Xerox DocuPrint Network Printer Series System Overview Guide for 92C NPS

THE DOCUMENT COMPANY
XEROX

Printed in the United States of America.

Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

Laser safety

⚠ **Warning:** Adjustments, use of controls, or performance of procedures other than those specified herein may result in hazardous light exposure. ⚠

The Xerox DocuPrint printers are certified to comply with the performance standards of the U.S. Department of Health, Education, and Welfare for Class 1 laser products. Class 1 laser products do not emit hazardous radiation. The DocuPrint printers do not emit hazardous radiation because the laser beam is completely enclosed during all modes of customer operation.

The laser danger labels on the system are for Xerox service representatives and are on or near panels or shields that must be removed with a tool. **DO NOT REMOVE LABELED PANELS OR PANELS NEAR LABELS. ONLY XEROX SERVICE REPRESENTATIVES HAVE ACCESS TO THESE PANELS.**

Ozone information

This product produces ozone during normal operation. The amount of ozone produced depends on copy volume. Ozone is heavier than air. The environmental parameters specified in the Xerox installation instructions ensure that concentration levels are within safe limits. If you need additional information concerning ozone, call 1-800-828-6571 to request the Xerox publication 600P83222, *OZONE*.

Operation safety

Your Xerox equipment and supplies have been designed and tested to meet strict safety requirements. They have been approved by safety agencies, and they comply with environmental standards. Please observe the following precautions to ensure your continued safety.

- Always connect equipment to a properly grounded electrical outlet. If in doubt, have the outlet checked by a qualified electrician.

⚠ **Warning:** Improper connection of the equipment grounding conductor may result in risk of electrical shock.

- Never use a ground adapter plug to connect equipment to an electrical outlet that lacks a ground connection terminal.

- Always place equipment on a solid support surface with adequate strength for its weight.

- Always use materials and supplies specifically designed for your Xerox equipment. Use of unsuitable materials may result in poor performance and may create a hazardous situation.

- Never move either the printer or the Printer Controller without first contacting Xerox or your local Xerox operating company for approval.

- Never attempt any maintenance that is not specifically described in this documentation.

- Never remove any covers or guards that are fastened with screws. There are no operator-serviceable areas within these covers.

- Never override electrical or mechanical interlocks.

- Never use supplies or cleaning materials for other than their intended purposes. Keep all materials out of the reach of children.

- Never operate the equipment if you notice unusual noises or odors. Disconnect the power cord from the electrical outlet and call service to correct the problem.

If you need any additional safety information concerning the equipment or materials Xerox supplies, call Xerox Product Safety at the following toll-free number in the United States:

1-800-828-6571

For customers outside the United States, contact your local Xerox operating company.

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Introduction

This *Xerox DocuPrint Network Printer Series System Overview Guide for 92C NPS* provides an overview of the individual components of the DocuPrint Network Printing System (NPS) and how they work together. This reference is designed to provide you with background information:

- that can be used to make informed decisions regarding printer use and performance

- on network connectivity and job submission requirements for all supported network and workstation configurations.

About this guide

The *Xerox DocuPrint Network Printer Series System Overview Guide for 92C NPS* provides information to help you quickly determine hardware, software, and connectivity requirements for printing from various clients to DocuPrint NPS.

This reference is useful for workstation users, printer operators, and system administrators who want to understand the overall DocuPrint NPS. Managers can use the reference information to assist them in making planning decisions.

Before using this guide, become familiar with its contents and conventions.

Contents

This section lists the contents of this guide:

- Chapter 1, "System overview," identifies and describes the function of the major components of the DocuPrint 92C NPS.

- Chapter 2, "Printer Controller," provides the information on the Printer Controller components, software, and fonts.

- Chapter 3, "Printers," details the base printer components.

- Chapter 4, "Optional printer components," describes additional printer components that can be ordered separately for the DocuPrint NPS.

- Chapter 5, "Understanding the paper path," traces the path of the paper through DocuPrint 92C NPS. It is helpful in locating possible paper jam locations.

- Chapter 6, "Highlight color," provides information about highlight color, and outlines some considerations of color printing for DocuPrint 92C NPS.

- Chapter 7, "Client workstations," provides information on how client workstations interact with the DocuPrint NPS.

- Appendix A, "Paper and other supplies," provides information and specifications on paper and other media used with the NPS, as well as instructions for ordering supplies.

Conventions

This guide uses the following conventions:

- All caps and angle brackets—Within procedures, the names of keys are shown in all caps within angle brackets (for example, press <RETURN>).

- *Italics*—Document and library names are shown in italics (for example, the *Xerox DocuPrint Network Printer Series System Overview Guide*).

Note: Notes are hints that help you perform a task or understand the text.

Caution: Cautions alert you to an action that may damage hardware or software.

Warning: Warnings alert you to conditions that may affect the safety of people.

Related publications

The Xerox DocuPrint Network Printer Series includes the following documents:

Decomposition Service and Tools Guide

Guide to Configuring and Managing the System

Guide to Managing Print Jobs

Guide to Performing Routine Maintenance

Guide to Submitting Jobs from the Client

Guide to Using Page Description Language

Installation Planning Guide

Messages Guide

System Overview Guide

Troubleshooting Guide

Glossary

Master Index

Customer Information Quick Reference Card

Printer Controller Commands Quick Reference Card

Submitting your Jobs from Macintosh Quick Reference Card

Submitting your Jobs from UNIX & DOS Quick Reference Card

Submitting your Jobs from Windows NT 4.0 (QuickPrint) Quick Reference Card

Submitting your Jobs Using Windows NT 4.0 Drivers Quick Reference Card

The documentation set also includes an electronic version, the *DocuPrint NPS Interactive Customer Documentation CD.*

1. System overview

This chapter introduces the DocuPrint NPS printing system and describes its hardware and software components, features, functions and modes of operation.

Functional overview of the DocuPrint NPS

The DocuPrint NPS system enables personal computer (PC), Sun Workstation, DEC workstation, HP/Apollo, IBM RS/6000, and Apple Macintosh users to print PostScript level 2, HP PCL 5c or 5e, or ASCII documents on a high-speed Xerox DocuPrint NPS printer.

DocuPrint 92C NPS prints at a rated speed of up to 92 ppm in 600 dpi highlight color (black plus one color).

DocuPrint 92C NPS printers support:

- Duplex printing

- Mixed plex

- Media of multiple weights, sizes and types

- Optional module for output to third-party finishing devices

- Optional high-capacity feeders

- Optional stitcher/stacker.

Refer to figure 1-1 as you read the system component descriptions that follow.

Figure 1-1. **DocuPrint system components for 92C NPS**
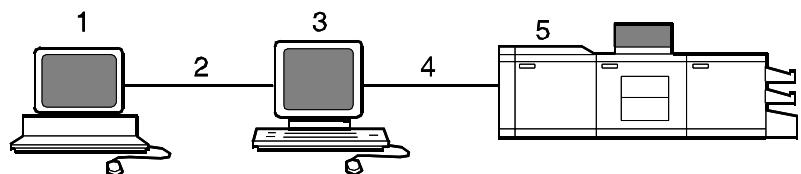
1   **Customer-supplied client PC, workstation, or host**
2   **Customer-supplied network**
3   **Xerox-supplied Printer Controller**
4   **Xerox-supplied printer interface**
5   **DocuPrint printer.**

Customer-supplied client PC or workstation

Users create their documents at the networked client PCs or workstations using software applications that generate either PostScript, HP PCL 5c or 5e, or ASCII output. When ready to print, users submit the documents to the Printer Controller.

Documents can include resources in either 300 dpi or 600 dpi. Output will be 600 dpi.

Customer-supplied network

The customer will need to supply a network:

- Ethernet local area network (LAN) with Transmission Control Protocol/Internet Protocol (TCP/IP), AppleTalk, or Novell NetWare 3.x network protocols

- Token Ring with TCP/IP, AppleTalk, or Novell Netware 3.x network protocols

- FDDI Fiber-Optic backbone LAN with Transmission Control Protocol/Internet Protocol (TCP/IP) or Novell NetWare 3.x network protocols.

Note: Customers using Novell 4.1 must set the "Bindery Emulation Mode" to be backward compatible with Novell 3.12.

DocuPrint NPS supports multiple network connectivity, that is, the ability for protocols such as TCP/IP to run on more than one network interface. Refer to the section "Multiple network connectivity."

DocuPrint NPS also provides support for SNMP, the Simple Network Management Protocol. This agent allows the connection of SNMP manager clients to DocuPrint NPS printers. Currently, the agent supports the Xerox PrinterMap client. This allows the operator to view printer status information (such as the type of loaded paper) from a client.

Xerox-supplied Printer Controller

The Printer Controller accepts the print job from the client workstation, converts the files into page images, and sends the page images to the printer. The user interface at the Printer Controller allows you to perform tasks such as monitoring job status, prioritizing jobs, and configuring the system. The optional cartridge tape drive can be used for tasks such as backing up files. The CD-ROM drive allows you to install the Printer Controller software and fonts.

Xerox-supplied printer interface

The printer interface cable provides high-speed data transport and communication between the Printer Controller and the printer.

Printer

The printer (also known as an IOT or print engine) accepts data from the Printer Controller and prints the document according to the print options specified by the user. The printer also provides paper stacking, and optional finishing.

DocuPrint Network Printing System (NPS)

The entire DocuPrint Network Printing System includes the printer, Printer Controller, printer interface, and all appropriate software. "DocuPrint printer" or "printer" refers to the base printer engine (IOT) only, without the Printer Controller and interface.

Note: It is your responsibility to supply, install, and maintain hardware and software on any host, PC, DECStation, Sun

Workstation, HP/Apollo Workstation, IBM RS/6000 Workstation, or Macintosh system used to generate documents for printing on the DocuPrint printers. You are also responsible for obtaining, installing, and maintaining the required Ethernet LAN, FDDI fiber-optic LAN or Token Ring network, transceivers, and connecting cables.

Xerox is responsible for the physical installation and service of the printer and Printer Controller hardware and software components. You are generally responsible for ensuring that the right personnel, supplies, and network hardware and software are available.

DocuPrint NPS can be configured with a modem to support Sixth Sense remote dial-in capability. Sixth Sense allows service technicians to access your system from a remote location. There are security issues you may need to consider before installing the modem.

DocuPrint Dual Mode

Xerox DocuPrint Dual Mode option enables both DocuPrint NPS and IPS systems to coexist on the same Printer Controller (Sun SPARCstation). This configuration allows the DocuPrint system to receive data streams supported by NPS and IPS, including IPDS, PostScript levels 1 and 2, HP PCL 5c or 5e, and ASCII.

