Phaser® 4510

XEROX

laser printer

User Guide

Guide d'utilisation

Guida dell'utente

Benutzerhandbuch

Guía del usuario

Guia do Usuário

Gebruikershandleiding

Användarhandbok

Betjeningsvejledning

Руководство пользователя

Εγχειρίδιο χρήστη

www.xerox.com/support

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Printer Features

1

This chapter includes:

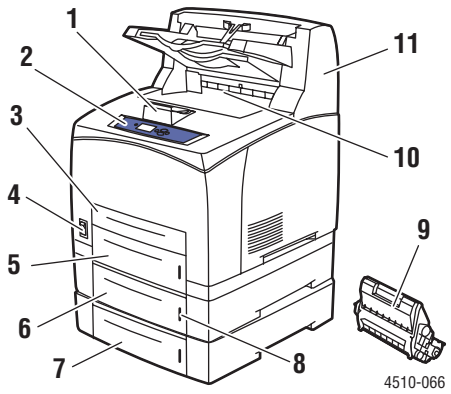
- Parts of the Printer on page 1-2
- Printer Configurations on page 1-4
- Control Panel on page 1-7
- More Information on page 1-10

Parts of the Printer

This section includes:

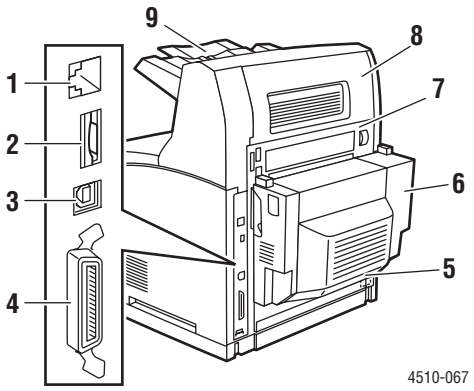
- Front-Right View on page 1-2
- Rear-Left View on page 1-3
- Internal Components on page 1-3

Front-Right View



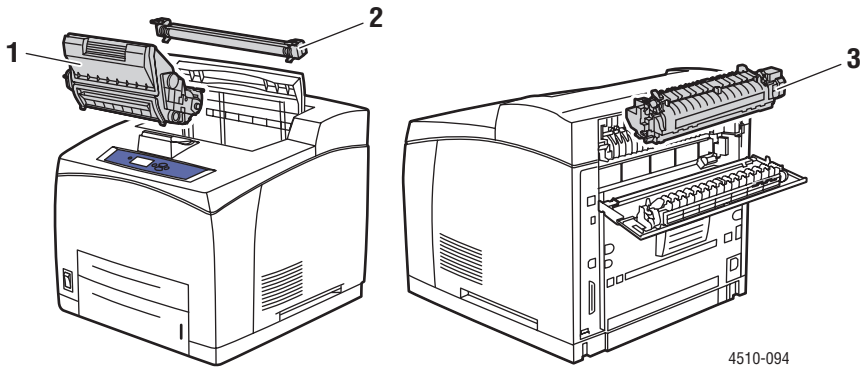
1. Paper stop
2. Control panel
3. Tray 1
4. Power switch
5. Tray 2
6. Optional Tray 3
7. Optional Tray 4
8. Paper gauge
9. Print cartridge
10. Standard output tray
11. Optional 500-sheet stacker

Rear-Left View



1. Ethernet 10/100 Base-Tx connection
2. Configuration card
3. USB connection
4. Parallel cable connection
5. Power receptacle
6. Optional duplex unit
7. Rear cover
8. Stacker rear cover (Stacker is an option.)
9. Stacker extension

Internal Components



1. Print cartridge
2. Transfer roller
3. Fuser unit

Printer Configurations

This section includes:

- Standard Features on page 1-4
- Available Configurations on page 1-5
- Options on page 1-6
- Upgrades on page 1-6

Standard Features

The Xerox Phaser 4510 Laser Printer embodies many features to meet your print needs. The following features are standard.

- True 1200 x 1200 and 600 x 600 dpi output at 45 pages per minute Letter, and 43 pages per minute A4
- Fonts: PostScript and PCL
- Tray 1 - 150-sheet tray
  Tray 2 - 550-sheet tray
- Connection:
  - Parallel
  - USB
  - Ethernet 10/100 Base-Tx (available as upgrade on Phaser 4510B configuration)
- 128 MB memory (expandable to 512 MB)
- 10k print cartridge

Available Configurations

The Phaser 4510 printer is available in four standard configurations.

Feature	Printer Configurations			
	4510B	**4510N**	**4510DT**	**4510DX**
Maximum Resolution	True 1200 x 1200	True 1200 x 1200	True 1200 x 1200	True 1200 x 1200
Maximum Print Speed	45 ppm Letter, 43 ppm A4 (all configurations)			
PostScript and PCL Fonts	Standard	Standard	Standard	Standard
Memory (MB)**	128	128	128	128
20 MB Flash Memory	Optional	Optional	Optional	Optional
Hard Drive	Optional	Optional	Optional	Standard
Automatic 2-Sided Printing (Duplex)	Optional	Optional	Standard	Standard
Duplex Printing Speed	27 ipm (if installed)	27 ipm (if installed)	27 ipm	27 ipm
550-Sheet Feeder	Optional	Optional	Standard	Standard
500-Sheet Stacker	Optional	Optional	Optional	Standard
Connectivity	Parallel, USB*	10/100 Ethernet, Parallel, USB	10/100 Ethernet, Parallel, USB	10/100 Ethernet, Parallel, USB

* 10/100 Ethernet is available as an option.

** Expandable to 512 MB.

Options

You can order additional trays, memory, and a hard drive if these items are not standard on your printer. Print the Configuration page to see which options are installed on your printer. To print the Configuration page, see Information Pages on page 1-8.

Options include the following:

- 550-Sheet Feeder (includes tray)
- 550-Sheet Tray
- 500-Sheet Stacker with Job Offset
- Duplex Unit
- Hard Drive - Provides additional printer features:
  - Secure, personal, personal saved, proof, and saved print jobs
  - Font storage
- 128 MB and 256 MB memory cards (maximum of 512 MB installed memory in two slots)
- 20 MB Flash Memory

To order options for your Phaser 4510 Laser Printer, contact your local reseller or go to www.xerox.com/office/4510supplies.

Upgrades

To order the Phaser 4510B to 4510N upgrade, contact your local reseller or go to www.xerox.com/office/4510supplies.

Control Panel

This section includes:

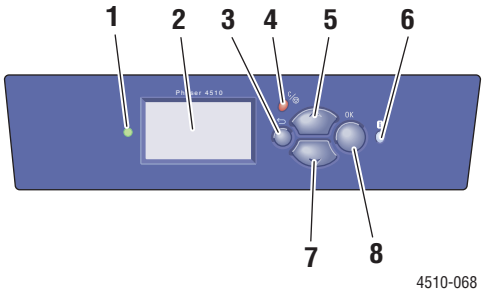
- Control Panel Features on page 1-7
- Control Panel Layout on page 1-8
- Menu Map on page 1-8
- Information Pages on page 1-8
- Sample Pages on page 1-9
- Power Saver Settings on page 1-9

Control Panel Features

The control panel:

- Displays the printer's operating status (for example, **Printing, Ready to Print**), printer errors, and warnings.
- Prompts you to load paper, order and replace supplies, and clear jams.
- Enables you to access tools and information pages to help resolve problems.
- Enables you to change printer and network settings.
- Enables you to access supply status.

Control Panel Layout



1. Status Indicator LED:

   Green: Printer is ready to print.

   Yellow: Warning condition, printer continues to print.

   Red: Startup sequence or error condition.

   Blinking: Printer is busy or warming up.
2. Graphic display indicates status messages and menus.
3. **Back** button

   Returns to the previous menu item.
4. **Cancel** button

   Cancels the current print job.
5. **Up Arrow** button

   Scrolls upward through the menus.
6. **Help** (**?**) button

   Displays a help message with information about the printer, such as printer status, error messages, and maintenance information.
7. **Down Arrow** button

   Scrolls downward through the menus.
8. **OK** button

   Accepts the setting selected.

Menu Map

The Menu Map helps you navigate the control panel menus. To print the Menu Map:

1. On the control panel, select **Information**, and then press the **OK** button.
2. Select **Menu Map**, and then press the **OK** button to print.

Note: Print the Menu Map to see other information pages available for printing.

Information Pages

Your printer comes with a set of information pages to help you obtain the best results from your printer. Access these pages from the control panel. Print the Menu Map to see where these information pages are located in the control panel menu structure.

Note: This print icon appears before the titles of information pages that can be printed. When the page is highlighted on the control panel, press the **OK** button to print that page.

For example, to print the Configuration page or the Supplies Usage page to view current information about your printer, do the following:

1. On the control panel, select **Information**, and then press the **OK** button.
2. Select **Information Pages**, and then press the **OK** button.
3. Select **Configuration Page** or **Supplies Usage Page**, and then press the **OK** button to print.

Note: You can also print information pages from CentreWare Internet Services (IS) and from the printer driver.

Sample Pages

Your printer comes with a set of sample pages that demonstrate different printer functions.

To print the sample pages:

1. On the control panel, select **Information**, and then press the **OK** button.
2. Select **Sample Pages**, and then press the **OK** button.
3. Select the desired sample page, and then press the **OK** button to print.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Power Saver Settings

Factory Default:

- Power Saver: On
- Power Saver Timeout: 4 minutes

You can change the default power saver time on the control panel or through CentreWare IS.

Using the Control Panel:

1. On the control panel, select **Printer Setup** > **Printer Controls**, then press the **OK** button.
2. Verify that **Power Saver** is **On**. If Power Saver is **Off**, then select **Power Saver** and press the **OK** button to switch between **Off** and **On**.
3. Select **Power Saver Timeout** to select the new time.
4. Press the **OK** button.

Using CentreWare IS:

1. Launch your web browser.
2. Enter the printer's IP address in the browser's Address field.
3. Select **Properties**.
4. Select the **General** folder on the left nagivation panel, then click **Printer Defaults**.
5. In the **User Preferences** section, set the **Power Saver** option to **On**.
6. Select the new time from **Power Saver Timeout**.
7. Click the **Save Changes** button.

More Information

This section includes:

- Resources on page 1-10
- Xerox Support Centre on page 1-11

Obtain information regarding your printer and its capabilities from the following sources.

Resources

Information	Source
Installation Guide*	Packaged with printer
Quick Use Guide*	Packaged with printer
User Guide (PDF)*	Packaged with printer (*Software and Documentation CD-ROM*)
Warranty	Packaged with printer
Advanced Features Guide (PDF)	www.xerox.com/office/4510support
Quick Start Tutorials	www.xerox.com/office/4510support
Printer Management Tools	www.xerox.com/office/pmtools
Online Support Assistant	www.xerox.com/office/4510support
PhaserSMART	www.phaserSMART.com
Technical Support	www.xerox.com/office/4510support
Information about menu selection or error messages on control panel	Control panel **Help** (**?**) button
Information pages	Control panel menu

* Also available on the Support website.

Xerox Support Centre

The **Xerox Support Centre** is a utility that is installed during printer driver installation. It is available for printers with Windows 2000 and later or Mac OS X, version 10.2 and higher.

The **Xerox Support Centre** appears on the desktop for Windows printers or is placed in the Mac OS X dock. It provides a central location for accessing the following information:

- User manuals and video tutorials
- Solutions to troubleshooting problems
- Printer and supplies status
- Supplies ordering and recycling
- Answers to frequently asked questions
- Default printer driver settings (Windows only)

To start the Xerox Support Centre utility:

1. Select one of the following options:
   - **Windows**: Double-click the **Xerox Support Centre** icon on your desktop.
   - **Macintosh**: Click the **Xerox Support Centre** icon in the dock.
2. Select your printer from the **Select Printer** drop-down list.

Xerox Support Centre

Note: If you have a USB or parallel connection, some of the status information is not available. You must have an Internet connection to view manuals and videos on the website.

Network Basics 2

This chapter includes:

- Overview of Network Setup and Configuration on page 2-2
- Choosing a Connection Method on page 2-3
- Configuring the Network Address on page 2-5
- Installing the Printer Drivers on page 2-9
- IPv6 on page 2-14

This chapter provides basic information about setting up and connecting to your printer.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Overview of Network Setup and Configuration

To set up and configure the network:

1. Connect the printer to the network using the recommended hardware and cables.
2. Turn on the printer and the computer.
3. Print the Configuration page and keep if for referencing network settings.
4. Configure the printer's TCP/IP address, which is required to identify the printer on the network.
   - Windows operating systems: Run the Installer on the *Software and Documentation CD-ROM* to automatically set the printer's IP address if the printer is connected to an established TCP/IP network. You can also manually set the printer's IP address on the control panel.
   - Macintosh systems: Manually set the printer's TCP/IP address on the control panel.
5. Install the driver software on the computer from the *Software and Documentation CD-ROM*. For information on driver installation, see the section in this chapter for the specific operating system you are using.

Note: If the *Software and Documentation CD-ROM* is not available, you can download the latest driver from www.xerox.com/drivers.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Choosing a Connection Method

Connect the printer via Ethernet, USB, or parallel. A USB or a parallel connection is a direct connection and is not used for networking. An Ethernet connection is used for networking. Hardware and cabling requirements vary for the different connection methods. Cabling and hardware are generally not included with your printer and must be purchased separately.This section includes:

- Connecting via Ethernet (Recommended) on page 2-3
- Connecting via USB on page 2-4
- Connecting via Parallel on page 2-4

Connecting via Ethernet (Recommended)

Ethernet can be used for one or more computers. It supports many printers and systems on an Ethernet network. An Ethernet connection is recommended because it is faster than a USB connection. It also allows you direct access to CentreWare Internet Services (IS). The CentreWare IS web interface enables you to manage, configure, and monitor networked printers from your desktop.

Network Connection

Depending on your particular setup, the following hardware and cabling is required for Ethernet.

- If you are connecting to one computer, an Ethernet RJ-45 crossover cable is required.
- If you are connecting to one or more computers with an Ethernet hub, or cable or DSL router, two or more twisted-pair (category 5/RJ-45) cables are required. (One cable for each device.)

If you are connecting to one or more computers with a hub, connect the computer to the hub with one cable, and then connect the printer to the hub with the second cable. Connect to any port on the hub except the uplink port.

See also:

Configuring the Network Address on page 2-5

Installing the Printer Drivers on page 2-9

Connecting via USB

If you are connecting to one computer, a USB connection offers fast data speeds. However, a USB connection is not as fast as an Ethernet connection. To use USB, PC users must have Windows 2000/XP/Server 2003 or newer. Macintosh users must use Mac OS X, version 10.2 and higher.

USB Connection

A USB connection requires a standard A/B USB cable. This cable is not included with your printer and must be purchased separately. Verify that you are using the correct USB (1.x or 2.0) cable for your connection.

1. Connect one end of the USB cable to the printer and turn it on.
2. Connect the other end of the USB cable to the computer.

See also:

Installing the Printer Drivers on page 2-9

Connecting via Parallel

A Parallel cable connection can also be used for connecting to one computer. This type of connection provides the slowest data speeds. Parallel connection requires a standard-to-high density Parallel printer cable, (36-pin high-density 1284-C [male] to 36-pin low density 1284-B [male] cable), with a maximum length of three meters (10 feet). Connect the Parallel cable to the printer and the computer while they are both **Off**, and then turn them **On**. Install the printer driver from the *Software and Documentation CD-ROM*, and select the appropriate LPT Parallel port.

See also:

Installing the Printer Drivers on page 2-9

Configuring the Network Address

This section includes:

- TCP/IP and IP Addresses on page 2-5
- Automatically Setting the Printer's IP Address on page 2-5
- Dynamic Methods of Setting the Printer's IP Address on page 2-6
- Manually Setting the Printer's IP Address on page 2-7

TCP/IP and IP Addresses

If your computer is on a large network, contact your network administrator for the appropriate TCP/IP addresses and additional configuration information.

If you are creating your own small Local Area Network or connecting the printer directly to your computer using Ethernet, follow the procedure for automatically setting the printer's Internet Protocol (IP) address.

PCs and printers primarily use TCP/IP protocols to communicate over an Ethernet network. With TCP/IP protocols, each printer and computer must have a unique IP address. It is important that the addresses are similar, but not the same; only the last digit needs to be different. For example, your printer can have the address 192.168.1.2 while your computer has the address 192.168.1.3. Another device can have the address 192.168.1.4.

