Xerox DocuPrint 180 Laser Printing System Installation Planning Guide

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Related publications

The *Xerox DocuPrint 180 Laser Printing System Installation Planning Guide* is part of the ten manual reference set for your laser printing system. The entire reference set is listed in the table below. Several other related documents are also listed for your convenience. For a complete list and description of available Xerox documentation, refer to the Xerox Documentation Catalog (Publication number 610P17417) or call the Xerox Documentation and Software Services (XDSS) at 1-800-327-9753.

Table 1.　　**Related Publications**

Publication	Number
Xerox DocuPrint 180 Laser Printing System Operator Guide	721P85490
Xerox DocuPrint 180 Laser Printing System Operations Reference	721P85500
Xerox DocuPrint 180 Laser Printing System Message Guide	721P85550
Xerox DocuPrint 180 Laser Printing System PDL Reference	721P85530
Xerox DocuPrint 180 Laser Printing System Forms Creation Guide	721P85520
Xerox DocuPrint 180 Laser Printing System System Generation Guide	721P85510
Xerox DocuPrint 180 Laser Printing System Installation Planning Guide	721P85480
Xerox DocuPrint 180 Laser Printing System Operator Command Summary Card	721P85560
Xerox DocuPrint 180 Laser Printing System PC UI Reference	721P85540
Xerox DocuPrint 180 Laser Printing System Product Reference	721P85570
Xerox Laser Printing Systems Tape Formats Manual	600P86175
Xerox Laser Printing Systems Standard Font Library Font User Guide	600P86174
Helpful Facts About Paper	721P82492

Notice

This publication may contain descriptions of concepts and features not currently available for your Xerox Laser Printing System. Consult your Xerox sales representative or your operating system software program description for additional information.

Table of Contents

Introduction

Soon your new Xerox DocuPrint 180 Laser Printing System (LPS) will be delivered. As with any new equipment, certain things must be in place before the equipment can be installed.

The *Xerox DocuPrint 180 Laser Printing System Installation Planning Guide* (IPG) is designed to help you answer these questions and to help you, as the coordinator of the installation for your company, accomplish the preinstallation requirements, as well as the ongoing activities after the laser printing system is installed.

What this guide contains

The *Xerox DocuPrint 180 Laser Printing System Installation Planning Guide* provides you with the necessary information to ensure a successful installation, such as:

- LPS basic components and options

- Tasks that must be accomplished before installation

- Responsibilities for each task

- Supplies and fonts that must be ordered

- Delivery requirements

- Postinstallation activities.

The *Xerox DocuPrint 180 LPS Installation Planning Guide* is divided into five chapters and an appendix as follows:

Chapter 1: LPS overview. Provides an overview of the Xerox DocuPrint 180 Laser Printing System. Describes the basic system controller and printer components.

Chapter 2: LPS options. Describes the system controller, printer, graphic, and host-resident software options available for the laser printing system.

Chapter 3: Preinstallation. Provides information on configuration requirements, environmental and electrical requirements, cabling, supplies, and access requirements. Space planning templates and a grid are provided at the end of the chapter.

Chapter 4: Installation. Describes the installation process, reviews Xerox or Xerox Limited and site responsibilities, and lists the components of the documentation and software kits that are delivered with the system.

Chapter 5: Postinstallation. Describes Xerox or Xerox Limited support services, routine maintenance, meter reading and reporting, and supplies activities. Also provides a consumables table and a checklist for ordering supplies.

A glossary and an index are provided at the back of the manual.

The IPG is one of many manuals designed to help you receive maximum benefit from your Xerox DocuPrint 180 LPS. You receive the IPG first to help you prepare for your system's installation. To help you select the appropriate document for your needs, the following section identifies the documents in the set and describes the information contained in each.

Xerox DocuPrint 180 Laser Printing System Document Set

The Xerox DocuPrint 180 Laser Printing System document Set includes the following documents:

Xerox DocuPrint 180 LPS Operator Guide

This reference contains the following information:
- System Overview
- Keyboard display procedures
- Paper facts and procedures
- Operating procedures
- Maintenance
- Problem solving
- Supplies
- Meter reading and reporting

Xerox DocuPrint 180 LPS PDL Reference

This reference contains the following information:
- Print Description Language components and processes
- Input processing functions
- Output processing functions
- PDL command summary
- Page formatting guidelines
- Character code assignment tables
- PDL programming information with step-by-step instructions

Xerox DocuPrint 180 LPS System Generation Guide

This reference contains the following information:
- Configuration options
- Commands
- OSS software installation, upgrade, and modification procedures

Xerox DocuPrint 180 LPS Operations Reference

This reference contains the following information:
- Command syntax for operator and system administrator procedures
- LPS defaults
- LPS resources
- Command summaries
- Communication and graphics on the LPS
- Command files

Xerox DocuPrint 180 LPS Forms Creation Guide

This reference contains the following information:

- Basic concepts for creating forms
- Coding and compiling for LPS Forms Description Language
- Sample form setup command sets
- Tips for successful forms

Xerox DocuPrint 180 LPS Operator Command Summary Card

This reference provides a quick reference of commonly used operator commands.

Xerox DocuPrint 180 LPS Message Guide

This reference contains the following information:

- OSS and other messages
- Meaning and recovery procedures

Xerox DocuPrint 180 LPS Installation Planning Guide

This reference contains the following information:

- Pre-installation site preparation
- Supplies and font ordering
- Documentation and training
- Post-installation requirements

Xerox DocuPrint 180 LPS PC UI Reference

This reference contains the following information:

- PC UI procedures
- Hierarchy of PC UI windows

Xerox DocuPrint 180 LPS Product Reference

This reference contains the following information:

- Product overview
- Hardware and software
- LPS connections
- User considerations
- LPS comparisons

Xerox LPS Tape Formats Manual

This reference contains the following information:

- Characteristics of different formats
- File organization
- Data formats
- Carriage control conventions

Xerox DocuPrint 180 LPS Standard Font Library Font User Guide

This reference contains the following information:

- Font naming conventions
- Listing of standard fonts
- Data Sheets
- Glossary to typography terminology.

Helpful Facts About Paper   This reference contains the following information:

- Selection and guidelines

- Storage

- Specifications for different printers

Responsibilities

A successful installation depends upon both Xerox or Xerox Limited and you. The sections that follow describe your site responsibilities and the responsibilities Xerox or Xerox Limited has to you. You will see that some areas overlap and become joint responsibilities.

Note: Xerox Limited is the European affiliate of the Xerox Corporation, which serves the United Kingdom, all European countries, and Australia.

Xerox or Xerox Limited responsibilities

Xerox or Xerox Limited responsibilities prior to, during, and after installation of the LPS are to:

Site selection   Site selection assistance is available to:

- Assist in site selection

- Inspect and approve the site.

Installation   Installation assistance is available to:

- Schedule the delivery of your laser printing system

- Monitor installation activities

- Assist you in ordering supplies and fonts

- Install the LPS.

Training   Training assistance is available to you to:

- Provide standard operator training

- Assist in determining system and training needs

- Assist in scheduling system and user training.

Support   Provides assistance and information, as needed, in areas of:

- Software capabilities

- Operations

- Applications and forms development

- Interface capabilities.

Service   Service assistance is available to:

- Review preventative maintenance schedules and service call procedures

- Provide ongoing system maintenance

- Resolve hardware and software problems.

Customer responsibilities

Your responsibilities prior to, during, and after installation of the LPS are to:

- Identify the primary interface with Xerox.

- Select and prepare the site for LPS installation (including adequate power and air conditioning).

- Obtain the necessary interfaces, cables, transceivers, phone lines, and so forth, if connecting to other equipment.

- Plan for and schedule installation activities.

- Monitor progress for a successful installation.

- Order and maintain supplies.

- Work with your Xerox or Xerox Limited representatives to determine requirements for initial applications.

- Work with representatives from the company you have purchased any additional equipment from (such as finishers).

Note: Be sure that your system specialists are familiar with the operating system software specific to your LPS; operating system software is not the same for all laser printing systems. If your system specialists are familiar with one of these operating systems and you are converting to or adding another, they should learn the differences.

- Select operators and system specialists, and schedule their training.

Note: In a mixed environment where there are a variety of printing systems, discuss print quality differences with your Xerox or Xerox Limited service representative.

Training   Operator training is conducted at your site shortly after the LPS has been installed. Operators receive hands-on instruction on printing jobs, maintenance, and problem solving.

Xerox offers a number of workshops and self-paced courses that teach advanced skills, including Advanced Customer Training (ACT). Contact your sales representative for additional information about these courses, or call Xerox Customer Education at 1-800-445-5554. (Refer to the "Documentation and training" section of the, "Preinstallation" chapter.)

Personnel   One or more people need to be assigned the following routine LPS tasks:

- Preventative maintenance and cleaning

- Meter reading and reporting

- Placing service calls for hardware problems and applications-related issues

- Identifying and implementing new applications

- Ordering additional fonts

- Ordering supplies.

Refer to the "Postinstallation" chapter in this guide for information on these activities.

Installation planning checklist

To aid you in LPS installation planning, an installation planning checklist is provided. Refer to table 1, which summarizes the tasks that must be performed and when in the installation process they should occur.

Use the checklist as a guide for ensuring successful installation of the LPS. Should you have any questions, please contact your sales representative or local Xerox or Xerox Limited office.

- The Week column shows the approximate time an activity should occur. The weeks shown relate to the installation date. For example, -4 is four weeks prior to installation.

- The Reference column lists the chapter in this manual which provides detailed information for that activity.

Note: The time frames are intended to serve only as guidelines. Consult your suppliers to determine exact delivery lead times.

Table 2.   **Installation planning checklist**

Week	Activity	Reference	Responsibility	Date completed
-5	Sign up for Xerox Documentation and Software Services	XDSS order form	Customer	_____
-4	Order additional manuals, if needed	p. iii, chapter 5	Customer	_____
	Schedule LPS delivery		Xerox	_____
	Identify system specialist and schedule training	Introduction	Customer/Xerox	_____
	Select site	Chapter 3	Customer/Xerox	_____
	Prepare site	Chapter 3	Customer	_____
	— Space requirements			_____
	— Electrical requirements			_____
	— Cabling			_____
	— Environment requirements (temperature, humidity, heat dissipation)			_____
-3	Call the Xerox Font Center to request LPS font samples	Chapter 3,5	Customer	_____
	Order custom fonts and logos	Chapter 5	Customer	_____
-2	Train user system specialists		Xerox	_____
	Schedule operator training	Chapter 3	Customer/Xerox	_____
	Order licensed fonts and signatures	Chapter 3	Customer	_____
	Order consumable supplies	Chapter 3	Customer	_____
	Minimum requirements needed for installation:			
	— Paper (2 cartons)			
	— Developer (1 carton)	P/N 5R161		
	— Fuser agent (2 cartons)	P/N 8R2955		
	— Dry ink (1 carton)	P/N 6R206		
	NOTE: These are the minimum supplies necessary for installation. You should have at least one more carton of each item on hand at all times.			
-1	Inspect and approve site		Xerox	_____

Table 2.   **Installation planning checklist** (continued)

Week	Activity	Reference	Responsibility	Date completed
Installation	Ensure that needed supplies are available	Chapter 5	Customer	_____
	Install LPS	Chapter 4	Xerox	_____
	Have system specialist on hand		Customer	_____
	Install primary application		Customer/Xerox	_____
	Have test jobs available, if desired		Customer	_____
	Have operators available for training		Customer	_____
	Train operators		Xerox	_____
	Check documentation list		Customer	_____
	Review preventative maintenance schedules and service call procedures		Xerox	_____
Post-installation	Provide ongoing system maintenance	Chapter 5	Customer/Xerox	_____
	Establish supplies maintenance procedures		Customer	_____
	Identify additional applications	Chapter 5	Customer/Xerox	_____

1.   LPS overview

This chapter provides a brief overview of the Xerox DocuPrint 180
Laser Printing System (LPS).

The DocuPrint 180 LPS

The Xerox DocuPrint 180 Laser Printing System is a versatile, high-
performance laser printing system that processes and prints data
from a variety of sources. It enables host mainframe computers and
network-connected devices (such as workstations and graphic
scanners) to produce publications and other documents,
incorporating graphics, forms, logos, signatures, and a variety of
fonts.

The computer processing and memory features built into the
DocuPrint 180 LPS eliminate the need for a host computer to store
and manage forms, fonts, logos, and other document resources.

Data is printed at a rate of up to 180 pages per minute, or up to 206
pages per minute with optional 7 by 10 input enablement kit. A variety
of fonts ranging in size from 3 points to 36 points, in all four
orientations (portrait, inverse portrait, landscape, inverse landscape),
and many publishing typefaces are available to meet your printing
requirements. In addition to the standard set of fonts that is delivered
with the LPS, special or customized fonts can be developed by the
Xerox Font Center.

Figure 1-1 shows the standard DocuPrint 180 configuration. For
information on the various DocuPrint 180 LPS printer configuration
options, refer to the "Printer configurations" section in the "LPS
options" chapter.

Figure 1-1.   **DocuPrint 180 LPS configuration**

1   System controller
2   Printer
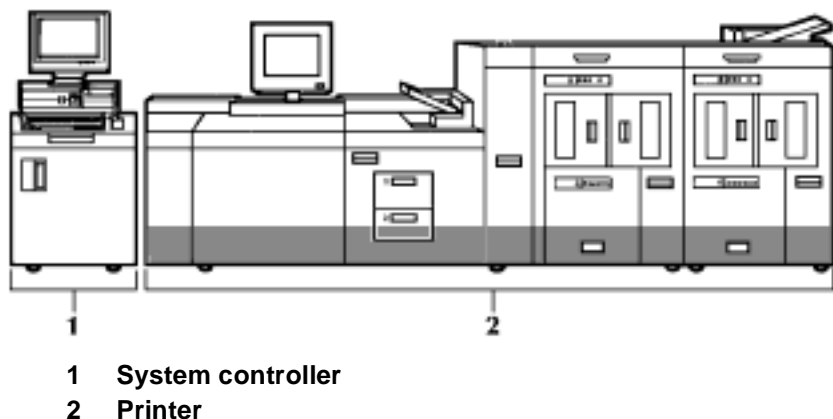
Base components

This section briefly describes the standard features of the DocuPrint 180 LPS system controller and printer. Optional LPS features are described in the "LPS options." chapter.

The LPS consists of two base components:

- System controller
- Printer

System controller components

The system controller is the part of the DocuPrint 180 LPS that allows you to interact with the printer. Use the personal computer user interface (PC UI) to enter commands and select options which control the operation of the printer. The parts of the system controller are shown in figure 1-2.

Figure 1-2. **DocuPrint 180 system controller with PC UI**
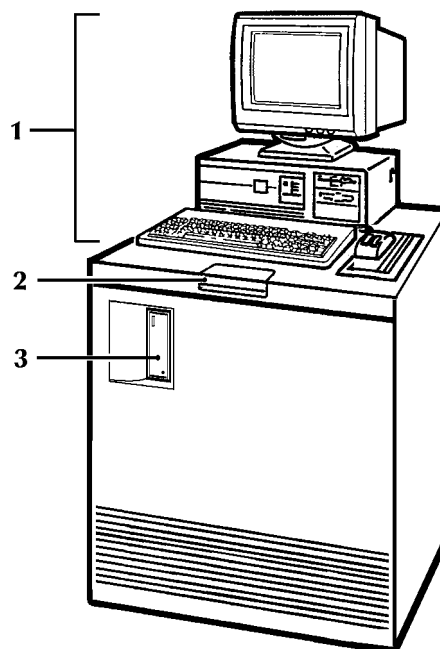
1   PC UI (or terminal)
2   Operator control panel
3   1/4 inch cartridge tape drive.

A standard 4W2 System Controller will be delivered to your site. Three disk drive kits and a 256 mega-byte EGIFM PWB will be part of the delivery. These parts will be installed by your service representative.

PC UI   The PC User Interface (PC UI) is a Pentium-based processor PC with at least 100-megabyte hard disk, mouse pointing device, 3.5-inch floppy disk drive, multinational keyboard, and 14-inch color monitor. You issue commands and control printer functions primarily through color windows and icons displayed on the PC UI monitor.

Figure 1-3.   **PC UI**
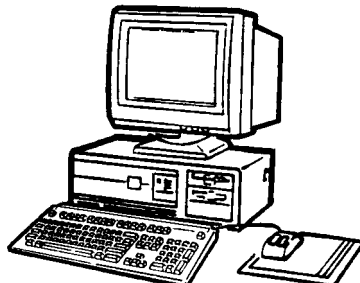
Note: Several PC UI types are available. Your PC UI may look different from the one illustrated in figure 1-3.

1/4-inch cartridge tape drive   The 1/4-inch cartridge tape drive, also called the QIC, is located in the front panel of the system controller. It is used for system generation (sysgen), disk save and restore (DSR), and file loading/backup for online systems. The 1/4-inch cartridge tape drive is not an input source for print jobs.

System disk   Three 1.2 GB formatted system disks are provided with the DocuPrint 180 system controller as a standard feature. The system disks are located inside the system controller and store the LPS operating system software, fonts, forms, and general user files.

Operator control panel   The system controller is powered on or off, booted, and switched
between local and remote operation using the buttons on this panel,
as shown in figure 1-4.

Figure 1-4.   **Operator control panel**
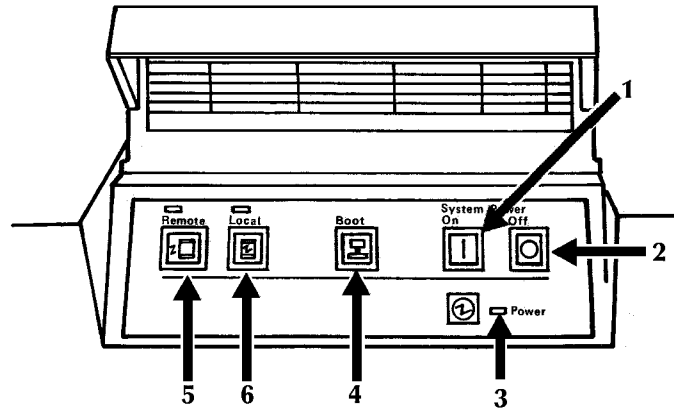
1   **Power On switch**
2   **Power Off Switch**
3   **Power On indicator**
4   **Boot switch**
5   **Remote switch and indicator**
6   **Local switch and indicator**

DocuPrint 180 printer components

The printer is the part of the DocuPrint 180 LPS that processes the electronic data and images received from the system controller and produces the printed report. The parts of the printer are shown in figure 1-5.

Figure 1-5.   **DocuPrint 180 printer**
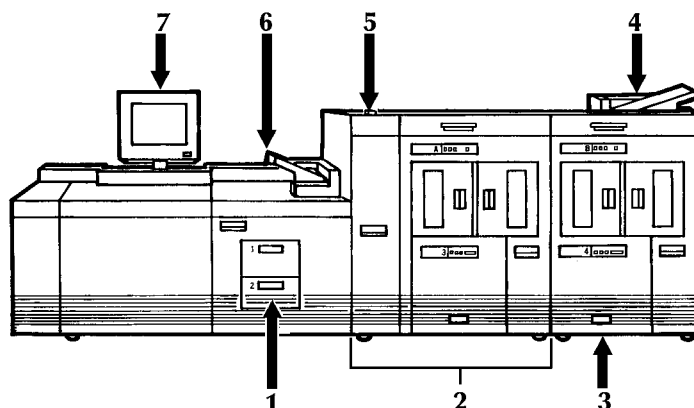
1   **Processor feeder trays**
2   **Inverter feeder/stacker module**
3   **Feeder/stacker module**
4   **Purge tray**
5   **Attention light**
6   **Sample tray**
7   **Printer control console**

Processor feeder trays   Two processor feeder trays are located in the main part of the printer:

- The main tray (tray 1) holds up to 1100 sheets of 20 pound/75 gsm (grams per square meter) paper.

- The auxiliary tray (tray 2) holds up to 600 sheets of 20 pound/75 gsm paper.

Inverter   The inverter is part of the inverter feeder/stacker module. It allows for proper collation of the print job. It also directs printed output to the sample tray, when required.

High-capacity feeder   There is a high-capacity feeder (HCF) tray located in the bottom half of each feeder/stacker module.

Each HCF tray can hold up to 2600 sheets of 20 pound/75 gsm paper.

