Record the ribbon type so you can set it correctly at the client PC. The values you set for Mag Stripe encoding can affect all users.
- **View printer status.** The host PC runs the Printer Toolbox and all status functions. The Printer Toolbox is open by default or you can double click the printer icon in the system tray to open it. See [Open the Printer Toolbox](#) in the *Printer Guide for the Datacard SP35 Printer* for details.
- **Use all features of advanced setup.** The Printer Toolbox on the host PC provides access to advanced setup, where you can change some settings (such as the position of printing) and use color controls. See [Advanced Setup](#) for details.
- **Run the firmware update utility.** The host PC displays a prompt when you need to run the firmware update utility. The utility works only from a PC with the printer directly connected to it.

## Using the printer from the client PC

For Windows 2000 and Windows XP, users at the client PC must be logged into the host PC and must have Print permission to the printer. Users at the client PC can perform several actions, including:

- **Print a card using an application at the client PC.** At the client PC, you can use an application to print cards by selecting the printer in the application. See [Making Cards](#) for details.

- **Print a card using an application and magnetic stripe fonts from the client PC.** When you print from an application such as Microsoft Word, you can type text and format it using fonts provided by the printer driver.
- **For Windows Me and 98, set card design values.** Select the same Ribbon Type as the Host PC. For other settings, such as Magnetic Stripe Encoding Format, the printer must support the setting you select but the setting can be different from the Host PC setting.
- **For Windows 2000 and XP, change card design settings,** including settings such as landscape or portrait orientation. Many settings are read from the host PC and cannot be selected.
- **Do not use the Restore Defaults feature** on any operating system. The Restore Defaults function attempts to query the printer to verify its features and cannot access the printer over the network.
- **Pause or delete print jobs you submitted from Print Manager at the client PC.** The card job remains in the print queue until it is sent to the printer. See Windows help for information on using Print Manager.
- **View status of the client PC.** The Printer Toolbox dialog box is also available on the client PC. It displays the client status and a reminder that the host PC provides messages and additional status information.
- **Use the Color Settings page of advanced setup.** The Printer Toolbox box on the client PC provides access to the Color Settings page. The color settings can be used to fine-tune the appearance of cards sent from the client PC.
- **On Windows 2000 and XP, view the Print Manager to see printer messages from the host PC.** The card job remains in the print queue until it is sent to the printer. You can expand the Status column in the Print Manager dialog box to see the messages.

## On the CD-ROM

The printer is shipped with a CD-ROM that contains the printer driver (SmartDriver), user information, and other utilities and files that you might want.

The following table lists the contents of the CD-ROM, the path, and the purpose of the program, file, or utility:

	<b>Path</b>	<b>Purpose</b>
Datacard SmartDriver CD-ROM	D:\DEMO32.EXE <sup>#</sup>	User-friendly access to all of the applications on the CD-ROM
Printer driver for Windows 2000 and XP	D:\DsPnp.inf <sup>#</sup>	Installation for Windows 2000 and XP that meets Microsoft Plug-and-Play requirements (Use the Add Printer wizard)
Printer driver for Windows Me and 98	D:\Me-98\SETUP.EXE <sup>#</sup>	Custom installation for Windows Me and Windows 98 (Use Demo32.exe)
Printer driver for Windows NT (supports other printers)	D:\NT\ SETUP.EXE <sup>#</sup>	Custom installation for Windows NT 4.0 (Use Demo32.exe)
Network port monitor installation	D:\XP-2000\Net Port Mon Install\ SETUP.EXE <sup>#</sup>	Network port monitor for use with a directly networked printer and Windows 2000 or XP (Use Demo32.exe)
e-Guide installation	D:\e-Guide\SP35_e-Guide_v.exe <sup>#†</sup>	Installation program for SP 35 Info Central.
e-Guide installation	D:\e-Guide\IC4_e-Guide_v.exe <sup>#†</sup>	Installation program for ImageCard IV e-Guide.
e-Guide installation	D:\e-Guide\Mag_e-Guide_v.exe <sup>††</sup>	Installation program for Magna Class e-Guide.
e-Guide installation	D:\e-Guide\Sel_e-Guide_v.exe <sup>#†</sup>	Installation program for Select Class e-Guide.
e-Guides (use the e-Guide(s) that match the printer(s) installed on the PC)	D:\e-Guide\SP Series\ SP_Info_CEntal.chm <sup>#</sup> and other files with names in the SP_xxx.chm format	SP35 e-Guide files, which contain detailed information about the SP35 printer

	Path	Purpose
	D:\e-Guide\Magna Class with AIT\ DM-e-Guide.pdf <sup>#</sup> and other files with names in the M_xxx.pdf format	Magna e-Guide files, which contains error recovery procedures linked to help.
	D:\e-Guide>Select Class with AIT\ DS-e-Guide.pdf <sup>#</sup> and other files with names in the S_xxx.pdf format	Select e-Guide files, which contains error recovery procedures linked to help.
	D:\e-Guide\ImageCard IV\ D4-e-Guide.pdf <sup>#</sup> and other files with names in the 4_xxx.pdf format	ImageCard IV e-Guide, which contains error recovery procedures linked to help.
Adobe Acrobat Reader installation	D:\Adobe\RUvvvENU.EXE, ...VARvvvCHS.EXE, ...VARvvvJPN.EXE, ...RPvvvDEU.EXE, ...RPvvvESP.EXE, ...RPvvvFRA.EXE <sup>#†</sup>	Installation program for Adobe Acrobat Reader, Version 5.00. The Reader (version 3 or higher) is required to view the e-Guides for Select, Magna and ImageCard IV printers, part of the help system.
SmartDriver Diagnostics Utility	D:\Support\Diagnostics\ SD_Diagnosticsvvv.EXE <sup>#†</sup>	Installation program for the SmartDriver Diagnostics Utility, used to identify or fix printer problems
Cleanup Utility	D:\Support\Diagnostics\ SD_CLEANUPvvv.EXE <sup>#†</sup>	Installation program for the Cleanup Utility, which is used after removing a version 1.x or 2.x driver.
Support files	D:\Support\color.prn D:\Support\mono.prn <sup>#</sup>	Files used at the direction of service for troubleshooting.
SmartDriver SDK	D:\Support\SDK\ SmartDriver SDK.exe <sup>#</sup>	Self-extracting file for the SmartDriver SDK which is used to write applications that work with the printer.

#. Where D is the drive letter of the CD-ROM drive

†. Where v is the version, such as B or 5.0

The printer drivers are updated from time to time to provide optimal functionality. You can obtain the most recent printer driver for the PC operating system you use from the Datacard Web site at [www.datacard.com](http://www.datacard.com). You also can request the newest release of the printer driver on CD-ROM. The part number changes with each release. The e-Guides are also updated from time to time and can be downloaded from the Datacard Web site at [www.datacard.com](http://www.datacard.com).