When the system is in IPS mode, it can accept PostScript and PCL data streams in the background; however, you can print these jobs only when the system is in NPS mode. When it is in NPS mode, it cannot accept IPDS data streams in the background.

Client workstations and system software

To send print jobs to the DocuPrint printer, the customer needs to provide the proper client hardware, operating system, and network software.

Supported hardware and operating systems

Xerox DocuPrint supports the following types of networked client workstations and operating systems:

- Sun Workstation running Sun operating system

- PC running MS-DOS 6.2 and Microsoft Windows 3.1, configured for the network environment

- PC running Windows 95/98, configured for the network environment

- PC running Microsoft Windows NT, configured for the network environment

- PC 386 or 486, running MS-DOS, version 6.2, with one of the following TCP/IP packages:

    — PathWay Access 3.1, Wollongong Integrated Networking/ Transmission Control Protocol (WIN/TCP) for DOS, release 6.0

    — FTP software, PC-TCP, release 3.0 or higher

    — Sun Personal Computer–Network File Services (PC-NFS), version 5.1

- IBM RS/6000 running IBM AIX, version 4.1

- HP/Apollo running HP-UX, version 10.01

- DECStation 5000/200 running DEC Ultrix, version 4.3

- Apple Macintosh, System 7, 7.5, or 8.x, using AppleTalk through EtherTalk, phase 1 or 2

- Any system that supports RFC-1179 lpr/lpd.

DocuPrint software may be compatible with workstation models and software versions other than those listed above.

Client software

On your PC or workstation, you must install or set up a supported means of submitting jobs to DocuPrint NPS. Depending on your system, you can use the following:

- Xerox drivers for Windows 3.x, 95/98, or NT

- Xerox Document Submission Software for DOS, Windows 3.x, 95/98, NT, or Macintosh

- Third-party drivers

    — Some PostScript drivers can be used in conjunction with Xerox-supplied PPD files

    — HP Color LaserJet for PCL 5c jobs

    — HP LaserJet 4 for monochrome jobs

- Third-party TCP/IP lpd utility

- Apple/Macintosh Printer Access Protocol (PAP)

The Xerox-provided software provides an interface with the Printer Controller, which allows you to submit print jobs and check job status.

Note: The DocuPrint printing options available to a client user vary according to the networking software loaded on the client workstation.

For additional information on submitting jobs from a client workstation, refer to the job submission documentation.

Ethernet LAN

Users of networked client workstations may send print jobs to the DocuPrint NPS printer over the Ethernet LAN using either the TCP/IP, AppleTalk using EtherTalk Link Access Protocol (ELAP), or Novell NetWare as the network protocol.

Regardless of printing or transmission protocol, the Ethernet connection to the Printer Controller must be compatible with the Institute of Electrical and Electronics Engineers (IEEE) 802.3 standard.

FDDI Backbone LAN

FDDI is ANSI-standard 100 megabit fiber optic backbone LAN using up to 200 km of optical fiber, or twisted copper pairs for short hops. It supports the TCP/IP protocol and Novell NetWare. The Sun FDDI driver is incorporated into the NPS print controller software. DocuPrint NPS supports the optical fiber implementation of FDDI.

Token Ring

Users of networked client workstations may send print jobs to the DocuPrint NPS printer over a Token Ring network using TCP/IP, Novell NetWare or AppleTalk network protocol.

Regardless of the printing transmission protocol, the Token Ring connection to the Printer Controller must be compatible with the Institute of Electrical and Electronics Engineers (IEEE) 802.5 standard.

Multiple network connectivity

DocuPrint NPS supports multiple network connectivity, that is, the ability for protocols such as TCP/IP to run on more than one network interface. For TCP/IP, DocuPrint NPS can support any combination of Ethernet, 100 Mbit Ethernet, Token Ring, or FDDI. One interface is designated as the primary network interface. Novell NetWare can run on only the primary network interface, but the type of interface can be selected.

AppleTalk can run on only one network interface, but it doesn't have to be the primary one.

2.   Printer Controller

This chapter describes the DocuPrint Printer Controller. It includes a list of component hardware, software and fonts, and discusses the key elements of software operation.

Printer Controller overview

The Printer Controller manages print options, provides the user interface, and runs system management and diagnostic operations on demand. The Printer Controller receives PostScript, HP PCL 5e, HP PCL 5c for highlight color models, and ASCII files from the client through an Ethernet, FDDI, or Token Ring network.

The Printer Controller detects which protocol is being used for a print data file that is being sent. Print data can be sent through TCP/IP, AppleTalk, or Novell NetWare packets.

Once the print data file has been received:

- Print data is separated from print option parameters

- Print data is stored on the Printer Controller fixed disk

- Print options parameters are stored in the Job Pool Manager (JPM) database.

The print data is stored on the fixed disk for queuing, for multiple copy processing, or for recovering from system errors and printer faults.

The Job Pool Manager (JPM) maintains a database of all jobs. The database contains a reference to the print data on the fixed disk, as well as the print options parameters for the print data. Data in the JPM database is scanned and sequenced for maximum efficiency. The JPM responds to the Printer Controller commands that affect the Job Pool, such as deleting, holding, or prioritizing jobs.

When the Printer Controller begins processing a job, it sends the print data to the decomposer. The decomposer converts the print data into a bitmap in the resolution appropriate to the printing device. For a color job, one bitmap is created; the color spaces are interleaved on a pixel basis.

The decomposer utilizes font data from font files stored on the Printer Controller fixed disk or font information sent to the Printer Controller with the print job.

When processed data comes back from the decomposer, the Printer Controller Device Driver transmits the print data and print option parameters to the printer and initiates printing.

When the job has been printed successfully, the print data file is deleted from the fixed disk. If there is an error at the printer (IOT) that inhibits job completion, the Printer Controller manages the recovery and completion of the job.

DocuPrint can manage the processing of multiple jobs and the printing of another job simultaneously.

Printer Controller components

There are different Sun workstation models used for the Printer Controller, depending on your system configuration. Printer Controller components typically consist of the following hardware and features described below.

Figure 2-1.   **Printer Controller components (Sun Ultra 60)**
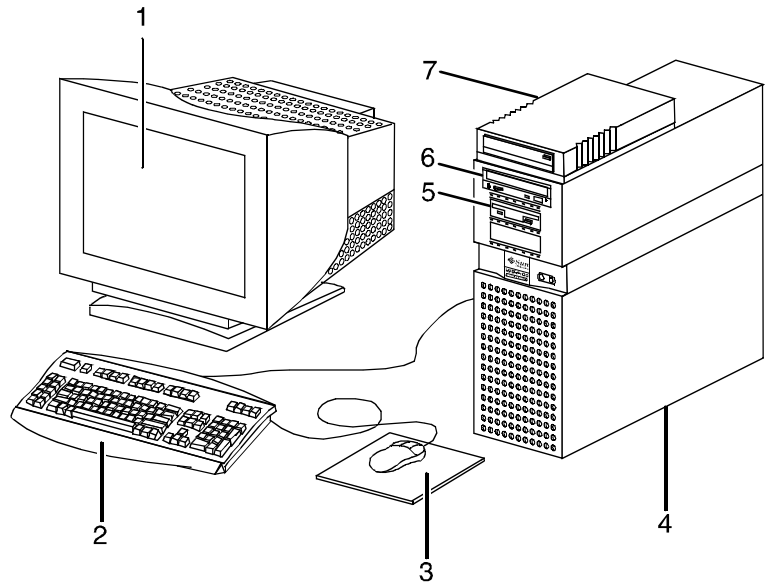
1	**Monitor**
2	**Keyboard**
3	**Mouse**
4	**Processor**
5	**Diskette drive**
6	**CD-ROM**
7	**Cartridge tape drive**

Figure 2-2.   **Components of the Sun Ultra 2**
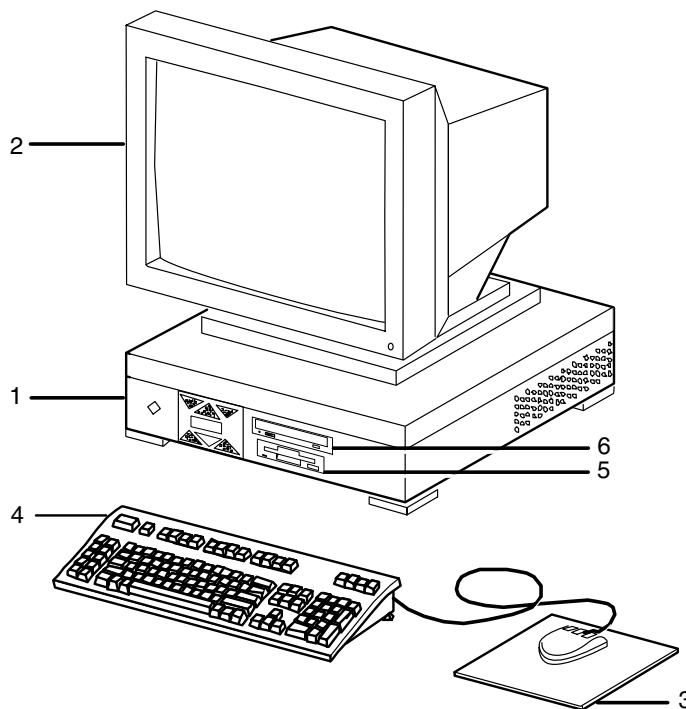
1   Processor
2   Monitor
3   Mouse and mouse pad
4   Keyboard
5   Diskette drive
6   CD-ROM drive

Monitor

- 20-inch monochrome gray scale monitor, or

- 20-inch color monitor

Keyboard

- Type 4, 5, or 6, 107-key keyboard

Mouse

- Mouse with pad

Processor (CPU)

- 256 MB of base memory

- High performance CPU

- 4.2 GB system disk drive

    – Additional drives (optional)

    – 9 GB external disk drive (optional)

Diskette drive

- 1.44 MB 3.5-inch diskette drive

CD-ROM

- Internal CD-ROM

External Modem

- US Robotics Courier V. Everything 56KB V.90 External Voice/ Data Fax/Modem and serial cable.

Cartridge tape drive (optional)

- 150 MB, 1/4-inch, SCSI cartridge tape drive

- 8 GB, 4mm, SCSI cartridge tape drive

Note: Printer Controller hardware configurations are subject to upgrade.