High-capacity stacker   There is a high-capacity stacker (HCS) bin located in the top half of each feeder/stacker module.

Each HCS bin can hold up to 2500 sheets of 20 pound/75 gsm paper. Paper can be stacked directly onto the HCS pallet or into a specially-designed container. Stacking capacity is approximately 100 to 150 sheets less when stacking into a container.

Sample tray   The sample tray located on top of the printer holds up to 100 sheets of paper. Output such as transparencies and sample prints of fonts or forms are sent to the sample tray.

Purge tray   The purge tray is located on top of the feeder/stacker module. Aborted sheets (for example, damaged sheets or sheets cleared after a paper jam) are sent to this tray. The purge tray can hold up to 100 sheets of paper.

Printer control console   The printer control console is the color monitor located on top of the printer. It contains message areas and graphic displays that alert you to paper jams and other fault conditions, such as low toner. The printer control console also contains buttons which allow you to control certain functions of the printer (for example, continuing an interrupted job) without returning to the PC UI or terminal.

Attention light   An attention light is mounted on top of the inverter module. The attention light signals when the printer requires operator attention.

Attention alarm   The attention alarm sounds when the printer requires operator attention. The alarm may be disabled by the operator.

2.   LPS options

There are many options available for your Xerox DocuPrint 180
Laser Printing System (LPS) which offer a wide range of enhanced
printing and communications capabilities. This chapter provides a
brief overview of the options for the following:

- System controller options

- Printer options

- Printer configurations

- Graphics

- Host resident software packages.

For detailed information regarding these options, contact your
customer support representative.

System controller options

The following interface and system disk options are available for your
Xerox DocuPrint 180 Laser Printing System (LPS) system controller.

Interface options

Your laser printing system may be configured for either the online
interface, the offline interface, or both (switchable).

Online interface

The online (channel-attached) interface receives input directly from
any environment that supports the IBM 3211 and 4245 host systems.

Offline interfaces

The offline interface is an excellent alternative or addition to an online
operation. It supports:

- 9-track magnetic tapes

- 18-track cartridge tapes

- 36-track cartridge tapes

The 9-track magnetic and 18/36-track cartridge tape drives are housed in a peripheral cabinet, as shown in figure 2-1.

Figure 2-1. **Peripheral cabinet with tape drives**
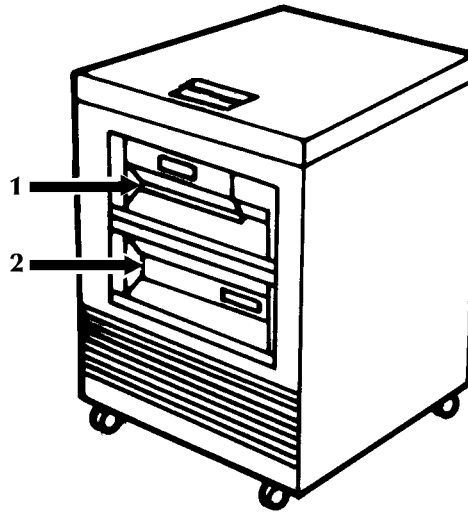
1   9-track magnetic tape drive
2   18/36-track cartridge tape drive

9-track magnetic tape drive   The 9-track (1,600 and 6,250 bpi) magnetic tape drive is an alternative or additional offline capability to the 18/36-track cartridge tape drive. It is a source for print data such as forms, graphics, and variable data. System software and diagnostics can also be input from the 9-track magnetic tape drive. This tape drive can write data to tape for system backup or for printing at a later time.

18/36-track cartridge tape drive   Like the 9-track magnetic tape drive, the front-loading 18/36-track cartridge tape drive is a source for inputting forms, graphics, variable data, and other files to the DocuPrint 180 LPS system controller for printing or storage. The 18/36-track cartridge tape drive reads 18 and 36 tracks and writes only 36 track IBM-compatible and ANSI-compatible 0.5 inch tape in the 3490E data format.

HIP-accessed interfaces

The Host Interface Processor (HIP) software supports communication in the following environments:

- Xerox Print Access Facility (XPAF)
- DocuPrintServer (formerly XPSM), (DPS).

XPAF   Xerox Print Access Facility (XPAF) is a host-resident product that retrieves data streams from JES and prepares them for printing on a Xerox laser printer.

DocuPrintServer (formerly XPSM)   Xerox DocuPrintServer (DPS) is a printing solution for production printing environments. It consists of both client and server sites.

Expanded system disk memory

The DocuPrint 180 LPS base system has three SCSI 1.2 GB (formatted) disk drives for the system disk with optional expansion of up to four SCSI 1.2 GB (formatted) disk drives.

Enhanced graphics ink and font memory (EGIFM)

The DocuPrint 180 LPS has a standard 256 Mbits of font/graphic memory.

Floppy disk drive

The floppy disk drive is located in the system controller, to the right of the 1/4 inch cartridge tape drive. It allows you to transfer files between a floppy disk and the system controller's hard disk. Therefore, it provides an alternative way for backing up and restoring system controller rigid disk files.

Printer options

The DocuPrint 180 LPS is available with the following options:

- Feeder Stacker (middle module)
- Bypass Transport
- Input Enablement device
- 7 by 10 Enablement kit

Feeder stacker

The DocuPrint 180 LPS has an Inverter Feeder Stacker, and up to three optional feeder stackers.

Refer to the section "Printer components" in the "LPS overview" chapter for information on the feeder stackers.

Bypass transport

The ability to add finishers to your DocuPrint 180 LPS is made possible by the Bypass Transport option. Finishers increase your production capabilities by providing a wide range of finishing choices, such as stitching, shrink wrapping, and so on.

Connected to the last feeder/stacker, the bypass transport allows finishers to interface directly with your DocuPrint 180 LPS. The bypass transport meets the Xerox Document Feeding and Finishing Architecture (DFA) Level 1 specifications.

Figure 2-2 shows the DocuPrint 180 LPS with the optional bypass transport and the paper output and input locations.

Figure 2-2. **DocuPrint 180 LPS with optional bypass transport and input enablement device**
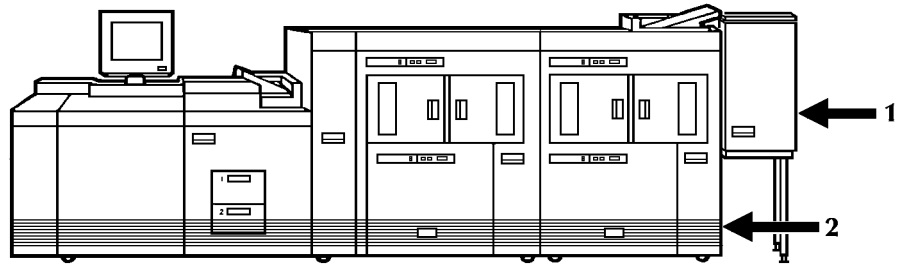
1 **Bypass transport paper output location**
2 **Input enablement device paper input location**

Input enablement device

Adding feeders to your DocuPrint 180 LPS is made possible by the input enablement device option. Located on the right side of the feeder/stacker, it allows your DocuPrint 180 LPS to support and interface directly with feeders. Figure 2-2 points to the location of the input enablement device.

7X10 enablement kit

The 7 by 10 input enablement kit allows your DocuPrint 180 to print on 7 by 10 inch paper size.

Printer Configurations

The DocuPrint 180 LPS is available in the following five configurations:

1. Printer + Inverter Feeder Stacker + Feeder Stacker

2. Printer + Inverter Feeder Stacker + Feeder Stacker + Bypass Transport

3. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker

4. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Bypass Transport

5. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Feeder Stacker.

Each of these configurations can have the following printer options:

- 7X10 enablement kit

- Input enablement device.

Refer to the "Printer options" section earlier in this chapter for information about each of the options above.

Figures 2-3 through 2-8 illustrate each of the five printer configurations available.

Figure 2-3.   **Printer + Inverter Feeder Stacker + Feeder Stacker**
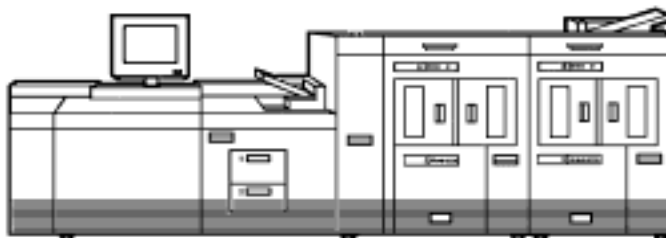
Figure 2-4.   **Printer + Inverter Feeder Stacker + Feeder Stacker + Bypass Transport**
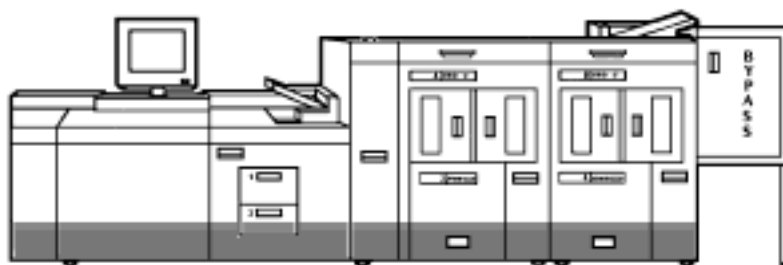
Figure 2-5. **Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker**
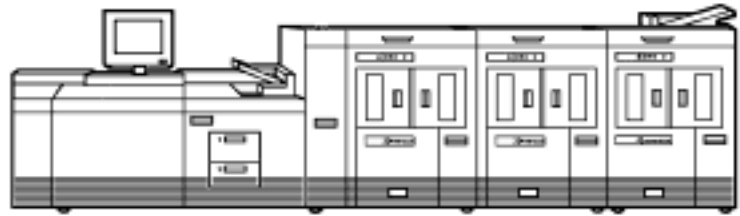
Figure 2-6. **Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Bypass Transport**

Figure 2-7. **Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Feeder Stacker**

Graphics

The following graphic option is available on the DocuPrint 180 LPS:

• Graphics scanning

Note: The Enhanced Advanced Image Processor (EAIPX) is a base configuration on the DocuPrint 180 LPS.

Graphics scanning

Scanner options allow you to take advantage of the LPS's high resolution printing capabilities by transmitting and receiving graphic images from a variety of sources. The scanner converts line drawings and other graphic images into electronic form for printing on the LPS, storing, or transmitting to another device.

Xerox 7650 Pro Imager

The Xerox 7650 Pro Imager is a tabletop image digitizer that enables numerous graphics scanning and digital imager processing functions. The Xerox Publishing Illustrator's Workstation (XPIW) enables your LPS to receive and print scanned graphic data (both line art and continuous tone images) from the 7650 Pro Imager.

Host Resident software packages

The DocuPrint 180 LPS is available with the following software packages:

- Xerox Pen Plotter Interface
- Host forms Description Language
- Xerox Printer Access Facility.

Xerox Pen Plotter Interface/XDGI

Xerox Pen Plotter Interface (XPPI)/XDGI interfaces with your host computer applications graphics software and converts vector information to raster information.

Host Forms Description Language

Host Forms Description Language (HFDL) enables forms to be created and modified on the host, merged with other data, and printed on the LPS. HFDL eliminates the need for preprinted forms and saves time in forms creation by using English-like commands.

Xerox Printer Access Facility

Xerox Printer Access Facility (XPAF) enhances the capabilities and use of your LPS in an IBM MVS/XA environment. For example, it allows you to change printer destinations without restructuring the data stream. XPAF accepts numerous types of data streams, transforms and conditions them, and then sends them to the selected printer.

3. Preinstallation

This chapter assists you in preparing for the installation of your DocuPrint 180 Laser Printing System (LPS). Consult your customer support representative for the requirements of any optional equipment or communications devices that may have been ordered. For example, the peripheral cabinet and bypass transport options have space requirements. Refer to the "LPS options" chapter of this guide for further information.

Keep in mind that preparing for your LPS installation is a responsibility shared by both your site and your Xerox or Xerox Limited representatives. Your representatives are available to discuss installation issues and to assist you in completing the site installation responsibilities as follows:

- LPS space and delivery requirements
- Environmental and electrical requirements
- Cabling requirements
- Supply requirements.

If you have purchased additional equipment for use with your DocuPrint 180 LPS, such as finishers or feeders, from a company other than Xerox, it is important to remember to work with the representatives of the company when planning the installation. Space planning, electrical and environmental requirements, and so forth, are important considerations to remember.

LPS space and delivery requirements

Dimensions and weights of the DocuPrint 180 LPS system controller and printer are listed in this chapter, along with diagrams to help you visualize the sizes and total space requirements.

Note: There must be a 78-inch/1981-mm vertical clearance throughout the entire area.

For information on sharing space and other space planning considerations, refer to the "Space planning guidelines" section of this chapter. Space planning templates, a space planning template transparency, and a grid are also provided at the end of this chapter to assist you in planning the placement of your DocuPrint 180 LPS. Contact your service representative if you have questions not specifically addressed in this guide.

The following diagrams represent top views of the components, surrounded by the required minimum clearance on all sides.

System controller

Dimensions of the DocuPrint 180 LPS system controller with and without the optional peripheral cabinet.

System controller

The dimensions of the system controller are:

Width: 24 inches/610 mm

Depth: 28 inches/712 mm

Height: 38.2 inches/970 mm

Weight: 300 pounds/136 kg (fully loaded)

Total space requirement: 96 inches/2438 mm by 100 inches/2540 mm

Figure 3-1 shows the dimensions and space requirements for the system controller.

Figure 3-1. **DocuPrint 180 system controller dimensions and space requirements (top view)**
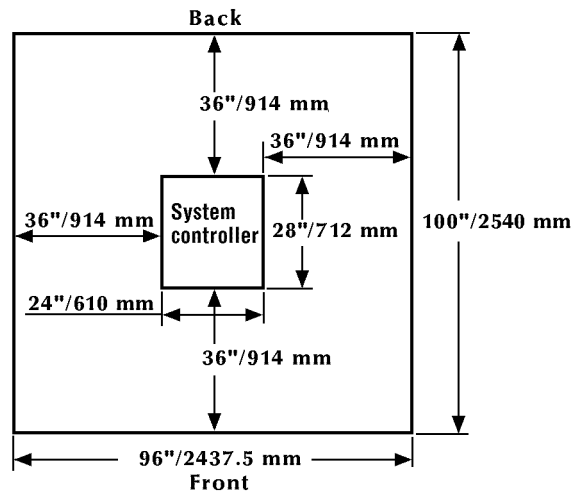
System controller with peripheral cabinet

The optional peripheral cabinet has the same height, depth, and width requirements as the system controller cabinet. Figure 3-2 shows the minimum space requirements for the system controller with the peripheral cabinet. It is not necessary to position the cabinets directly adjacent to one another. The cabinets can be separated by up to the length of the data cable connecting them.

The weight of the peripheral cabinet fully loaded with the 9-track and 18/36-track tape drives is 316 pounds/144 kg.

Note: The 1/4-inch cartridge tape is housed within the system controller and has no unique space requirements.

Figure 3-2 shows the dimensions of the system controller with the peripheral cabinet.

Figure 3-2. **DocuPrint 180 system controller with peripheral cabinet dimensions and space requirements (top view)**
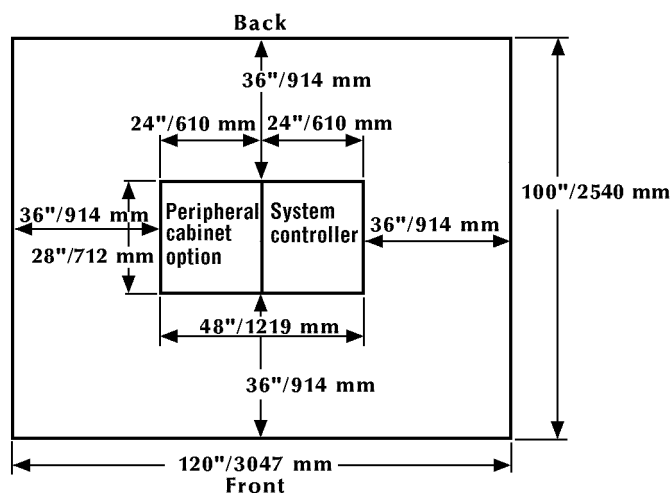
Printer

This section lists and illustrates the dimensions of the following printer configurations:

1. Printer + Inverter Feeder Stacker + Feeder Stacker

2. Printer + Inverter Feeder Stacker + Feeder Stacker + Bypass Transport

3. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker

4. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Bypass Transport

5. Printer + Inverter Feeder Stacker + Feeder Stacker + Feeder Stacker + Feeder Stacker.

Dimensions for the printer components   Table 3-1 shows the dimensions for the printer components

Table 3-1. **Printer components dimensions.**

Component	Width	Depth	Height	Weight
Printer Module including Printer Control Console	77.3 in./1,963 mm	35.9 in/911 mm	55 in/1,037 mm	1,434 lbs/650.9 kgm
High-Capacity Inverter Feeder/Stacker	41.7 in/1,060 mm	28.3 in/719 mm	57.7 in/1,466 mm	663 lbs/301 kgm
High-Capacity Feeder/ Stacker Middle Module (optional)	32.4 in/822 mm	28.3 in/719 mm	57.7 in/1,466 mm	521 lbs/237 kgm
High-Capacity Feeder/ Stacker	32.4 in/822 mm	28.3 in/719 mm	59.6 in/1,513 mm	521 lbs/237 kgm
Bypass Transport (optional)	20.4 in/518 mm	28.3 in/719 mm	56.1 in/1,425 mm	176 lbs/80 kgm

Printer with an inverter feeder/stacker and a feeder/stacker

The dimensions and the space requirements of the printer with the inverter feeder/stacker and a feeder/stacker are shown in figure 3-3.

Figure 3-3. **DocuPrint 180 printer dimensions with inverter feeder/ stacker and feeder/stacker modules (top view)**
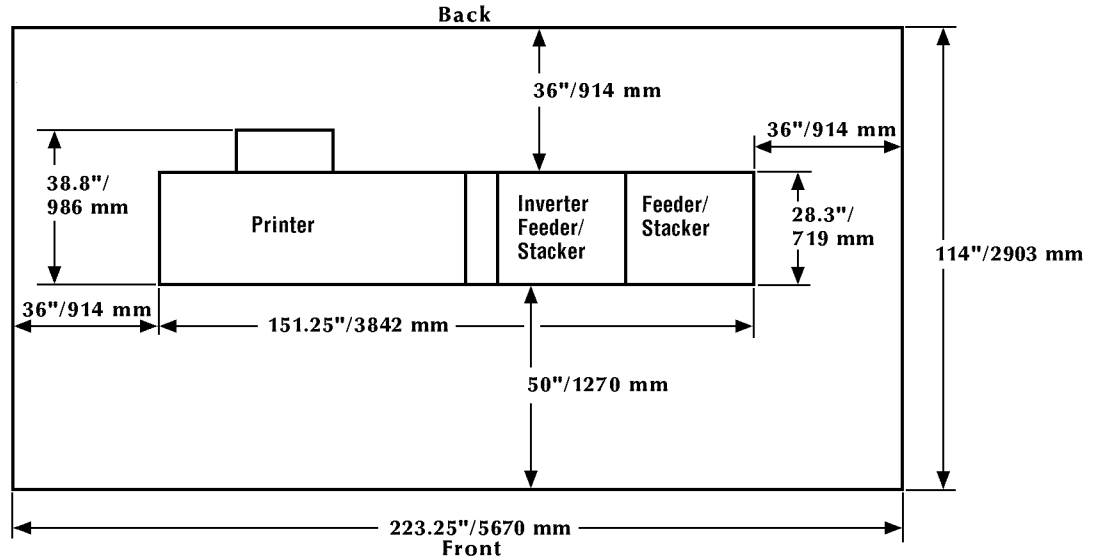
Printer with an inverter feeder/stacker, feeder/stacker, and a bypass transport

The dimensions and the space requirements of the printer with the inverter feeder/stacker, feeder/stacker and a bypass transport are shown in figure 3-4.