Generally, Macintosh computers use either TCP/IP or the EtherTalk protocol to talk to a networked printer. For Mac OS X systems, TCP/IP is preferred. Unlike TCP/IP, however, EtherTalk does not require printers or computers to have IP addresses.

Many networks have a Dynamic Host Configuration Protocol (DHCP) server. A DHCP server automatically programs an IP address into every PC and printer on the network that is configured to use DHCP. A DHCP server is built into most cable and DSL routers. If you use a cable or DSL router, see your router's documentation for information on IP addressing.

See also:

Online Support Assistant at www.xerox.com/office/4510support

Automatically Setting the Printer's IP Address

If the printer is connected to a small established TCP/IP network without a DHCP server, use the installer on the *Software and Documentation CD-ROM* to detect or assign an IP address to your printer. For further instructions, insert the *Software and Documentation CD-ROM* into your computer's CD-ROM drive. After the Xerox Installer launches, follow the prompts for installation.

Note: For the automatic installer to function, the printer must be connected to an established TCP/IP network.

Dynamic Methods of Setting the Printer's IP Address

There are two protocols available for dynamically setting the printer's IP address:

- DHCP (enabled by default on all Phaser printers)
- AutoIP

You can turn on/off both protocols using the control panel, or use CentreWare IS to turn on/off DHCP.

Note: You can view the printer's IP address at any time. On the control panel, select **Information**, press the **OK** button, select **Printer Identification**, and then press the **OK** button.

Using the Control Panel

To turn on/off either the DHCP or AutoIP protocol:

1. On the control panel, select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IP Setup**, and then press the **OK** button.
5. Select **DHCP/BOOTP** or **AutoIP**.
6. Press the **OK** button to turn the selection **On** or **Off**.

Using CentreWare IS

To turn on/off the DHCP protocol:

1. Launch your web browser.
2. Enter the printer's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
3. Select **Properties**.
4. Select the **Protocols** folder on the left navigation panel.
5. Select **TCP/IP**.
6. In the BOOTP/DHCP Settings section, set the **BOOTP/DHCP** option to **On** or **Off**.
7. Click the **Save Changes** button.

Manually Setting the Printer's IP Address

Note: Verify that your computer has a properly configured IP address for your network. Contact your network administrator for more information.

If you are on a network without a DHCP server, or in an environment where the network administrator assigns printer IP addresses, you can use this method to manually set the IP address. Manually setting the IP address overrides DHCP and AutoIP. Alternatively, if you are in a small office with a single PC and use a dialup modem connection, you can manually set the IP address.

Information Required for Manual IP Addressing

Information	Comments
Internet Protocol (IP) address of the printer	Format is *xxx.xxx.xxx.xxx*, where *xxx* represents a decimal number from 0–255.
Network Mask	If you are unsure, leave this blank; the printer chooses an appropriate mask.
Default Router/Gateway address	Router address is required to communicate with the host device from anywhere other than the local network segment.

Using the Control Panel

To manually set the IP address:

1. On the control panel, select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IP Setup**, and then press the **OK** button.
5. Select **DHCP/BOOTP**, and then press the **OK** button to select **Off**.
6. Select **TCP/IP Address**, and then press the **OK** button.
7. Enter the printer's IP address, and then press the **OK** button.

Changing or Modifying the IP Address Using CentreWare IS

CentreWare IS provides a simple interface that enables you to manage, configure, and monitor networked printers from your desktop using an embedded web server. For complete information about CentreWare IS, click the **Help** button in CentreWare IS to go to the *CentreWare IS Online Help*.

After setting the printer's IP address, you can modify TCP/IP settings using CentreWare IS.

1. Launch your web browser.
2. Enter the printer's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel.
5. Select **TCP/IP**.
6. Enter or modify the settings, and then click **Save Changes** at the bottom of the page.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

System Administrator Guide www.xerox.com/office/4510support

Installing the Printer Drivers

This section includes:

- Available Drivers on page 2-9
- Windows 2000 or Later on page 2-10
- Macintosh OS X, Version 10.3 and Higher on page 2-10

Available Drivers

To access special printing options, use a Xerox printer driver.

Xerox provides drivers for a variety of page description languages and operating systems. The following printer drivers are available:

Printer Driver	Source*	Description
Windows PostScript Driver	CD-ROM and Web	The PostScript driver is recommended to take full advantage of your system's custom features and genuine Adobe® PostScript®. (Default printer driver)
PCL6	CD-ROM and Web	The Printer Command Language driver can be used for applications requiring PCL. **Note:** For Windows 2000/XP only.
PCL5e	CD-ROM and Web	The Printer Command Language driver can be used for applications requiring PCL. **Note:** Supported in all operating systems.
Xerox Walk-Up Printing Driver (Windows and Macintosh)	Web only	This driver enables printing from a PC to any Xerox PostScript-enabled printer. This is especially helpful for mobile professionals who travel to multiple locations and need to print to different printers.
Mac OS X (version 10.2 and higher) Driver	CD-ROM and Web	This driver enables printing from a Mac OS X (version 10.2 and higher) operating system.
UNIX Driver	Web only	This driver enables printing from a UNIX operating system.

* Go to www.xerox.com/drivers for the latest printer drivers.

Windows 2000 or Later

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the computer's CD-ROM drive. If the installer does not launch, do the following:
   a. Click **Start**, and then click **Run**.
   b. In the **Run** window, type: **<CD drive>:\INSTALL.EXE**.
2. Select your desired language from the list.
3. Select **Install Printer Driver**.
4. Select the installation method you want to use, and then follow the onscreen instructions.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Online Support Assistant at www.xerox.com/office/4510support

Macintosh OS X, Version 10.3 and Higher

Set up your printer using Bonjour (Rendezvous), create a desktop USB connection, or use an LPD/LPR connection for Macintosh OS X, version 10.3 and higher.

Macintosh OS X, Version 10.3

Bonjour (Rendezvous) Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive and select the VISE installer to install the printer software.
2. When installation is complete, open the **Printer Setup Utility** for Mac OS X, version 10.3.x.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

3. Confirm that the first drop-down menu is set to **Bonjour (Rendezvous)**.
4. Select the printer in the window.
5. Select **Xerox** from the list of manufacturers in the lower drop-down menu.
6. Select the appropriate printer model from the list of available devices.
7. Click the **Add** button.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Online Support Assistant at www.xerox.com/office/4510support

USB Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive. Open the **Printer Setup Utility** for Mac OS X, version 10.3.x.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

2. Click the **Add** button.
3. Select **USB** from the drop-down menu.
4. Select the printer in the window.
5. Select **Xerox** from the manufacturers in the drop-down menu.
6. Select the appropriate printer configuration from the list of available printers.
7. Click the **Add** button.

LPD/LPR Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive and select the VISE installer to install the printer software.
2. Once installation is complete, open the **Printer Setup Utility** for Mac OS X, version 10.3.x.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

3. Click the **Add** button.
4. Select **IP Printing** from the first pull-down menu.
5. Select **LPD/LPR** from the second pull-down menu.
6. Enter the printer's IP address in the **Printer Address** field.
7. Verify that the **Queue Name** field is blank.
8. Select **Xerox** from the **Printer Model** pull-down menu, and then select the corresponding PPD file.
9. Click the **Add** button. The printer is added to the list.

Macintosh OS X, Version 10.4

Bonjour Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive.
2. Open the **Printer Setup Utility**.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

3. Click the **Add** button.
4. Select the **Default Browser** in the **Printer Browser**.
5. Select the **Bonjour** printer in the list of available printers. If the **Printer Browser**:
   - Selects the appropriate printer from the **Print Using** drop-down list, go to Step 8.
   - Does not select the appropriate printer from the **Print Using** drop-down list, go to Step 6.
6. Select **Xerox** from the list of manufacturers in the lower drop-down menu.
7. Select the appropriate printer from the list of available printers.
8. Click the **Add** button.

USB Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive.
2. Open the **Printer Setup Utility**.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

3. Click the **Add** button.
4. Select the **Default Browser** in the upper left corner of the **Printer Browser**.
5. Select the USB-connected printer in the printers window. The Printer Browser selects the appropriate printer configuration in the **Print Using** drop-down list.
   - If the appropriate printer configuration is selected, proceed to Step 8.
   - If the appropriate printer configuration is not selected, proceed to Step 6.
6. Select **Xerox** from the manufacturers in the drop-down menu.
7. Select the appropriate printer configuration from the list of available printers.
8. Click the **Add** button. The printer is displayed as an available printer in the Printer Setup Utility.

LPD Connection

To install the printer driver from the *Software and Documentation CD-ROM*:

1. Insert the CD-ROM into the CD-ROM drive and select the VISE installer to install the printer software.
2. Once installation is complete, open the **Printer Setup Utility**.

   Note: To locate utilities on the Macintosh hard drive, open the **Applications** folder, and then open the **Utilities** folder.

3. Click the **Add** button.
4. Select **IP Printer** from the upper left corner of the **Printer Browser**.
5. Select **LPD** from the pull-down menu.
6. Enter the printer's IP address in the **Address** field.
7. Click the **Add** button. The printer is added to the list.

IPv6

This section includes:

- Enabling IPv6 on page 2-14
- Setting the Interface ID on page 2-15
- Automatic Address Assignment on page 2-16
- DHCPv6 on page 2-17
- Manual Address Assignment on page 2-18
- Address Precedence on page 2-19

Enabling IPv6

IPv6 can be enabled or disabled independently of IPv4.

Note: If you disable both IPv4 and IPv6, you will lose your connection to the printer. For information on restoring the default TCP/IP settings, see Resetting the TCP/IP Configuration on page 2-15.

To enable/disable IPv6, use one of the following options:

- The printer's control panel
- CentreWare IS

Using the Control Panel

To enable/disable IPv6 on the control panel:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IPv6 Setup**, and then press the **OK** button.
5. Select **IPv6**, and then press the **OK** button to switch between **On** and **Off**.

Using CentreWare IS

To enable/disable IPv6 using CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. Select the **TCP/IP v6 Enabled** check box to enable TCP/IP v6.
7. Click the **Save Changes** button at the bottom of the page.

Resetting the TCP/IP Configuration

Use the following procedure at the control panel to reset the TCP/IP configuration to the default settings:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Reset Connection Setup**, and then press the **OK** button.

Setting the Interface ID

Your IPv6-enabled printer has one interface with multiple addresses. The Interface ID appears after the prefix. The printer uses the Interface ID when assigning both the Link-Local address and automatic addresses that use router-supplied prefix(es). It is not used in addresses supplied by DHCPv6. Link-Local addresses are used by nodes to communicate with other nodes on the same local network. There are two ways to set the Interface ID:

- **Automatic** (default): The Interface ID is identified from the MAC address associated with the interface and different for each device.
- **Manual:** When using this option, verify that the interface ID is 64 bits (8 bytes) and does not contain certain special characters other than colons or valid hexadecimal digits (0 through 9, a through f, or A through F).

Note: If you change the Interface ID, you are prompted to reset the printer before the changes take effect.

The Interface ID can only be set in CentreWare IS.

Using CentreWare IS

To set the Interface ID using CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. Do one of the following:
   - Select **User Interface ID from MAC address**.
   - Select **Use this Interface ID**.
7. Click the **Save Changes** button at the bottom of the page.

Automatic Address Assignment

Addresses are assigned automatically when a router is found that offers one or more prefixes. Automatically assigned addresses are routeable. Each router-supplied prefix is combined with the Interface ID to create an address. The use of router-supplied prefixes is enabled by default.

To enable/disable automatic address assignment, use one of the following options:

- The printer's control panel
- CentreWare IS

Enabling/Disabling Automatic Address Assignment with the Control Panel

To set the Interface ID on the control panel:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IPv6 Setup**, and then press the **OK** button.
5. Select **Auto Assign**, and then press the **OK** button to turn Auto Assign **On** or **Off**.

Enabling/Disabling Automatic Address Assignment with CentreWare IS

To set the Interface ID with CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. Select/deselect **Use router supplied prefixes**.
7. Click the **Save Changes** button at the bottom of the page.

DHCPv6

DHCPv6 is used to acquire TCP/IP information.

The following DHCPv6 options are available in CentreWare IS:

- **As directed by the router** - DHCPv6 is performed according to values in a router advertisement. This is the default setting.
- **Always, for all configuration options (stateful)** - Stateful DHCPv6 is always attempted, and router flags related to how to perform DHCP are ignored. Configuration options and an IPv6 address are accepted if DHCPv6 is successful.
- **Always, for all configuration options except address (stateless)** - Stateless DHCPv6 is always attempted, and router flags related to how to perform DHCP will be ignored. Configuration options are accepted if DHCPv6 is successful, but no IPv6 address is assigned.
- **Never** - DHCPv6 is not used even if directed to do so by a router.

To enable/disable automatic address assignment, use one of the following options:

- The printer's control panel
- CentreWare IS

Setting DHCPv6 Options with the Control Panel

To change DHCPv6 options using the control panel:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IPv6 Setup**, and then press the **OK** button.
5. Select **DHCPv6 Mode**, and then press the **OK** button.
6. Select the DHCPv6 option, and then press the **OK** button.

Setting DHCPv6 Options Using CentreWare IS

To change DHCPv6 options using CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. Select/deselect the DHCPv6 options.
7. Click the **Save Changes** button at the bottom of the page.

Manual Address Assignment

Enter an IPv6 address manually to add it to any other IPv6 addresses. To create a manual address, enter the IPv6 address and prefix length in the fields provided in CentreWare IS. The default prefix length is 64.

To manually set the IPv6 address, use one of the following options:

- The printer's control panel
- CentreWare IS

Setting the IPv6 Address with the Control Panel

To set the IPv6 address on the control panel:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Connection Setup**, and then press the **OK** button.
3. Select **Network Setup**, and then press the **OK** button.
4. Select **TCP/IPv6 Setup**, and then press the **OK** button.
5. Select **Manual Address**, and then press the **OK** button to turn manual addressing on.
6. Select **Manual Address**, and then press the **OK** button.
7. To set the address:
   a. Press the **Up Arrow** and **Down Arrow** buttons to set the first number, and then press the **OK** button.
   b. Continue setting individual numbers; press the **OK** button after each selection. When you are finished adding numbers for the address, press the **OK** button to return to the menu.

Setting the IPv6 Address Using CentreWare IS

To manually set the IPv6 address using CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. In the Manual Address Assignment field, select **Use this address**, and then type the address.
7. Click the **Save Changes** button at the bottom of the page.

Address Precedence

Address precedence can be set to either an IPv6 or IPv4 address when both types are available. IPv6 is the default setting. Address Precedence can only be set in CentreWare IS.

Using CentreWare IS

To set address precedence using CentreWare IS:

1. Launch your web browser.
2. Enter your printer's IP address in the browser's **Address** field.
3. Click **Properties**.
4. Select the **Protocols** folder on the left navigation panel, and then click **TCP/IP**.
5. Click the **TCP/IP (v6)** button.
6. In the **Address Precedence** field, select the desired option.
7. Click the **Save Changes** button at the bottom of the page.

Printing Basics 3

This chapter includes:

- Overview of Basic Steps on page 3-2
- Supported Paper and Media on page 3-3
- Loading Paper on page 3-7
- Selecting Printing Options on page 3-18
- Printing on Both Sides of the Paper on page 3-23
- Printing on Specialty Media on page 3-25

Overview of Basic Steps

1. Load paper in the tray.
2. Adjust the width and length guides to fit the paper.
3. If you are prompted by the control panel, either confirm the paper type and size or change it as required.
4. From the software application, access the **Print** dialog box, and then select printing options in the printer driver.
5. Send the job to the printer from the software application's **Print** dialog box.

See also:

Loading Paper on page 3-7
Selecting Printing Options on page 3-18
Printing on Specialty Media on page 3-25

Supported Paper and Media

This section includes:

- Paper Usage Guidelines on page 3-3
- Paper That Can Damage Your Printer on page 3-4
- Paper Storage Guidelines on page 3-5
- Supported Paper Sizes and Weights on page 3-5

Your printer is designed to be used with a variety of paper types. Follow the guidelines in this section to ensure the best print quality and to avoid jams.

For best results, use Xerox printing media specified for your Phaser 4510 printer. They are guaranteed to produce excellent results with your printer.