Printer Controller software and fonts

The installation of Printer Controller software is performed by your service representative once all the hardware components are in place and properly connected. The following is a summary of major software components installed on the Printer Controller:

- Xerox Printer Controller software

  — Customized UNIX operating system (based on the Sun operating system; not all standard operating system features are available).

  — DocuPrint NPS software for the user interface, printer driver, PDL decomposer, Job Pool Manager, and other operating system utilities. Licensing is required for the DocuPrint NPS software.

  — Xerox client protocol software (print command) downloaded to client workstations or PCs as a means to communicate with the Printer Controller.

- Adobe PostScript fonts

  Using font installation commands, you can load other Type 0, Type 1, or Type 3 PostScript fonts from a MS-DOS-formatted, 3.5-inch diskette or CD-ROM disk. Type 0 fonts must conform to a specification available from Xerox. Refer to the *Xerox DocuPrint Network Printer Series Guide to Configuring and Managing the System*, "Installing fonts," for more information on font installation commands. Type 0, Type 1 and Type 3 PostScript fonts can also be downloaded with a print job. Refer to the *Xerox DocuPrint Network Printer Series Guide to Using PDL*, "PostScript," for more information on PostScript fonts.

- PCL fonts

  One bitmap font and 45 scalable PCL fonts are preinstalled on the system. A PCL font sampler is also preinstalled on the system. The 45 scalable and bitmap font files are listed in table 2-2. Additional fonts can be installed. Refer to the *Xerox DocuPrint Network Printer Series Guide to Using PDL*, "PCL 5," for more information on PCL fonts.

- MICR fonts

  For 96/4635/180 MICR systems, E13B fonts in PCL and PostScript are also provided.

- Euro font

   A font for the Euro character is included for various faces such as Helvetica and Times.

Table 2-1.**Adobe Type 1 PostScript fonts**

Font	Typeface
Courier	Courier, Bold, Oblique, BoldOblique
Helvetica	Helvetica, Bold, Oblique, BoldOblique, Light, LightOblique, Black, BlackOblique
	Condensed, Condensed Oblique, Condensed Bold, Condensed BoldOblique
	Narrow, Narrow Bold, Narrow Oblique, Narrow BoldOblique
ITC Avant Garde Gothic	Book, BookOblique, Demi, DemiOblique
ITC Bookman	Demi, DemiItalic, Light, LightItalic
ITC Garamond	Light, LightItalic, Light, LightItalic
ITC Korinna	Korinna, KursivRegular, Bold, KursivBold
ITC Zapf Chancery	MediumItalic
ITC Zapf Dingbats	Medium
New Century Schoolbook	Roman, Bold, Italic, BoldItalic
Palatino	Roman, Bold, Italic, BoldItalic
Symbol	Medium
Times	Roman, Bold, Italic, BoldItalic

Table 2-2.**PCL fonts**

| Intellifont (scalable)	Typeface
CG Times	Medium, Italic, Bold, Bold Italic
Univers	Medium, Italic, Bold, Bold Italic
Univers Condensed	Medium, Italic, Bold, Bold Italic
Courier	Medium, Italic, Bold, Bold Italic
Letter Gothic	Medium, Italic, Bold
Albertus	Medium (semi-bold), Extra Bold
Antique Olive	Medium, Italic, Bold
Clarendon Condensed	Bold
Coronet	Medium Italic
Garamond	Antiqua (Medium), Kursiv (Italic), Halbfett (Bold), Kursiv Halbfett (Bold Italic)
Marigold	Medium
CG Omega	Medium, Italic, Bold, Bold Italic
TrueType (scalable)	**Typeface**
Arial	Medium, Italic, Bold, Bold Italic
Times New Roman	Medium, Italic, Bold, Bold Italic
Symbol	Medium
Wingdings	Medium
Bitmap	**Typeface**
Line Printer	16.67 pitch/8.5 point medium

3. Printers

The Xerox DocuPrint NPS is a versatile, high-performance printing system. It enables personal computers and other network-connected devices (such as workstations and graphic scanners) to produce documents incorporating graphics, forms, logos, signatures, and fonts. With DocuPrint NPS, management information systems (MIS) and data processing (DP) environments can have a high-performance, high-speed, PostScript, HP PCL 5e and PCL 5c compatible printer.

Printer components

The DocuPrint 92C NPS printers contain the xerographic engine, two standard feeder trays, a sample tray, the printer control console, and one of three possible output configurations: the dual stacker, the dual stacker with bypass transport, or the stitcher/stacker.

Figure 3-1. **DocuPrint 92C printer shown with dual stacker trays**
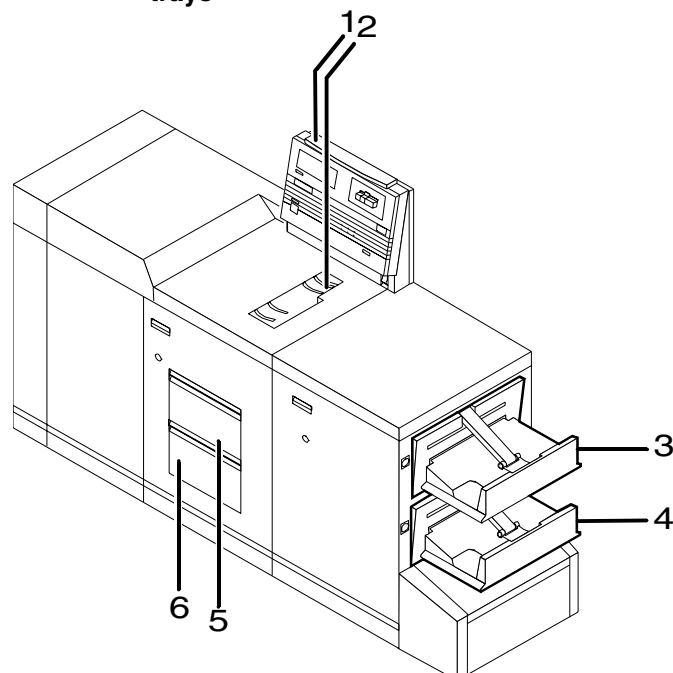
1   **Printer control console**
2   **Sample tray**
3   **Stacker tray 1**
4   **Stacker tray 2**
5   **Feeder tray 1**
6   **Feeder tray 2**

Printer control console The printer control console contains message and graphic displays, an attention light, and Information, Stop, and Continue buttons. Indicator lights show which feeder tray is active and the paper size in use.

Sample tray This output tray is used for sample prints, rejected prints, and transparencies. The capacity of the sample tray is 100 sheets of 20-pound or 80-grams per square meter (gsm) paper.

Dual stacker trays 1 and 2 Each output stacker tray has a capacity of 750 sheets of 20-pound or 80-gsm paper (1,500 sheets total capacity). The alternatives to the dual stacker configuration are the stitcher/stacker or bypass transport option.

Feeder tray 1 The capacity of tray 1 is 1,000 sheets of 20-pound or 80-gsm paper.

Feeder tray 2 The capacity of tray 2 is 500 sheets of 20-pound or 80-gsm paper. Except for capacity, this tray is identical to tray 1.

Printer control console

The control console contains message and graphic displays, as well as attention and status indicator lights that alert you to printer conditions. There indicators and the Information button help you to solve printer problems. The Stop and Continue buttons give you temporary control of the printer, without interrupting input processing.
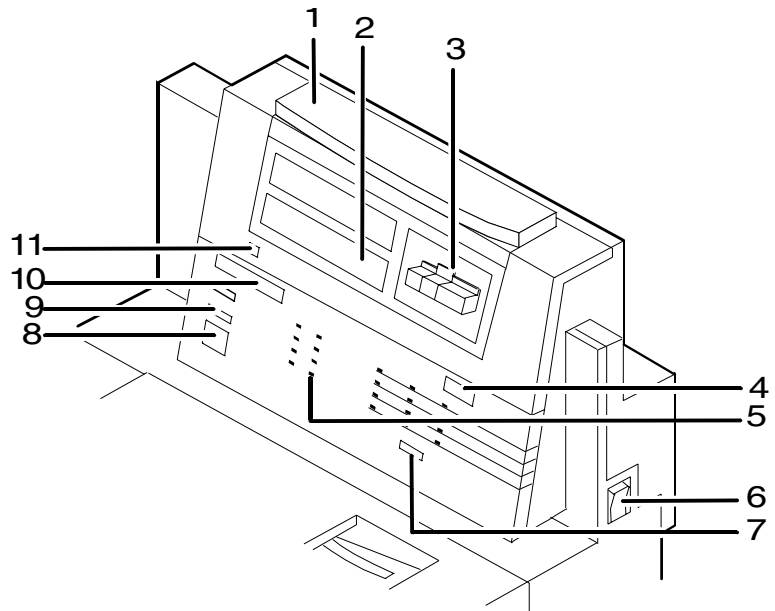
1   **Attention light**
2   **Message display**
3   **Graphic display**
4   **Wire percentage indicator**
5   **Feeder tray indicators**
6   **Power on/off switch**
7   **Sample button**
8   **Continue button**

9 Stop button
**10 Fault code display**
11 Information button

Attention light

The yellow attention light glows whenever the system detects an actual or potential problem.

- When the light is flashing, you should act immediately to remedy situations. Typical problems are a pager jam or a full waste container that have caused the printer to stop.

- When the light glows steadily, act soon to avoid a cycle-down. A steady glow typically indicates that paper or dry ink is low.

Message display

Printer status and simple operating and maintenance instructions are shown in a two-line message. One of the following icons indicates the printer mode:

Printer Mode
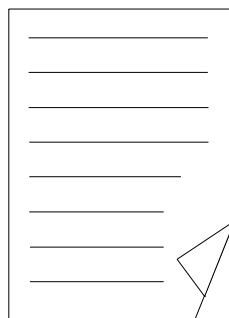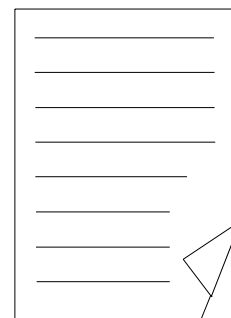
Black   Highlight

Also in the lower panel, the dry ink color currently loaded is shown.

Graphic display

The graphic display shows a specific area of the printer requiring attention. The graphics help you locate the problem.

Wire percentage indicator

If your printer has a stitcher/stacker, it displays the percentage of stitcher wire remaining on the spool.

Feeder tray indicators

These lights indicate the selected feeder tray or trays and the size of paper loaded in each tray.

Power on/off switch

This switch controls power to the printer and is used primarily by service representatives.

Sample button

Not used. The sample feature is not available on the 92C.

Continue button

The Continue button resumes printing when it is pressed.