Figure 3-4. **DocuPrint 180 printer dimensions with inverter feeder/ stacker, feeder/stacker, and bypass transport modules (top view)**
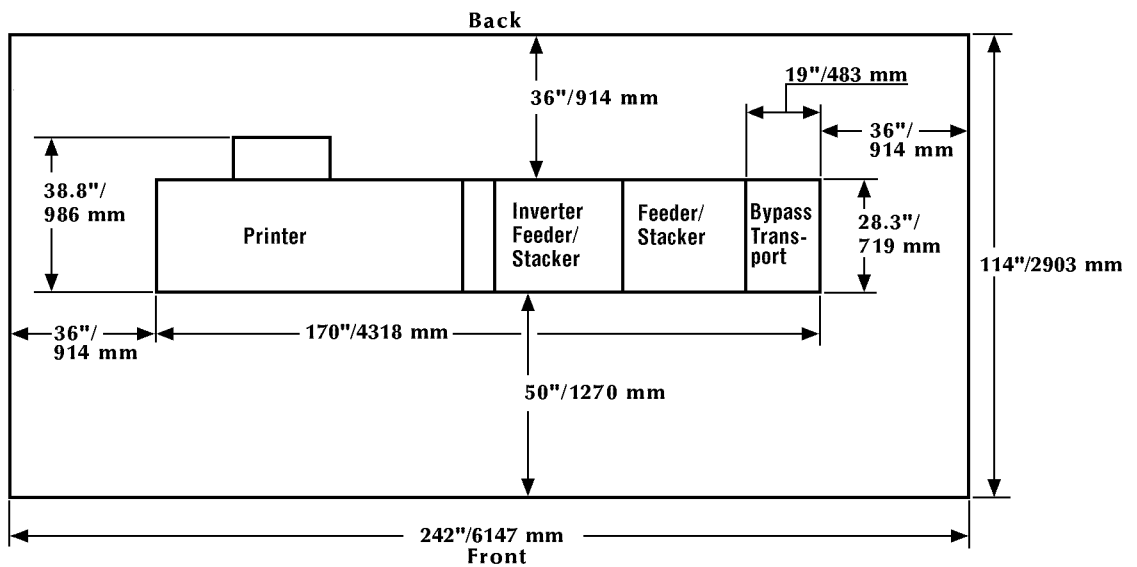
Printer with an inverter feeder/stacker and two feeder stackers

The dimensions and the space requirements of the printer with the inverter feeder/stacker and two feeder stackers are shown in figure 3-5.

Figure 3-5. **DocuPrint 180 printer dimensions with inverter feeder/ stacker and two feeder/stacker modules (top view)**
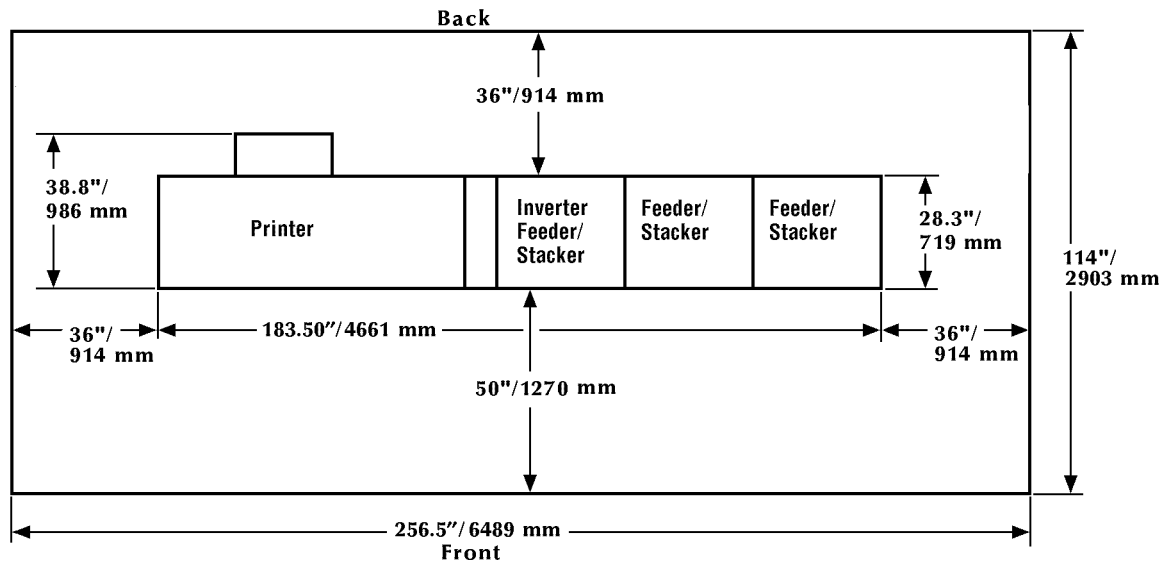
Printer with an inverter feeder/stacker, two feeder stackers and a bypass transport

The dimensions and the space requirements of the printer with the inverter feeder/stacker, two feeder stackers and the bypass transport are shown in figure 3-6.

Figure 3-6. **DocuPrint 180 printer dimensions with inverter feeder/ stacker and two feeder/stacker modules and the bypass transport module (top view)**
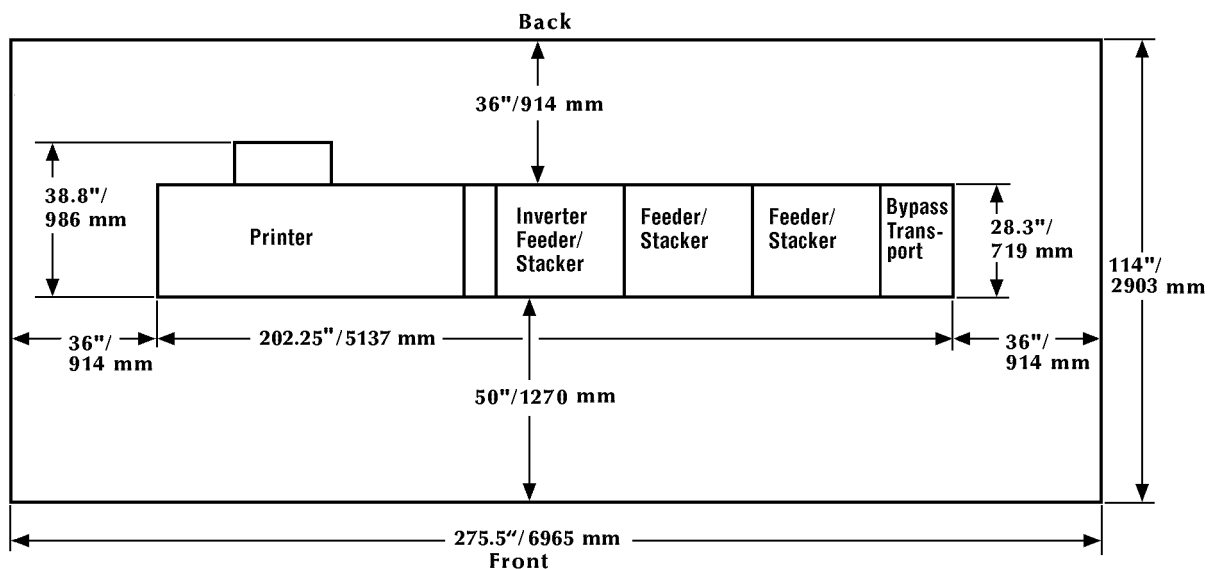
Printer with an inverter feeder/stacker and three feeder stackers

The dimensions and the space requirements of the printer with the inverter feeder/stacker and three feeder/stackers are shown in figure 3-7.

Figure 3-7. **DocuPrint 180 printer dimensions with inverter feeder/ stacker and three feeder/stacker modules (top view)**
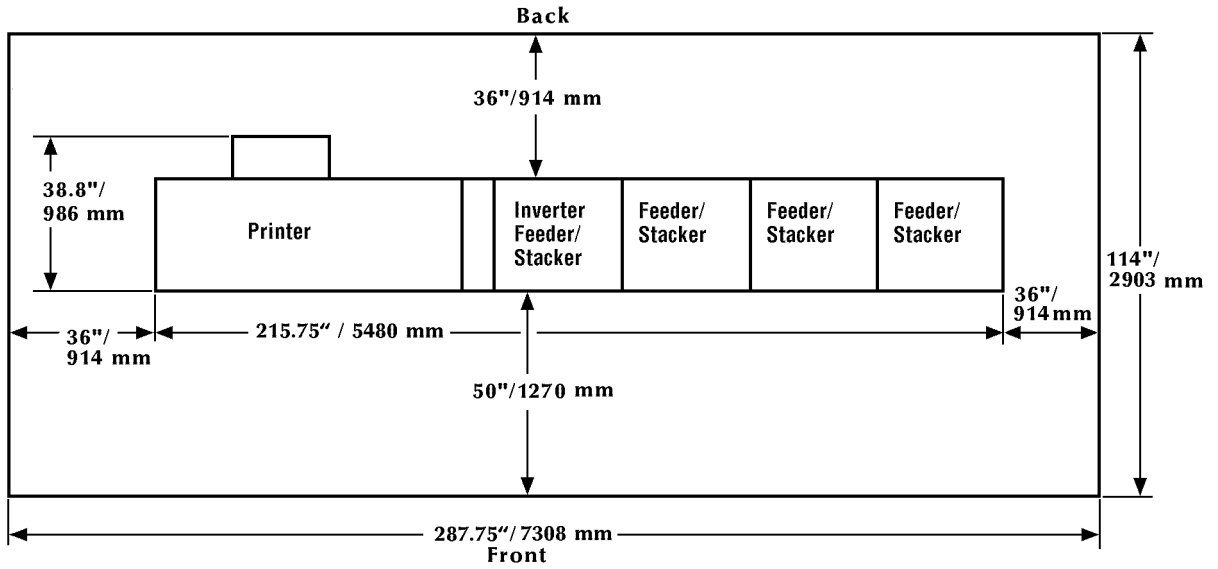
Space planning guidelines

This section describes the installations space requirements for the DocuPrint 180 LPS that include the following:

- Clearance space

- Cable lengths

- Cable locations

- Efficiency of use

- Delivery access requirements.

Clearance space requirements

Your DocuPrint 180 LPS must be installed in a fixed location and have:

- 36 inches/914 mm of clearance on all sides of each component, including any finishers or feeders you have attached to your DocuPrint 180 LPS. 50 inches/1270 mm clearance is required at the front of the printer

- 78 inches/1981 mm of vertical clearance throughout the entire area

- 24 inches/610 mm of exclusive operator area in front of each component.

Shared space

It is always best to provide the full amount of clearance space around your LPS. It is sometimes necessary, however, to have shared space between components, such as between the printer and the system controller, or between the DocuPrint 180 LPS and another printing system. It is possible to share the 36-inch/914-mm clearance space around each component, but there are three rules which must always be observed:

- Space may be shared only with other Xerox equipment.

- Components may share the 36-inch/914-mm general service clearance areas, but they may not share the 24-inch/61-mm operator area in front of each component.

- There must be 78 inches/1981 mm of vertical clearance throughout the entire area.

Note: Finishers attached to your bypass transport and feeders attached to your DocuPrint 180 LPS through the input enablement device may occupy shared space with Xerox equipment. However, they must meet the Xerox DFA Level 1 specifications and be removable to allow servicing of the DocuPrint 180 LPS feeder/ stackers. Consult with your Xerox or Xerox Limited representatives to ensure all the requirements are met.

Figures 3-8 and 3-9 illustrate two possible configurations of shared space. In the first illustration, two printers are back to back. Because there is no operator area to be concerned with, the entire 36 inches of general service space may be shared.

Figure 3-8.   **Back-to-back shared service area space**
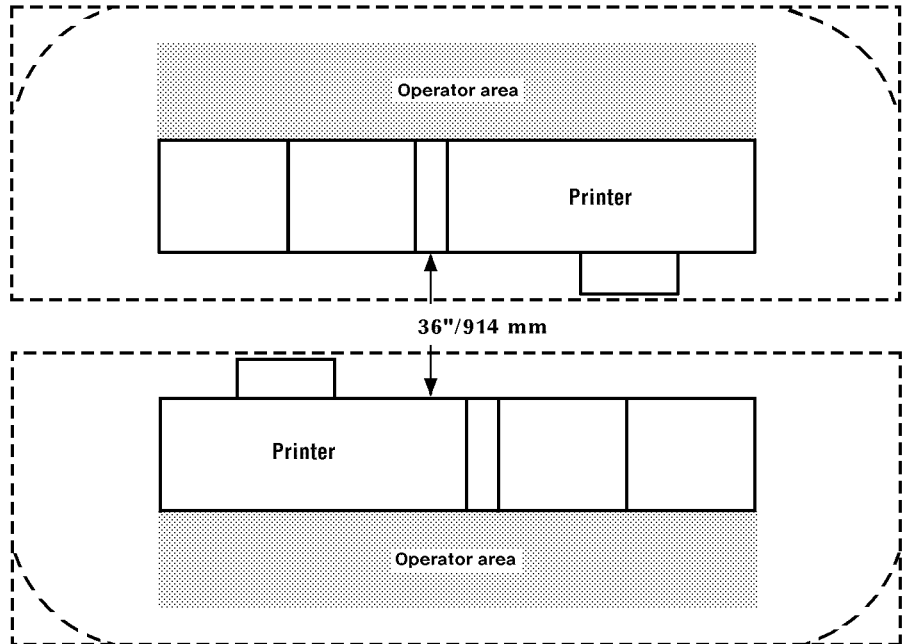
Figure 3-9 shows the minimum service space required between two DocuPrint 180 printers positioned face-to-face. The printers should be separated by at least 74 inches/1880 mm. This allows enough space for the front panels of one printer to be opened, without obstructing the 24 inch/610 mm operator area of the other printer.

Figure 3-9.   **Face-to-face shared service area space**
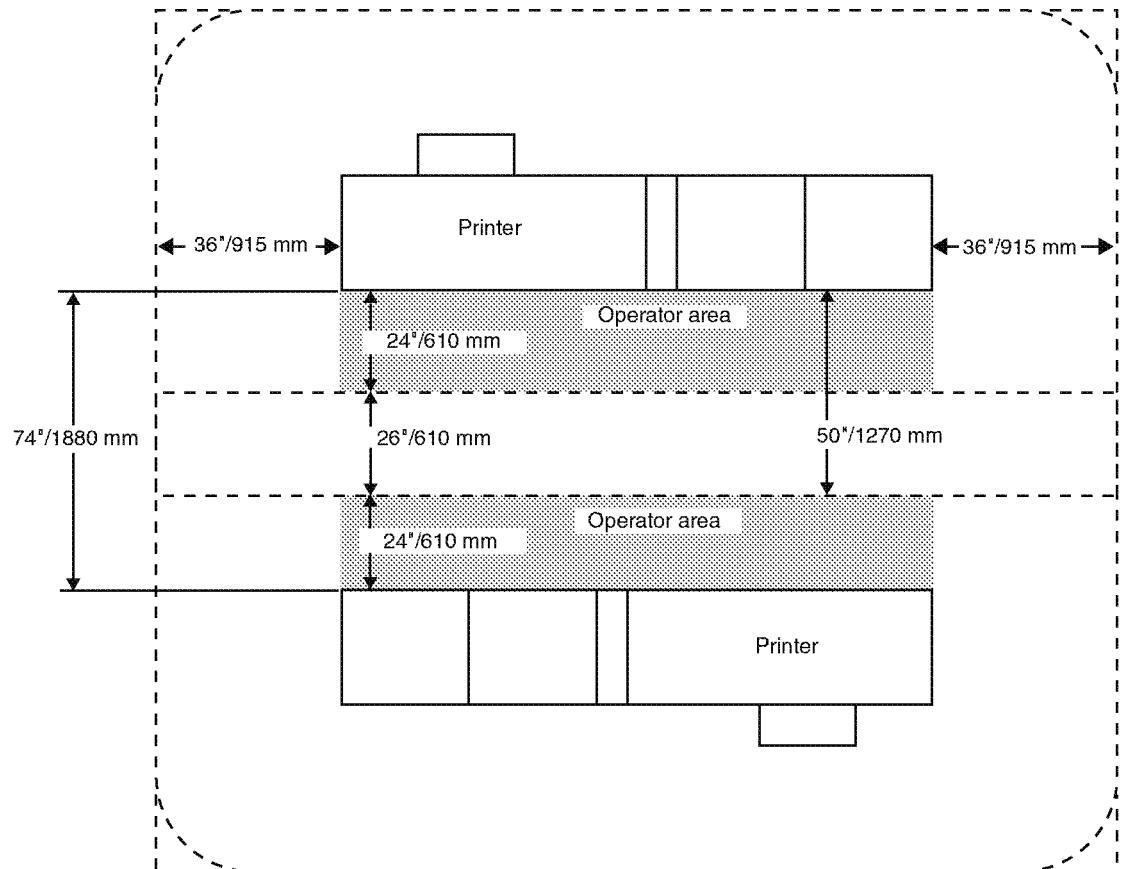
When determining your space requirements and planning for shared space between your LPS, it is important to consider all the components you plan to have installed. If you have an optional bypass transport or input enablement device on your DocuPrint 180 LPS, you need to consider the size and configuration of the finishers and feeders you purchase. A finisher can add considerable length to your LPS and possibly consume space in front of your LPS. Your feeder may require a large amount of space behind your LPS.

The 36-inch/914-mm clearance space around each component must be observed for your feeders and finishers, therefore, must be considered when planning configuration of your systems. To ensure all the space requirements are met, it is important to work with your Xerox or Xerox Limited representatives, as well as the representatives of the company from which you have purchased your finishers and feeders.

Cable lengths

Cable lengths are important considerations in planning your LPS layout, as components cannot be separated by more than the recommended cable distance. These distances affect these placements:

- The printer and the system controller

- The PC UI

- The optional peripheral cabinet.

Note: There are also distance requirements for some LPS options. Please consult with your customer support representative for these requirements.

Data cables   DocuPrint 180 LPS components can be separated up to the length of the data interface cables that connect them. Cable lengths are as follows:

1. The printer and the system controller are connected by a 50-feet/15.24-m data cable.

2. The system controller and the PC UI are connected by a 25-feet/7.62-m data cable.

3. The system controller and the optional peripheral cabinet are connected by a 10-feet/3-m data cable.

4. The PC UI and the system controller are connected by an 8-feet/2.44-m SCSI cable. If the optional Peripheral Cabinet is connected to the system, this cable is directly connected to the peripheral cabinet.

Refer to figure 3-10 for the power and data cable locations and lengths.

Figure 3-10. **Power cable and data cable length**
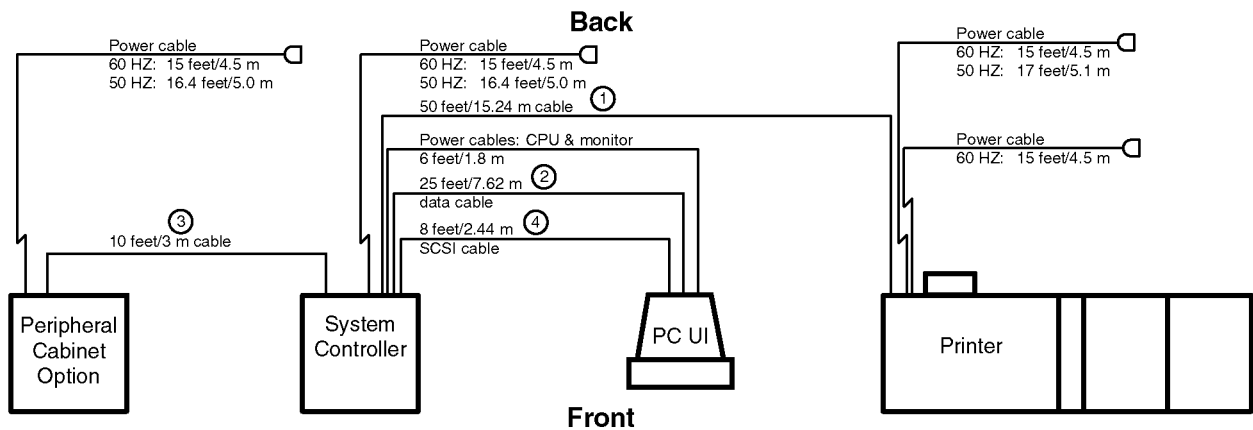
Power cables　　DocuPrint 180 LPS power cable lengths are as follows:

- System Controller: 15 feet/4.5 m

- Printer: 15 feet/4.5 m (60 Hz) Dual cables: 50A/30A

- PC UI: 6 feet/1.8 m

- Peripheral cabinet option: 15 feet/4.5 m.