Caution: Damage caused by using unsupported paper, transparencies, and other specialty media is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

To order paper, transparencies, or other specialty media, contact your local reseller or go to www.xerox.com/office/4510supplies.

Paper Usage Guidelines

The printer trays accommodate most sizes and types of paper, transparencies, or other specialty media. Follow these guidelines when loading paper and media in the trays:

- Fan paper, transparencies, or other specialty media before loading in the paper tray.
- Do not print on label stock once a label has been removed from a sheet.
- Use only paper envelopes. Do not use envelopes with windows, metal clasps, or adhesives with release strips.
- All envelopes should be printed single-sided only.
- Some wrinkling and embossing may occur when printing envelopes.
- Do not overload the paper trays. Do not load paper above the fill line on the inside of the paper guide.

- Adjust the paper guides to fit the paper size. For Trays 2–4, the paper guides click into place when they are adjusted correctly.
- If excessive jams occur, use paper or other media from a new package.

Note: Printer reliability specifications may be affected by increased use of transparency, card stock, and labels. In addition, printer reliability may vary due to extended use of some media types.

See also:

Printing Transparencies on page 3-25
Printing Envelopes on page 3-32
Printing Labels on page 3-36
Printing Index Cards on page 3-41
Printing Custom Size Paper on page 3-43
Creating Custom Paper Types on page 3-45

Paper That Can Damage Your Printer

Your printer is designed to use a variety of media types for print jobs. However, some media can cause poor output quality, increased paper jams, or damage to your printer.

Unacceptable media includes:

- Rough or porous media
- Plastic media other than supported transparencies
- Paper that has been folded or wrinkled
- Paper with staples
- Envelopes with windows or metal clasps
- Padded envelopes
- Non-laser glossy or coated paper
- Perforated media

Caution: Use only Xerox transparency film. Other types of transparency film can melt and and damage the printer.

Paper Storage Guidelines

Providing good storage conditions for your paper and other media contributes to optimum print quality.

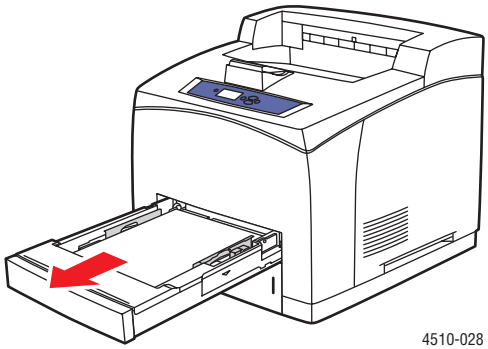
- Store paper in dark, cool, relatively dry locations. Most paper items are susceptible to damage from ultraviolet (UV) and visible light. UV radiation, which is emitted by the sun and fluorescent bulbs, is particularly damaging to paper items. The intensity and length of exposure to visible light on paper items should be reduced as much as possible.
- Maintain constant temperatures and relative humidity.
- Avoid attics, kitchens, garages, and basements for storing paper. Inside walls are drier than outside walls where moisture can collect.
- Store paper flat. Paper should be stored on pallets, cartons, shelves, or in cabinets.
- Avoid having food or drinks in the area where paper is stored or handled.
- Do not open sealed packages of paper until you are ready to load them into the printer. Leave paper in the original packaging. For most commercial cut-size grades, the ream wrapper contains an inner lining that protects the paper from moisture loss or gain.
- Leave the media inside the bag until you are ready to use it; reinsert unused media in the bag and reseal it for protection. Some specialty media is packaged inside resealable plastic bags.

Supported Paper Sizes and Weights

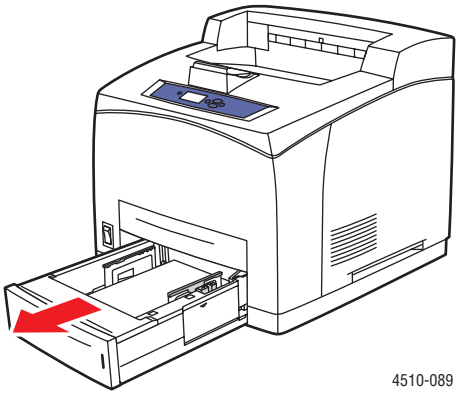
The following sections provide information about paper sizes and weights that can be used in the printer trays. For more detailed information about paper and other media, print the Paper Tips page:

1. On the control panel, select **Information**, and then press the **OK** button.
2. Select **Information Pages**, and then press the **OK** button.
3. Select **Paper Tips Page**, and then press the **OK** button to print.

Paper Sizes and Weights for Trays 1-4



Tray 1



Tray 2

Trays 1-4		
64 – 216 g/m^2 (17 lb. Bond – 80 lb. Cover)		
Statement	5.5 x 8.5 in.	**Custom Sizes** **Tray 1** Width: 76 – 216 mm (3.0 – 8.5 in.) Height: 127 – 356 mm (5.0 – 14 in.) **Trays 2-4** Width: 98 – 216 mm (3.9 – 8.5 in.) Height: 148 – 356 mm (5.8 – 14 in.)
Executive	7.25 x 10.5 in.	
Letter*	8.5 x 11 in.	
US Folio*	8.5 x 13 in.	
Legal*	8.5 x 14.0 in.	
A6	105 x 148 mm	
A5*	148 x 210 mm	
A4*	210 x 297 mm	
B5 JIS	182 x 257 mm	
ISO B5	176 x 250 mm	
Index Card	3 x 5 in.	Printable from Tray 1 only
Monarch	3.87 x 7.5 in.	
#10 Commercial*	4.12 x 9.5 in.	
B5	176 x 250 mm	
C5	162 x 229 mm	
DL*	110 x 220 mm	

*Auto-sensed

Loading Paper

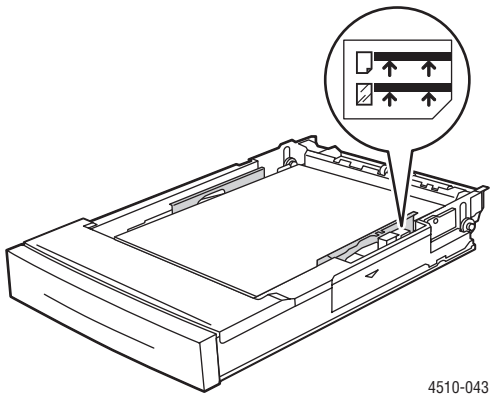
This section includes:

- Loading Paper Guidelines on page 3-7
- Loading Paper in Tray 1 on page 3-8
- Loading Paper in Tray 2, 3, or 4 on page 3-12
- Tray 1 Mode and Tray 2-N Mode on page 3-17

Loading Paper Guidelines

After loading any tray and adjusting the paper guides, set the paper type and size as required at the control panel. All trays require control panel settings for both paper type and size.

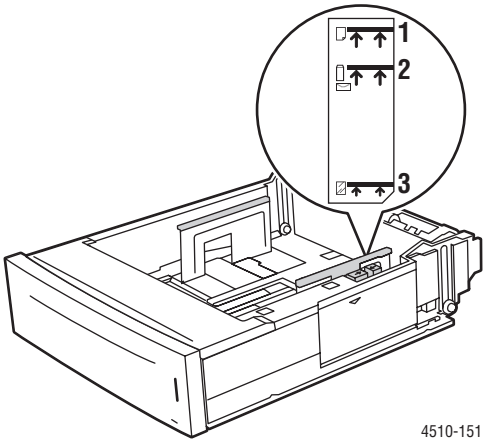
- Do not overload the paper tray. See the tray label for the maximum fill line indicators.



Tray 1

Top fill line - Maximum fill line for paper.

Lower fill line - Maximum fill line for transparencies and envelopes.



Trays 2-4

1 - Maximum fill line for paper.

2 - Maximum fill line for envelopes.

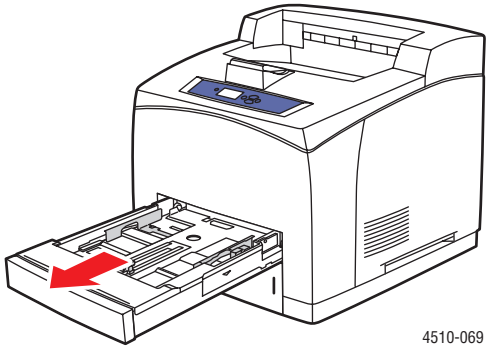
3 - Maximum fill line for transparencies.

- If excessive jams occur, turn the paper or media over. If jams continue to occur, use paper, transparencies, or other specialty media from a new package.
- Use only paper envelopes. Do not use envelopes with plastic windows or metal clasps.
- Only use paper, transparencies, or specialty media that is flat. If frequent jamming occurs with card stock or heavier paper that is less than 175 mm (7 in.) long, reduce the number of sheets in the tray.

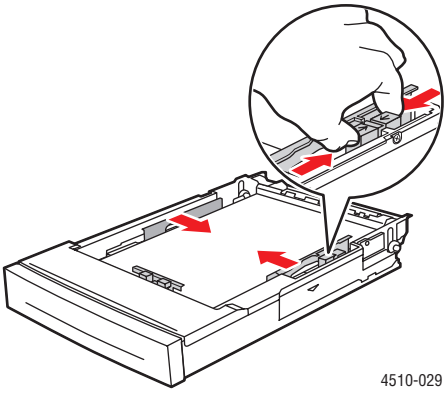
Loading Paper in Tray 1

To load paper or other media in Tray 1:

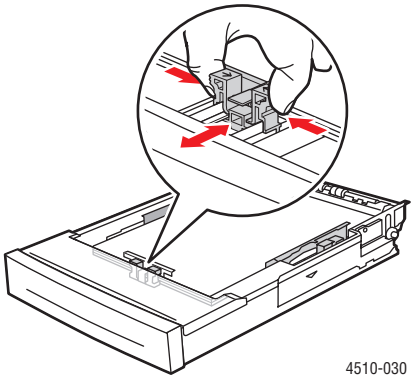
1. Pull Tray 1 completely out of the printer.



2. If loading paper having a different width or length, adjust the width and length guides.

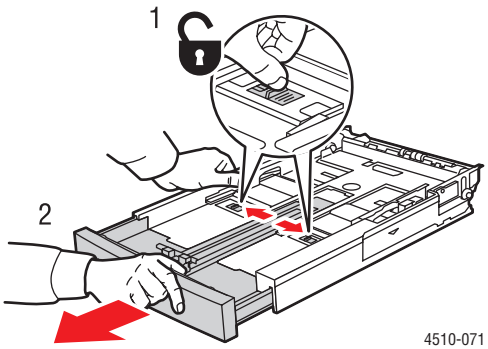


Adjusting Guides

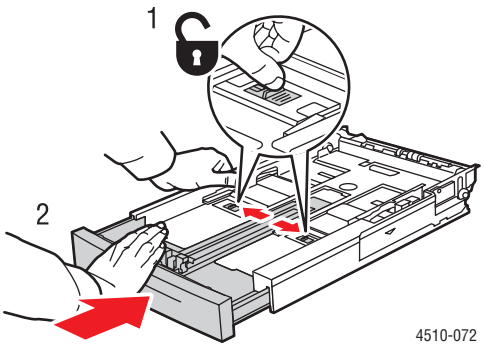


Adjusting Guides

3. Extend the tray to accommodate legal or US Folio (legal 13) paper by moving the release tabs to the sides of the tray and pulling out on the front of the tray. Reduce the tray length by moving the release tabs to the sides of the tray and pushing in the front of the tray.

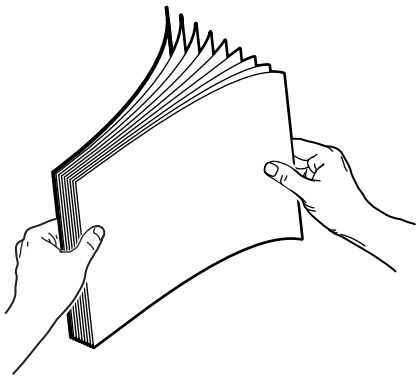


Extending Tray Length

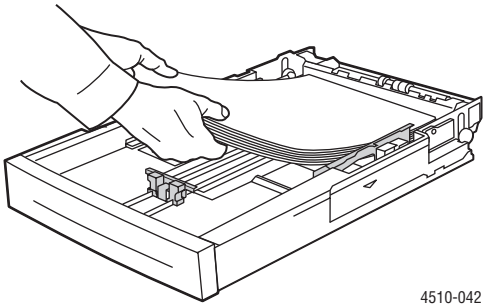


Reducing Tray Length

4. Fan the paper to release sheets that are stuck together.



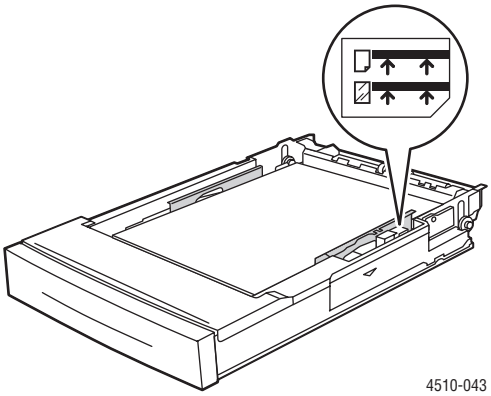
5. Insert the paper into the tray, and adjust the paper guides to fit the paper.



If you are using preprinted or prepunched paper, follow these guidelines:

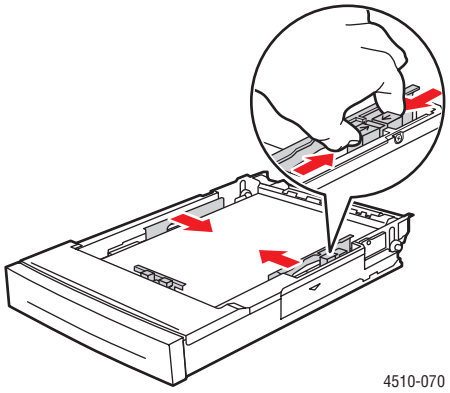
- For **single-sided printing**, place the side to be printed **faceup** with the **top** of the paper entering the printer first.
- For **2-sided printing**, place the first side to be printed **facedown** with the **bottom** of the page entering the printer first.
- For **prepunched paper**, place the paper with the holes toward the **right side** of the tray.

Caution: Do not load paper or media above the fill line indicated on the tray. Overloading the tray may cause jams. The upper fill line indicates the maximum paper fill line.

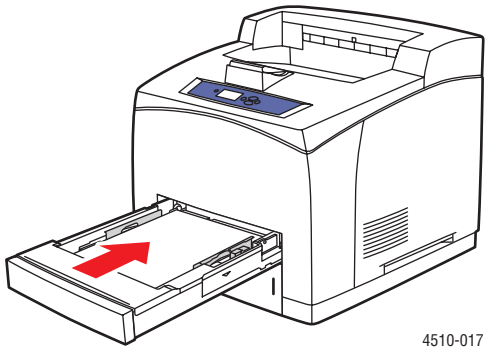


Caution: If you have to remove the cover to load the paper, replace the cover when you have finished loading. If the lid is not replaced, the paper might be misaligned and cause a paper jam.

6. Slide the guide firmly against the paper.



7. Push the paper tray completely into the printer.



8. To use the current tray setup, press the **OK** button on the control panel. If you load a new type or size of paper in the tray, do the following:
   a. Select **Change setup**, and then press the **OK** button.
   b. Select the paper type, and then press the **OK** button.
   c. Select the paper size, and then press the **OK** button.

See also:

Paper Sizes and Weights for Trays 1-4 on page 3-6
Tray 1 Mode and Tray 2-N Mode on page 3-17
Printing on Specialty Media on page 3-25
Printing Custom Size Paper on page 3-43

Loading Paper in Tray 2, 3, or 4

Use Tray 2, 3, or 4 for a wide range of media including:

- Plain paper, heavy plain paper, letterhead, envelopes, colored paper, preprinted paper, and prepunched paper
- Thin or thick card stock
- Transparencies
- Labels

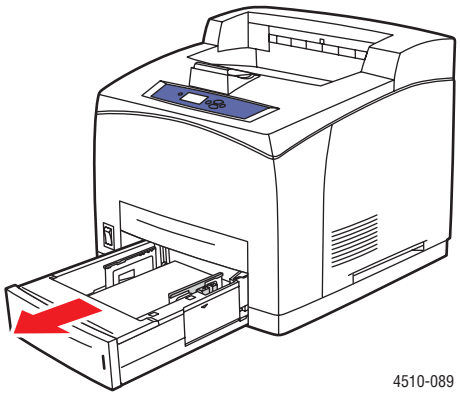
Note: Only Tray 1 can be used to print Index Card sized stock.