While it is formatting a complex page, the Printer Controller may cycle down the printer if the page image is not available within a certain time frame. If this occurs, the following message appears:

Press <CONTINUE> to resume printing

You can ignore this message. As soon as the page image is available, the Printer Controller cycles up the printer and printing automatically resumes.

Stop button Pressing the Stop button halts printing without interrupting input processing.

Fault code display Shows the number of completed prints and printer fault codes. When a fault code displays here, the corresponding message appears in the message display.

Information button When "i" appears on the message display, you can press this button for additional information on printer operation. You can press the button repeatedly for more information as long as "i" appears.

Additional features

Additional features of the DocuPrint 92C NPS are:

Instruction labels Located throughout the printer to assist you with a variety of tasks.

Power savers To conserve energy, the printer has two power savers: one for the raster output scanner (ROS) and one for the fuser.

After a predetermined period, each of these parts times itself out and shuts down. The time-out period can be adjusted by a service representative to meet your needs. The Printer Controller automatically brings the printer out of power saver mode when there is a document to be printed.

- The ROS power saver times itself out after about an hour of inactivity and requires about 30 seconds to warm up.

- The fuser power saver times itself out after about four hours and requires four to seven minutes to warm up.

Language button Systems with the dual language option have this button to select a different language, such as French instead of English, for the message display.

Figure 3-2.   **Language button on printer control console**
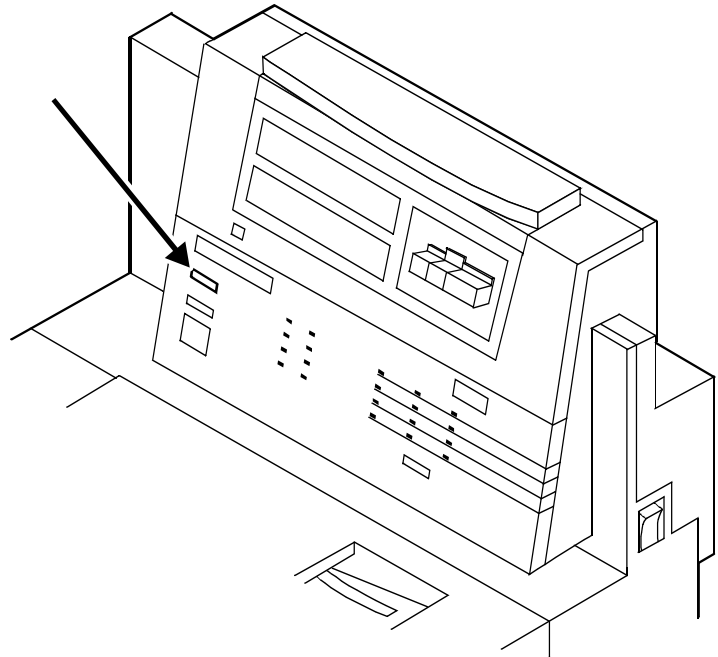
CCU changeout cart   The cart is used to remove and install the customer changeable unit (CCU). The CCU consists of the color developer housing and the dry ink bottle. Because the CCU is heavy, the user will need the cart to make the change.

The carts also serve as storage devices for the CCUs that are not currently in use. For example, if you use both the red and blue dry inks in your operation, one CCU is always out of the machine in storage on the cart while the other CCU is installed.
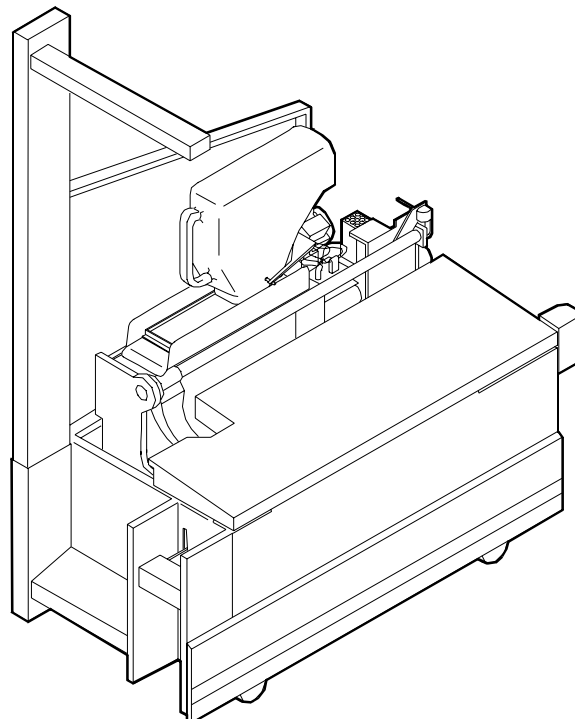
Note: You should have a cart for each CCU, where one cart is always empty and available to remove the CCU that is installed in the system. However, if your printer will only be used to print one color (that is, the CCU will never be removed), or if there is more than one DocuPrint highlight color printer in operation at your site, it may not be necessary to have one cart per CCU. Consult your site representative for more details.

4. Optional printer components

This chapter describes the various options available for the DocuPrint printers. These include the bypass transport and various configurations of feeders, stitchers, stackers.

DocuPrint 92C NPS printer options

The DocuPrint 92C NPS may be configured with a high-capacity feeder, a dual stacker, a wire stitcher/stacker, or a bypass transport with a dual stacker.

High-capacity feeder

Two feeder trays are provided as part of the printer base configuration (feeder trays 1 and 2). The high-capacity feeder option increases the versatility and productivity of the 92C printer with two additional feeder trays (trays 3 and 4). The extra trays increase the feeder capacity by approximately 2,000 sheets.

Figure 4-1.   **DocuPrint 92C printer with high-capacity feeder**
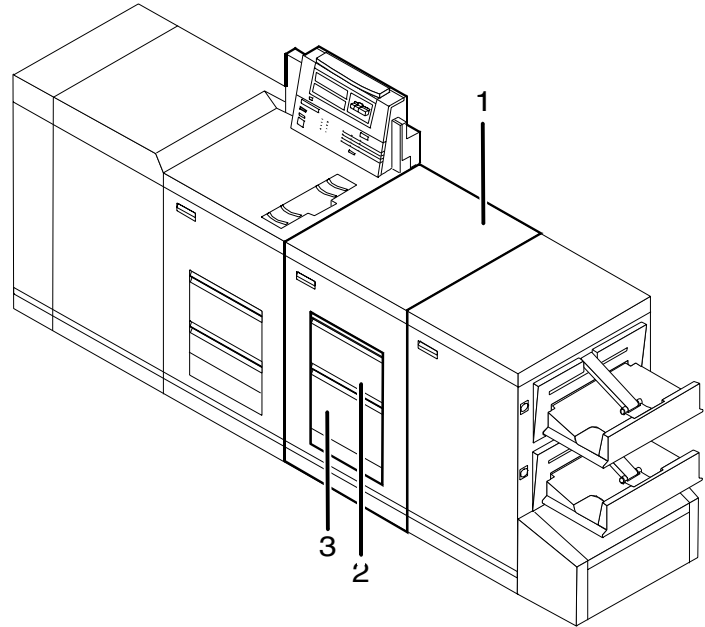
   1   High-capacity feeder unit
   2   Feeder tray 3
   3   Feeder tray 4
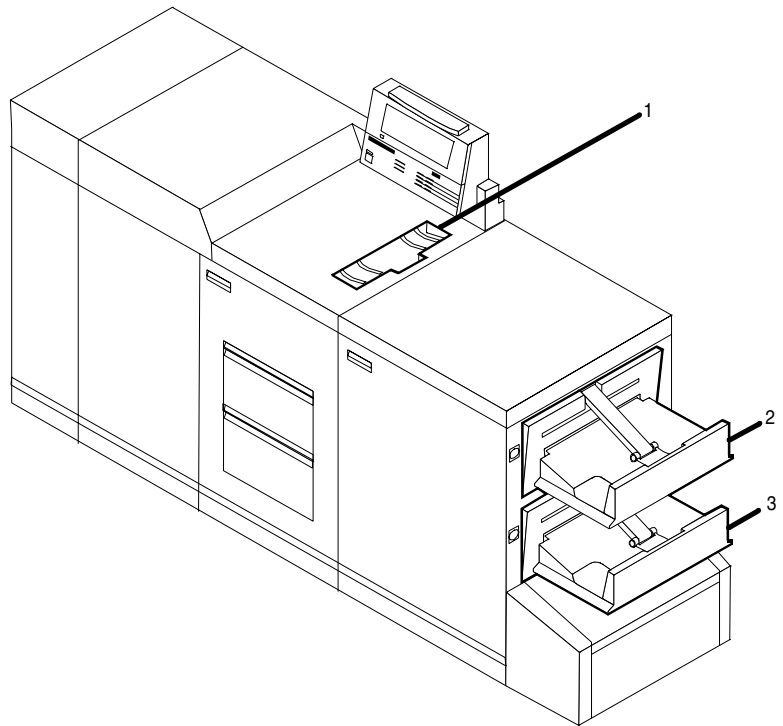
Dual stacker

Your 92C offers a choice of output module options: the dual stacker, the stitcher/stacker, or a dual stacker with bypass transport.

Note: A dual stacker is required on the DocuPrint for installation of the bypass transport.

Figure 4-2. **DocuPrint 92C printer with dual stacker trays**

1   Sample tray (top tray)
2   Stacker tray 1
3   Stacker tray 2

Bypass transport with dual stacker

The bypass transport enables paper to pass through the DocuPrint output module to third-party finishing equipment. Finishing devices perform a variety of tasks, such as saddle-stitching, binding, folding, stapling, trimming, and stacking. Note that a dual stacker is required on the DocuPrint for installation of the bypass transport.