Note:　　Cable length loss must be factored in if equipment is installed in a raised-floor environment. You should also consider that part of a cable's length is routed inside the equipment to connect with interior power or data receptacles.

Cable locations

To run the cables beneath the flooring effectively, you need to know where the cables enter and exit the printer and the system controller. Figure 3-11 shows those locations (marked with an X).

Figure 3-11.　**Cable enter/exit locations (top view)**
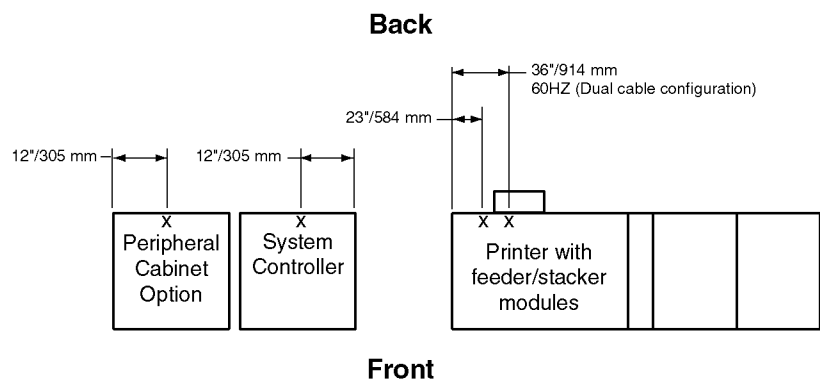
Efficiency of use

There are many possible layouts for your LPS. Placement depends on the type and amount of equipment used and the size and shape of the room used to house the equipment. Some possible configurations for LPS components include:

- Side by side

- L-shaped

- Face to face.

Equipment placement should limit operator movements as much as possible. Here are a couple of suggestions that may be helpful:

- Consider the location of supplies in relation to the placement of the equipment. For example, having paper as close to the printer as possible will save time.

- Having the system controller as close as possible to any offline interface devices saves time when monitoring tapes, jobs, and so forth.

Delivery access requirements

It is easy to overlook how the equipment is going to get from the truck to the operation site. Does it need to go up stairs? Do you have an elevator if it is to be located above the first floor? Is the elevator large enough? How wide are the hallways? The doorways? Do you have a loading dock or a specific door to which the equipment should be delivered?

All these issues need to be reviewed prior to or at the time of the site inspection that is done by your service representative.

The equipment dimensions are specified earlier in this chapter, so it is easy to know whether or not your hallways and doorways are wide enough to permit travel through them.

Turning radius   The width of the passageway when the equipment must negotiate a corner, whether into a room (or elevator) or into another passageway, must also be considered.

The DocuPrint 180 is delivered with the printer, inverter feeder/ stacker, and the feeder/stacker as three separate modules. If necessary, the printer can be separated into two pieces for easier moving. The larger of the two parts contains the xerographic system; the smaller of the parts (referred to here as the PHM) contains paper trays 1 and 2. Table 3-2 describes the turning requirements for the printer when attached to the PHM (not separated). Table 3-3 describes requirements for the printer without the PHM (separated). Do not confuse these two parts of the printer with the inverter and feeder/stacker modules, which have their own turning requirements.

Table 3-4 describes the turning requirements for the printer if it is upended for easier moving or stair-climbing. This table reflects requirements for the printer separated from the PHM.

Tables 3-5 and 3-6 describe the turning requirements for the inverter/ feeder/stacker and the feeder/stacker modules.

The relatively small dimensions of the DocuPrint 180 system controller and the optional peripheral cabinet are not likely to be of

concern during delivery. Refer to figures 3-1 and 3-2 for their dimensions.

The diagrams and the tables that follow show the minimum space needed to maneuver through a turn. To use the tables, measure the passage or doorway width into which you wish to go at its minimum width. This is Passage A. Find that number (or the next higher number) on the appropriate table and read across to the corresponding minimum value for Passage B (the passage or doorway you are turning from).

Table 3-2.   **Turning radius for printer (not separated)**

Passage or doorway A width	Minimum passage B width
29 inches/737 mm	83 inches/2108 mm
30 inches/762 mm	76 inches/1930 mm
31 inches/787 mm	73 inches/1854 mm
32 inches/813 mm	70.5 inches/1791
34 inches/864 mm	66.5 inches/1690 mm
36 inches/864 mm	63.5 inches/1613
38 inches/965 mm	61.5 inches/1562 mm
40 inches/1016 mm	58 inches/1473 mm
42 inches/1067 mm	55 inches/1397 mm

Table 3-3.   **Turning radius for printer (separated from PHM)**

Passage or doorway A width	Minimum passage B width
29 inches/737 mm	74.5 inches/1892 mm
30 inches/762 mm	64.5 inches/1638 mm
31 inches/787 mm	62 inches/1575 mm
32 inches/813 mm	59.5 inches/1511 mm
34 inches/864 mm	56 inches/1422 mm
36 inches/914 mm	53 inches/1346 mm
38 inches/965 mm	50 inches/1270 mm
40 inches/1016 mm	48 inches/1219 mm
42 inches/1067 mm	45.5 inches/1156 mm

Table 3-4.   **Turning radius for printer (separated and upended on dolly)**

Passage or doorway A width	Minimum passage B width
29 inches/737 mm	49 inches/1245 mm
30 inches/762 mm	43 inches/64.5 1092 mm
31 inches/787 mm	41 inches/1041 mm
32 inches/813 mm	37.5 inches/953 mm
34 inches/864 mm	35 inches/851 mm
36 inches/914 mm	32 inches/813 mm
38 inches/965 mm	31 inches/787 mm

Table 3-5.   **Turning radius for inverter/feeder stacker module**

Passage or doorway A width	Minimum passage B width
29 inches/737 mm	43 inches/1092 mm
30 inches/762 mm	41 inches/1041 mm
31 inches/787 mm	40 inches/1016 mm
32 inches/813 mm	38 inches/965 mm
33 inches/838 mm	37 inches/940 mm
34 inches/864 mm	36 inches/914 mm
35 inches/889 mm	35 inches/889 mm
36 inches/914 mm	34 inches/864 mm
37 inches/940 mm	33 inches/838 mm
38 inches/965 mm	32 inches/813 mm
39 inches/991 mm	31 inches/787 mm
40 inches/1016 mm	31 inches/787 mm
41 inches/1041 mm	30 inches/762 mm
42 inches/1067 mm	29 inches/737 mm
43 inches/1092 mm	29 inches/737 mm

Note: These turning figures are based on the following inverter/feeder/stacker dimensions: 28 inches/711 mm by 42 inches/1067 mm.

Table 3-6.   **Turning radius for feeder/stacker module**

Passage or doorway A width	Minimum passage B width
29 inches/737 mm	33 inches/838 mm
30 inches/762 mm	32 inches/813 mm
31 inches/787 mm	31 inches 787 mm
32 inches/813 mm	30 inches/762 mm
33 inches/838 mm	29 inches/737 mm

Note: These turning figures are based on the following feeder/stacker dimensions: 28 inches/711 mm by 32.25 inches/819 mm.

Environmental/electrical requirements

Your DocuPrint 180 LPS has important environmental and electrical requirements that must be accommodated. These requirements are summarized in the table below. For further details on electrical requirements, refer to the following voltage charts and wiring diagrams.

Table 3-7.   **DocuPrint 180 environmental requirements**

Environmental requirements		
Operating temperature	Recommended:	72° F ± 4° F / 22° C ± 2° C
	Minimum:	50° F / 10° C
	Maximum:	85° F / 29° C
Humidity	Minimum:	15%
	Maximum:	85%
	Recommended:	45% +/- 10%
Altitude	Normal:	Up to 6,000 feet/1830 m above sea level
	Maximum:	9,000 feet/2743 m above sea level
Heat dissipation		
System controller	3,754 Btu per hour	
Peripheral cabinet (fully configured)	3,195 Btu per hour	
Printer (with 2 stackers)	Standby:	4,454 Btu per hour
	Operating:	32,770 Btu per hour
	Energy Saver:	2,700 Btu per hour
Audible noise	Standby:	Continuous: 52dB (A)
		Impulse: N/A
	Operating:	Continuous: 82dB (A)
		Impulse: 82dB (A)

Table 3-8.   **DocuPrint 180 electrical requirements**

Electrical requirements	
Printer	Dual cord system (60Hz): Cord 1: 120/208 VAC(182V to 220V) (2 phase), 50 amp dedicated service Cord 2: 120/208 VAC(182V to 220V) (2 phase), 30 amp dedicated service Single cord system (50Hz): WYE: 80/400/415 VAC (3 phase, 5 wire), 20 amp dedicated service Delta: 220/230/240 VAC (3 phase, 4 wire), 30 amp dedicated service KVA rating: 7.3 (operating)
System Controller	U.S. and Canada, 60 Hz: 208/240 VAC (1 phase) or 208/220 VAC (Line 1 to Line 2); 15 amp service NEMA 6-15R or ANSI C73, 20R KVA 1.1 (operating) International, 50 Hz: 200/230 VAC (1 phase) 15 amp service; Power connector per local codes
Optional Peripheral Cabinet	U.S. and Canada, 60Hz: 208/240 VAC (1 phase) or 208/220 VAC (Line 1 to line 2); 15 amp service; NEMA6-15R or ANSI C73, 20R KVA .9 in both standby and operation International, 50 Hz: 200/230 VAC (1 phase); 15 amp service; Power connector per local codes
Optional bypass transport	The power requirements for the bypass transport module are all satisfied by the DocuPrint 180 LPS printer module.
Agency certification	UL, CSA, IEC, VDE

DocuPrint 180 LPS power receptacle requirements

All power outlets must be dedicated only to this equipment. Ensure that each power cord has a separate circuit.

You must use a power cord assembly (ELCI, RCD Inline, 220 VAC) when using a source other than the system controller to provide power to your PC UI. Contact your sales and service representative to ensure the proper assembly is ordered and installed.

Ensure that the power cord configurations match your receptacle requirements (tables 3-9 and 3-10).

50 Hz systems: Consult with your local service representative to determine the type of plug and receptacle to use with your 50 Hz printer and system controller.

Table 3-9.   **Printer power receptacle requirements**

Electrical environment	Voltage/current	Receptacle
U.S. and Canada 60 Hz	120/240/50A or 120/208/50A plus 120/208/30A or 120/240/30A	NEMA 14-50R plus NEMA 14-30R
International 50 Hz WYE	80, 400, 415/20A (WYE), 3 Phase, 5 wire	Per local code
International 50 Hz DELTA	220, 230, 240/30A (DELTA), 3 Phase, 4 wire	Per local code

Table 3-10.   **System controller and peripheral cabinet power receptacle requirements**

Electrical environment	Voltage	Current	Receptacle
U.S. and Canada 60 Hz	208/240, 1 Phase or 220/230 (L1-L2)	15A	NEMA 6-15R or ANSI C73, 20R
International 50 Hz	220/230, 1 Phase	15A	Per local code

50 Hz WYE printer outlet voltages

Note: 50 Hz WYE configurations only: Measure the WYE connection voltages at the power source. Table 3-11 shows 415 voltages. Table 3-12 shows 380 and 400 voltages.

All power outlets must be dedicated only to this equipment. Ensure that each power cord has a separate circuit.

Table 3-11. **Printer (50 Hz only) WYE connection for 415 V Service outlet**

Service outlet configuration	Measurement	Nominal	Range
5 Wire 415 V	Line 1 to Line 2	415 V RMS	374-457 V RMS
5 Wire 415 V	Line 2 to Line 3	415 V RMS	374-457 V RMS
5 Wire 415 V	Line 1 to Line 3	415 V RMS	374-457 V RMS
5 Wire 415 V	Line 1 to Neutral	240 V RMS	216-264 V RMS
5 Wire 415 V	Line 2 to Neutral	240 V RMS	216-264 V RMS
5 Wire 415 V	Line 3 to Neutral	240 V RMS	216-264 V RMS

Table 3-12. **Printer (50 Hz only) WYE connection for 380 V and 400 V**

Service outlet configuration	Measurement	Nominal	Range
5 Wire 380 V	Line 1 to Line 2	380 V RMS	342-419 V RMS
5 Wire 380 V	Line 2 to Line 3	380 V RMS	342-419 V RMS
5 Wire 380 V	Line 1 to Line 3	380 V RMS	342-419 V RMS
5 Wire 380 V	Line 1 to Neutral	220 V RMS	198-242 V RMS
5 Wire 380 V	Line 2 to Neutral	220 V RMS	198-242 V RMS
5 Wire 380 V	Line 3 to Neutral	220 V RMSI	198-242 V RMS
5 Wire 400 V	Line 1 to line 2	400 V RMS	358-438 V RMS
5 Wire 400 V	Line 2 to line 3	400 V RMS	358-438 V RMS
5 Wire 400 V	Line 1 to Line 3	400 V RMS	358-438 V RMS
5 Wire 400 V	Line 1 to Neutral	230 V RMS	207-253 V RMS
5 Wire 400 V	Line 2 to Neutral	230 V RMS	207-253 V RMS
5 Wire 400 V	Line 3 to Neutral	230 V RMS	207-253 V RMS

50 Hz DELTA printer outlet voltages

Note: All power outlets must be dedicated only to this equipment. Ensure that each power cord has a separate circuit.

50 Hz DELTA configurations only: Measure the DELTA connection voltages at the power source. The required voltages are shown in table 3-13.

Consult with your service representative to determine the type of plug and receptacle to be used for your 50 Hz printer.

Table 3-13. **Printer (50 Hz only) WYE connection for 415 V Service outlet**

Service outlet configuration	Measurement	Nominal	Range
4 Wire 220 V	Line 1 to Line 2	220 V RMS	198-242 V RMS
4 Wire 220 V	Line 2 to Line 3	220 V RMS	198-242 V RMS
4 Wire 220 V	Line 1 to Line 3	220 V RMS	198-242 V RMS
4 Wire 230 V	Line 1 to line 2	230 V RMS	207-253 V RMS
4 Wire 230 V	Line 2 to line 3	230 V RMS	207-253 V RMS
4 Wire 230 V	Line 1 to line 3	230 V RMS	207-253 V RMS
4 Wire 240 V	Line 1 to Line 2	240 V RMS	216-264 V RMS
4 Wire 240 V	Line 2 to Line 3	240 V RMS	216-264 V RMS
4 Wire 240 V	Line 1 to Line 3	240 V RMS	216-264 V RMS

50 Hz system controller and peripheral cabinet power cord configurations

Figure 3-12 shows the 50 Hz system controller power cord configuration.

Figure 3-12. **System controller and peripheral cabinet power cord 50 Hz installation 200/230 VAC, single phase, 15A**
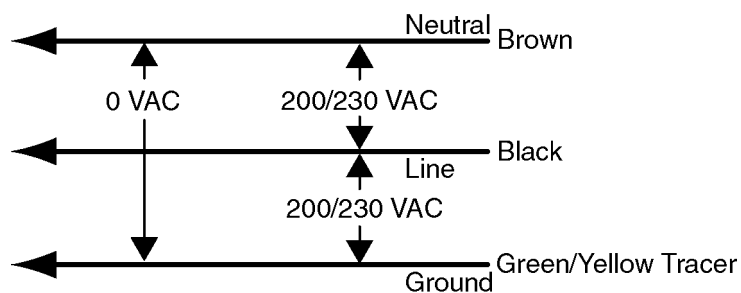
Note: The 50 Hz plug and receptacle specifications vary according to local codes.

60 Hz printer outlet voltages

Note: All power outlets must have a dedicated circuit for each system equipment piece. Ensure that each power cord has a separate circuit.

Refer to table 3-14 for the 60Hz voltage requirements at the power outlet.

Table 3-14. **Printer (60 Hz) voltage requirements at power outlet**

Service outlet configuration	Measurement	Nominal	Range
4 Wire	Line 1 to Neutral	120 V RMS	107-127 V RMS
4 Wire	Line 2 to Neutral	120 V RMS	107-127 V RMS
4 Wire	Neutral to Ground	0 V	0-10 V RMS
4 Wire	Line 1 to Line 2	208 V RMS or 240 V RMS	182-220 V RMS or 210-254 V RMS

Note: Measure the voltages at the power outlet. The required voltages are shown in table 3-14.

Figure 3-13 shows the 60 Hz printer power receptacle configurations.

Figure 3-13. **Printer power receptacle configuration (60 Hz)**
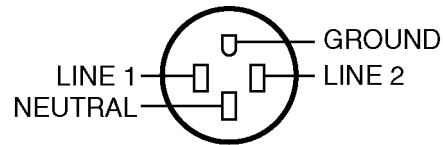
50 AMP 4 WIRE
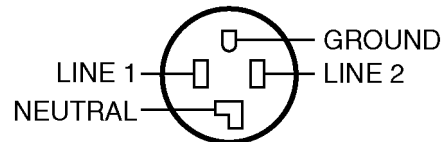
30 AMP 4 WIRE

60 Hz system power cord configurations

Figure 3-14 shows the configuration of the 60 Hz printer power cord.

Figure 3-14. **Printer power cord 60 Hz installation for 50/30 amp NEMA 14-50R/14-30R (respective)**
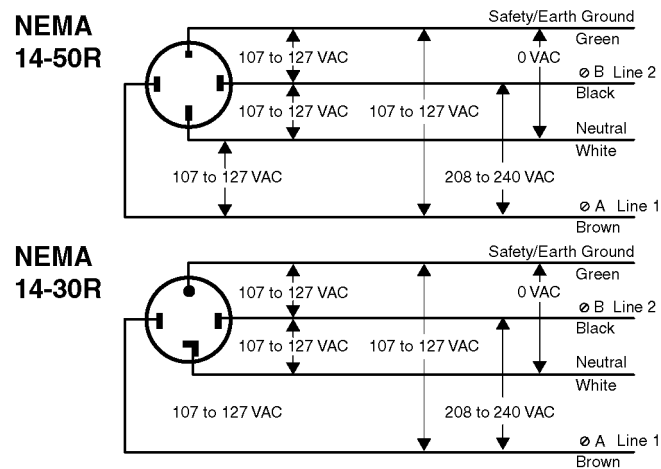
Voltage to ground is shown for troubleshooting.

Figure 3-15 shows the configuration of the 60 Hz system controller and peripheral cabinet power cord configuration.

Figure 3-15. **System controller and peripheral cabinet power cord 60 Hz installation for 15 amp NEMA 6-15R**
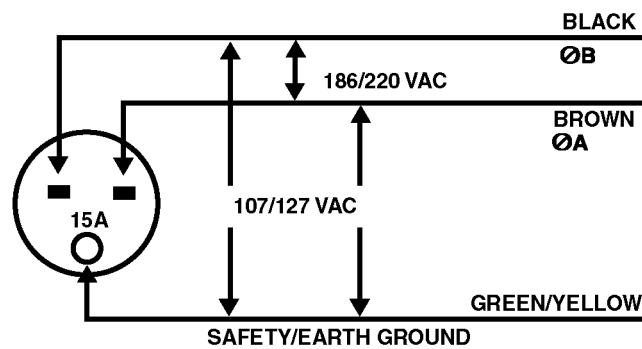
Voltage to ground is shown for troubleshooting.

Finishing and feeding equipment

It is important to note that while the Bypass Transport and Input Enablement options provide you with an interface between your DocuPrint 180 LPS and your finishing and feeding accessories, they require their own AC and DC power sources. The power must be independent of your DocuPrint 180 LPS.

Consult your Xerox or Xerox Limited sales representative, as well as the sales representative of the company from which you purchased your finishing and feeding equipment, for specific electrical and space requirements.

Interface requirements

This section describes the System interface requirements for Channel-attached or Third Party connection for the printer.

Channel-attached

For an online configuration with an IBM host system, the following cables must be available:

- Bus and tag cables (bus in, bus out, tag in, tag out)
- Emergency power off (EPO) cable (optional)
- Terminators (if necessary, due to location on channel).

For your convenience, it is possible to order the Bus and Tag cables for the printer through Xerox Corporation on a purchase-only basis. Contact your Xerox or Xerox Limited sales representative for current pricing and order information.

Third party connections

Xerox supports a number of third party connections. For more information, contact your Xerox or Xerox Limited sales representative or call the Xerox Connection between 7 a.m. and 4 p.m. Pacific time using the following telephone number:

1-800-451-9312 (continental U.S.)