See also:

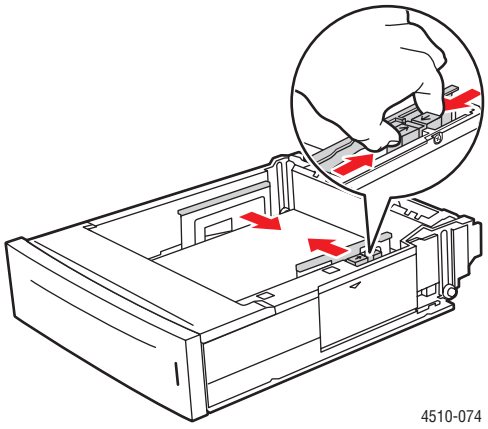
Loading Paper on page 3-7
Printing on Specialty Media on page 3-25

To load paper into Tray 2, 3, or 4:

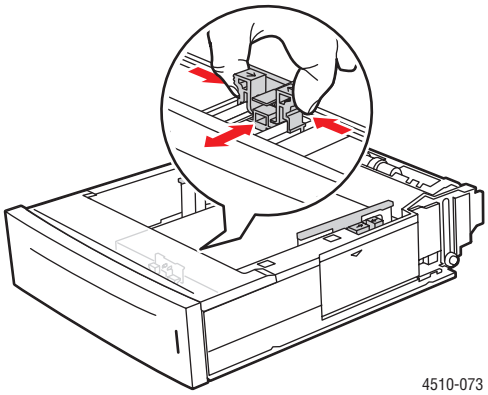
1. Pull the tray completely out of the printer.



2. If loading paper having a different width or length, adjust the width and length guides.

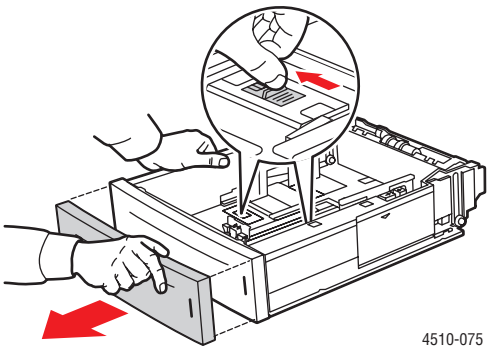


Adjusting Width Guides

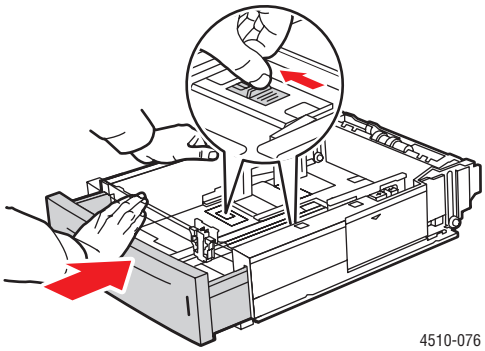


Adjusting Length Guides

3. Extend the tray to accommodate legal or US Folio (legal 13) paper by moving the release tabs to the sides of the tray and pulling out on the front of the tray. Reduce the tray by moving the release tabs to the sides of the tray and pushing in the front of the tray.

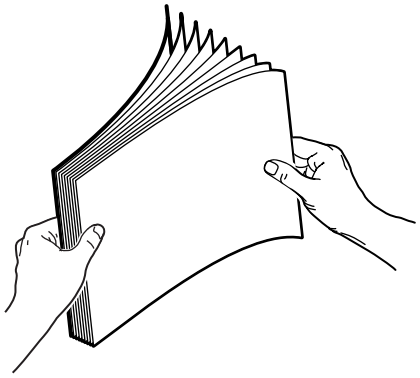


Extending Tray

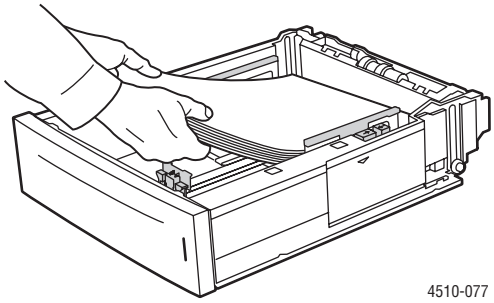


Reducing Tray

4. Fan the paper to release sheets that are stuck together.



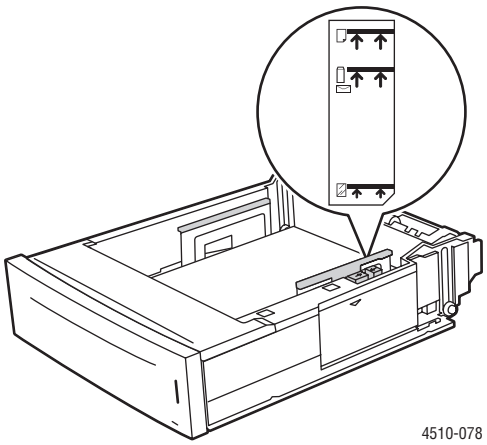
5. Insert paper into the tray.



If you are using preprinted or prepunched paper, follow these guidelines:

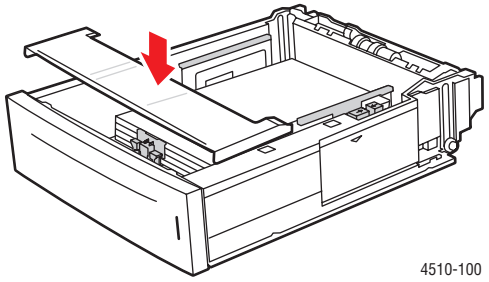
- For **single-sided printing**, place the side to be printed **faceup** with the **top** of the paper entering the printer first.
- For **2-sided printing**, place the first side to be printed **facedown** with the **bottom** of the page entering the printer first. For more information on 2-sided printing, see Printing on Both Sides of the Paper on page 3-23.
- For **prepunched paper**, place the paper with the holes toward the **right side** of the tray.

Caution: Do not load paper above the fill line indicated on the tray. Overloading the tray may cause jams. The top fill line indicates the maximum fill line for paper. For more information on the tray fill lines, see Loading Paper Guidelines on page 3-7.

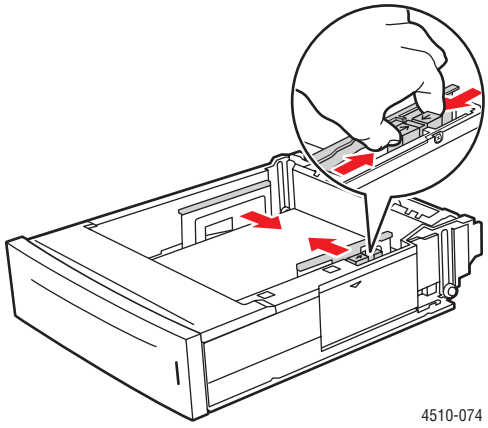


6. If you removed the cover to load the paper, replace it when you have finished loading.

   Caution: If the lid is not replaced, the paper might be misaligned and cause a paper jam.

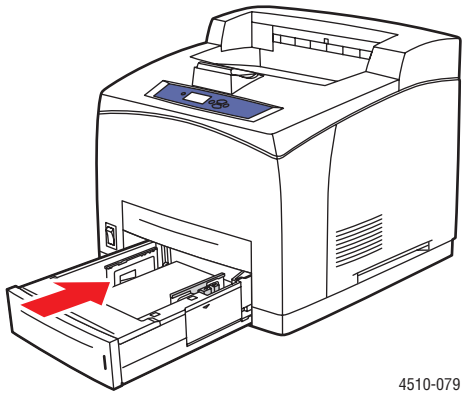


7. If necessary, press the paper guides inward to fit the paper.



   Note: When the paper guides are adjusted correctly, there may be a small space between the paper and the guides.

8. Insert the tray into the tray slot, and push the tray completely into the printer.



9. To use the current tray setup, press the **OK** button on the control panel. If you load a new type of paper in the tray:
   a. Select **Paper Tray Setup**, and then press the **OK** button.
   b. Select **Tray 2 Paper**, **Tray 3 Paper**, or **Tray 4 Paper**, and then press the **OK** button.
   c. Select **Use current setup** if the correct paper type and size is displayed as the current setup, or change the paper type:
      - Select **Change setup**, and then press the **OK** button.
      - Select the paper type from the list displayed, and then press the **OK** button.
      - Select the paper size, and then press the **OK** button.

See also:

Tray 1 Mode and Tray 2-N Mode on page 3-17
Printing on Specialty Media on page 3-25
Printing Custom Size Paper on page 3-43

Tray 1 Mode and Tray 2-N Mode

The Tray 1 and Tray 2-N modes define the printer's media handling behavior to better fit the kind of printing you want to do. Two modes determine how paper size and type are set for Tray 1 and for Trays 2-N, and which tray is used if you do not select a specific tray:

- **Dynamic** (Factory default for Tray 1 Mode): The dynamic setting prompts the printer to search the trays to find the paper size and type to match your print job. If no size and type matches are found and the media size and type have not been configured at the printer's control panel, the printer will print from the highest priority unconfigured tray and set the paper type and size from the print job. The default tray priority is Tray 2, 3, 4, and then 1.
- **Static** (Factory default for Tray 2-N Mode): The static setting enables the user to select the paper size and type settings for the trays using the Paper Tray Setup menu option on the printer's control panel. To print from a tray, the paper size and type of your print job must match the tray's paper size and type settings on the control panel.

See also:

Advanced Features Guide at www.xerox.com/office/4510support for additional information on Tray 1 Mode and Tray 2-N Mode

Selecting Printing Options

This section includes:

- Factors Affecting Print Performance on page 3-18
- Selecting Printing Preferences (Windows) on page 3-18
- Selecting Options for an Individual Job (Windows) on page 3-19
- Selecting Options for an Individual Job (Macintosh) on page 3-20
- Restrictions on Printing on page 3-22

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Factors Affecting Print Performance

Many factors affect a print job. They include the print speed (stated in number of pages per minute), the media used, download time, and printer processing time.

The computer download time and printer processing time are affected by several factors including:

- Printer memory
- Connection type (network, parallel or USB)
- Network operating system
- Printer configuration
- File size and type of graphics
- Computer speed

Note: Additional printer memory (RAM) may improve overall printer functions, but will not increase the pages per minute (ppm) ability of the printer.

Selecting Printing Preferences (Windows)

Printer preferences control all of your print jobs, unless you override them specifically for a job. For example, if you want to use automatic 2-sided printing for most jobs, set this option in printer settings.

To select printer preferences:

1. Select one of the following options:
   - **Windows 2000, Windows Server 2003**: Click **Start**, select **Settings**, and then click **Printers**.
   - **Windows XP**: Click **Start**, and then select **Printers and Faxes**.
2. In the **Printers** folder, right-click the icon for your printer.

3. From the pop-up menu, select **Printing Preferences** or **Properties**.
4. Make selections on the driver tabs, and then click the **OK** button to save your selections.

Note: For more information about Windows printer driver options, click the **Help** button on the printer driver tab to view the online help.

Selecting Options for an Individual Job (Windows)

If you want to use special printing options for a particular job, change the driver settings before sending the job to the printer. For example, if you want to use Photo print-quality mode for a particular graphic, select this setting in the driver before printing that job.

1. With the desired document or graphic open in your application, access the **Print** dialog box.
2. Select the **Phaser 4510** printer and click its **Properties** button to open the printer driver.
3. Make selections from the driver tabs. See the following table for specific printing options.

   Note: In Windows 2000, Windows XP, and Windows Server 2003, you can save current printing options with a distinctive name and apply them to other print jobs. Select **Saved Settings** at the bottom of the tab. Click the **Help** button for more information.

4. Click the **OK** button to save your selections.
5. Print the job.

Printing Options for Windows Operating Systems

Operating System	Driver Tab	Printing Options
Windows Vista, Windows 2000, Windows XP, or Windows Server 2003	**Paper/Output** tab	■ Job Type ■ Document size, paper type, and tray selection ■ 2-sided printing ■ Print quality ■ Output destination ■ Saved settings
	Image Options tab	■ Lightness ■ Contrast
	Layout/Watermark tab	■ Pages per sheet ■ Booklet layout ■ Orientation ■ 2-sided printing ■ Watermark
	Advanced tab	■ Copies, collate, and offset collated sets ■ Edge-to-Edge printing ■ Negative output and mirrored output ■ Xerox web links

Note: If your driver does not display the tabs listed in the table above, you can either go to the website at www.xerox.com/drivers to download the latest driver, or click the **Help** button on the printer driver tab to view the online help and the available printing options.

Selecting Options for an Individual Job (Macintosh)

To select print settings for a particular job, change the driver settings before sending the job to the printer.

1. With the document open in your application, click **File**, and then click **Print**.
2. Select the desired printing options from the menus and drop-down lists that are displayed.

   Note: In Macintosh OS X, click **Save Preset** on the **Print** menu screen to save the current printer settings. You can create multiple presets and save each with its own distinctive name and printer settings. To print jobs using specific printer settings, click the applicable saved preset in the **Presets** list.

3. Click **Print** to print the job.

See the following table for specific printing options:

Macintosh PostScript Driver Settings

Operating System	Driver Drop-Down Title	Printing Options
Mac OS X, Version 10.4	**Copies & Pages**	■ Copies ■ Pages
	Layout	■ Pages per sheet ■ Layout direction ■ Border ■ 2-sided printing
	Paper Handling	■ Reverse page order ■ Print (all, odd, even)
	Cover Page	■ Cover pages
	Paper Feed	■ Paper source
	Job Type	■ Secure prints, personal prints, personal saved prints, proof prints, saved prints, print with
	Image Quality	■ Print quality ■ Image smoothing
	Printer Features	■ Paper types ■ Separation pages
Mac OS X, Version 10.2 and 10.3	**Copies & Pages**	■ Copies ■ Pages
	Layout	■ Pages per sheet ■ Layout direction ■ Border ■ Two-sided printing
	Paper Handling	■ Copies ■ Pages
	Cover Page	■ Cover pages
	Paper Feed	■ Paper source
	Job Types	■ Secure prints, personal prints, proof prints, and saved prints
	Image Quality	■ Print quality ■ Image smoothing

Restrictions on Printing

Your system administrator can restrict the use of the following printer features:

- special job types
- 1-sided printing
- printing from a specific tray

Usage of these features can be restricted to particular times of the day and for particular applications. For example, your system administrator may restrict one-sided printing from your email application; the printer always prints multi-page email messages on both sides of the paper.

Printing on Both Sides of the Paper

This section includes:

- Automatic 2-Sided Printing Guidelines on page 3-23
- Binding Edge Options on page 3-24
- Selecting 2-Sided Printing on page 3-24

Note: For information about manual two-sided printing, go to the Online Support Assistant at www.xerox.com/office/4510support.

Automatic 2-Sided Printing Guidelines

Automatic 2-sided printing is available from all trays. Before printing a 2-sided document, verify the following requirements:

- The printer must have a duplex unit installed. The duplex hardware comes standard on the Phaser 4510DX and 4510DT configurations, and it is a option that is available for the Phaser 4510B and 4510N.
- The paper must be a supported size for the tray. For a list of supported paper sizes, see Supported Paper and Media on page 3-3. For a list of paper types and weights, print the Paper Tips page:
  a. Select **Information**, and then press the **OK** button.
  b. Select **Information Pages**, and then press the **OK** button.
  c. Select **Paper Tips Page**, and then press the **OK** button.

The following paper and media cannot be used for 2-sided printing:

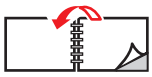
- Transparencies
- Envelopes
- Labels
- Any die-cut specialty media, such as business cards

See also:

Supported Paper and Media on page 3-3
Printer Configurations on page 1-4

Binding Edge Options

When you use the printer driver to select 2-sided printing, also select the binding edge, which determines how the pages turn. The actual outcome depends on the orientation (portrait or landscape) of images on the page, as displayed in the following illustrations.