Figure 4-3. **DocuPrint 92C printer with bypass transport and dual stacker**
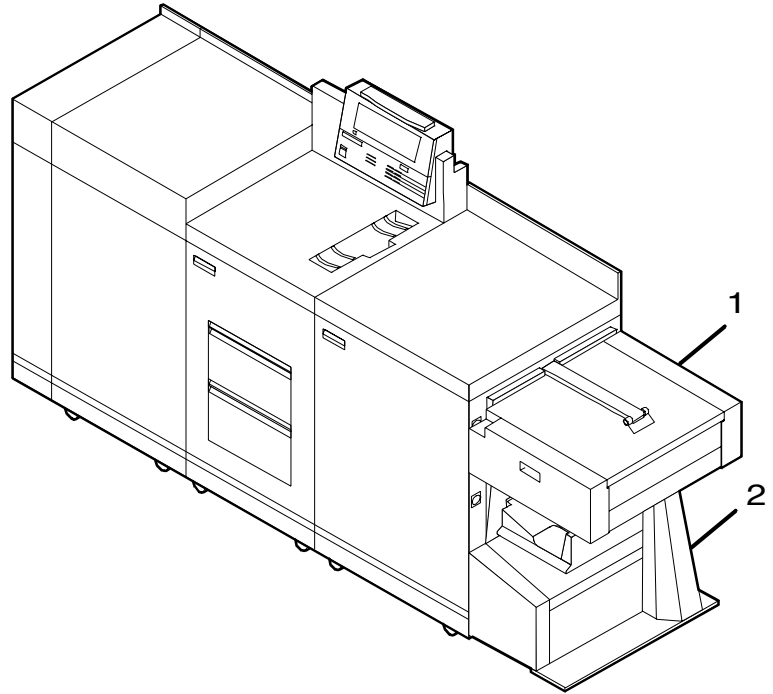
1 Bypass transport
2 Bypass transport support

Stitcher/stacker

The stitcher/stacker wire-stitches (staples) documents of up to 50 sheets of paper. The stacker tray holds up to 2,000 sheets of unstitched 20-pound or 80-gsm paper. Refer to figure 1-13.

Figure 4-4. **DocuPrint 92C printer with stitcher/stacker**
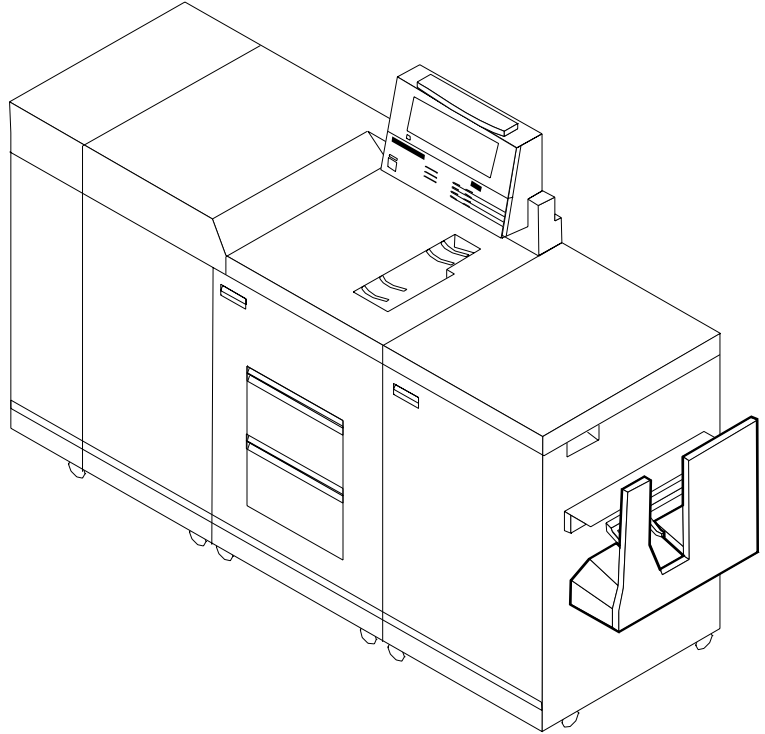
5. Understanding the paper path

The paper path is the route that materials (paper, transparencies, labels, and so on) follow through the printer from the feeder trays to the output trays.

The figure below illustrates the simplex (one-sided output) paper path of a printer with a dual stacker tray and a standard feeder tray. The materials move from either feeder tray 1 or feeder tray 2 and are stacked in either stacker tray 1, stacker tray 2, or the sample tray, depending on your selection at the beginning of the job.

Figure 5-1. **Simplex paper path (dual stacker configuration)**
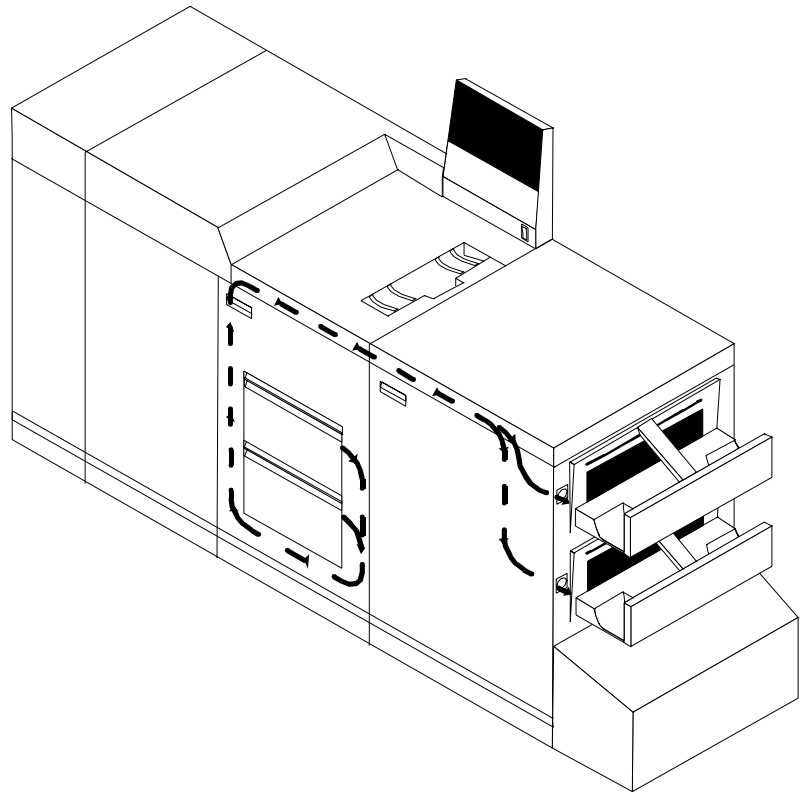
The following figure illustrates the duplex (two-sided output) paper path of a printer with a dual stacker and a standard feeder. Materials may originate in either feeder tray 1 or feeder tray 2. The duplex paper tray receives the materials before they go through a second time to receive the second image. As the pages move through for the second image, they follow the simplex path. The pages are then stacked in either stacker tray 1 or stacker tray 2, depending on your selection at the beginning of the job.

Figure 5-2. **Duplex paper path (dual stacker configuration)**
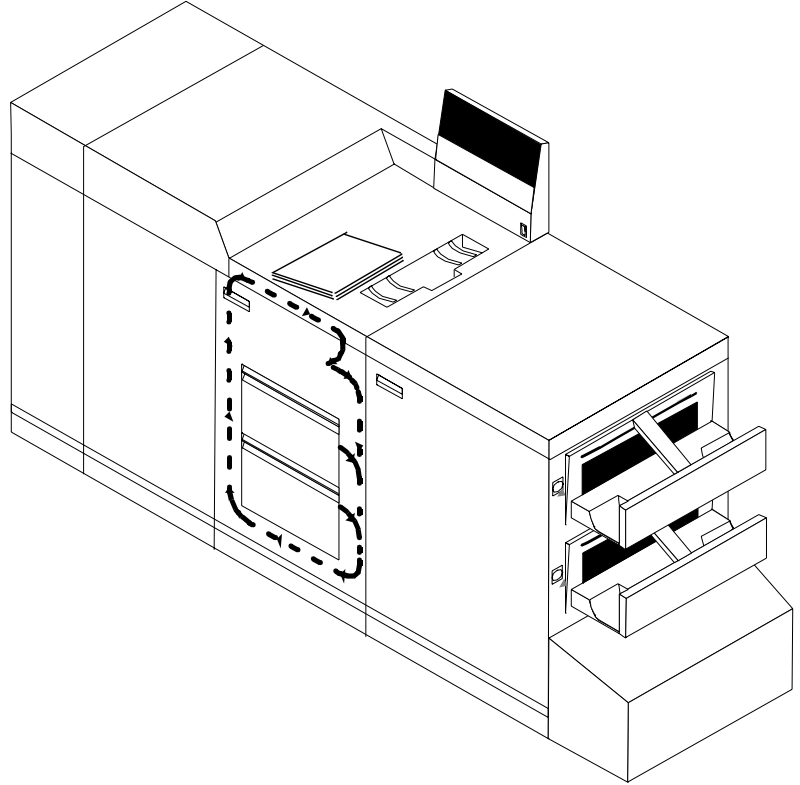
When you add a high-capacity feeder to your system, only the beginning of the paper path changes, which is the source of paper supply.

The following figure illustrates the simplex paper path of a printer with the high-capacity feeder.

Figure 5-3. **Simplex paper path (printer with high-capacity feeder)**
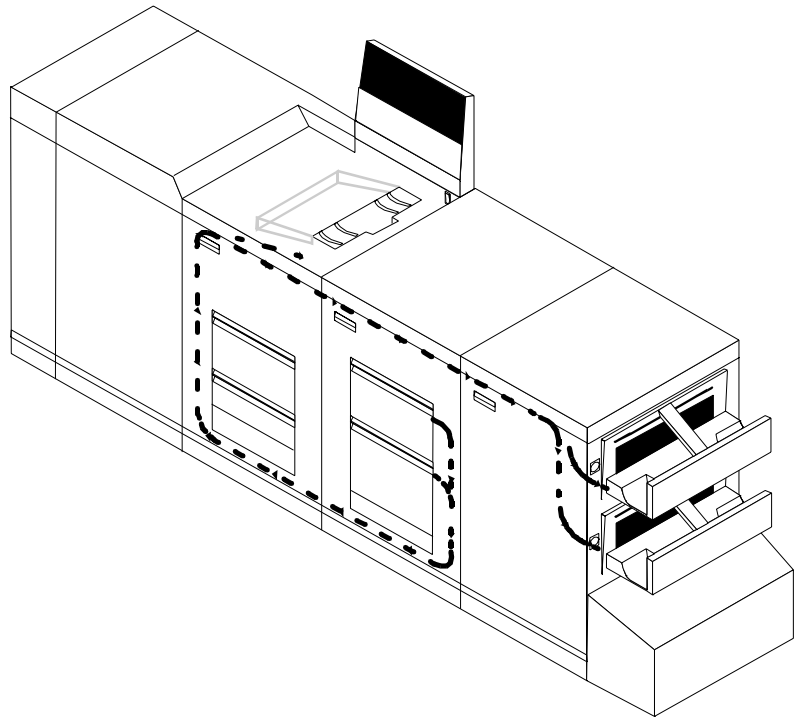
If you have the stitcher/stacker option, the paper path is the same, except there is only one tray for the output (other than the sample tray).