Training

This section describes the Operator and Systems training available for the DocuPrint 180 LPS. The available courses are:

- LPS Introduction Workshop
- LPS Forms Description Language (FDL) Workshop
- LPS FDL Self Study Kit and LPS FDL Self Study
- LPS Print Description Language (PDL) Workshop
- LPS Print Description Language (PDL) II Workshop
- LPS Command File Workshop.

Operator training

Operator training is conducted at your location shortly after your LPS has been installed. Training takes approximately four to seven hours, depending on the system configuration, and includes hands-on practice running basic jobs, maintenance, and problem solving. Determine the number of operators you want to attend initial training, and schedule training dates and times through your Xerox sales representative.

Advanced Customer Training (ACT) is available at the Xerox training center in Leesburg, Virginia. Discuss candidates for this training with your Xerox sales representative, if desired. Keep in mind that operators should not be considered for ACT until they have spent several months working with the LPS and have shown good mechanical aptitude. Call Xerox Customer Education at 1-800-445-5554 to schedule ACT.

System training

Several training workshops and a self-study course are included in the LPS technical training curriculum. Workshops are designed to provide a system overview, as well as forms creation, job control, and increased productivity expertise. The workshops include the following courses:

LPS Introduction Workshop (8R7036)

This one-day workshop includes a technical overview of Xerox LPS features, system disk structure, operating system software, the system generation procedure, disk utilities, problem solving, and an introduction to command files. Hands-on experience includes configuring and generating a new software system and performing maintenance procedures using the LPS utility commands.

LPS Forms Description Language (FDL) Workshop (8R7030)

This one-day workshop provides instruction on FDL commands, inserting logos and graphics, using the forms design ruler and quick reference card, coding and printing electronic forms, modifying a form to print variable data, and converting to a two-up format.

LPS FDL Self Study Kit (600P87918) and LPS FDL Self Study (600P87918A)

This self-study option for FDL training provides all of the information presented in the FDL Workshop as well as exercises to be completed on your LPS.

LPS Print Description Language (PDL) Workshop (8R7033)

This three-day workshop provides lecture and hands-on practice for using PDL commands to identify the source and format of input to the LPS, using special processing options, defining how printed documents should be formatted, merging forms with variable data, specifying when and where various fonts, typestyles, and sizes should be used within a job, employing Dynamic Job Descriptor Entries (DJDEs), and creating and compiling Job Description Libraries (JDLs).

LPS Print Description Language (PDL) II Workshop (8R7035)

This two-day workshop combines lecture and lab work to help students apply advanced PDL techniques in maximizing system productivity and developing new applications for the LPS.

LPS Command File Workshop (8R7089)

This is a modularized two-day workshop that provides self-paced training on such activities as establishing menus, providing system security, effective file maintenance, merging variable data on electronic forms, simplifying accounting file information, manipulating files, creating new font files, effective disk management, and creating customized applications.

For detailed information about any of these courses, to enroll in workshops, or to order the self-study, call Xerox Customer Education using the following telephone number:

1-800-445-5554

Ordering supplies for installation

Consumable supplies (those that are depleted during operation of the LPS), such as paper, dry ink, developer, and fuser agent, need to be ordered for your LPS. It is important that you have an adequate supply on hand for installation and that you maintain an adequate supply after installation.

A set of standard fonts is provided with your system (refer to the "LPS overview" chapter). If nonstandard fonts are needed, they also must be ordered from the Xerox Font Center, described in the "Postinstallation" chapter.

This section describes the fonts and supplies needed for installation. Your Xerox or Xerox Limited sales representative will help you place your initial order for fonts (if any) and supplies. The "Postinstallation" chapter provides you with the information you need to order additional supplies as you require them, a consumable supplies table, and a supplies checklist.

Fonts

Data can be printed on the DocuPrint 180 in many sizes and typestyles called fonts. A font is a character set which has unique characteristics, such as typestyle, 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   Provided with your LPS operating system software is a library of over 250 standard 300 spi fonts, referred to as the A03 font family.

Licensed fonts   In addition to the library of standard fonts delivered with your LPS, over 100 licensed fonts may be ordered from the 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 LPS.

Receiving fonts   The fonts provided by the Xerox Font Center are contained on 9-track tape, 18-track cartridges, or 1/4-inch cartridges. One tape may contain several fonts, each of which is a separate file. Fonts may also be sent to the LPS from an online host computer through an IBM-compatible channel.

As with the other initial supplies, your Xerox or Xerox Limited sales representative will assist you with determining your LPS fonts needs for installation. After installation, the Xerox Font Center can help you order additional licensed and custom fonts. (Refer to the "Xerox Font Center" section of the "Postinstallation" chapter)

Paper

You need to select your paper carefully; without the proper paper, you increase the probability of paper jams and misfeeds.

Your LPS can print on standard white, colored, predrilled, and preprinted (that is, letterhead and forms) paper, labels, and transparencies. They must meet the specifications set forth by Xerox for operability in the LPS. Additional information about paper for your LPS can be found in your *Xerox DocuPrint 180 Laser Printing System Operator Guide*.

Use a good quality xerographic grade paper. For best results, use 20-pound/75 gsm bond xerographic grade paper. Xerox papers are specifically designed for optimal performance in your laser printing system. (Refer to the consumable supplies table at the end of the "Postinstallation" chapter.)

Use paper within these parameters:

- Lightest: 16-pound/60-gsm (grams per square meter)

- Heaviest: 110-pound/200-gsm.

The DocuPrint 180 accepts paper sizes as small as 7 by 10 inches/ 187 mm by 254 mm, with the optional 7 by 10 enablement kit. Larger paper sizes, such as

- 11 by 17 inches/297 by 432 mm,

- A3 (297 by 420 mm/11.69 by 16.54 inches) and

- B4 (257 by 364 mm/10.12 by 14.33 inches)

Paper has a tendency to curl under the heat that is present inside xerographic equipment. Paper with low moisture content curls less. Paper with excessive moisture content has a tendency to jam because of the greater curl.

Note: The maximum recommended moisture content is 5.7 percent.

Paper is fed into the LPS with the long side as the leading edge. (A3 and 11- by 17-inch paper sizes are fed short edge first.) The grain should be parallel with the long side (long-grain) for the most reliable feeding and stacking. Purchase long-grain paper.

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.

- Always store in a cool, dry area.

- Store on pallets or shelves, not on the floor.

- Before use, paper should spend at least one day in the same area as the printer to allow environmental stabilization.

Dry ink (toner)

Dry ink (also referred to as "toner") is the black powder which forms the image on the printed page. There are three cartridges of dry ink in each container. Keep an adequate supply on hand at all times. The operator can change throw-away cartridges easily with no mess. Use only dry ink that is specified for use in your LPS. (Refer to the consumable supplies table at the end of the "Postinstallation" chapter.)

Fuser agent

Fuser agent is a consumable item required by the LPS. Keep an adequate supply on hand for installation by the Xerox or Xerox Limited service representative.

Developer

Developer is a required item that needs to be ordered and kept on hand. It is changed by a Xerox or Xerox Limited service representative. Use only developer specified for use in your LPS. (Refer to the consumable supplies table at the end of the "Postinstallation" chapter.)

Tapes

Each of the tape drives available on the DocuPrint 180 LPS requires a different tape format.

1/4-inch (QIC) 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.

36-TRACK The optional 18/36-track tape drive uses 0.5 inch cartridge tapes with a data capacity of up to 2.4 GB.

18-TRACK The optional 18/36-track tape drive also uses 0.5-inch IBM 3480-compatible cartridge tapes with a data capacity of 200 MB. Cartridges are not available from Xerox.

9-TRACK The optional 9-track tape drive supports reel-to-reel 9-track 1600 bpi (PE) and 6250 bpi (GCR) encoded magnetic tapes.

Space planning templates

The dimensions and space requirements for DocuPrint 180 components are provided earlier in this chapter. The space planning templates are designed to simplify the space planning process by helping you create a floor plan for DocuPrint 180 base components, particularly if you have shared clearance space.

The easiest way to use the space planning templates is to cut the transparency located at the end of this chapter and move the templates around on the grid (also located at the end of this chapter) to find the optimum placement for your LPS components. Be sure to consider other pieces of equipment, such as storage cabinets and tables, when planning space for your LPS.

The templates are to scale with the grid; each square is equal to 12 by 12 inches/305 by 305 mm. The curved dotted lines in the corners of the space perimeters indicate the corners that may be rounded off while still maintaining the required clearance space.

The templates provided are for the system controller, printer with feeder/stacker modules, and the peripheral cabinet option. Be sure to allow space for optional equipment as appropriate. Your customer support representative can help you plan space for additional components.

There are a number of factors to keep in mind when planning your site. These include:

- Clearance space requirements

- Cable length

- Efficiency of use.

Refer to these sections when considering the various factors in planning the appropriate location for your DocuPrint 180 LPS.

When determining your space requirements, remember to consider all the components you plan to have installed. If you have a bypass transport or input enablement device option on your DocuPrint 180 LPS, you need to work with the sales representatives of the company from which you purchase your finishers and feeders, as well as your Xerox or Xerox Limited representatives, to ensure space requirements are met.

Refer to figure 3-16 when determining your space requirements.

Figure 3-16. **Space planning templates (top views)**
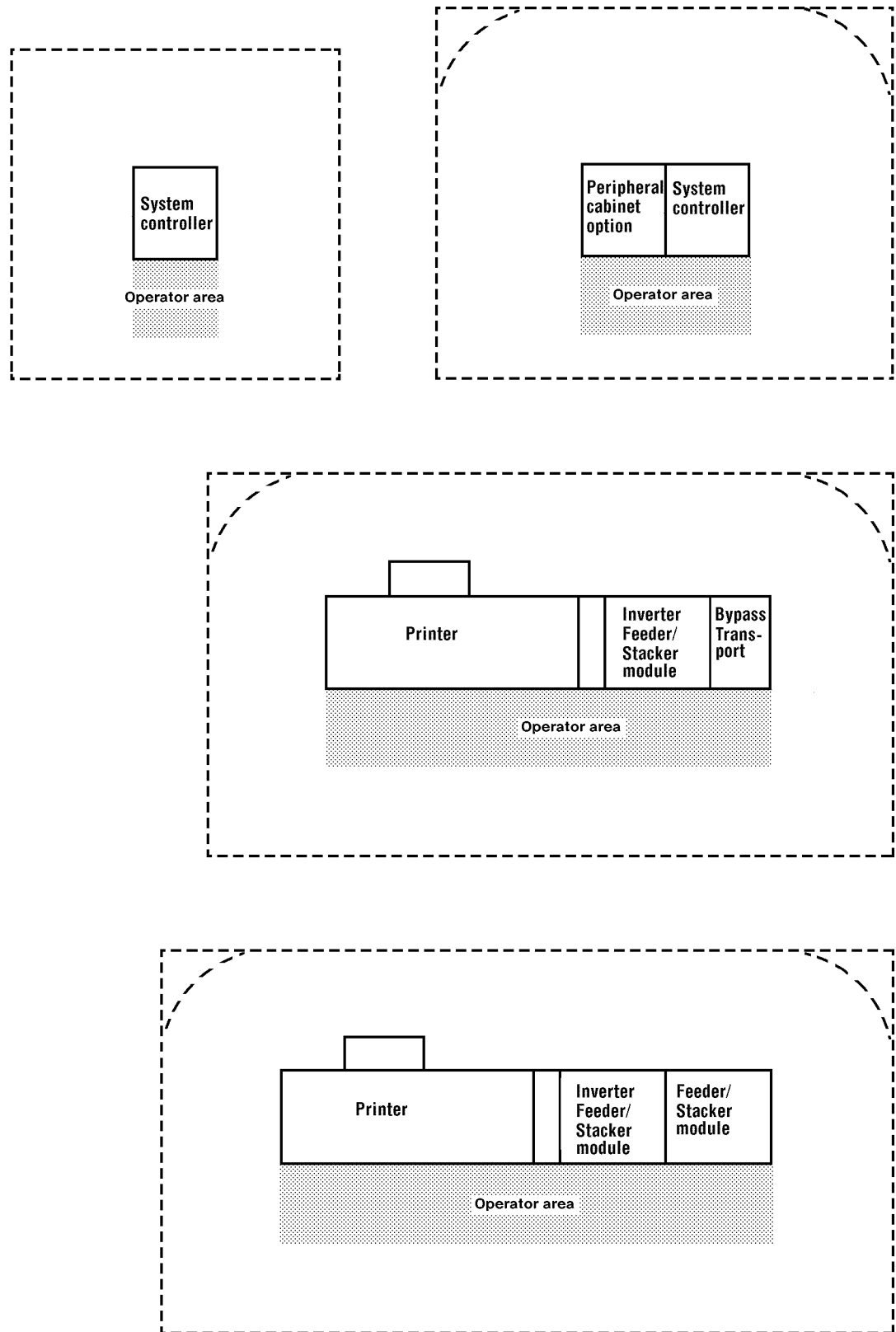
Figure 3-17. **Space planning templates (continued)**
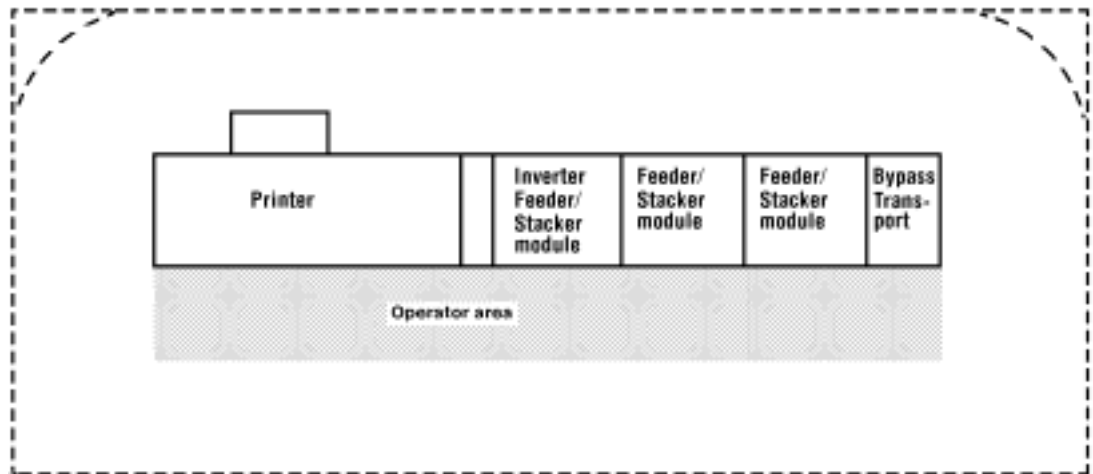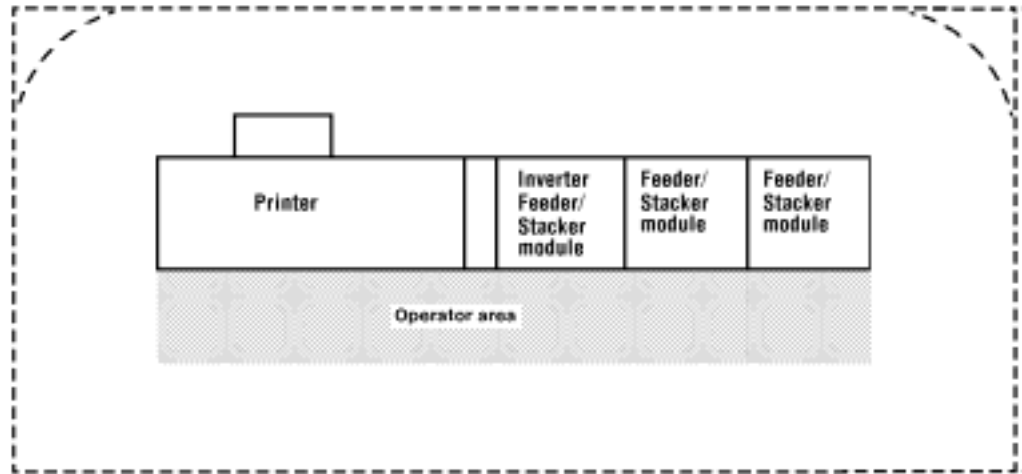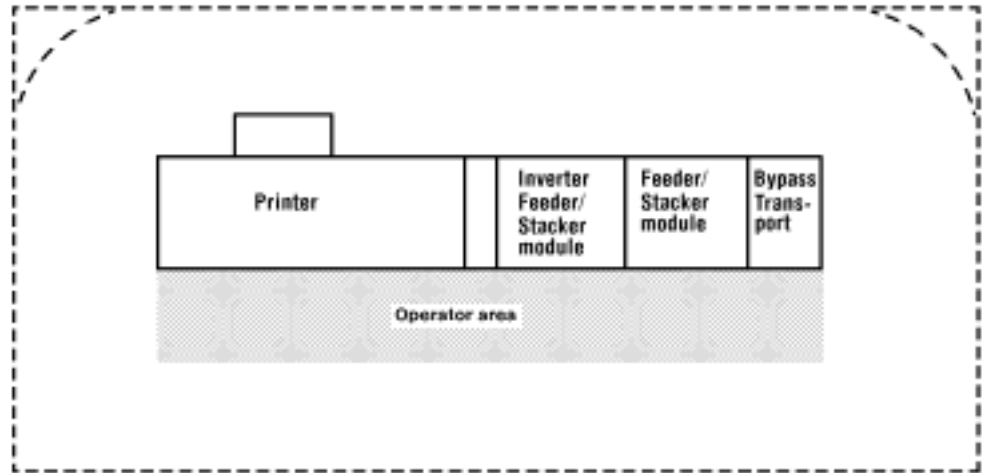
Figure 3-18. **Space planning templates (continued)**

GRID PATTERN   1/4 inch represents one foot
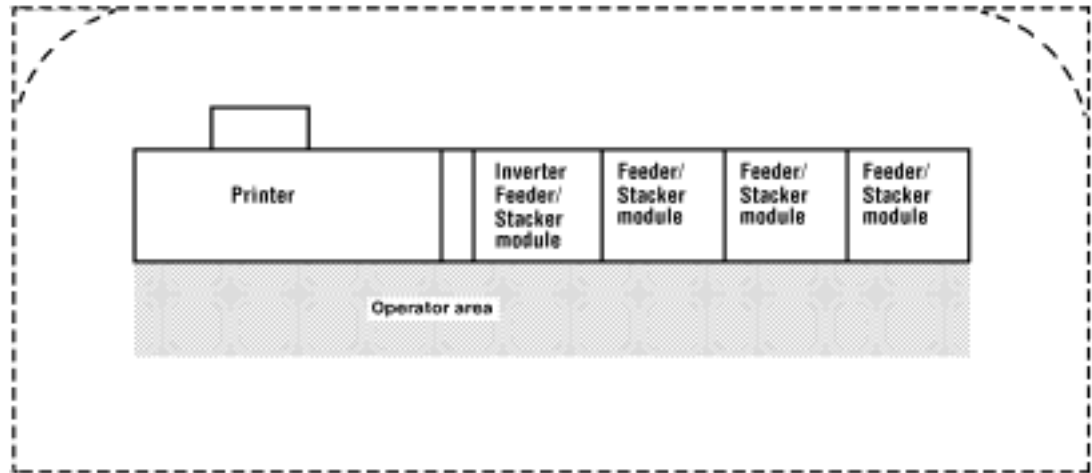
4. Installation

This chapter will assist you in the installation of your DocuPrint 180 Laser Printing System (LPS).

Keep in mind that the installation is a responsibility shared by both your site and your Xerox or Xerox Limited representatives. Your representatives are available to discuss all installation issues and to assist you in completing the site installation responsibilities.

The installation process

The installation process generally takes one to several days to complete. Equipment, software kits, and documentation kits may all arrive in one day or over the course of several days.

When all necessary items are in place, a team of Xerox or Xerox Limited personnel completes the installation of your LPS. Xerox installation responsibilities are shared by Xerox or Xerox Limited regional and customer engineers, sales and service representatives, and analysts.

The installation process typically occurs in the following order:

1. The equipment (hardware) and options are installed

2. The LPS is sysgened and tested.

3. The system is placed online, if appropriate.

4. Initial applications are loaded and sample jobs are run.

5. Initial operator training is provided.

Installation responsibilities

Xerox or Xerox Limited is responsible for the physical installation of the LPS components and the loading of software and applications. You have the more general site responsibility of ensuring that the right personnel and supplies are available. Installation responsibilities are outlined below. (Refer to the installation planning checklist in the introduction of this guide for a complete list of responsibilities.)