Portrait		Landscape	
			
Bind on Side Edge Flip on Long Edge	Bind on Top Edge Flip on Short Edge	Bind on Side Edge Flip on Short Edge	Bind on Top Edge Flip on Long Edge

Selecting 2-Sided Printing

To select automatic 2-sided printing:

1. Insert paper in the tray. For more information, see Loading Paper on page 3-7.
2. In the printer driver, select 2-sided printing as shown in the following table, and then press the **OK** button.

To select automatic 2-sided printing:

Operating System	Steps
Windows Vista, Windows 2000, Windows XP, or Windows Server 2003	1. Select the **Paper/Output** tab. 2. Select an option under **2-Sided Printing**: ■ **2-Sided Print** ■ **2-Sided Print, Flip on Short Edge**
Mac OS X, version 10.2 and higher	1. In the **Print** dialog box, select **Duplex**. 2. Select **Print on Both Sides**. 3. Click the **Binding** icon that matches the edge to bind.

See also:

Loading Paper in Tray 1 on page 3-8
Loading Paper in Tray 2, 3, or 4 on page 3-12

Printing on Specialty Media

This section includes:

- Printing Transparencies on page 3-25
- Printing Envelopes on page 3-32
- Printing Labels on page 3-36
- Printing Index Cards on page 3-41
- Printing Custom Size Paper on page 3-43
- Creating Custom Paper Types on page 3-45

Note: Machine reliability specifications may be affected by increased use of transparency, card stock, and labels. In addition, variances in machine reliability may occur due to extended use of some media types.

Printing Transparencies

Transparencies can be printed from all trays. They should be printed on one side only. For best results, use only recommended Xerox transparencies.

Caution: Damage caused by using unsupported paper, transparencies, and other specialty media is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

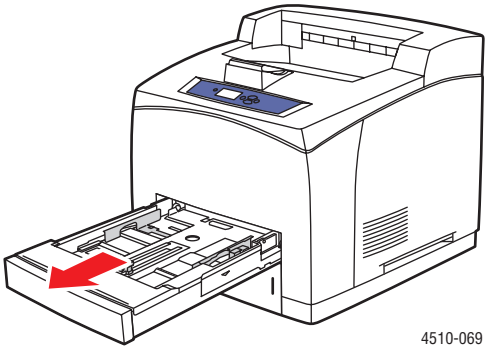
To order paper, transparencies, or other specialty media, contact your local reseller or go to www.xerox.com/office/4510supplies.

Guidelines

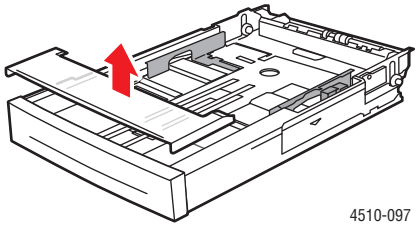
- Remove all paper before loading transparencies in the tray.
- Handle transparencies by the edges using both hands to avoid fingerprints and creases, which may cause poor print quality.
- Fan transparencies before loading in the paper tray.

Printing Transparencies from Tray 1

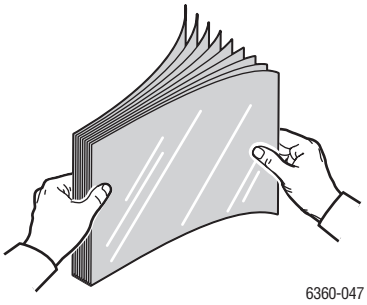
1. Remove Tray 1 from the printer by pulling out on the handle.



2. Remove the lid from the tray.

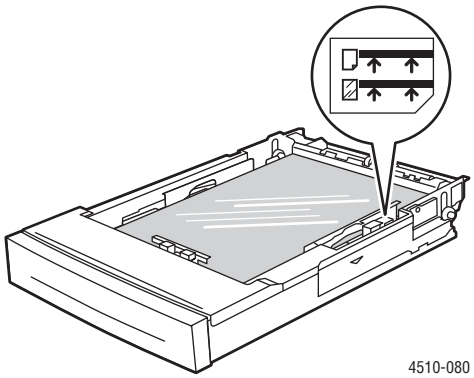


3. Remove all media from the tray.
4. Fan the transparencies to release sheets that are stuck together.

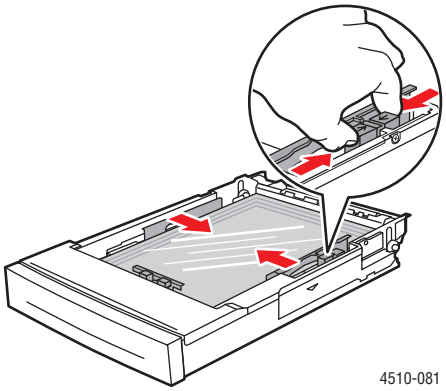


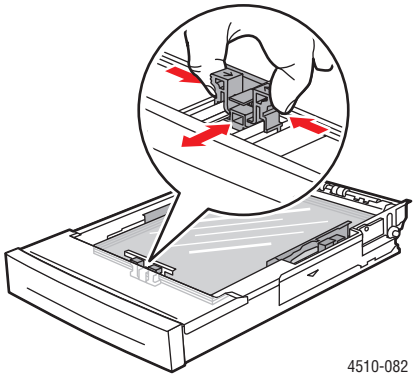
5. Insert the transparencies into the tray.

Caution: Do not load transparencies above the fill line indicated on the paper tray. Overloading the tray may cause jams. In the following illustration, the lower fill line indicates the maximum fill line for transparencies.



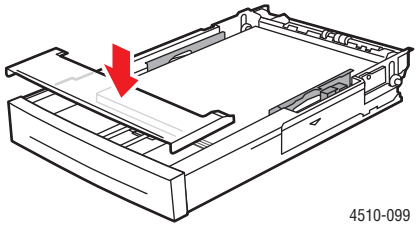
6. Adjust the paper guides to fit the transparencies.



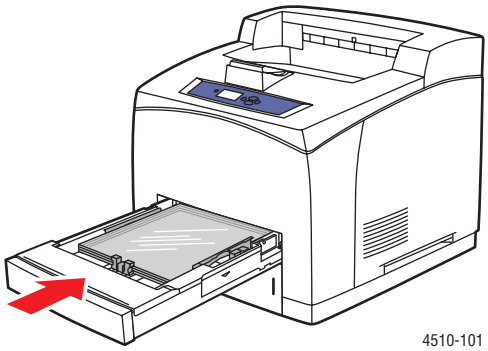


7. Replace the lid on the tray.

Caution: The lid of the tray must be firmly closed. If not, the transparencies may become misaligned and cause a jam.



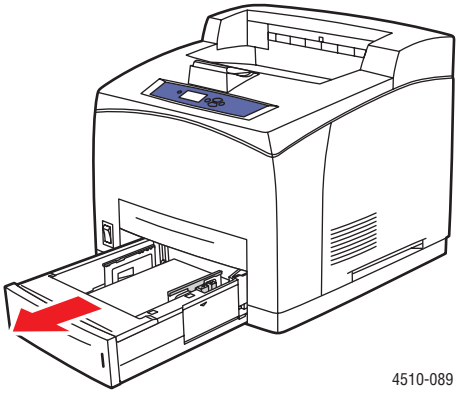
8. Insert the tray into the tray slot, and push the tray completely into the printer.



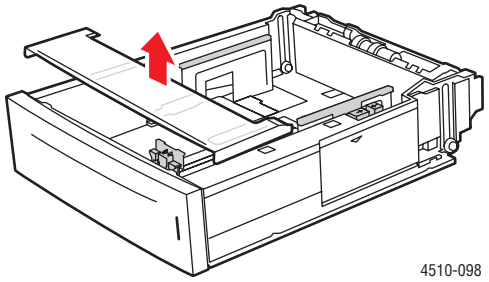
9. On the control panel, press the **OK** button if the correct transparency size and type are displayed as the current setup, or select the transparency size and type:
   a. Select **Change setup**, and then press the **OK** button.
   b. Select **Transparency**, and then press the **OK** button.
   c. Select the appropriate paper size, and then press the **OK** button.
10. In the printer driver, select either **Transparency** as the paper type or **Tray 1** as the paper source.

Printing Transparencies from Trays 2–4

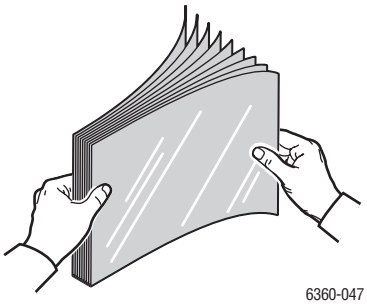
1. Pull the tray that you want to load with transparencies completely out of the printer.



2. Remove the lid from the tray.

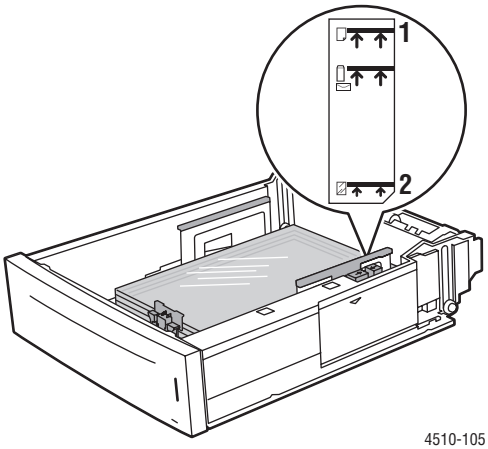


3. Remove all media from the tray.
4. Fan the transparencies to release sheets that are stuck together.



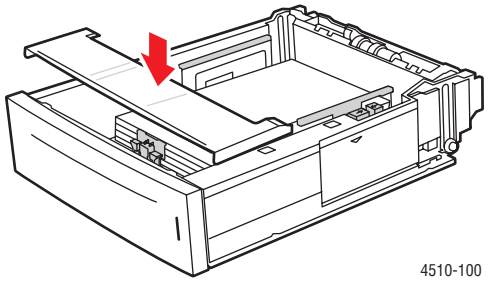
5. Insert the transparencies into the tray.

Caution: Do not load transparencies above the lower fill line indicated on the paper tray. Overloading the tray may cause jams. In the following illustration, **2** indicates the maximum fill line for transparencies.



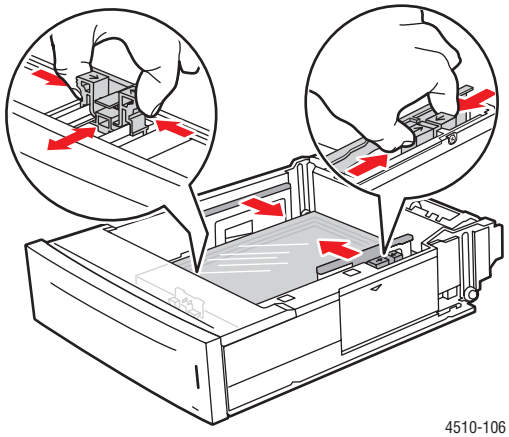
6. Replace the lid on the tray.

   Caution: The lid of the tray must be firmly closed. If not, the transparencies may become misaligned and cause a jam.

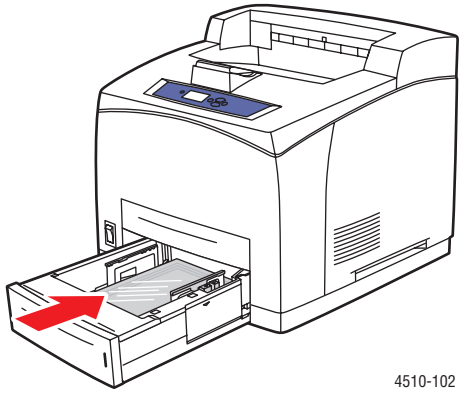


7. If necessary, press the guides inward to fit the transparencies.

   Note: When the paper guides are adjusted correctly, there may be a small space between the transparencies and the guides.



8. Insert the tray into the tray slot, and push the tray completely into the printer.



9. On the control panel, select the transparency type:
   a. Select **Paper Tray Setup**, and then press the **OK** button.
   b. Select **Tray 2 Paper**, **Tray 3 Paper**, or **Tray 4 Paper**, and then press the **OK** button.
   c. If the correct transparency size and type are displayed as the current setup, select **Use current setup** and then press the **OK** button. If the correct media type and size are not displayed, change the setup:
      - Select **Change setup**, and then press the **OK** button.
      - Select **Transparency** from the list displayed, and then press the **OK** button.
      - Select the appropriate paper size, and then press the **OK** button.
10. In the printer driver, select either **Transparency** as the paper type or the appropriate tray as the paper source.

Printing Envelopes

Envelopes can be printed from all trays.

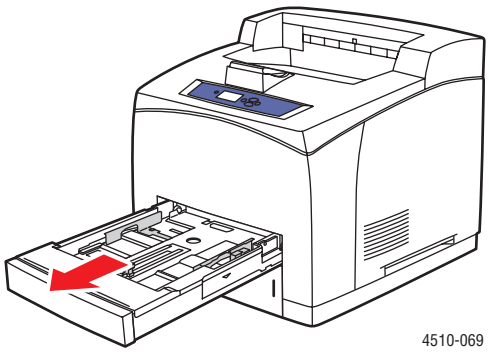
Guidelines

- Use only paper envelopes specified in the Supported Paper Sizes and Weights table. Successful envelope printing is highly dependent on the quality and construction of the envelopes. Use envelopes made specifically for laser printers.
- It is recommended that you maintain constant temperatures and relative humidity.
- Store unused envelopes in their packaging to avoid the effects of moisture and dryness which can affect print quality and cause wrinkling. Excessive moisture can cause the envelopes to seal before or during printing.
- Avoid padded envelopes; purchase envelopes that lie flat on a surface.
- Remove air bubbles from the envelopes before loading by setting a heavy book on top of the envelopes.
- If wrinkling or embossing problems occur, use a different brand of envelopes made specifically for laser printers. This may help minimize these types of problems.

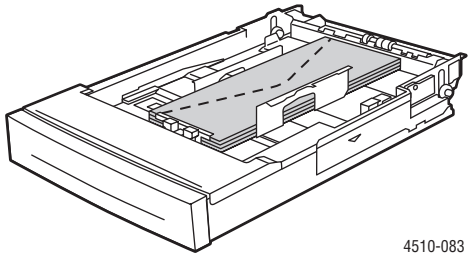
Caution: Never use envelopes with windows or metal clasps; they can damage the printer. Damage caused by using unsupported envelopes is not covered under the Xerox warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas, please contact your local representative for details.

Printing Envelopes from Tray 1

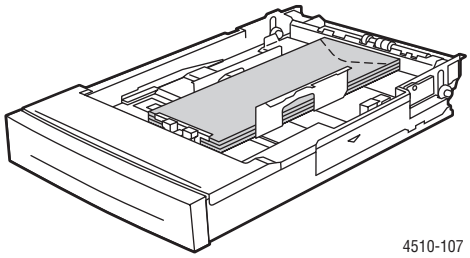
1. Pull Tray 1 completely out of the printer.



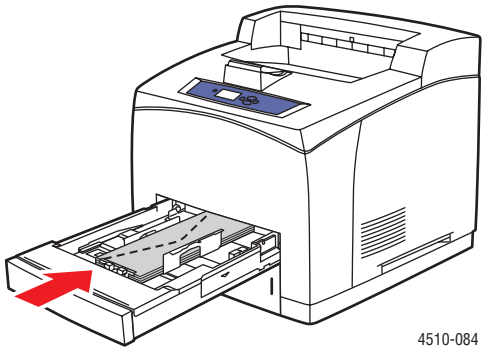
2. Insert the envelopes into Tray 1, and adjust the paper guides to fit the envelopes.
   - For #10 Commercial, C5, and B5 envelopes, place the envelopes in the tray **flap-side down** with the **top** of the envelopes toward the **left** of the printer.
   - Do not load more than 10 envelopes in Tray 1 at any time.



   - For Monarch and DL envelopes, place the envelopes in the tray **flap-side down** with the **top** of the envelope entering first.



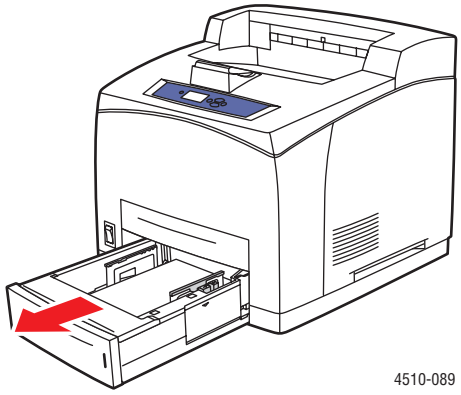
3. Insert the tray into the tray slot, and push the tray completely into the printer.