6. Highlight color

This chapter explains the concept of highlight color, and describes the process for specifying and applying highlight color to a document, matching monitor and printer colors, and converting full process color jobs for printing on a highlight color printer.

How highlight color is created

A document with highlight color contains one color plus black. The color may be printed either as a solid color or combined with black. To create tints and shades, the DocuPrint highlight color printers print dots of black and dots of color very close together. Out eyes mix the dots to produce a wide range of color. DocuPrint prints the black and color dots in a single pass, ensuring near-perfect registration.

- Tints of black or the highlight color are created by printing dots of black or color with white space between them, producing a percentage value of the color, for example, gray or pink.

- Shades are created by printing black dots next to dots of the highlight color, producing, for example, a dark red.

- Tones are created by printing a combination of black dots, color dots, and blank space. The result is a percentage value of black and the highlight color such as a dark red made by mixing dots of red and black, or a gray-pink made by mixing dots of red and black dots with some blank space as well.

These patterns of dots are known as halftone screens. Screens are defined in the Printer Controller software as a matrix of bits, which correspond to printed dots. The screen defines which dots in the matrix are black, which are highlight color, and which are not printed.

How highlight color is specified

You specify color in application software. The DocuPrint provides highlight color toner in a selection of colors: red, ruby, cardinal, blue, royal blue, green, cyan, magenta, violet, and brown.

If you specify a color in your document that DocuPrint cannot print, it is printed either as a shade of gray or as an equivalent tone of the highlight color installed in the printer at the time.

For more information on this matching process, see "How to convert full color to highlight color."

How to convert full color to highlight color

Because many documents submitted to DocuPrint NPS support full color, you may try to print a document that specifies colors that a highlight color DocuPrint NPS cannot print. When DocuPrint receives a full-color document, the Printer Controller software matches the colors as closely as possible to a color DocuPrint can print. This matching process is not a precise means of specifying color in your documents.

To control color conversion in your document, you can use the map color option, also called extraction color, to specify which color in a full color document you want to print, using the available highlight color. Colors you do not specify in the map color option print as shades of gray.

You can make the map color differ from the highlight color so red parts of a document are printed as green, or blue portions are printed as red, and so forth.

The highlight color rendering algorithm enables you to specify the qualities of a document that are the most important to preserve. The highlight rendering attributes allow you to distinguish between different colors, to use preset color tables, and to apply pictorial mapping for pictures and presentation mapping for other objects.

Note: To determine the RGB values of a given highlight color, use the List Options command. When using the Pictorial highlight color rendering algorithm, the RGB value given will saturate on the page. When using the presentation algorithm, the RGB value will not be saturated.

Color substitution

If the print document calls for a color that requires a dry ink that is not installed in the printer, the Printer Controller acts according to the current color substitution parameters.

The options for color substitution with the color mismatch action are:

- Abort—Deletes the job.

- UseLoadedColor—Uses the toner that is currently loaded on the printer.

- RequestOperatorIntervention—Causes a job to be ineligible for printing until the highlight color is changed.

At your client workstation, you can specify these color substitution options when submitting a job to DocuPrint.

7. Client workstations

This chapter discusses the various client workstation configurations and the processes that may be used to transfer data to the DocuPrint for printing.

Workstations

Print data originates with a document created by the user at a client workstation using an application software package, or at a mainframe or minicomputer. The application allows users to create and format a document according to their exact specifications.

The application software provides the capability to print the document using a page description language (PDL). The application produces print data in one of the supported page description language formats, for example PostScript level 2.

Submitting print jobs

You can send print data directly from the application to the printer, or you can create a PDL data file on the workstation. The method you choose depends on the workstation configuration and the job submission requirements.

Printing directly from the application (sometimes referred to as "transparent printing") may require fewer steps, but depending on the application, this method may not support all available print options, such as number of copies, simplex or duplex printing, and stitching. Transparent printing is done using one of the Xerox print drivers, or by using third-party drivers which may also use the Xerox PPD file for your printer.

Using a print job submission program requires a second step in the printing process. The user prints from the application to a PDL data file, usually by specifying a print driver set to print to file. The user then closes the document and uses one of the following methods to submit the job and specify print options:

- The lpr command provides options for submitting print jobs. The functionality of the lpr command is dependent on the TCP/IP software installed on the workstation.

- Xerox Client Software provides a print command for submitting jobs and specifying print options. The functionality of the print command is dependent on the TCP/IP software installed on the workstation.

- Xerox DocuPrint Document Submission Client software for the Macintosh provides a graphical user interface for submitting jobs and specifying print options.

- Xerox DocuPrint Print Submission software for Windows 3.x, Windows 95/98, and Windows NT provides graphical user interfaces for submitting jobs and specifying print options.

In many cases, the workstation can be set up for more than one method of job submission.

Communicating with the network

After the print data has been prepared for printing and combined with print options data—either by the application software or by a print job submission utility—the print job is sent over the network.

DocuPrint NPS supports TCP/IP, AppleTalk, and Novell NetWare network communications protocols.

Client workstations require a network software utility that submits the job using the appropriate network protocol. While this software must be installed and running for jobs to be submitted successfully to DocuPrint, once installed, its operation is transparent to the user.

Shown below are the workstations supported by DocuPrint NPS, and the networking options and job submission methods available for each client.

Table 7-1.   **DocuPrint NPS clients**

Client workstation hardware	Operating system	Ethernet connection	Protocol; *Translation requirements*	Job submission method
Sun Microsystems	Solaris SunOS	Standard	TCP/IP; none	Print using the lpr command or Xerox Client Software.
IBM PC and compatible	MS-DOS	Optional Ethernet interface card (for example 3Com 3C503)	TCP/IP; *network communication utility recommended*	Print to disk file, then send using the lpr command or Xerox Client Software.
IBM PC and compatible	Windows 3.1	Optional Ethernet interface	TCP/IP or Novell Netware 3.1x; *network communication utility recommended with TCP/IP*	Print directly from application or use Xerox DocuPrint Print Submission software for Windows.
IBM PC and compatible	Windows 95/98	Optional Ethernet interface	TCP/IP or Novell Netware 3.1x; *network communication utility recommended with TCP/IP*	Print directly from application or use Xerox DocuPrint Print Submission software for Windows.
IBM PC and compatible	Windows NT	Optional Ethernet interface	TCP/IP or Novell Netware 3.1x; *network communication utility recommended with TCP/IP*	Print directly from application or use Xerox DocuPrint Print Submission software for Windows.

Table 7-1.   **DocuPrint NPS clients**

Client workstation hardware	Operating system	Ethernet connection	Protocol; *Translation requirements*	Job submission method
Digital Equipment Corporation DECstation	ULTRIX	Optional Ethernet interface	TCP/IP; *none*	Print directly from application, or use the lpr command or Xerox Client Software.
Apple Macintosh	Apple OS	Optional Ethernet interface	AppleTalk using EtherTalk Phase I or II; *none*	Print directly from application or use Xerox DocuPrint Print Submission Client software for the Macintosh.
IBM RS/6000	IBM AIX	Standard	TCP/IP; *none*	Print using Xerox Client Software.
HP/Apollo	HP-UX	Standard	TCP/IP; *none*	Print using Xerox Client Software.

Job status feedback

Client workstations display fault messages and additional information, such as the status of feeder trays and output bins. If properly configured, the workstations may be able to display job status, as shown below.

Table 7-2.   **DocuPrint job status feedback**

Platform	Job status capability
Sun Workstation	Job status and job deletion are available by issuing the appropriate command at the command line. Job status information is available for jobs submitted using Xerox Client Software.
IBM and compatible personal computers	Job status and job deletion are available depending on the TCP/IP software installed on the workstation. You must issue the appropriate command at the command line. Job status information is available for jobs submitted using Xerox Client Software. Job status information is available using the Novell PCONSOLE utility if DocuPrint is configured with a RPRINTER or PSERVER implementation.
Apple Macintosh	Job status information is available at the workstation through AppleTalk.
IBM RS/6000 and HP/Apollo	Job status information is available for jobs submitted using Xerox Client Software or Ipstat (native utility).

To determine the status of jobs submitted using the lpr command, you must issue an lpq command at the command line. Some application software packages may provide a simplified means of obtaining job status, perhaps using icons.

The job status command (lpq) is available at client workstations unless your TCP/IP network communications utilities do not support it.

Xerox Client Software provides commands for listing the status of the job and for listing the queue. These commands are available for jobs submitted using Xerox Client Software.

AppleTalk provides job status information at the client workstation through the print monitor function. Workstation users can also determine the status of a virtual printer.

Job status via telnet   Job status is also available by establishing a telnet connection to the Printer Controller to access the user interface from your workstation. Printer and additional status information is also available. See "Using remote access" in the *Guide to Configuring and Managing the System* for more information.

A. Paper and other supplies

This appendix provides information and specifications for the media you use with your Xerox DocuPrint Model 92C printer. Instructions for ordering supplies are also provided.

Consumable supplies (those that are depleted during operation of the system), such as paper, dry ink, developer, fuser agent, etc., must be ordered for your printer. It is important that an adequate supply of these items be on hand for installation, and that your supply be maintained afterwards.

Paper and other throughput stocks

The success of any print run is greatly dependent on the proper selection, care, and handling of the stock used.

Selecting paper

You need to select your paper carefully. If you do not use the proper paper, you increase the probability of paper jams and misfeeds. The stocks you use must meet the specifications set forth by Xerox for operability in the printer. For additional information about paper specifications, refer to *Helpful Facts about Paper*, delivered with your printer.

Acceptable paper stocks and sizes Your DocuPrint Model 92C printer accepts the following standard size cut-sheet papers:

- US Letter: 8.5 by 11 inches / 216 by 279 mm
- US Legal: 8.5 by 14 inches / 216 by 356 mm
- A4: 8.27 by 11.69 inches / 210 by 297 mm

Recommended weight and grade: Use a good quality, xerographic-grade paper. For best results, use paper that is 20-pound or 80 gsm (grams per square meter) bond, xerographic grade. Xerox 4024 Dual Purpose Paper provides optimal performance in the printer. Refer to the consumable supplies table, later in this appendix.

Use paper within these parameters:

- Lightest: 20-pound or 80 gsm bond
- Heaviest: 110-pound or 200 gsm index.

Characteristics   The paper stock should have the following characteristics:

- Low moisture content (a paper-to-moisture ratio below 5.7 percent). Paper with higher moisture content may curl and jam.

- Smooth surface

- Moisture-resistant wrapping

- No defects (bent edges, uneven surfaces)

- Grain long (parallel with the long side of paper).