Xerox or Xerox Limited responsibilities

Xerox or Xerox Limited is responsible for the following installation activities:

- Installing the DocuPrint 180 LPS

- Loading the DocuPrint 180 software and initial applications

- Training operators

- Reviewing preventative maintenance schedules and service call procedures

- Physical installation of a LAN PWB into the PC UI and connection of the cable to the PWB if LAN option is used

- Installation of Xerox developed software to support LAN

- Verify system operation and audit log upload via LAN

Customer responsibilities

Customer responsibilities include the following:

- Ensure that all needed supplies are on site.

- Ensure that your system specialist is available during the loading of software and applications tapes.

- Have the appropriate operators available for training.

- Check the documentation and software kits for completeness.

- Have test jobs ready to run, if desired.

Note: If the customer has elected to use the LAN capability to upload audit logs to a remote system they are responsible for the following:

- Providing a LAN PWB plus all associated cables that meets the following requirements to the service representative for installation into the PC UI:

  – TokenRing interface

  – software configurable or plug and play

  – FCC class B

  – UL standard 478 with a fire rating of 94V0 or 94V1

  – UL standard 1950

- Providing the log destination drive name and subdirectory to the service representative for system configuration

- Connecting the LAN cable to the network

- Loading the LAN PWB software

- Operation and maintenance of the LAN including the LAN PWB installed in the PC UI

Documentation and software kits

When your basic software kits arrive, check their contents with the packing list or the appropriate list below to make sure you have received all appropriate items.

Documentation

The documentation included in your basic LPS kit should contain the DocuPrint 180 LPS Reference Set, which includes the following manuals:

- *Xerox DocuPrint 180 Laser Printing System Operator Guide*

- *Xerox DocuPrint 180 Laser Printing System Operations Reference*

- *Xerox DocuPrint 180 Laser Printing System System Generation Guide*

- *Xerox DocuPrint 180 Laser Printing System Message Guide*

- *Xerox DocuPrint 180 Laser Printing System PDL Reference*

- *Xerox DocuPrint 180 Laser Printing System Forms Creation Guide*

- *Xerox DocuPrint 180 Laser Printing System Installation Planning Guide*

- *Xerox DocuPrint 180 Laser Printing System Operator Command Summary Card*

- *Xerox DocuPrint 180 Laser Printing System PC User Interface Reference*

- *Xerox DocuPrint 180 Laser Printing System Product Reference*

If any items are missing, advise your Xerox or Xerox Limited sales representative or analyst, or call XDSS (refer to the, "Postinstallation" chapter).

As time permits, begin familiarizing yourself with the content and organization of the manuals. Begin with the *DocuPrint 180 Laser Printing System Product Reference*, as it provides an introduction to the *DocuPrint 180* LPS and directs you to other manuals when appropriate.

Software kits

When you receive the software kits for the DocuPrint 180 LPS and any software options you ordered, check the contents with the packing list. If items are missing, contact your Xerox or Xerox Limited sales representative immediately.

5. Postinstallation

After the installation of your Xerox DocuPrint 180 Laser Printing System (LPS), a number of ongoing tasks must be performed. These tasks may include all or some of the following:

- Maintaining an adequate inventory of consumable supplies

- Overseeing routine customer maintenance and meter reporting

- Arranging additional operator training

- Ordering additional fonts

- Placing service calls for hardware problems and obtaining assistance in solving application-related problems

- Identifying and implementing new applications.

As installation coordinator, it is your responsibility to designate a person (or persons) to perform these tasks.

This chapter describes these tasks and some of the Xerox support services available to you. There is also a consumable supplies table and a supplies checklist at the end of this chapter.

Xerox support services

Xerox provides many services in support of your laser printing system. These services include the following:

- Xerox Customer Support Center

- Customer Service Support Center

- Xerox Font Center

- Xerox Customer Documentation Catalog

- Xerox Documentation and Software Services (XDSS)

- Xerox Supplies Order Service.

Detailed information about these services follows.

Prior to installation, your Xerox or Xerox Limited sales representative is available to answer your questions about the products, services, or billing. If you need assistance in resolving application-related problems or questions, contact your local Xerox or Xerox Limited systems analyst or call the Xerox Customer Support Center.

Xerox Customer Support Center

The Xerox Customer Support Center is available to address your applications problems or to direct you to the appropriate documentation.

The key to effective use of the Xerox Customer Support Center is correct identification of the problem. Before calling the center, it is helpful to have the following information available:

- A list of any error messages or codes

- An explanation of how output is different from what was expected

- Whether the symptoms follow a consistent pattern or occur randomly

- A list of special conditions that may have an effect on the system, such as:

  — New applications

  — Changes made to the host system software

  — Recent service performed on the LPS

  — Whether the application printed properly on the LPS prior to the problem.

The Xerox Customer Support Center telephone number follows:

1-800-821-2797 (nationwide), 5 a.m. to 5 p.m. Pacific time.

Customer Service Support Center

If you encounter software- or hardware-related problems, such as system failures, continuous paper jams, or poor print quality, first try the corrective actions described in your Xerox DocuPrint 180 *Laser Printing System Operator Guide*. If the problem persists, call **1-800-821-2797**.

Before contacting Xerox or Xerox Limited service, please make note of the following:

- Status code numbers and messages which appear on the PC UI terminal, including the 6-digit San Code that resulted from running the PROBLEM command

- Status messages which appear on the printer control console

- Indicator lights which may be lit

- Status codes which appear in the display window of the operator control panel if there is a tape drive problem.

Your call will be answered by a Xerox or Xerox Limited representative who will ask you for the following information:

- Your LPS model number: DocuPrint 180

- The LPS serial number

- Your name

- Your company name

- Your work address

- Your company's work hours

- A contact name and telephone number within your company

- The system condition or status.

This information is given to a Xerox or Xerox Limited representative who will call you back to discuss the information and give you an estimated time of arrival of a service representative, or assist you over the phone to resolve the problem.

Xerox Font Center

The Xerox Font Center can send you samples and catalogs of the fonts available for your LPS.

To receive font samples, obtain price information, or to order licensed or custom fonts, call the font support center between 6:00 a.m. to 5:00 p.m. Pacific time at the following telephone number:

1-800-445-FONT (U.S. only)

If you prefer, you may write to the following address to request font information:

Xerox Corporation
Xerox Font Center ESM1-056
701 South Aviation Boulevard
El Segundo, CA 90245

For locations outside the United States, please contact your Xerox or Xerox Limited sales representative or local Xerox or Xerox Limited office.

For technical support regarding fonts (such as installing fonts or solving font-usage problems), call the Xerox Font Center at the following telephone number:

1-800-521-8324 (U.S. only)

Xerox Customer Documentation Catalog

Detailed information on documentation for your LPS is contained in the Xerox Customer Documentation Catalog. The catalog includes a brief description of each item, its cost, and the instructions and forms needed for ordering.

Included at the back of this guide is a request card for ordering the Xerox Customer Documentation Catalog. Simply fill out the request card and mail it. Once you are on our mailing list, updated catalogs are sent to you automatically. You may also call Xerox Documentation and Software Services to request a catalog. (Refer to the following section.)

Xerox Documentation and Software Services (XDSS)

Xerox Documentation and Software Services (XDSS) offer a variety of services that can be customized to meet your documentation needs.

XDSS distributes the documents you need to facilitate the installation and use of Xerox printers, workstations, and host-software packages. Site subscription is a free service that keeps these documents up to date by automatically sending you updates and revisions as they become available.

XDSS will also send you a Xerox Customer Documentation Catalog free of charge upon request. Forms for ordering documents, requesting a Customer Documentation Catalog, and registering for the site subscription service are provided at the back of this manual. Complete the forms or call the following telephone number:

1-800-327-9753, 6:00 a.m. to 5:00 p.m., Pacific time.

XDSS representatives explains the services available, answers your questions, and takes orders for documentation.

Xerox Supplies Order Service

To avoid downtime, be sure always to have an adequate amount of the necessary supplies available. To do this, you need to establish a procedure for checking and ordering supplies. A supplies checklist is provided at the end of this chapter to help you with this task. It lists the supplies and contains a column for you to enter the date that the order should be placed and a column to write when the order actually was placed. The consumable supplies table, also located at the end of this chapter, contains a complete list of all Xerox supplies available for your LPS.

It is important that you check your supplies regularly and order before you run out. Plan on approximately five working days for delivery after the order has been placed. (Arrangements can be made to provide them sooner in emergency situations.)

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

Once your printer's print 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 agent, and cartridge tape, call the following toll-free number weekdays between 7:30 a.m. and 6:00 p.m. Pacific time:

  1-800-822-2200 (U.S. only).

  If you prefer, you may mail orders to:

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

- To order cleaning supplies, call the Xerox Parts Marketing Center weekdays between 5:00 a.m. and 5:00 p.m. Pacific time, at the following telephone number:

1-800-828-5881 (U.S. only).

You may also mail cleaning supplies orders to:

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 LPS model: DocuPrint 180

- Your supply order, including:

  — The item name

  — The part number

  — The 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.

Important facts about paper

As the operator of the printer, you need to be aware of the importance of using the correct type of paper, and taking time to store and condition it properly. This helps to keep your printer running at optimum speed and efficiency, with fewer time-wasting paper jams.

Sizes   The following paper sizes are supported:

- 8.5 x 11 inches/216 x 279 mm

- A3: 16.54 x 11.69 inches/420 x 297 mm (or 11 x 17 inches stock size)

- A4: 8.27 x 11.69 inches/210 x 297 mm

- 8.5 x 14 inches/216 x 356 mm

- Custom sizes: 7.00 to 18.25 inches wide by 10.00 to 14.02 inches long (178 to 464 mm wide by 254 to 356 mm long).

Weight   20 to 110 pound/80 to 200 gsm. No other weights should be used.

Paper characteristics   The DocuPrint 4635 and 180 NPS perform most efficiently with paper that has the following characteristics:

- Low moisture content (below 5.7 percent)
- Smooth surface
- Moisture resistant wrapping
- No defects (bent edges, uneven surfaces)
- Grain long (parallel with the longest side of paper).

Special paper and materials   This section lists the special types of paper and other materials you can use with the DocuPrint 4635 and 180 NPS. Make sure all materials you use in your printer meet the specifications described in the previous section.

- Predrilled paper has a varying number of holes for use in binders or binder rings. You should fan or fluff predrilled paper before loading it into a feeder tray. This removes any loose plugs among the sheets that could cause jams within the printer.
- Tinted paper is 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.
- Transparencies must be the type created for high-speed printers. You load transparency stock with the opaque strip to the right. (All transparencies are delivered faceup to the sample tray.)
- Labels must be the type designed for high-speed printers. You load labels with the label side up. You can direct them to any output tray.
- Tab stock.
- Cover stock.

Loading instructions are printed on all paper trays.

Paper storage   It is important to store correctly. Temperature and humidity can affect the way your printer processes paper. Always store paper in the following ways:

- In its wrapper
- On a flat surface
- In a closed cabinet
- In a cool, dry area.

Store paper in the cartons it came in, but do not leave the cartons on the floor. This increases the possibility of moisture absorption. Place cartons on a wooden pallet or store them in a cabinet off the floor.
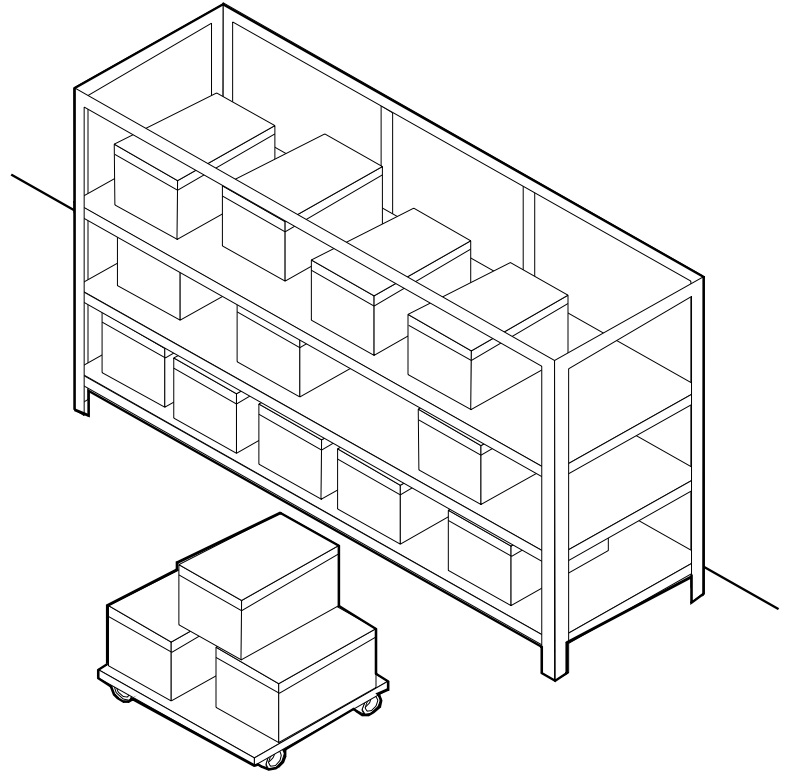
Recommended paper storage conditions are as follows:

- 68 to 76 degrees F/20 to 24.4 degrees C
- 35 percent to 55 percent humidity.

Paper conditioning

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

The length of time you should condition your paper depends on two things:

- Difference between the storage and operating environments
- Amount of paper.

Use the chart that follows to determine the amount of time needed to condition stacked cartons of paper when changing environments.

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

Table 5-1.   **Paper conditioning**

Difference between storage and operating area temperatures (in degrees)						
Fahrenheit						
10°	15°	20°	25°	30°	40°	50°
Centigrade						
5.5^o	8.5^o	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

If you want to move ten cartons of paper from a storage area with a temperature of 90 degrees F to an operating area with a temperature of 75 degrees F (a 15-degree difference), you should do so at least 14 hours before using the paper.

Paper curl

Before the manufacturer cuts paper into sheets, it is stored on large rolls. After it is cut and packaged, it retains some of the curl from the rollers.

Although it is unnecessary to load paper with the curl specifically up or down, best results occur when you are consistent. For example, if you open paper with the wrapper seam up, always load it in the tray that way.

Routine maintenance

There are a number of routine maintenance tasks that must be performed to ensure maximum efficiency of your LPS. These tasks include the following:

- Adding dry ink and fuser agent
- Cleaning the tape drives
- Cleaning the PC and the exterior surfaces of the system.

Step-by-step instructions on performing these routine maintenance tasks are contained in the *Xerox DocuPrint 180 LPS Operator Guide*. You need to decide how many operators will be responsible for performing these maintenance tasks. Most maintenance procedures are covered in the initial operator training provided shortly after installation.

Meter reading and reporting

As print jobs are processed, firmware in the printer or software in the system controller accumulates, saves, and maintains usage data in its nonvolatile memory.

Sometime during the last five working days of each month, that data needs to be reviewed and the information transmitted to Xerox for billing purposes. Refer to your *Xerox DocuPrint 180 LPS Operator Guide* for complete instructions on how to report meter readings.

Identifying new applications

Laser printing can be used for any application that requires immediate output and/or frequent updating. A list of some of the applications for which laser printing is suited is included in the following table.

Table 5-2.   **Types of applications available**

Forms	Service manuals
Proposals	Financial statements
Reports	Inventory reports
Price lists	Retail bar codes
Catalogs	Insurance policies
Invoices	Telephone directories
Statements	Personnel rosters
Newsletters	Labels
Legal briefs	Manuscript page proofs
Technical specifications	

This list is not all-inclusive but is intended to help you begin what should be an ongoing internal support process. At some point, you may want to check with all the departments within your organization to see which applications do (or will) apply to them.

Consumable supplies table

Table 5-3 and 5-4 lists the supplies that are available from Xerox for your laser printing system. Use these tables to help you determine your supplies needs.

Table 5-3.   **Consumable supplies**

Item	Description	Part number
Paper	Xerox paper quantities are 10 reams (5000 sheets) to a carton unless otherwise noted. The 3-hole papers marked with an asterisk (*) are drilled with 5/16-inch holes.	
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	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
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

Table 5-3. **Consumable supplies** (continued)

Item	Description	Part number
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/carton—250 sheets/pack)	3R3107
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
9 x 11 inch	65 lb., divider white	3R3428
11 x 17 inch	4024 Dual Purpose Paper	3R729
Transparencies	Xerox transparencies are packaged 100 to a box	
8.5 x 11 inch	Clear, with a white strip on the edge	3R2780
High Speed Labels (gummed)	All labels are on 8.5 x 11 inch sheets, 1000 sheets to a box.	
8.5 x 11 inch	33 labels per sheet	3R3139
8.5 x 11 inch	24 labels per sheet	3R4474
8.5 x 11 inch	8 labels per sheet	3R4475
8.5 x 11 inch	6 labels per sheet	3R3146
8.5 x 11 inch	1 labels per sheet	3R4476
8.5 x 11 inch	Custom form To order call: 800-822-2200, or 714-423-3861	
Tab stock	250 sheets per carton	

Table 5-3.   **Consumable supplies** (continued)

Item	Description	Part number
Straight Collated Singles (5-tab set)	Non-drilled, 90 lb., Index white	3R4417
	3 hole drilled, 90 lb., Index white	3R4418
	Non-drilled, 90 lb., Index white	3R4425
	3 hole drilled, 90 lb., Index white	3R4426
Reverse Collated Singles (5-tab set)	Non-drilled, 90 lb., Index white	3R4415
	3 hole drilled, 90 lb., Index white	3R4416
Cover stock		
8.5 x 11 inch	65 lb., blue	3R3044
8.5 x 11 inch	65 lb., white	3R3041
Dry ink (for DocuPrint180)	Packaged three cartridges per carton. (Consumption rate is approximately 180,000 pages per carton for 8.5 x 11 inch paper at 7% coverage.)	6R206
Developer (for DocuPrint180)	Packaged two bottles per carton. (Effective life is approximately 600,000 pages per carton.)	5R161
Fuser agent	Packaged one bottle per carton. (Consumption rate is approximately 250,000 pages per liter.)	8R2955
Waste toner bottle		93K460
Cleaning supplies	1/2 inch cleaning cartridge—Call 1-800-828-5881 to order	8R3635
	QIC Tape Drive Head Cleaning Kit	9R88432
	Foam-tipped swabs	99P87256
	Lint-free towels	35P2163
Containers		
8.5 x 11 inch	Base	9R1103
	Pallet	9R1104
11 x 17 inch	Base	9R1105
	Pallet	9R1106
QIC blank cartridge	Call 1-800-828-5881 to order	9R84168

*5/16 inch drilled holes

**Rainbow pack contains 750 sheets each of blue and yellow, 500 sheets each of green and pick, and 250 sheets each of buff, gray, goldenrod, and ivory.

Table 5-4.   **Consumable supplies, additional**

Item	# of parts	Sequence	Sheets	Sheets per carton	Sets per carton	Cartons per pallet	Part number
Carbonless stock 8.5" by 11" ***	2	Reverse/ Straight	Alternating CB-White CF-Canary	5000	2500	40	3R4225
	2	Straight/ Double	Alternating CB-White CB-White CF-Canary CF-Canary	5000	2500	40	3R4226
	2	Reverse/ Straight	Alternating CB-White CF-Pink	5000	2500	40	3R4227
	3	Straight	Alternating CB-White CFB-Canary	5010	1670	40	3R4230
	3	Straight/ Double	Alternating CB-White CB-White CFB-Canary CFB-Canary CF-Pink CF-Pink	5010	1670	40	3R4231
	4	Straight	Alternating CB-White CFB-Canary CF-Pink CF-Goldenrod	5000	1250	40	3R4235
	N/A	N/A	CB-White	5000	N/A	40	3R4236
	N/A	N/A	CFB-White	5000	N/A	40	3R4238
	N/A	N/A	CFB-Canary	5000		40	3R4239
	N/A	N/A	CFB-Pink	5000	N/A	40	3R4240
	N/A	N/A	CF-White	5000	N/A	40	3R4242
	N/A	N/A	CF-Canary	5000	N/A	40	3R4243
	N/A	N/A	CF-Pink	5000	N/A	40	3R4244
	N/A	N/A	CF-Goldenrod	5000	N/A	40	3R4245

Table 5-4.   **Consumable supplies, additional**

Item	# of parts	Sequence	Sheets	Sheets per carton	Sets per carton	Cartons per pallet	Part number
Carbonless stock **8.5" by 14"** ***	2	Reverse/ Straight	Alternating CB-White CF-Canary	5000	2500	30	3R4228
	3		Alternating CB-White CF-Canary CF-Pink	5010	1670	30	3R4233
	N/A			5000	N/A	30	3R4237
	N/A			5000	N/A	30	3R4241
	N/A			5000	N/A	30	3R4246
	N/A			5000	N/A	30	3R4247

***All papers are packaged 500 sheets per ream, with 10 reams per carton. Each ream contains only complete carbonless sets (i.e., 501 sheets in a three-part ream for 167 sets).