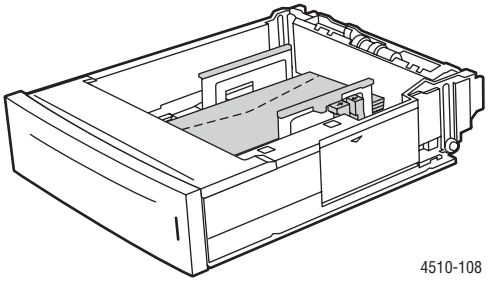
4. On the control panel, press the **OK** button if the size is correct and **Envelope** is displayed as the current paper type, or change the paper type and size:
   a. Select **Change setup**, and then press the **OK** button.
   b. Select **Envelope**, and then press the **OK** button.
   c. Select the appropriate paper size, and then press the **OK** button.
5. In the printer driver, select either **Envelope** as the paper type or **Tray 1** as the paper source.

Printing Envelopes from Trays 2–4

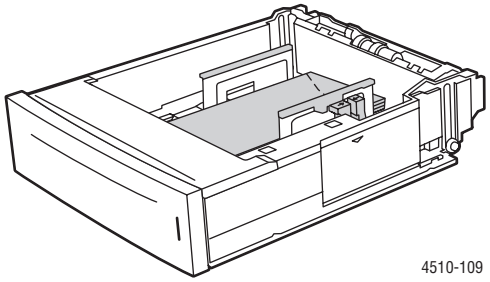
1. Pull the tray that you want to load with envelopes completely out of the printer.



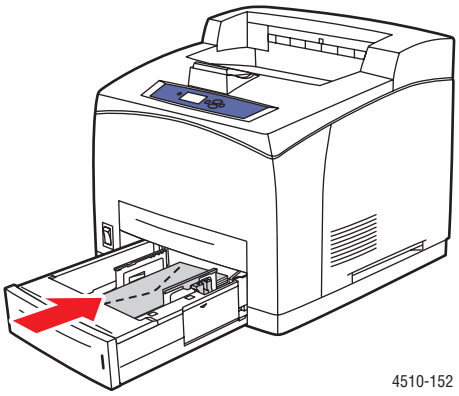
2. Insert the envelopes into the tray, and adjust the paper guides to fit the envelopes.
   - For #10 Commercial, C5, and B5 envelopes, place the envelopes in the tray **flap-side down** with the **top** of the envelopes toward the **left** of the printer.
   - Do not load more than 75 envelopes in Trays 2-4 at any time.



- For Monarch and DL envelopes, place the envelopes in the tray **flap-side down** with the **top** of the envelope entering first.



3. Insert the tray into the tray slot, and push the tray completely into the printer.



4. On the control panel, select the envelope type and size:
   a. Select **Paper Tray Setup**, and then press the **OK** button.
   b. Select **Tray 2 Paper**, **Tray 3 Paper**, or **Tray 4 Paper**, and then press the **OK** button.
   c. If the size is correct and **Envelope** is displayed as the current paper type, select **Use current setup** and then press the **OK** button. If the correct media type and size are not displayed, change the setup:
      - Select **Change setup**, and then press the **OK** button.
      - Select **Envelope** from the list displayed, and then press the **OK** button.
      - Select the appropriate paper size, and then press the **OK** button.
5. In the printer driver, select either **Envelope** as the paper type or the tray you just loaded as the paper source.

Printing Labels

Xerox labels can be printed from all trays.

To order paper, transparencies, or other specialty media, contact your local reseller or go to www.xerox.com/office/4510supplies.

See also:

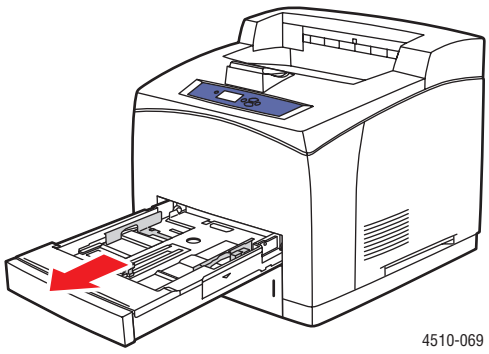
Paper Sizes and Weights for Trays 1-4 on page 3-6
Loading Paper on page 3-7

Guidelines

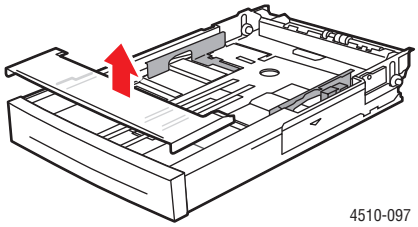
- Do not use vinyl labels.
- Print only on one side of the sheet of labels.
- Do not use any sheet where labels are missing; it may damage the printer.
- Store unused labels flat in their original packaging. Leave the sheets of labels inside the original packaging until ready to use. Return any unused sheets of labels to the original packaging and reseal it.
- Do not store labels in extremely dry or humid conditions or extremely hot or cold conditions. Storing them in extreme conditions may cause print-quality problems or cause them to jam in the printer.
- Rotate stock frequently. Long periods of storage in extreme conditions can cause labels to curl and jam the printer.

Printing Labels from Tray 1

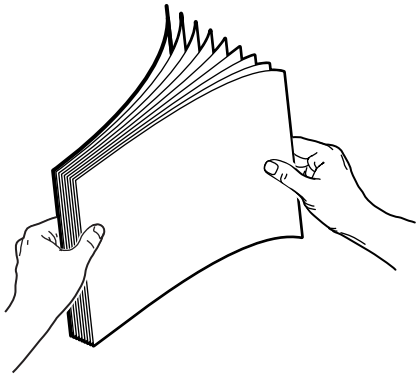
1. Pull Tray 1 completely out of the printer.



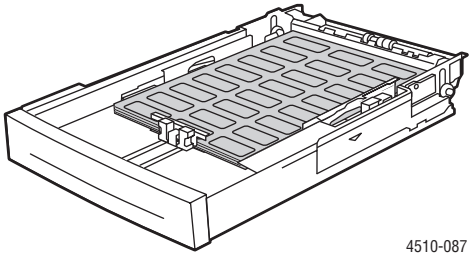
2. Remove the lid from the tray.



3. Fan the labels to release sheets that are stuck together.

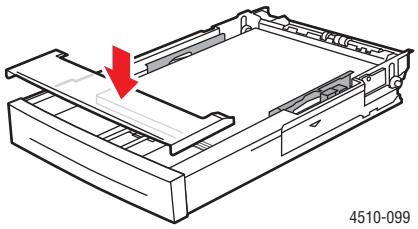


4. Insert the labels into Tray 1, and adjust the paper guides to fit the sheets.
   - Place the side to be printed **faceup** with the top of the sheets entering first.
   - Do not load more than 100 sheets.

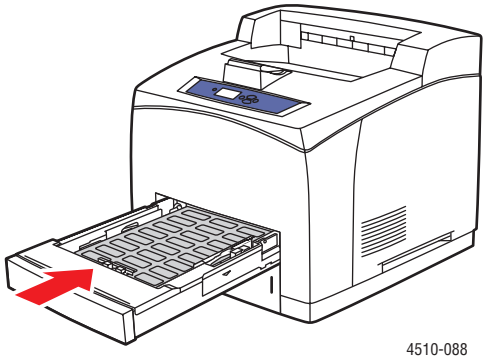


5. Replace the lid on the tray.

   Caution: The lid of the tray must be firmly closed. If not, the labels may become misaligned and cause a jam.



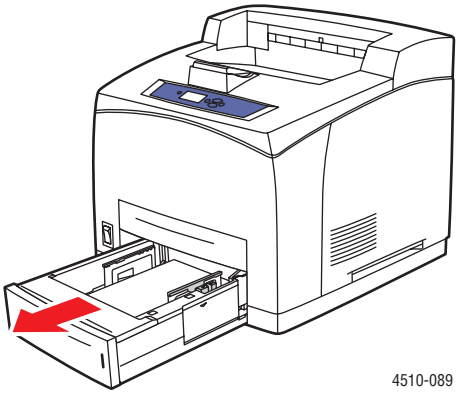
6. Insert the tray into the tray slot, and push the tray completely into the printer.



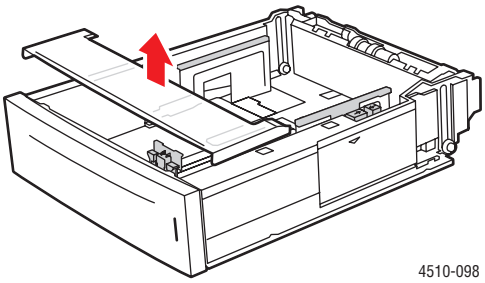
7. On the control panel, press the **OK** button if the correct paper size and **Labels** are displayed as the current setup, or select the label size and type:
   a. Select **Change setup**, and then press the **OK** button.
   b. Select **Labels**, and then press the **OK** button.
   c. Select the appropriate paper size, and then press the **OK** button.
8. In the printer driver, select either **Labels** as the paper type or **Tray 1** as the paper source.

Printing Labels from Trays 2–4

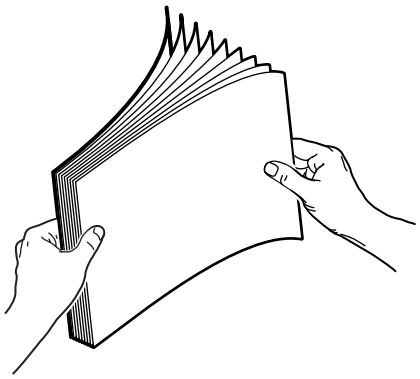
1. Pull the tray completely out of the printer.



2. Remove the lid from the tray.

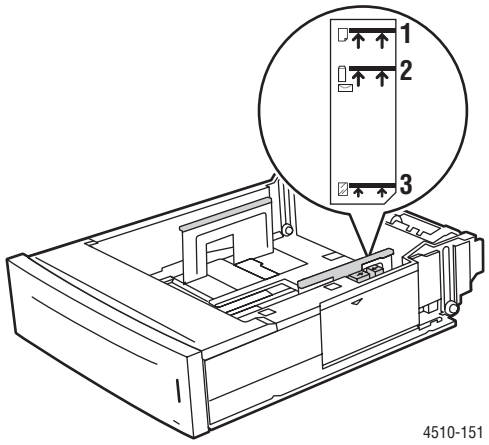


3. Fan the labels to release sheets that are stuck together.



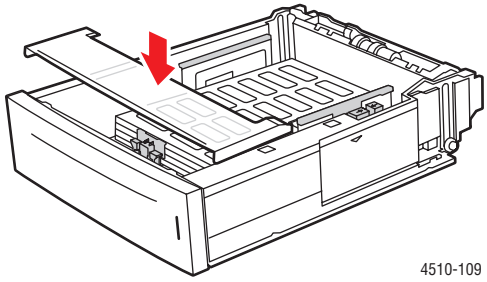
4. Insert the labels into the tray, and adjust the paper guides to fit the sheets.
   - Place the side to be printed **faceup** with the top of the sheets entering first.
   - Do not load more than 290 sheets.

   Note: Do not load the paper above the fill line indicated on the tray. Overloading the tray may cause jams. In the following illustration, **2** indicates the maximum fill line for labels.

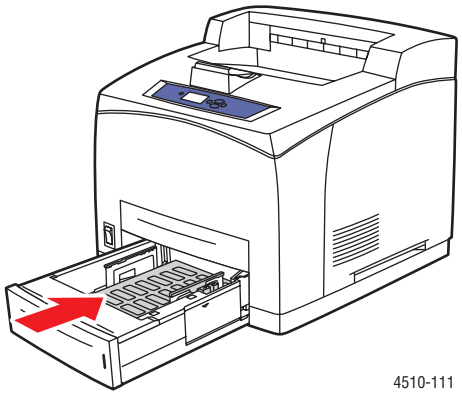


5. Replace the lid on the tray.

   Caution: The lid of the tray must be firmly closed. If not, the labels may become misaligned and cause a jam.



6. Insert the tray into the tray slot, and push the tray completely into the printer.



7. On the control panel, select the paper type:
   a. Select **Paper Tray Setup**, and then press the **OK** button.
   b. Select **Tray 2 Paper**, **Tray 3 Paper**, or **Tray 4 Paper**, and then press the **OK** button.
   c. If the correct paper size and **Labels** are displayed as the current setup, select **Use current setup** and then press the **OK** button. If the correct media type and size are not displayed, change the setup:
      - Select **Change setup**, and then press the **OK** button.
      - Select **Labels** from the list displayed, and then press the **OK** button.
      - Select the appropriate paper size, and then press the **OK** button.
8. In the printer driver, select either **Labels** as the paper type or the appropriate tray as the paper source.

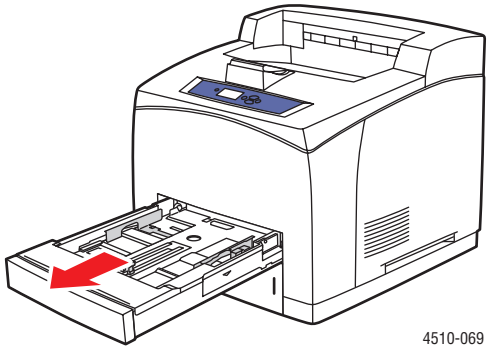
Printing Index Cards

Index cards (3 in. x 5 in.) can be printed from Tray 1 only. Index cards can not be used for 2-sided printing.

To order paper, transparencies, or other specialty media, contact your local reseller or go to www.xerox.com/office/4510supplies.

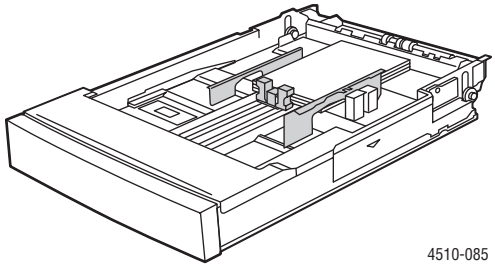
Printing Index Cards from Tray 1

1. Pull the tray completely out of the printer.

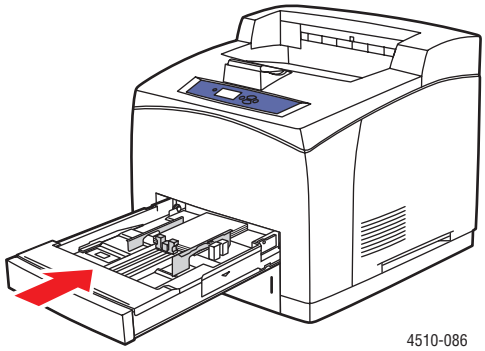


2. Insert the 3 x 5 in. index cards into the tray with the side to be printed **faceup** with the **top** of the card toward the **back** of the tray.

   Do not load paper above the fill line indicated inside the tray.



3. Adjust the paper guides to fit against the index cards.
4. Insert the tray into the printer tray slot and push it completely to the back of the printer.



5. On the control panel, press the **OK** button if **Index Card** is displayed as the current setup, or select the paper type:
   a. Select **Change setup**, and then press the **OK** button.
   b. Select **Index Card**, and then press the **OK** button.
6. In the printer driver, select the appropriate tray or paper type.

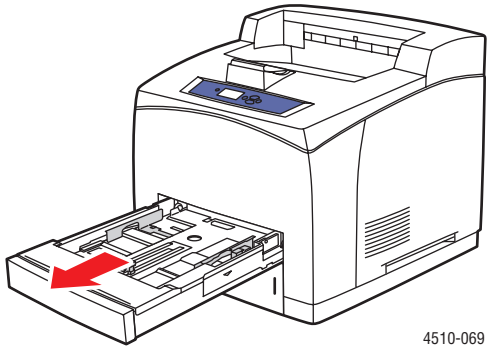
Printing Custom Size Paper

In addition to the wide variety of standard paper sizes that you can use for printing, you can also print on custom size paper from any tray. The custom size paper must be within the following dimensions.