    Paper is usually fed into the printer with the long side as the leading edge. When you purchase paper, buy long-grain paper. Make sure the grain is parallel with the long side (long-grain) for the most reliable feeding and stacking.

Special stocks   Following are some guidelines for choosing and using special materials:

- **Labels** — Must be the type designed for high-speed printers and must meet the specifications described in the section above. Loading instructions are printed on all paper trays.

    Load labels with the label side up. You can direct them to any output tray.

- **Transparencies** — Must be the type designed for high-speed printers and must meet the specifications described in the section above. Loading instructions are printed on all paper trays.

    Load transparencies with the opaque strip to the right. All printed transparencies are delivered to the sample tray.

    As long as they meet your printer's paper specifications, you can also use:

- **Tinted paper** — Available in a variety of colors, it has many uses, including calling attention to certain printed material, separating special sections, or dividing chapters of a report.

- **Preprinted paper** — May be letterhead, forms, or logos.

- **Predrilled paper** — Has a varying number of holes for use in binders or binder rings. Before loading predrilled paper, fan it to remove loose plugs that could cause paper jams. Load predrilled paper in the printer with holes to the right.

- **Perforated paper**

Paper care

Once you have purchased your paper, you must be sure it is stored and conditioned properly, so that it performs optimally in the printer with a minimum of jams.

Storing paper   Paper has a tendency to curl under the heat that is present inside xerographic equipment. To minimize the amount of curling, use paper with low moisture content. Paper with excessive moisture content has a tendency to jam because of the greater curl. The maximum recommended moisture content is 5.7 percent.

Keep these points in mind when preparing your paper storage area:

- Store paper in its own wrapper; do not leave it unwrapped or where it can be damaged by dampness or heat.

- Store paper on a flat surface and not on its side or edge.

- Store reams of paper in a closed cabinet.

- Always store paper in a cool, dry area. Store on pallets or shelves, not on the floor.

- Plan ahead and keep at least a day's supply of paper in the same area as the printer to allow environmental stabilization prior to printing.

For more detailed information on paper for Xerox printers, refer to *Helpful Facts about Paper*, provided with your printer.

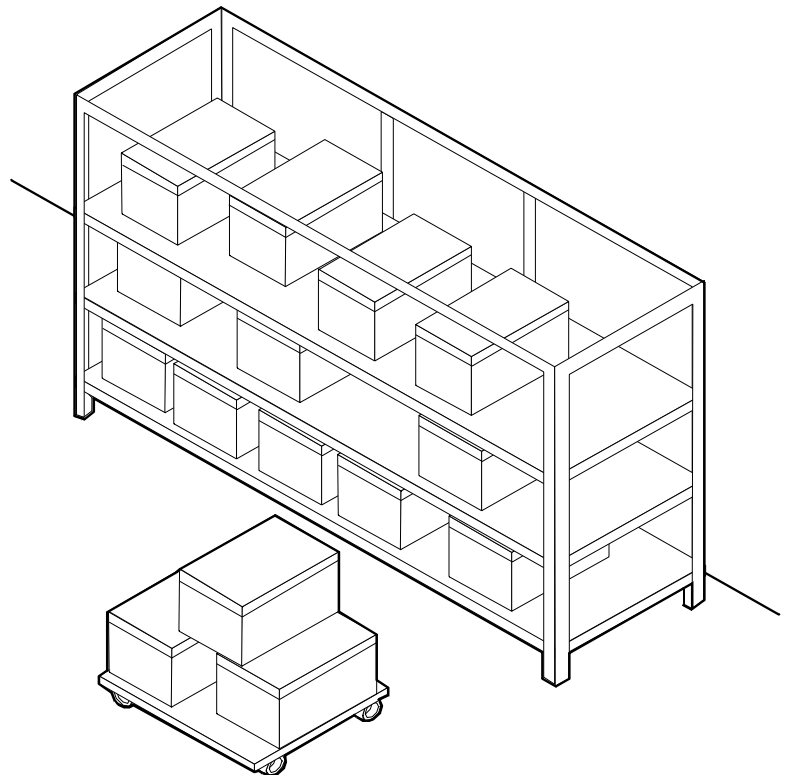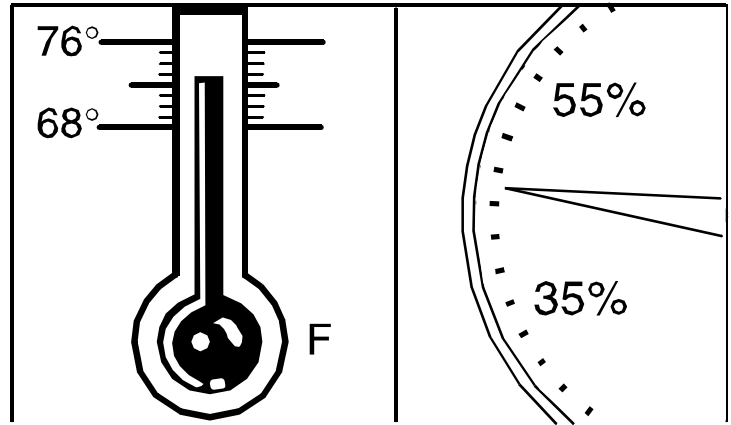Figure A-1.   **Storing paper correctly**

Figure A-2. **Recommended temperature and humidity for paper storage**

Conditioning paper
Because temperature and humidity affect paper performance in the printer, you need to condition paper before using it. To do this, store paper for a specified length of time in the same type of environment as your printer.

The length of time you should condition your paper depends on the amount of paper and the difference between the storage and operating temperatures.

Use the following chart to determine the length of time needed to condition stacked cartons of paper.

Note: The numbers in the top two rows indicate the temperature difference between the storage area and the operating environment, not actual room temperatures.

Table A-1. **Paper conditioning: Recommended temperature differences between storage and operating areas**

Temperature differences between storage and operating areas							
Fahrenheit							
	10°	15°	20°	25°	30°	40°	50°
Centigrade							
	5.5°	8.5°	11°	13°	17°	22°	28°
Cartons	**Hours**						
1	4	8	11	14	17	24	34
5	5	9	12	15	18	25	35
10	8	14	18	22	27	38	51
20	11	16	23	28	35	48	67
40	14	19	26	32	38	54	75

Example: (See the shaded rows in the table above.) If you want to move ten cartons of paper from a storage area with a temperature of 90 °F to an operating area with a temperature of 75 °F (a 15° difference), you should do so at least 14 hours before using the paper.

Other supplies

This section describes the supplies other than paper that are necessary for installation and afterward. Your sales representative will help you place your initial supply order.

Dry ink

Dry ink (also called toner) is the powder which forms the image on the printed page. There are six cartridges of black dry ink or three cartridges of colored dry ink in each carton. You should keep at least one extra cartridge on hand at all times. The disposable cartridges are easily changed with no mess. The consumption rate of Xerox dry ink is approximately one cartridge per 30,000 pages for black dry ink and 86,500 pages for colored dry ink. Use only dry ink that is specified for use in the DocuPrint Model 92C printer, as described in the consumable supplies table.

Note: Dry ink (toner) yields are based on 5% area coverage for black dry ink and 1.5% area coverage for colored dry ink. Your yield may vary, depending on coverage.

Fuser lubricant

Fuser lubricant is a consumable item required by the printer. You should keep at least two boxes (each box contains two tubes) on hand for installation by the service representative. The consumption rate of Xerox fuser lubricant is approximately one tube per 120,000 pages. For product information, refer to the consumable supplies table in this appendix.

Developer

Developer is not consumed by the printer but does have an effective life of approximately 300,000 pages per bottle, guaranteed by Xerox. Developer is a required item and must be kept on hand.

Use only the developer specified for use in your DocuPrint Model 92C printer.

For colored inks, use the color developer specified for each color in the table below:

Table A-2.   **Developers for use with colored inks**

Ink color	Use developer	Part number
Black	Black	502S63250
Blue	Blue	502S63252
Brown	Consult your Xerox representative.	
Cardinal	Red	502S63251
Cyan	Cyan	502S63992
Green	Green	502S63253

Table A-2.   **Developers for use with colored inks**

Ink color	Use developer	Part number
Magenta	Magenta	502S63993
Red	Red	502S6325
Royal	Blue	502S63252
Ruby	Magenta	502S63993
Violet	Magenta	502S63993

The developer is changed by your service representative. For product information, refer to the consumable supplies table, later in this appendix.

Stitcher wire

Stitcher wire is a consumable item for a printer equipped with the stitcher/stacker option. You need to order stitcher wire reels and keep them on hand. They are installed by the service representative or operators who have completed the Advanced Customer Training (ACT) or eXcellerate courses offered by Xerox.

Diskettes

Diskettes are optional items that provide loading and backup of fonts, forms, and user files to and from the printing system. The processor accepts 3.5-inch, 1.44 MB, double-sided, high density diskettes.

Tapes

The optional 4 mm cartridge tape drive uses 5 GB or 8 GB tapes.

The 1/4-inch QIC tape drive uses quarter-inch stream cartridge tapes. The tape data capacity should be 320/525 MB. Tape density is critical. The QIC drive can read low density tapes, but to write reliably requires tape with 21,000 Flux Transitions Per Inch (FTPI). The FTPI figure is usually listed on the cartridge.

Fonts

Data can be printed on DocuPrint printers in many sizes and type styles called fonts. A font is a character set which has unique characteristics, such as type style, size, weight, orientation (portrait, landscape, inverse portrait, and inverse landscape), character spacing (fixed and proportional), line spacing, and postures (Roman, italic, and so forth).

There are three classifications of fonts:

- Standard fonts
- Licensed fonts
- Custom fonts.

Standard fonts   A library of 51 fonts is provided with your printer's operating system software.

Licensed fonts   Additional fonts may be ordered from your local Xerox Font Center.

Custom fonts   Custom fonts and graphic images such as company logos and signatures can be digitized by the Xerox Font Center for use on your printer.

Receiving fonts   Fonts are received on a diskette from your local Xerox Font Center.

Consumable supplies tables

A number of supplies are available from Xerox for your DocuPrint printer. Use the following tables to help determine your supply needs.

Note: Customers in the U. S. may use the part numbers in these tables to order supplies. Customers outside the U. S. should contact their local service organization for part numbers.

Paper and special stocks tables

The following tables list all throughput stocks available for the DocuPrint Model 92C printer, with size, order number, and a brief description for each.