Table 5-5.   **Supplies checklist**

Supplies checklist				
Use this checklist to help record the supplies and accessories you require, the date you plan to place the order, and the actual date of the order				
Item	**Description**	**Quantity**	**Date to order**	**Date ordered**
Paper				
Dry ink				
Developer				
Fuser agent				
Labels				
Transparencies				
Cartridge tapes				
Cleaning supplies				

Glossary

A3   Paper size measuring 297 by 420 mm.

A4   Paper size measuring 210 by 297 mm.

abort   To terminate the printing of a job or execution of a program before it completes.

algorithm   Computational procedure that can be repeated any number of times.

alignment   Positioning of an image on a page for printing.

alphanumeric   Set of characters including the letters A through Z, numerals 0 through 9, and all printable special symbols.

AIM   Ancillary IOT message processor. System task that initializes the client layer between the printer and the system controller. It also displays the Fault, Hint, and information messages.

ASCII   American Standard Code for Information Interchange. Standard 7-bit code that represents alphanumeric information. Each alphanumeric character and several nonprinting characters are assigned a binary number, covering 128 possible characters. It is used for information interchange among data processing systems, data communication systems, and associated equipment.

application   Use to which a computer program or system is put, for example, sorting employee records.

applications software   Host- or LPS-resident software that directs the computer to perform specific tasks or functions as opposed to the software used to operate the computer. Common business applications include payroll, accounting, and inventory.

ascender   Portion of alphabetic character that rises above the body of the character (its x-height portion). See also descender; x height.

asynchronous   Transmission in data communications controlled by start and stop elements at the beginning and end of each character. Thus, time intervals between transmitted characters may be unequal in length.

audit log   Captures the sheet delivery information for every page in an audited report, certain details about each sheet, the planned and actual report control totals, and waste management.

auxiliary menu	Menu that contains options not displayed in a window. The symbol for an auxiliary menu is a box containing three horizontal lines.
B4	Paper size measuring 250 by 353 mm.
background job	Low-priority job, usually batched, that is executed automatically as system resources become available.
backup file	File copied to a storage medium for safekeeping in case the original is damaged or lost.
band	Rectangular area in printer memory into which an image sent to the printer from a computer is divided.
batch processing	Allows for repetitive operations to be performed sequentially on batched data without much involvement of the computer operator.
baud	Measurement of data rate in bits per second. This term is used to describe information flow between two devices. Unit of data transmitting and receiving speed is roughly equal to a single bit per second. Common baud rates are 110, 300, 1200, 2400, 4800, and 9600.
binary	Numbering system based on 2 that uses only the symbols 0 and 1. Binary is used in computers and related devices since information can be represented with electric pulses (0=off, 1=on). Most computer calculations are binary.
binary digit (bit)	In the binary numbering system, either of the characters 0 or 1. The "bit" is the base unit of information used by computers. It can take the form of a magnetized spot, an electric pulse, or a positive or negative charge. A sequentially stored set of bits represents a character on a computer.
	Multipliers are:
	1 or 0 byte = 8,192 bits
	kilobyte (KB) or 1,024 bytes = 8,388,608 bits.
	Computer space equivalents are:
	1.5 KB = about 1 single-spaced typed page
	30 KB = about 20 typed pages
	150 KB = about 100 typed pages
binary synchronous transmission	Data transmission in which synchronization of characters is controlled by timing signals generated at the sending and receiving stations.
bit	Abbreviation for binary digit, the smallest unit of information recognized by a computer. See also binary digit.

bit map   Visual representation of graphic images in which a bit defines a picture element (pixel); for example, if a bit is 1, the corresponding pixel is printed.

bit mapped   Display image generated bit by bit for each point or dot. A software-driven scanner is used to create characters or graphics.

blocking   Process of combining two or more records into a single block of data which can then be moved, operated upon, or stored, as a single unit by the computer.

block length   Number of characters or bytes contained in a block of data (the block is treated as a unit within the computer). Block length is usually invariable within a system and may be specified in units such as records, words, computer words, or characters.

boot   To load the initial instructions of a program into computer memory; these instructions then direct the loading of the rest of the program. Booting may require entry of a few commands at the keyboard or the flip of a switch to begin the process.

bps   bits per second. In serial communication, the instantaneous bit speed with which a device or channel transmits a character.

BSC   binary synchronous communication. 1. Communication using binary synchronous line discipline. 2. Uniform procedure using a standardized set of control characters and control character sequences for synchronous transmission of binary-coded data between stations.

buffer   Compartment of memory in which this data is stored during transfer from one device to another. This is useful for accumulating data into blocks before storage or processing and for adjusting differences of speed between devices, or between a device and a communicating facility.

Bypass Transport   Optional module that moves paper from the last stacker bin to a finishing device.

byte   Fixed number of bits (in data processing, usually 8) operated upon as a unit. A byte may represent a character, a machine instruction, or some other logical unit of information.

carriage return   Control character that causes the printing system to start printing at the left margin of the current line unless set to be interpreted as a line end.

channel   1. In data communications, a path or line that enables two or more devices to communicate (sometimes called a circuit, facility, or link). 2. In computers, a path for communication between the central processing unit (CPU) and input/output units, or between the CPU and peripheral devices.

character	Single printable letter (A-Z), numeral (0-9), symbol (& % #), or punctuation mark (, . ! ?) used to represent data. Characters can also be nonprinting, such as space, tab, or carriage return.
character cell	Digitized space containing a single character within a font set.
character code	Code representing alphanumeric information, for example, ASCII.
character code identifier	Code associated with the universal identifier "Xerox" to indicate the version of the Xerox character code standard used to code Interpress strings.
character set	Number of different characters used by a particular device, including alphabetic, numeric, and special characters such as symbols.
client layer	The software interface used by the AIM task and the Output task to communicate with the printer, allowing printing commands and fault and status information to be exchanged.
clocking	A method of synchronizing the sending and receiving of data communications devices. Clocking allows synchronous transmission at high speeds.
cluster	Group of paper feeder trays, usually containing the same size and type of paper (stock). Each cluster has a name, consisting of one to six alphanumeric characters. See also stock; stockset.
CME	copy modification entry. Entry modifying the output printing characteristics of a report on a copy-to-copy basis.
code	1. Set of symbols representing data or instructions to a computer. 2. To write a list of instructions (software) to cause the product/system to perform specified operations.
code conversion	Translation of one type of character or symbol code to another.
collate	To arrange or assemble into ordered sets.
column	Vertical arrangement of characters.
command	User instruction to a computer, using the system controller keyboard or the PC UI. Commands are words, mnemonics, or characters that cause a computer to perform predefined operations. Coded instruction to a computer or computer-based system.
command language	Set of commands that can be used for a system, such as how the system can be instructed to perform a task.
comment	Explanations written with program instructions. They are ignored by the computer.

communication line	Telecommunication line connecting devices at one location with devices at other locations in order to transmit and receive information.
communication link	Physical means, such as data link, connecting one location to another to transmit and receive information.
communications	Ability of two devices to transmit information to each other.
compatibility	Characteristic of computer equipment permitting one device to use the same information or programs as another device without conversion or code modification.
compiler	Software that translates instructions written in high-level language into machine language for execution by a system.
computer	Functional unit capable of performing substantial computations, including numerous arithmetic or logic operations without human intervention during a run.
computer language	Computer-oriented language consisting solely of computer instructions. See also machine language.
computer system	Central processing unit (CPU) with main storage, input/output channels and devices, control units, and external storage devices connected to it.
concatenate	To connect or link in a series, as when files are grouped together for faster processing. See also job concatenation mode.
console	Functional unit containing devices used by an operator to communicate with an operating system. It may consist of a display, keyboard, and certain switches or other controls.
consumable supplies	Supplies such as paper and dry ink that are depleted (used up) during the course of normal printer operation.
continuous printing	Refers to Interpress job integrity under any of the following conditions: excessive graphics, forms, or font use problems.
control program	Program that supports the operating system by monitoring the flow of jobs, tasks, processing, and so on, within the system; for example, a data communication program.
coordinate	Point on the x and y axis that determines a grid position.
copy	To duplicate data in a new location or on an additional storage medium, for example, to copy files from disk to tape.

copy-sensitive Term used to indicate jobs in which multiple copies of a report will contain different data, as with paychecks and banking statements.

cpi characters per inch. Designates the number of characters per inch for a particular typeface. See also pitch.

CPU central processing unit. Interprets and executes instructions, performs all operations and calculations, and controls input and output units and auxiliary attachments.

data 1. In general, facts, numbers, letters, symbols, and so on, which can be processed or produced by a computer. 2. In data processing, the source data or raw data entered for processing, as opposed to the results obtained by processing.

database Information to meet specific processing and retrieval needs. Generally applies to integrated file of data, arranged for access by many subsystems.

data communications Transmission and reception of encoded information over telecommunication lines.

data file Collection of related data records organized in a specific manner so that each record is similarly structured, for example, a payroll file set up with one record for each employee, last name first, indicating the rate of pay and all deductions.

data processing Operations carried out on data by means of algorithms and programs to produce information or a specific result. The rearrangement of data into a suitable form for further use.

data rate In data communications, the rate at which a channel carries data, measured in bits per second (bps).

data storage Preservation of data on various media, for example, tape, disks, magnetic bubble memory, and so on.

data transmission Transmission of coded data over telephone or other telecommunication lines.

debug To detect and correct errors in a program.

decompose To break down into component parts, such as when Interpress breaks down a Font Interchange Standard (FIS) master to compile font information.

default Value assigned to a field by the system. Default fields may be used for such items as document formats, menu selections, input fields, font selection, and paper or image size. The default value of a field may be changed.

descender   Portion of alphabetic character that extends below the baseline. See also ascender, x height.

desktop   Basic display screen of the PC UI.

device   Any piece of hardware other than the central processing unit (CPU).

digitize   To express or represent data in digital (binary) form so that it can be processed electronically.

disk drive   Device that can read or write magnetic media.

display   Viewing device (monitor) that visually communicates system warnings, status, and error messages and reflects operator interaction with the system on a display.

DJDE   Dynamic Job Descriptor Entry. Command within an input data stream used to modify the printing environment dynamically.

DMR   Command parameter that designates a Digital Equipment Corporation host system.

document   1. Data medium and the data recorded on it, usually permanent, which can be read by you or a computer. 2. Collection of information pertaining to a specific subject or related subjects.

dot   Unit of measurement representing a fraction of an inch, for example, 300 dots per inch (dpi). It may also be referred to as a picture element (pixel) or spot.

download   To copy files using communication lines from the host onto LPS system disks.

dry ink   Minute dry particles of resin and carbon black used to create images. Dry ink can accept an electrical charge.

duplex printing   Printing on both sides (front and back) of a page. See also simplex printing.

EBCDIC   Extended Binary Coded Decimal Interchange Code. Coded character set consisting of 8-bit coded characters. It can accommodate 256 characters.

edgemarking   Use of graphic objects, usually lines or boxes, that bleed off the edge of the physical page. See also physical page.

electronic publishing   Integrated production of documents on demand, using digitally stored documents, computerized composition, and electronic printing systems.

elite	Smallest size standard typewriter type: 12 characters per horizontal inch. See also pica.
embedded blanks	Blank spaces within a command line.
Ethernet	Xerox local area network (LAN) that allows data to be transmitted by cable from one device to another, enabling it to share the network.
extended metrics	Measurements used in Interpress to alter the size of fonts, allowing more precision with character escapement. Used for rendered characters.
FCB	forms control buffer. Buffer for controlling the vertical format of printed output.
FDL	forms description language. LPS-resident source language used for designing electronic forms. See also FSL; form.
field	1. Part of a record that serves a similar function in all records of that group, such as name and address field. 2. Area or setting of practical activity or application.
file	Set of records or text that can be stored and retrieved. An organized, named collection of records treated as a unit. For offline, it is the data between the two tape marks. For online, it is the data between banner pages.
file protection	To prevent the contents on a disk or tape from being erased or written over by disabling the write head of a unit.
firmware	Permanent programs stored in read-only memory (ROM).
FIS	Font Interchange Standard. Standard that defines the digital representation of fonts and character metrics for the generation of an entire series of Interpress fonts.
fixed font	Font containing characters with fixed spacing. See also proportional font.
fixed pitch	Font set in which every character cell has the same width. In reference to character sets, this term describes typefaces in which all character cells are of equal width. Monospaced as opposed to proportional spaced.
fixed spacing	Arrangement of characters on a line so that all characters occupy the same amount of horizontal space.
floating accent	Nonspacing accent characters that can be combined with characters and printed as a composite.

font   Set of images, usually characters and symbols, having common characteristics such as style, width, height, and weight.

form   1. Compiled forms source library (.FSL) file. 2. Printed or typed document with blank spaces for inserting information. Specific arrangement of lines, text, and graphics stored in a computer under an identifying name. Page of data that, when preceded by proper commands, is stored on the system disk as a permanent file. It may be merged with variable data by a form start command. See also FDL; FSL.

format   1. Layout of a document, including margins, page length, line spacing, typeface, and so on. 2. In data storage, the way the surface of a disk is organized to store data. 3. To prepare the surface of a disk for acceptance of data.

form feed   Keyboard or printer control character that causes the printer to skip the top of the next page.

FSL   forms source library. Uncompiled collection of user-created files containing FDL commands. Refer to FDL; form.

function keys   Keyboard keys that produce no character but initiate a particular machine function, such as delete.

fuse   To affix dry ink to paper by heat or pressure or a combination of both.

GCR   group code recording mode. Refers to the specific density of data (such as 6250 bpi) as it is recorded on tape, which is measured in bits per inch (bpi).

graphics   Use of lines and figures to display data, as opposed to using text.

grid   Imaginary pattern of evenly spaced horizontal and vertical lines on a page.

grid unit   Smallest rectangle enclosed by horizontal and vertical lines on a grid. The size of a grid unit is expressed as the length of one side of a rectangle.

halftone screen   A tool used in offset printing, typesetting, and laser printing to convert a continuous tone (such as photographic) image to dots, which allows the image to be rendered accurately in these printing processes.

hardcopy   Machine output in permanent form, such as printed reports, listings, and so on. Output in a permanent form (usually on paper or paper tape) rather than in temporary form, as on a display. Contains readable printed copy of machine (for example, computer) output.

hard values   Nonoptimal adjustment of particular FIS fonts in terms of point size and orientation.

hardware	Physical components, such as mechanical, magnetic, and electronic elements of a system, as opposed to programs, procedures, rules, and associated documentation. Hardware is operated by software and firmware.
HCF	high-capacity feeder. Feeder tray capable of holding 2500 sheets of 20 pound/75 gsm paper. The high-capacity feeder trays are the primary paper supply for the DP180 LPS. They are located in the bottom half of the feeder/stacker modules.
HCS	high-capacity stacker. Stacker bin capable of holding 2500 sheets of 20 pound/75 gsm paper. In the LPS, the high-capacity stacker bins are located in the top half of the feeder/stacker modules.
hexadecimal	Numbering system with a base of 16. In this system, 10 through 15 are represented by A through F, respectively.
hierarchy	Relative priority assigned to arithmetic or logical operations that must be performed.
high-level language	Language consisting of words and symbols that are close to normal English and, therefore, readily understandable by the user. High-level languages are oriented to problems or commercial procedures and are the source languages for most programs.
host	Computer accessed by users which serves as a source of high-speed data processing for workstations with less computer power. See also mainframe.
host interface	Connection between network and host computer.
icon	Symbol appearing on the PC UI or printer control console that can be opened to display a window or screen options.
id	identifier. Character used to identify or name data and possibly to indicate certain properties of that data.
image area	Area on a physical page that may contain text or graphics.
information processing	Generic term encompassing both word and data processing, used to describe the entire scope of operations performed by a computer.
initialize	1. To prepare the magnetic surface of a blank diskette so that it can accept data. 2. To set all information in a computer system to its starting values (usually the first step is accomplished when a program is booted).
input	Data or text introduced into a computer-based system.
input/output	General term encompassing the flow of data into and out of a system.

input processing	Formatting control for the pages of a report.
insert	To add text or graphics to a document.
interface	Device by which two systems connect and communicate with each other.
interpolation	Series of logical rules implemented in the printer to convert a 300 spi input video stream to a 600 spi output video stream. Interpolation is functionally analogous to bit doubling (2x scaling), except the logical rules result in superior output.
Interpress	Xerox standard that defines digital representation of lines for printing. Interpress documents can be printed on any sufficiently powerful printer equipped with Interpress print software.
Interpress font utility (IFU) program	Program used to convert FIS fonts to LPS fonts.
Interpress master	File written according to the Interpress standard.
IPL	initial program load. For the optional open-reel tape drive, the internal initialization sequence whereby certain functions are loaded into random access memory (RAM).
JDE	job descriptor entry. Collection of job descriptions. See also job; JSL.
JDL	job descriptor library. Collection of compiled job descriptions. See also JSL.
job	1. Set of instructions (JDEs) defining a unit of work for the system. 2. In setting a separation boundary through the Bin Full Criteria task, job refers to everything printed as the result of a single start command. See also JDE.
job concatenation mode	In HIP, a mode in which multiple print jobs are processed as reports in one print job. See also concatenate.
job control	Program called into storage to prepare each job or job step to be run.
job management	Collective functions of job scheduling and command processing.
JSL	job source library. Collection of uncompiled job descriptions. See also job; JDE; and JDL.
keyboard	Group of alphabetic, numeric, and/or function keys used to enter information into a system.
keyword	Required part of a command. See also operator command.

label 1. In data storage, a reference to a file saved on tape or disk, a record indicating the file name or date created, or other control information. 2. In programming, a name assigned to a particular instruction or portion of a program as a locational reference (the computer translates the label into an address).

landscape page orientation Orientation of print lines or top of an illustration parallel to the long edge of the paper if the sheet is within the standard size range. (Sheets larger than standard have the reverse print orientation.)

language Defined set of characters and symbols combined together by specific rules. See also high-level language; low-level language.

laser printing Technology that uses a laser to transfer character forms to a page by direct or indirect means.

latent image Static charge present on the photoconductor before contact with dry ink particles.

leading 1. Vertical distance between lines (also called line space), measured from a baseline of one line to the baseline of the next. 2. Extra spacing between lines of type. 3. In typography, spacing between lines and paragraphs.

LED light emitting diode. Solid substance that glows when a current is passed through it. Often used for indicator lights on disk drives or modems, as well as for displays on other electronic equipment.