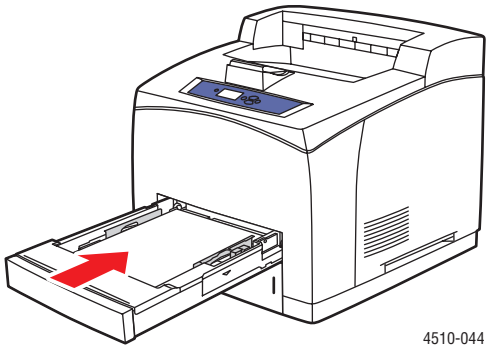
	Input		Output	
	Tray 1	**Trays 2-4**	**Standard Tray**	**500-Sheet Stacker**
1-Sided Printing				
Short Edge	76 – 216 mm 3.0 – 8.5 in.	98 – 216 mm 3.9 – 8.5 in.	76 – 216 mm 3.0 – 8.5 in.	89 – 216 mm 3.5 – 8.5 in.
Long Edge	127 – 356 mm 5.0 – 14.0 in.	148 – 356 mm 5.8 – 14.0 in.	127 – 356 mm 5.0 – 14.0 in.	140 – 356 mm 5.5 – 14.0 in.
2-Sided Printing				
Short Edge	89 – 216 mm 3.5 – 8.5 in.	98 – 216 mm 3.9 – 8.5 in.	Same as Input	Same as Input
Long Edge	140 – 356 mm 5.5 – 14.0 in.	148 – 356 mm 5.8 – 14.0 in.	Same as Input	Same as Input

Printing Custom Size Paper

1. Open the tray that you want to print custom paper from by pulling out on the handle.

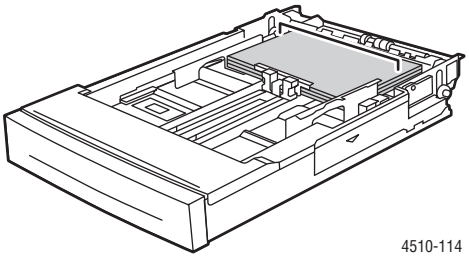


2. Insert the paper into the tray, and adjust the paper guides to fit the paper.
   - The maximum width is 216 mm (8.5 in.).
   - For **single-sided printing**, if you are using preprinted or prepunched paper, place the side to be printed **facedown** with the **top** of the paper entering the printer first.
   - For **2-sided printing,** if you are using preprinted or prepunched paper, place the first side to be printed **faceup** with the **bottom** of the page entering the printer first.
3. Insert the tray into the tray slot, and push the tray completely into the printer.

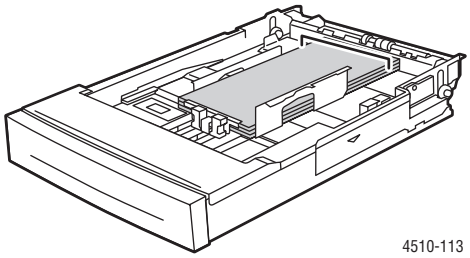


4. On the control panel, select **Change setup**, and then press the **OK** button.
5. Select **Custom Type**, and then press the **OK** button.
6. Do one of the following:
   - If your custom paper size is listed in the menu, select it, and then press the **OK** button.
   - If your custom paper size is not listed in the menu, select **New Custom Size**, and then press the **OK** button.

7. If you selected **New Custom Size**, select the custom width and height:
   a. For **Short Edge**, use the **Up Arrow** and **Down Arrow** buttons to specify the short edge, and then press the **OK** button.
   b. For **Long Edge**, use the **Up Arrow** and **Down Arrow** buttons to specify the long edge, and then press the **OK** button.
   c. If the control panel prompts you for the **Paper Orientation**, use the **Up Arrow** and **Down Arrow** buttons to select the direction you are feeding the paper into the tray.



Long-Edge Feed



Short-Edge Feed

Note: When you define a new custom size, it is stored in the printer so it can be used again. Up to five custom sizes can be stored in the printer. If you define a new custom size after five custom sizes have been stored, the new custom size replaces the least recently used.

8. Either use the custom size as the document size in the application or select the appropriate tray as the paper source.

Creating Custom Paper Types

Custom paper types are created in CentreWare IS and appear in the printer driver, control panel, and CentreWare IS. Use this feature to create your own custom paper type with specific settings that you can reuse for routine print jobs, for example, monthly reports.

To create custom paper types:

1. Launch your web browser.
2. Enter the printer's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
3. Click **Properties**.
4. Select the **General** folder on the left navigation panel.
5. Select **Custom Paper Types**.
6. Enter or modify the settings, and then click **Save Changes** at the bottom of the page.

Note: For more information about creating custom paper types, click the **Help** button on the **Properties** tab to view the online help.

Print Quality 4

This chapter includes:

- Controlling the Quality of Your Prints on page 4-2
- Solving Print-Quality Problems on page 4-3

Controlling the Quality of Your Prints

The print-quality mode directly controls the quality of your prints, and the paper type directly controls the print speed. You can change these settings in the printer driver or on the control panel.

Note: Driver settings override the control panel settings.

See also:

Advanced Features Guide at www.xerox.com/office/4510support

Selecting a Print-Quality Mode

There are two print-quality modes:

Print-Quality Mode	Type of Print Job
600 x 600 dpi	Best general-purpose mode for high-speed printing. Produces crisp, bright prints.
True 1200 x 1200 dpi	Highest-quality prints with best detail. Recommended for photo prints. Produces superior text resolution.

To select the print-quality mode in a supported driver:

Operating System	Steps
Windows Vista, Windows 2000, Windows XP, or Windows Server 2003	On the **Paper/Output** tab, select a print-quality mode.
Mac OS X (version 10.2 and higher) driver:	In the **Print** dialog box, select **Image Quality** from the drop-down list, and then select a print quality mode from the **Print Quality** drop-down list.

Solving Print-Quality Problems

Your printer is designed to produce consistently high-quality prints. If you observe print-quality problems, use the information in this topic to diagnose the problem.

For best results, use only Xerox Printing Media. For information on supported paper types and weights, see Supported Paper and Media on page 3-3.

Caution: Damage caused by using unsupported paper, transparencies, and other specialty media is not covered by the Xerox warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

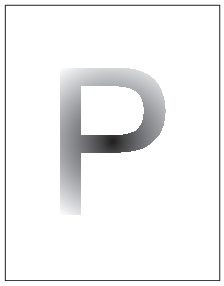
Note: If you change the type of paper in a tray, you must change the paper type and size on the control panel to match what is loaded in the tray.

This section includes:

- Light Prints on page 4-4
- Blank Prints on page 4-5
- Black Prints on page 4-6
- Horizontal Line Deletions on page 4-7
- Vertical Line Deletions on page 4-8
- Horizontal Dark Streaks on page 4-9
- Vertical Dark Streaks on page 4-10
- Dark Spots or Marks on page 4-11
- Unfused or Partially Fused Image on page 4-12
- Wrinkled Prints on page 4-13
- Blurred Prints on page 4-14
- Random or Spot Deletions on page 4-14
- Repeating Defects on page 4-15
- Setting the Fuser Temperature on page 4-16
- Print Area Is Not Centered on the Paper on page 4-17

Light Prints

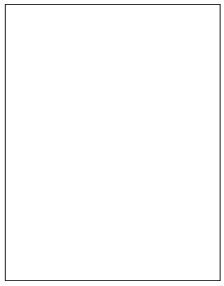
The overall image is lighter than normal.



Possible Causes	Solutions
The paper may be damp.	Replace the paper.
You may be using Draft mode.	Turn off Draft mode.
The toner level may be low.	If the print cartridge is low on toner, replace it.

Blank Prints

The entire printed page is blank with no visible print.



Possible Causes	Solutions
If you just installed a new print cartridge, the yellow sealing tape may still be in place.	Remove the tape.
Multiple sheets may have been fed from the paper tray at the same time.	Remove the paper from the paper tray and fan it. Also, ensure that the paper is correctly loaded in the tray.
Printable data may not have been received from the computer.	Print a Configuration page. ■ If the Configuration page prints correctly, check the interface cable between the computer and printer, the printer setup, and application software. ■ If the Configuration page is blank, replace the print cartridge then reprint the Configuration page. If the Configuration page still is blank, contact your Customer Support Center.

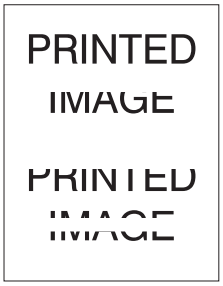
Black Prints

The entire printed page is black.

Possible Causes	Solutions
The print cartridge may be defective.	Replace the print cartridge.
Printable data from the computer may be corrupted.	Print a Configuration page. ■ If the Configuration page prints correctly, check the interface cable between the computer and the printer, and the application software. ■ If the connections appear normal, contact your Customer Support Center.

Horizontal Line Deletions

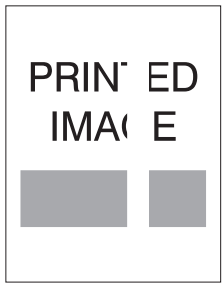
There are areas of print deletions that appear across the paper.



Possible Causes	Solutions
The print cartridge may not be installed correctly.	Remove and re-install the print cartridge.
The print cartridge may be defective or at the end of its life.	Replace the print cartridge.
The transfer roller may be defective.	Replace the transfer roller (in the maintenance kit).

Vertical Line Deletions

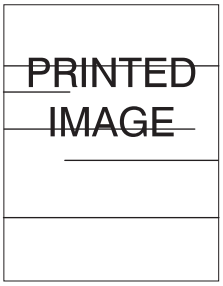
There are areas of print deletions that form narrow lines.



Possible Causes	Solutions
The paper may be defective with creases, folds, etc.	Replace the paper.
The print cartridge may be defective or at the end of its life.	Replace the print cartridge.
The transfer roller may be defective.	Replace the transfer roller (in the maintenance kit).

Horizontal Dark Streaks

There are black lines that appear horizontally on the page.



Possible Causes	Solutions
The print cartridge may be defective or at the end of its life.	Replace the print cartridge.
The paper path may be contaminated with toner.	Print several blank sheets of paper to remove the toner accumulations.
The fuser may be defective.	Replace the fuser (in the maintenance kit).

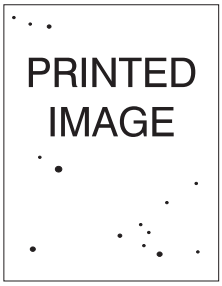
Vertical Dark Streaks

There are black lines that appear vertically on the page.

Possible Causes	Solutions
The paper path may be contaminated with toner.	Print several blank sheets of paper to remove the toner accumulations.
The print cartridge may be defective or at the end of its life.	Replace the print cartridge.
The fuser may be defective.	Replace the fuser (in the maintenance kit).

Dark Spots or Marks

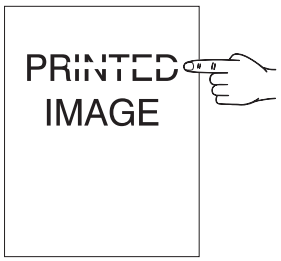
There are dark spots or marks that appear in a random pattern on the page.



Possible Causes	Solutions
The paper path may be contaminated with toner.	Print several blank sheets of paper to remove the toner accumulations.
The print cartridge may be defective.	Replace the print cartridge.
The fuser may be defective.	Replace the fuser (in the maintenance kit).
The transfer roller may be defective.	Replace the transfer roller (in the maintenance kit).

Unfused or Partially Fused Image

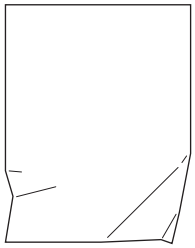
The printed image is not fully fused to the paper and easily rubs off.



Possible Causes	Solutions
The paper may be damp.	Replace the paper.
Heavy or unusual paper may be in the tray.	Replace the paper with an approved paper type then do the following: ■ At the printer's control panel, select **Printer Setup**, then **Paper Handling Setup**, and then select **Fuser Configuration**. ■ Adjust the fuser setting for the paper type selected.
The printer may be located in an environment with extreme temperature or humidity.	Verify that the printer is located in an environment with the temperature between 5° and 35° C (41° and 95° F) and the relative humidity between 15% and 85%. Move the printer to a suitable area, away from air conditioning vents, open loading docks, etc.
The fuser may be defective.	Replace the fuser (in the maintenance kit).

Wrinkled Prints

The pages are wrinkled, creased, or torn.



Possible Causes	Solutions
The paper is not loaded correctly in the appropriate tray.	Verify that the paper is correctly loaded in the appropriate tray.
The paper may be in poor condition.	Replace the paper.
The paper may be damp.	Replace the paper.
The fuser may be at the end of its life.	Replace the fuser (contained in the maintenance kit).

Blurred Prints

The image is blurred at the edges.

Possible Causes	Solutions
The paper may be in poor condition.	Replace the paper.
The paper may be damp.	Replace the paper.
The print cartridge may be defective.	Replace the print cartridge.

Random or Spot Deletions

Areas of the print are extremely light or missing.

Possible Causes	Solutions
The paper may be in poor condition.	Replace the paper.
The paper may be damp.	Replace the paper.
The print cartridge may be defective or at the end of its life.	Replace the print cartridge.

Repeating Defects

Marks or voids are regularly repeated on the page. Use the following table to determine the supply that needs replacing.

Defect Spacing	Supply to Replace
38 mm (1.5 in.)	print cartridge
52 mm (2.0 in.)	print cartridge
94.4 mm (3.72 in.)	print cartridge
51 mm (2.0 in.)	transfer roller
94.2 mm (3.7 in.)	fuser

Different supplies may create print defects with similar measurements. To identify the faulty supply:

1. Replace the print cartridge (do not discard the packaging).
2. If the problem continues:
   a. Remove and repackage the new print cartridge.
   b. Reinstall the original print cartridge.
   c. Replace the maintenance kit (fuser and transfer roller).
3. If the problem continues, contact your Customer Support Center.

To order Xerox supplies, contact your local reseller or go to www.xerox.com/office/4510supplies.

Setting the Fuser Temperature

If the printed image is not fully fused to the paper and easily rubs off, adjusting the fuser temperature may produce better results.

The printer has six fuser temperatures that can be configured for each media type. Heavier and high cotton content media usually requires a higher temperature to sufficiently bond the toner to the paper. Some label media and other heat-sensitive media require low temperature to avoid detaching from the backing or warping.

See also:

Unfused or Partially Fused Image on page 4-12

Using the Control Panel

To select the fuser temperature using the control panel:

1. Select **Printer Setup**, and then press the **OK** button.
2. Select **Paper Handling Setup**, and then press the **OK** button.
3. Select **Fuser Configuration**, and then press the **OK** button.
4. Select the appropriate media, and then press the **OK** button.
5. Select the desired fuser temperature, **Extra High**, **Very High**, **High**, **Medium**, **Low**, or **Very Low** and then press the **OK** button.

Using CentreWare IS

To select the fuser temperature using CentreWare IS:

1. Launch your web browser.
2. Enter the printer's IP address in the browser's **Address** field (http://xxx.xxx.xxx.xxx).
3. Click **Properties**.
4. Select **General** on the left navigation panel, and then select **Fuser**.
5. Use the appropriate media drop-down list to change the fuser temperature.
6. Click the **Save Changes** button at the bottom of the page.

Print Area Is Not Centered on the Paper

The printed area appears outside the margins on the page. Use the following procedure to reset the margins.

1. On the control panel, select **Paper Tray Setup**, and then press the **OK** button.
2. Select the tray you are using, and then press the **OK** button.
3. Verify that the tray is set to the correct paper size.
4. If the problem continues, use the Calibrate Margins page to shift the print area on the paper. The print area appears as a dashed rectangle on the Calibrate Margins page; the printer does not print outside this rectangle.
   a. On the control panel, select **Troubleshooting**, and then press the **OK** button.
   b. Select **Print Quality Problems**, and then press the **OK** button.
   c. Select **Calibrate Margins**, and then press the **OK** button.
   d. Select **Calibrate Margins Page**, and then press the **OK** button.
   e. Select the appropriate tray to calibrate, and then press the **OK** button.
   f. Follow the instructions on the Calibrate Margins page.