Table A-3. **Stocks list for DocuPrint Model 92C printer**

Item	Description	Part number
Paper	Xerox paper quantities are 10 reams (5,000 sheets) to a carton unless otherwise noted below.	
8.5 x 11 inch	4024 Dual Purpose Paper	3R721
A4	4024 Dual Purpose Paper	3R2594
8.5 x 14 inch	4024 Dual Purpose Paper	3R727
8.5 x 11 inch	4024 Dual Purpose Paper, 3-hole	3R723
8.5 x 11 inch	4024 Dual Purpose Paper, 3-hole*	3R2193
8.5 x 11 inch	4024 Dual Purpose Paper, 4-hole	3R1983
8.5 x 11 inch	4024 Dual Purpose Paper, 4-hole*	3R3008
8.5 x 11 inch	4024 Dual Purpose Paper, 7-hole	3R1984
8.5 x 11 inch	4024 Dual Purpose Paper, 7-hole*	3R3010
8.5 x 11 inch	4024 Smooth	3R2675
8.5 x 14 inch	4024 Smooth	3R2677
8.5 x 11 inch	Dual Purpose Colors—Blue	3R3052
8.5 x 11 inch	Dual Purpose Colors—Blue, 3-hole	3R3068
8.5 x 14 inch	Dual Purpose Colors—Blue, 3-hole	3R3084
8.5 x 11 inch	Dual Purpose Colors—Green	3R3056
8.5 x 11 inch	Dual Purpose Colors—Green, 3-hole	3R3072
8.5 x 14 inch	Dual Purpose Colors—Green	3R3088
8.5 x 11 inch	Dual Purpose Colors—Pink	3R3058

*5/16-inch drilled holes
** Rainbow pack contains 750 sheets each of blue and yellow, 500 sheets each of green and pink, and 250 sheets each of buff, gray, goldenrod, and ivory.

Table A-3. **Stocks list for DocuPrint Model 92C printer**
(continued)

Item	Description	Part number
8.5 x 11 inch	Dual Purpose Colors—Pink, 3-hole	3R3074
8.5 x 14 inch	Dual Purpose Colors—Pink	3R3090
8.5 x 11 inch	Dual Purpose Colors—Yellow	3R3054
8.5 x 11 inch	Dual Purpose Colors—Yellow, 3-hole	3R3070
8.5 x 14 inch	Dual Purpose Colors—Yellow	3R3086
8.5 x 11 inch	Dual Purpose Colors—Buff	3R3060
8.5 x 11 inch	Dual Purpose Colors—Buff, 3-hole	3R3076
8.5 x 14 inch	Dual Purpose Colors—Buff	3R3092
8.5 x 11 inch	Dual Purpose Colors—Goldenrod	3R3062
8.5 x 11 inch	Dual Purpose Colors—Goldenrod, 3-hole	3R3078
8.5 x 14 inch	Dual Purpose Colors—Goldenrod	3R3094
8.5 x 11 inch	Dual Purpose Colors—Ivory	3R3064
8.5 x 11 inch	Dual Purpose Colors—Ivory, 3-hole	3R3080
8.5 x 14 inch	Dual Purpose Colors—Ivory	3R3096
8.5 x 11 inch	Dual Purpose Colors—Gray	3R3066
8.5 x 11 inch	Dual Purpose Colors—Gray, 3-hole	3R3802
8.5 x 14 inch	Dual Purpose Colors—Gray	3R3098
8.5 x 11 inch**	Dual Purpose Colors, Rainbow Pack—35,000 sheets per carton**	3R3107
8.5 x 11 inches	4200 Primary Image	3R5802
8.5 x 14 inches	4200 Primary Image	3R5804
8.5 x 11 inches	4200 Primary Image, 3-hole	3R5803
8.5 x 11 inch	10 Series Dual Purpose Paper	3R2950
8.5 x 11 inch	10 Series Dual Purpose Paper, 3-hole	3R2952
8.5 x 11 inch	10 Series Dual Purpose Paper, 3-hole*	3R3016
8.5 x 14 inch	10 Series Dual Purpose Paper	3R2954
8.5 x 11 inch	10 Series Smooth	3R54
8.5 x 14 inch	10 Series Smooth	3R83
8.5 x 11 inch	4024 Dual Purpose, reinforced 3-hole*	3R2057
*5/16-inch drilled holes ** Rainbow pack contains 750 sheets each of blue and yellow, 500 sheets each of green and pink, and 250 sheets each of buff, gray, goldenrod, and ivory.		

Table A-3. **Stocks list for DocuPrint Model 92C printer**
(continued)

Item	Description	Part number
Transparencies	Xerox transparencies are packaged 100 sheets to a box.	
8.5 x 11 inch	Clear, with a white strip on the edge	3R2780
8.5 x 11 inch	Clear, high speed, with paper backing	3R3028
Labels (Gummed)	Xerox labels are packaged 100 sheets to a box.	
8.5 x 11 inch	33 labels per sheet	3R3139
8.5 x 11 inch	6 labels per sheet	3R3146
8.5 x 11 inch	Custom form (uncut)	Contact Xerox Supplies Order Service
8.5 x 11 inch	1-up label	3R4476
8.5 x 11 inch	1-up label	3R4475
8.5 x 11 inch	1-up label	3R4474
Cover stock	Xerox cover stock is packaged 2,500 sheets per carton.	
8.5" x 11"	65-pound, blue	3R3044
8.5" x 11"	65-pound, white	3R3041
*5/16-inch drilled holes ** Rainbow pack contains 750 sheets each of blue and yellow, 500 sheets each of green and pink, and 250 sheets each of buff, gray, goldenrod, and ivory.		

Complete supplies list—Model 92C printer

The following table lists the supplies in addition to paper that are available for your printer. Use this table to help you determine your supplies needs.

Table A-4. **Complete supplies list for DocuPrint Model 92C**

Item	Description	Part number	Items/ carton	Expected yield
Developer material	Packaged one container per carton. (Needs replacement only if current supply becomes contaminated.)			
	Black developer	502S63250	1/carton	
	Red developer (also for cardinal ink)	502S63251	1/carton	
	Blue developer (also for royal ink)	502S63252	1/carton	
	Green developer	502S63253	1/carton	
	Cyan developer	502S63992	1/carton	
	Magenta developer (also for ruby and violet inks)	502S63993	1/carton	
	For brown ink, ask your Xerox representative about the correct developer to use.			
Diskettes	3.5-inch, 1.44 MB, double-sided, high density diskettes. Packaged 10 diskettes per box.	8R7683	10/box	
Dry ink	Colored dry ink is packaged three bottles per carton; black, six bottles per carton.			
	Black dry ink	6R296	6/carton	180,000 prints/carton
	Red dry ink	6R297	3/carton	260,000 prints/carton
	Blue dry ink	6R754	3/carton	260,000 prints/carton
	Green dry ink	6R299	3/carton	260,000 prints/carton
	Cyan dry ink	6R755	3/carton	260,000 prints/carton
	Magenta dry ink	6R816	3/carton	260,000 prints/carton
	Royal blue dry ink	6R826	3/carton	260,000 prints/carton
	Cardinal dry ink	6R825	3/carton	260,000 prints/carton
	Violet dry ink	6R828	3/carton	260,000 prints/carton
	Ruby dry ink	6R827	3/carton	260,000 prints/carton
	Brown dry ink	6R842	3/carton	260,000 prints/carton
Fuser lubricant	Packaged two tubes per carton.	8R983	2/carton	240,000 prints/carton
Cartridge tapes	4mm blank cartridge tape, 5GB	9R01190		
	4mm blank cartridge tape, 8GB	109R00314		
Cartridge tape supplies	QIC blank (26-track) cartridge	9R84168		
	QIC tape drive head cleaning kit	9R88432		
Cleaning supplies	4mm cartridge tape head cleaning kit	9R01189		
	Foam-tipped swabs	99P87256		
	Lint-free towels	35P2163		

Table A-4. **Complete supplies list for DocuPrint Model 92C**

Item	Description	Part number	Items/ carton	Expected yield
Waste containers	Dry ink waste container (Model 92C) Developer waste container (Model 92C)	93K1403 93K850		400,000/carton 100,000/carton
Stitcher wire	Packaged one reel per box.	8R1174	One reel	32,000 staples

Ordering supplies

To avoid unnecessary downtime, always have an adequate amount of the necessary supplies. To do this, you need to establish a procedure for checking and ordering supplies. A supplies checklist is provided at the end of this appendix to help you with this task. It lists the supplies needed for the printer and contains a column for you to enter the date when you want to place the order and a column to record the date of the actual order. The consumable supplies table, above, contains a list of Xerox supplies available for the printer.

It is important that you check your supplies regularly and order before you run out. Plan on approximately five working days for delivery after placing the order. You can make arrangements to receive them sooner in emergency situations.

Your Xerox sales representative can help you submit the initial order of supplies needed for installation. These items include paper, dry ink, fuser lubricant, and developer.

Once your printer volume is established, planning ahead and buying Xerox supplies in quantity can save you money. Your Xerox supply specialists can help you. There are two centers available to assist you:

- To order Xerox paper, transparencies, labels, dry ink, developer, fuser lubricant, stitcher wire, cartridge tapes, and diskettes, call the Xerox Supply Center at 1-800-822-2200, weekdays between 7:30 a.m. and 6:00 p.m., Pacific time.

  If you prefer, you may mail orders to the following address:

  Xerox Corporation
  P. O. Box 25075
  Santa Ana, CA 92799-5075

- To order cleaning supplies, call the Xerox Customer Parts and Product Support Center at 1-800-828-5881, weekdays between 5:30 a.m. and 5:00 p.m., Pacific time, (U.S. only).

  You may also mail cleaning supply orders to the following address:

  Xerox Corporation
  Parts Marketing Center
  Building 214-07S
  P. O. Box 1020
  Webster, NY 14580

  Please provide the following information when placing orders:

- Your customer number (provided by your Xerox sales representative)

- Your printer model: Xerox DocuPrint Model 92C

- Your supply order, including the following information:

  — Item name

  — Part number

  — Quantity desired

  — If your company requires a purchase order for payment of an invoice, you need to provide the purchase order number to Xerox at the time you place the order.

The following table is a checklist you can use to keep track of the supplies you order.

Table A-5.   **Supplies checklist for DocuPrint Model 92C printer**

Supplies checklist
Use this checklist to help record the supplies and accessories you need, the date you plan to place the order, and the actual date of the order.

Item	Description and part number	Quantity	Date to order	Date ordered
Paper				
Transparencies, labels, and special stocks				
Dry ink				
Fuser lubricant				
Diskettes				
Stitcher wire				
Cartridge tapes				
Cleaning supplies				

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