LEF long-edge feed. The movement of paper through the printer in the direction of the paper length (the longer side of a sheet of paper).

legal size Sheet the standard size of legal briefs, 8.5 by 14 inches.

letter size Paper sized 8.5 by 11 inches/216 by 279 mm.

library In data storage, a collection of related files or programs.

line One horizontal flow of characters.

line feed Control character that, unless set to be interpreted as a line end, causes the printing system to begin printing in the current character position of the next line.

line tables Internal data structures providing a record in memory of lines to be drawn on a page.

listing Printout or display of the statements in a program, usually used as a convenience in examining or editing programs.

literal	Alphanumeric beginning with a letter, optionally including an asterisk, period, colon, or slash, and not enclosed in single quotes.
load	To enter data into storage or working registers.
location	Place in which data can be stored.
log	Collection of messages or message segments placed on an auxiliary storage device for accounting or data collection purposes.
logical page	In the Xerox printing systems environment, a formatted page that is smaller than the physical page. A logical page is defined by an origin, thus allowing more than one logical page to be placed on a physical page.
logo	Small illustration or design, usually simple, typically used to identify a company.
log off	Procedure by which a user ends a session.
log on	Procedure by which a user begins a session between an application program and a logical unit.
magnetic media	Term for all storage devices, such as disks, diskettes, and tape, on which data is stored in the form of magnetized spots on surface of the media.
magnetic storage	Use of magnetic media to store data, programs, and so on.
magnetic tape	Flexible plastic tape, with one side offering a magnetic surface suitable for storing computer data in the form of magnetized spots. Magnetic tape is often used for long-term storage since it can accommodate large volumes of information.
mainframe	Central processing unit (CPU) and memory of a large computer. More often used to denote any large computer of the type that might be used to control a group of smaller computers, terminals, or other devices. See also host.
margins	White space on each side of printed text.
mask	1. Selection of bits from a storage unit by using an instruction that eliminates the other bits in the unit. 2. In accessing files, a file name mask is used to reference one or more files with similar file-id (identifier) syntax. 3. In Interpress, a mask serves as a template, indicating the shape and position of an object on a page.
MB	megabyte. Unit of one million bytes.

media   Vehicles or devices by which information is stored or transmitted. Classifications include source, input, and output.

medium   Object or material on which data is stored, for example, magnetic tape or floppy disk.

memory   Space in a device where information is kept, or the ability of a device to keep information until needed.

menu   List of available functions, commands, and options.

message   Unit of information transmitted by one facility to another in a form that the receiving facility can understand and act upon. The standard message format consists of a header (containing identifying and control information), followed by the actual message content, followed by a trailer (indicating that the message is completed).

metacode   Same as "native mode." The method of speaking to and controlling the image generator. These controls are used by the character dispatcher to generate scan line information. This information is sent in the form of character specifications to the image generator, which uses it to compose the bit stream that modulates the laser.

MHz   megahertz. 1. Unit of cycling speed (one million cycles per second) for an electromagnetic wave (in particular, a radio wave). 2. Sending and receiving stations of a radio wave transmission must be tuned in to the same unit of megahertz.

mode   Manner in which an activity or process is carried out.

modem   Device that converts digital information into an analog signal suitable for sending over analog telecommunication lines. Also converts an analog signal from telecommunication lines into digital information.

module   Cohesive unit within a program. It is consistent in its level and identifiable in terms of loading or with other units.

mouse   Electronic device used with the PC UI to select options and enter data.

mouse pad   Base that provides friction and direction information to the electronic mouse.

mouse tray   Optional extension module attached to the system controller to accommodate the mouse pad and provide ample working space.

network   1. System of geographically separate computers, linked to one another over transmission lines. 2. Communication lines connecting a computer to its remote terminals.

nonimpact printer   Printer that forms characters without any strikes of a key or element against the paper.

object file   Source file converted into machine language (binary code).

offline   Devices not under the active control of a central processing unit. For example, a computer makes output to a magnetic tape. The tape is then used by an offline printing system to produce printed data. Offline operations are much slower than online operations. See also online.

offset   To place pages currently being printed in slightly different positions from previous pages.

offset printing   Widely-used method of commercial and corporate printing, where ink is picked up by a metal or paper plate, passed to an offset drum, and then passed to the paper.

online   Devices under the direct control of a central processing unit, for example a printing system in interactive communication with a mainframe. See also offline.

operating system   Basic host- or LPS-resident controlling program that governs the operations of a computer, such as job entry, input/output, and data management. The operating system is always running when the computer is active. Unlike other types of programs, it does not run to an end point and stop. The operating system of a Xerox LPS is referred to as the operating system software (OSS).

operation   Well-defined action that, when applied to any permissible combination of known entities, produces a new entity.

operator area   The 24-inch exclusive clearance that must be available directly in front of each component of an LPS for operator activities.

operator command   Statement to control a program, issued through a console device, PC UI, or terminal, causing a control program to provide requested information, alter normal operations, initiate new operations, or terminate existing operations.

orientation   1. In reference to image area, orientation describes whether the printed lines are parallel to the long edge of the paper or the short edge of the paper. 2. Choice of printing portrait (vertically) or landscape (horizontally).

origin   In reference to image area, this is the upper left corner of a sheet.

output   1. Material produced by a peripheral device of a computer, such as a printout or a magnetic tape. 2. Result of completed operations.

overprinting   Printing more than one character at the same position.

overprint lines   Print lines whose carriage control specifies printing with no line spacing after the last printed line.

overprint ratio   Maximum number of variable data and form characters that may be intersected by a single scan line.

override   To take precedence or priority over, to overrule.

overstrike   To print characters over each other.

page   1. In computer programming, a block of instruction, data, or both that can be located in main or auxiliary storage. 2. In word processing, a defined section of a document.

page orientation   Direction in which data is printed on a report. See also landscape page orientation; portrait page orientation.

parameter   Part of a command, other than the keyword. See also keyword; operator command.

pass-through job   On systems with XPAF, a job that is sent directly from a host to a Xerox printer using XPAF, without undergoing XPAF processing.

password   Unique word or set of characters that an operator or user must supply to log on to a system.

patch   In programming, to modify a portion of the program at the machine language level, as opposed to modifying at the source program level.

PC UI   PC user interface. The PC hardware and Xerox-supplied software which allows the operator to control the LPS by means of a mouse, windows, and icons. See also object mode; TEM.

PDL   print description language. Language used to describe printing jobs to an LPS. PDL describes the input (type, format, characteristics), performs the processing functions (logical processing), and describes the output (type, format, font selection, accounting options).

physical page   Sheet of paper on which printing is done. See also edgemarking.

pitch   1. Horizontal character spacing; 10-pitch (10 characters per inch) spacing is called pica, and 12-pitch (12 characters per inch) spacing is called elite. 2. The number of page images placed on the xerographic belt during one revolution. The DocuPrint 180 LPS supports two pitch modes: 7 pitch when paper 9 inches/229 mm long or less is used to print a job, and 3 pitch when paper 9 to 17 inches/ 229 to 432 mm long is used to print a job.

pixel   Acronym for picture element. Smallest addressable point of a bit-mapped screen that can be independently assigned color and

intensity. Pixels are definable locations on a display used to form images. For graphic displays, more pixels generally provide higher resolution. Spots, dots, and pixels are used interchangeably.

point Unit of measurement equal to 0.0139 inch. Points are always used to express type size and leading. There are 12 points to a pica and about 72 points to every inch. See also pica.

point size Height of character set from the top of its ascenders to the bottom of its descenders in units (points). Point size does not always include leading.

portrait page orientation Orientation of print lines or the top of an illustration parallel to the short edge of the paper if the sheet is within the standard size range. Sheets larger than standard have the reverse print orientation.

printer Output device that produces hardcopy printouts. Also referred to as the IOT.

print file Position of the system disk memory (up to 4 MB) received for temporary storage of formatted pages for printing. Pages are retained until they are delivered to the output tray.

printout Informal expression referring to almost anything printed by a computer peripheral device.

process 1. To perform a systematic sequence of operations, such as add, edit, delete. 2. To produce a specific result by manipulating data.

program Complete set of instructions in language compatible with the device to be used. A program directs a system to perform each operation at the right time in the proper sequence.

programmer Person involved in designing, writing, and testing computer programs.

prompt Message or symbol displayed on a system console requiring the operator to take action.

proportional font Font containing characters that vary in width. See also fixed font.

proportional spacing Text in which each alphanumeric character is given a weighted amount of space. Such output has print-like appearance. Proportional spacing allows more space for wide characters and less space for narrow characters

proportional type Characters that vary in width.

protocol Formal set of conventions governing the format of data and the control of information exchange between two communication devices.

purge   To delete data from a system.

queue   List of documents waiting to be processed.

RAM   random access memory. Storage that allows data, such as documents, to be stored and retrieved directly by address location without reading through any other data.

raster data   Binary data, usually consisting of dots arranged in scan lines, according to the print order.

rasterization   Creation of a page's bit map image for printing.

read/write head   Input/output device that reads and writes data in the form of magnetic dots on the surface of an external storage medium, such as a magnetic disk.

record   Collection of data or words treated as a unit.

recovery   Act of overcoming a problem or error during processing. Typically, a specialized software recovery routine gains control and attempts to resolve the error without crashing the system.

remote access   Access to a central computer by terminals or devices geographically separated from that computer.

replace   Process of exchanging one portion of text for another. This process encompasses two functions: deleting old text and inserting new.

report   In setting a separation boundary through the Bin Full Criteria task, report refers to a subset of a job (a job may consist of one or more reports).

resolution   Number of dots per unit. The LPS imaging system converts a character from digitized data into a printed image composed of these tiny dots. The greater the number of dots per inch, that is, the resolution, the clearer the image that is produced.

ROM   read-only memory. Solid-state memory for programs. It cannot be rewritten.

save   To store programs, data, or text for retrieval at a later time.

scale   To adjust font or image size according to given proportions.

scroll   Manipulation of a display to bring upper or lower portions of a document page into view when no space is available for the entire document at once.

scroll bar   Part of a window that allows you to view information extending beyond the window display.

SCSI   small computer system interface. Accepted standard for connecting peripheral devices to computers.

secondary storage   Form of storage external to a system, such as magnetic tapes or floppy disks.

security   1. Procedure for limiting access to the system resources, programs, or files, to authorized personnel. 2. Protecting programs and files from unintentional or undesired modification.

SEF   short-edge feed. The movement of paper through the printer in the direction of the paper width (the shorter side of a sheet of paper). For the DocuPrint 180 LPS, short-edge feed allows larger sizes of paper (up to 11 by 17 inches/279 by 432 mm) to be printed.

sequential   In numeric sequence, usually in ascending order. As applied to a file organization, describes files in which records are written one after another and cannot be randomly accessed. For example, the first 99 records in a sequential file-access file have to be read before the 100th record is accessible.

set   In setting a separation boundary through the Bin Full Criteria task, set refers to multiple copies of the same report.

simplex printing   Printing on one side of the page. See also duplex printing.

software   Programs, including operating systems, procedures, utilities, and applications programs, written for a system. Software can be supplied by the hardware manufacturer or other firms but does not include programs written by the user.

sort   To rearrange data records according to a particular item (field) which they all contain, using a predetermined ordering scheme.

source   Terminal node at which data enters a network. For example, a computer transmitting data through telecommunication lines to several other computers or receiving terminals.

source file   File containing source language statements or commands.

source language   Language, high-level or low-level, used by a programmer. A source language must be converted by a compiler to machine language for the instructions to be executed.

source program   Program written in source language

space   Blank area between words, recognized as a character by word and data processing systems.

special processing   Commands allowing the user to process special reports, such as printing certain records, or printing on special paper.

spooling   Process of releasing data from main memory and storing it temporarily until a peripheral device is ready to accept it, for example storing text before sending it to a printer.

spot   Unit of measurement representing a fraction of an inch, for example, 300 spots per inch (spi). May also be referred to as a picture element (pixel) or dot.

statement   Detailed written instructions in a program step. A statement is written according to specific rules called syntax.

static data   Information usually found on preprinted forms or overlays.

stock   User-defined name in the JSL that specifies a certain type of paper for printing a job. See also cluster.

stockset   Collection of stocks to be used on a print job. See also stock; cluster.

storage   Retention of information. Primary storage refers to internal storage where data and program instructions pertinent to current operations/ jobs are held. Auxiliary storage refers to external media, such as disks or tapes, for use at a later time.

string   Connected sequence of alphanumeric characters treated as one unit of data by a program.

symbol   Character used in a computer language to specify a particular function.

synchronous   Efficient encoding of data suitable for high-speed, block-oriented data transmission by using equal time elements.

syntax   Rules governing the structure of expressions in a programming language.

syntax error   System response to a mistake in a command entry.

system   1. In data processing, a collection of parts and procedures organized to accomplish a set of specific functions. 2. Assembly of components united by some form of regulated interaction to form an organized whole. 3. Operations or procedures through which a business activity is accomplished.

system controller   Part of the LPS that provides interfacing capability, data handling, formatting, buffering, and operator control for the system. Also referred to as the "ESS".

system disk   Magnetic disk storage medium, usually of large capacity, that is not removable as opposed to floppy disk or disk packs.

system file   Master software program that keeps all components working together.

system generation   Process whereby the system is made ready to operate. Typically involves selecting the operative parameters and activating the relevant software.

system page   Maximum area in which text and graphics can be imaged on a printing system.

system software   Software programs that support and/or control system functions by governing hardware operation and input/output processes, interpreting source programs and breaking them down into machine language, distributing tasks among various processors, and so on.

tab   To move the cursor on a display or printer to a prespecified column on the display or paper, most often by using the <TAB> key on a keyboard.

tape   Recording media for data or computer programs. Tape can be in permanent form, such as perforated paper tape. Generally, tape is used as a mass storage medium in magnetic form and has a far higher storage capacity than disk storage, but it takes longer to write or recover data from tape than from disk.

tape density   The number of characters that can be stored on magnetic media, such as how close together data can be recorded. The Xerox LPS may use either 1600 bpi or 6250 bpi density magnetic media.

tape drive   Input/output device that controls the movement of magnetic storage tape past the read/write head while data is accessed or stored.

task   1. Any major job performed by a computer. 2. One of several programs being executed by a system.

telecommunications   Voice or data communications transmitted and received through telephone lines.

teleprocessing   Sending and receiving data through telecommunication lines for processing among various remote terminals and the central processing unit (CPU).

TEM   terminal emulation mode. The processing method of the PC UI which features a character display and the operator's use of the keyboard. The mouse, windows, and icons are inactive in this mode. The PC UI operates in either the TEM mode or in the object mode. See also object mode.

terminal   Device equipped with a keyboard and connected to a computer or a network

testing   1. Process of running a program for the express purpose of discovering any errors it may contain. 2. For computer-oriented systems, the process of verifying a system's ability to meet performance objectives in a simulated environment or validating its actual performance in a live environment.

text   In communications, the content portion of a transmitted message.

text string   Consecutive series of characters to be printed exactly as specified in a command.

throughput   In data processing systems, the amount of data that can be processed, transmitted, printed, and so on, per a specified unit of time.

toggle   To switch (alternate) from one tray to another. The system switches from an active feeder or stacker tray to an inactive one to allow continuous printing when the proper commands are invoked.

trailer   In data communications, the last portion of a message that signals the end.

transaction processing   Method of data processing in which files are updated and results are generated immediately after data entry.

translation   1. In data communications, the conversion of one code to another on a character-by-character basis. 2. In programming, the function of a language processor which converts a source program from one programming language to another.

transmission speed   In data communications, the rate at which data is passed through communication lines, usually measured in bits per inch (bpi).

transmit   To send data from one place to another.

truncated   Cut off before completion, as when data transfer from a host to a printer is cut off before all data has been transmitted.

two-up   Application that prints two logical pages on one side of a physical page.

typeface   1. All type of a single design. 2. Set of characters with design features that make them similar to one another.

type size   Height of a typeface, measured from the bottom of its descenders to the top of its ascenders, expressed in points.

type style Italic, condensed, bold, and other variations of typeface that form a type family.

UCS Universal Character Set. Printer feature that permits the use of a variety of character

upload To copy files from a remote peripheral device to a host. LPS files are not copied to the host because one of the LPS functions is to store files for the host.

utility program General-purpose program that performs activities, such as initializing a disk or sorting, which are not specific to any application.

validation Process of testing a system's ability to meet performance objectives by measuring and monitoring its performance in a live environment.

variable Information of a changeable nature which is merged with a standard or a repetitive document to create specialized or personalized versions of that document.

variable data Variable data is not a part of a form design. It varies from page to page.

variable text Text of changing nature, such as various names and addresses combined with a form letter to make a complete document.

virtual page Page area selected by a forms designer for printing.

warning message System-issued message indicating that an error has been encountered even though the program has not failed.

weight Characteristic of type determined by how light or dark it appears.

wildcard Part of a command (* symbol, / symbol, ? symbol) that represents a category for which the possible options are requested.

wildcarding In a command, calling out a general category rather than a specific item within that category. The purpose of wildcarding is to generate the options within the given category.

window In the PC UI, the graphic display object that allows you to select options and enter information.

write To record data in memory or an external storage medium.

write protection Data protection feature implemented on magnetic media (for example floppy disk, 9-track tape) to prevent stored data from being modified, written over, or erased.

x axis Horizontal axis on a forms grid.

xdot Unit of measurement representing a fraction of an inch. It may also be referred to as a picture element (pixel) or spot, for example, 1/600 spots per inch (spi).

xerographic engine Component of a printer that develops an image, transfers it to paper, and fuses it for output as hardcopy.

x height Height of lowercase letters without their ascenders or descenders (height of letter "x"). See also ascender; descender.

y axis Vertical axis on a forms grid

ACT Advanced Customer Training

AFP Advanced Function Printing

ANSI American National Standards Institute

ASCII American Standard Code for Information Interchange

BCD binary coded decimal

BOF bottom of form

BOT beginning of tape

bpi bits per inch

bps bits per second

BSC binary synchronous communications

CD character dispatcher

CDC control data communications

CD/IG character dispatcher/image generator

CM control module

CME copy modification entry

cpi characters per inch

CPU	central processing unit
CR	carriage return
DCE	data communications equipment
DDCMP	Digital Data Communication Message Protocol
DEC	Digital Equipment Corporation
DFA	Document Feeding and Finishing Architecture
DJDE	dynamic job descriptor entry
DMR	data mode ready (DEC interface for LPS)
DOS	disk operating system
dpi	dots per inch
DSDD	double sided double density
DSU	digital signal unit
DSR	disk save and restore
DSSD	double sided single density
DTE	data terminal equipment
EBCDIC	Extended Binary Coded Decimal Interchange Code
ENET	Ethernet network
EOT	end of tape
EP	electronic publishing
ESS	electronic subsystem, also referred to as the system controller
FCB	forms control buffer
FCG	finishing configuration utility
FCP	file control parameter

FDL	forms description language
FDR	file directory
FFM	font file management
FIS	Font Interchange Standard
FMS	file management subsystem
FPS	formatting print service
FSL	forms source library
FST	font specification table
GCR	group code recording
gsm	grams per square meter
HCF	high-capacity feeder
HCS	high-capacity stacker
HFDL	host forms description language
HIP	Host Interface Processor
hpos	horizontal positioning
IBM	International Business Machines Corporation
IFU	Interpress font utility
IG	image generator
IGM	image generator module
I/O	input/output
IOM	image output module
IOT	input output terminal, also referred to as "printer"
IPD	Interpress decomposer

IPFONTS Interpress fonts

IPL initial program load

IPM Interpress mapping

ips inches per second

JCB job control block

JCL job control language

JDE job descriptor entry

JDL job descriptor library

JID job identifier

JSL job source library

LAN local area network

laser light amplification by stimulated emission of radiation

LED light-emitting diode

LEF long-edge feed

LF long-edge feed

lpi lines per inch

LPS Laser Printing System

MTU magnetic tape unit (refers to the 9-track magnetic tape drive; also referred to as "magnetic tape drive")

OCR optical character recognition

OCS operator communications subsystem

OLI online interface

OS operating system

OSDS	operating system diagnostic software
OSEXEC	operating system executive
OSS	operating system software
PC	personal computer
PCC	printer carriage control
PC UI	personal computer user interface
PDL	print description language
PE	phase encoded
ppm	pages per minute
PQA	print quality adjustment
PROM	programmable read-only memory
PSC	printer subsystem controller
pt	point
PWBA	printed wiring board assembly
QIC	1/4 inch cartridge
RAM	random access memory
ROS	raster output scanner
SAFES	stand-alone field engineering software
SAN	software analysis number
sci	START command index
SCSI	small computer system interface
SDLC	synchronous data link control
SEF	short-edge feed

SFS	status file services
SIF	sequence insert file
SNA	system network architecture
spi	spots per inch
SST	system software tape
sysgen	system generation
TL/DL	text line/display list
TOF	top of form
tpi	tracks per inch
TPJ	test pattern job
TXC	total xerographic convergence
UCS	Universal Character Set
UCSB	Universal Character Set Buffer
UI	user interface
VM	virtual memory
vpos	vertical positioning
VS	virtual storage
WAN	wide area network
XCSC	Xerox Customer Support Center
XDGI	Xerox DCF and GDDM Interface
XDSS	Xerox Documentation and Software Services
XICS	Xerox Integrated Composition System
XJCF	Xerox Job Control Facility

XMP	xerographic mode persistence
XMS	xerographic mode switching
XPAF, XPF	Xerox Printer Access Facility
XPMF-VMS	Xerox Print Management Facility - VMS Version
XPPI	Xerox Pen Plotter Interface
XPS	Xerox Publishing System

Index

XEROX DOCUPRINT 180 LPS INSTALLATION PLANNING GUIDE