Note: The leading edge margin specification is 4 mm ± 2 mm. The side edge margin specification is 4 mm ± 2.5 mm

Maintenance 5

This chapter includes:

- Cleaning the Printer on page 5-2
- Ordering Supplies on page 5-5
- Extended Periods of Non-Use on page 5-7
- Moving and Repacking the Printer on page 5-8

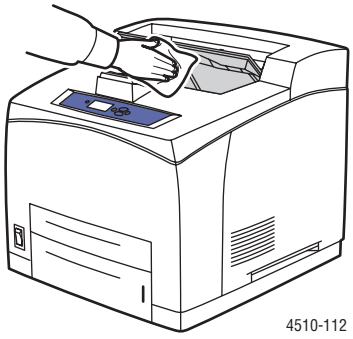
Cleaning the Printer

For safety information, see User Safety on page A-1.

Cleaning the Outside of the Printer

To remove stains, clean the outside of the printer using a soft, damp cloth moistened with a mild neutral detergent. Do not spray detergent directly onto the printer.

Warning: To prevent electric shock, turn the printer off and unplug the power cord from the electrical outlet before cleaning the printer.

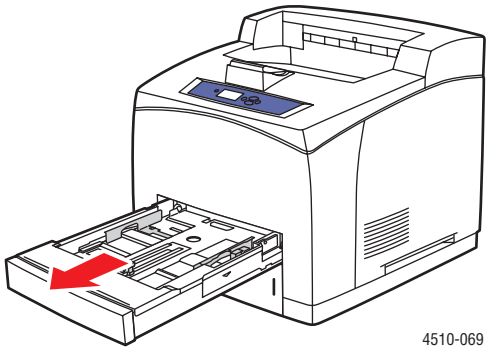


Use only an approved toner vacuum to clean the printer. Do not lubricate the printer with oil.

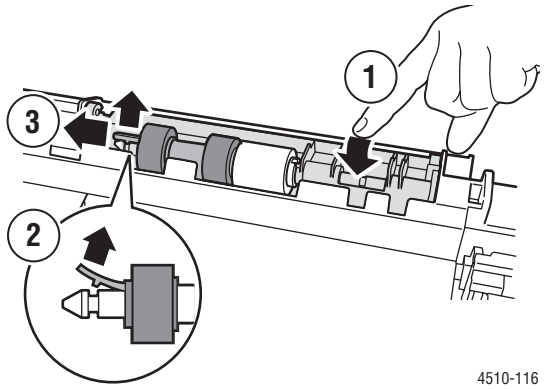
Cleaning the Feed Roller

Use this procedure to clean the feed roller if you encounter problems with the paper feeding incorrectly from the tray.

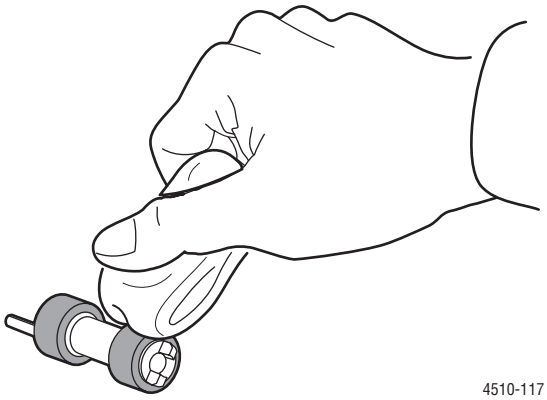
1. Pull the tray completely out of the printer.



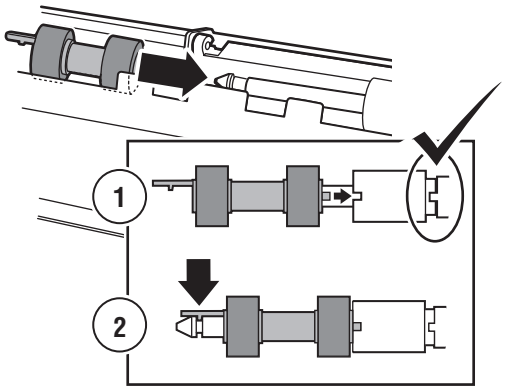
2. Remove the feed roll from the paper tray shaft.
   a. Push down on the shaft of the feed roll (1), and then widen the tab of the feed roll to loosen it (2).
   b. Remove the feed roll from the paper tray shaft (3).



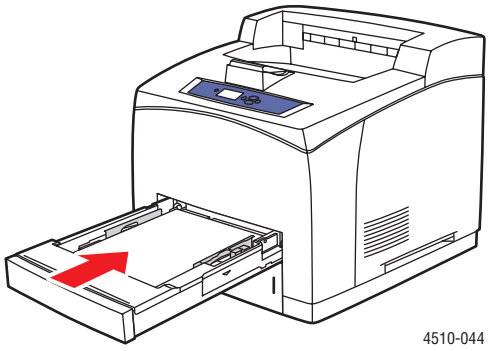
3. Clean the rollers with a damp cloth.



4. Reinsert the feed roll on the paper tray shaft.
5. Align the tabs on the feed roll with the slots on the shaft (1), and then push the feed roll completely onto the shaft (2).



6. Push the paper tray back into the printer.



Ordering Supplies

This section includes:

- Consumables on page 5-5
- Routine Maintenance Items on page 5-5
- When to Order Supplies on page 5-6
- Recycling Supplies on page 5-6

Certain consumables and routine maintenance items need to be ordered occasionally. Each supply includes the installation instructions.

Consumables

Print cartridges are the only consumable. For information about supplies, go to www.xerox.com/office/4510supplies. Print cartridges include installation instructions on the box.

Routine Maintenance Items

Routine maintenance items are printer parts that have a limited life and require periodic replacement. Replacements may be parts or kits. Routine maintenance items are typically customer replaceable.

The only routine maintenance item for the Phaser 4510 Laser Printer is the maintenance kit. Access the **Supplies Info** menu on the control panel to see the remaining life of the maintenance kit.

The maintenance kit contains:

- Fuser
- Transfer roller
- 12 feed rollers

When to Order Supplies

The control panel displays a warning when the supply nears its replacement time. Verify that you have replacements on hand. It is important to order these supplies when the messages first appear to avoid interruptions to your printing. The control panel displays an error message when the supply must be replaced.

To view the current status of your printer supplies, print the Supplies Usage page:

1. On the control panel, select **Information**, and then press the **OK** button.
2. Select **Supplies Info**, and then press the **OK** button.
3. Select **Supplies Usage Page** to print.

To order supplies, contact your local reseller or go to the Xerox Supplies website at www.xerox.com/office/4510supplies.

Caution: Use of non-Xerox supplies is not recommended. The Xerox Warranty, Service Agreements, and Total Satisfaction Guarantee do not cover damage, malfunction, or degradation of performance caused by use of non-Xerox supplies, or the use of Xerox supplies not specified for this printer. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

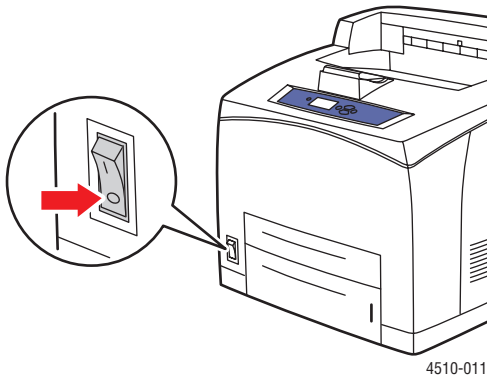
Recycling Supplies

For information on Xerox supplies recycling programs, go to www.xerox.com/gwa.

Extended Periods of Non-Use

Perform the following procedure if the printer will not be used for a long period of time.

1. Turn the power switch to off.



2. Remove the power cord and other cables.

   Warning: Due to the risk of electric shock, you should not touch the power cord with wet hands. For additional safety information, see User Safety on page A-1.

3. Empty all paper trays, and store the media in a location free of humidity and dust.

Moving and Repacking the Printer

This section includes:

- Precautions for Moving the Printer on page 5-8
- Moving the Printer Within the Office on page 5-8
- Preparing the Printer for Shipment on page 5-8

See also:

User Safety on page A-1

Precautions for Moving the Printer

To view precautions and guidelines for safely moving your printer, see the User Safety appendix in this user guide.

Moving the Printer Within the Office

The printer can be safely moved from one location within an office to another as long as it travels in an upright position, gently over smooth surfaces. Any jarring movement, such as pushing the printer over a raised door threshold or across a parking lot, can damage the printer.

Preparing the Printer for Shipment

Caution: The print cartridge must be removed before shipping the printer. Repack the print cartridge in a plastic bag, and seal the bag.

Repack the printer using the original packing material and boxes or a Xerox repackaging kit. Additional instructions for repacking the printer are provided in the repackaging kit. If you do not have all the original packaging, or are unable to repackage the printer, contact your local Xerox service representative.

Caution: Damage to the printer resulting from improper moving or failure to repackage the printer properly for shipment, is not covered by the warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

Troubleshooting 6

This chapter includes:

- Clearing Paper Jams on page 6-2
- Getting Help on page 6-24

See also:

Print Quality on page 4-1

Cleaning the Feed Roller on page 5-2

Clearing Paper Jams

This section includes:

- Preventing Jams on page 6-2
- Jam at Tray 1, 2, 3, or 4 on page 6-3
- Jam at the Exit and Jam at the Rear on page 6-7
- Jam at the Exit and Jam at the Rear (with Duplex Unit) on page 6-9
- Jam at the Exit - Open Top Cover to Clear on page 6-11
- Jam at the Top Cover on page 6-13
- Jam at the Duplex Unit on page 6-17
- Jam at the Stacker on page 6-18
- Paper Size Jam on page 6-20

Note: If you clear a jam without opening and closing the top cover, you still need to perform this step in order to clear the error message on the control panel.

See also:

User Safety on page A-1

Preventing Jams

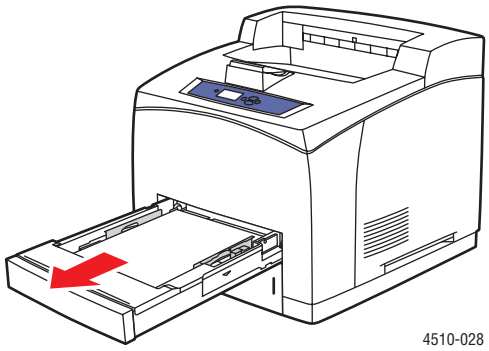
To reduce the occurrence of paper jams, follow the guidelines and instructions in the Printing Basics chapter in this guide. It includes information about supported paper and media, guides for usage, and instructions for properly loading paper in the trays.

Jam at Tray 1, 2, 3, or 4

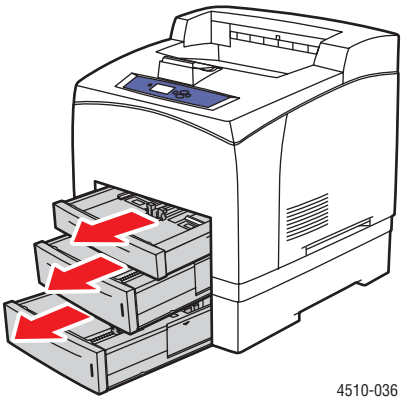
The control panel will specify the tray that has a paper jam. On the control panel, you can press the **Help (?)** button to view information about the paper jam.

To clear the jam:

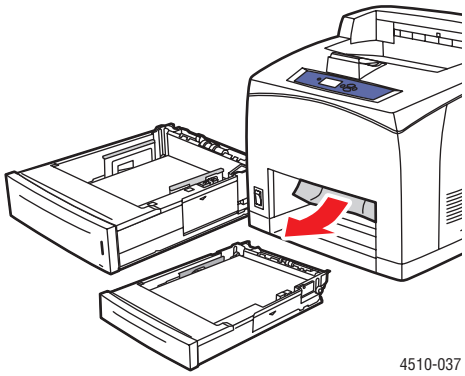
1. Pull the tray(s) specified on the control panel completely out of the printer.



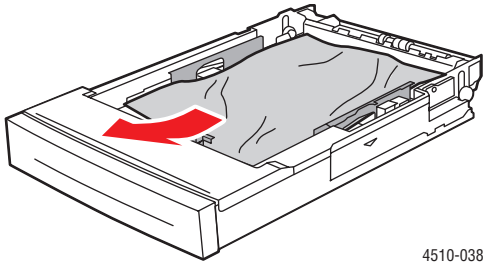
Note: For all trays except Tray 2, pull out the specified tray and all trays above it. For example, if the jam is at Tray 3, pull out Trays 1, 2, and 3. If you have a jam at Tray 2, pull out Tray 2 only. If you have a jam at Tray 1, pull out Trays 1 and 2. It is not necessary to pull out all the trays.



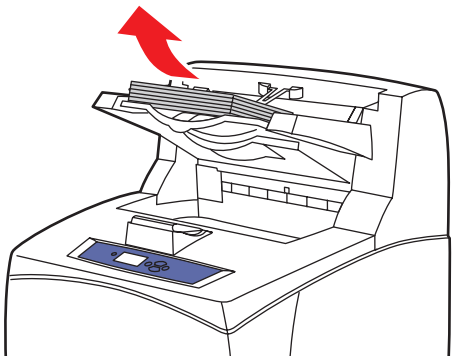
2. Pull jammed paper from the printer tray slot.

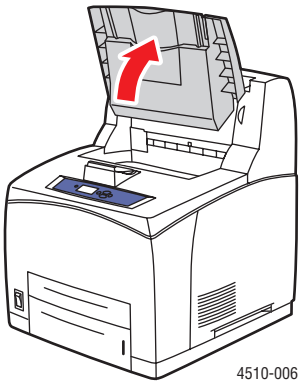


3. Remove crumpled paper from the tray.

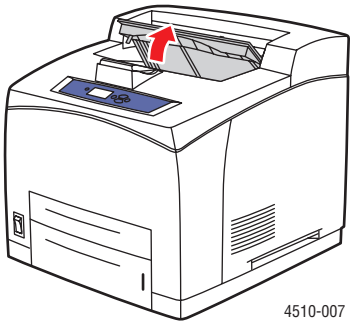


4. If you have a stacker, remove paper from the stacker, and then lift the stacker tray.

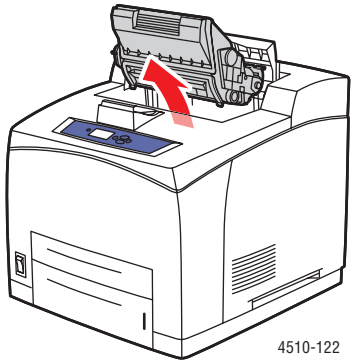




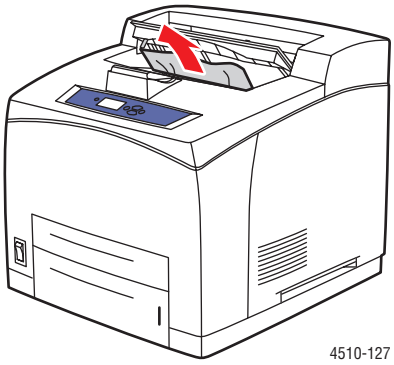
5. Open the top cover.



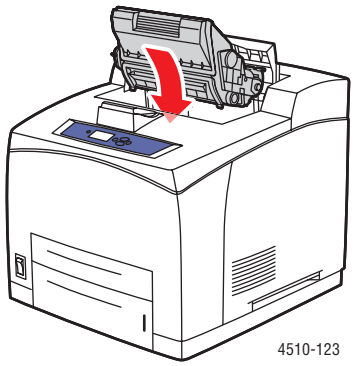
6. Remove the print cartridge.



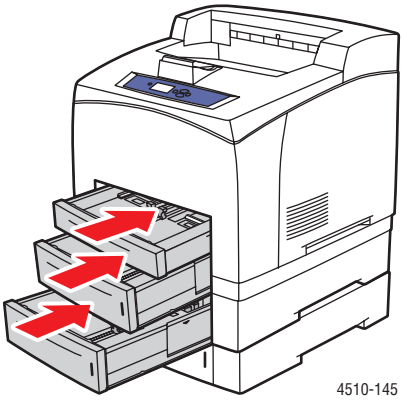
7. Remove the jammed paper. Confirm that all paper fragments are removed.



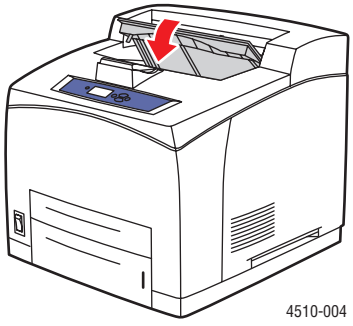
8. Insert the print cartridge.



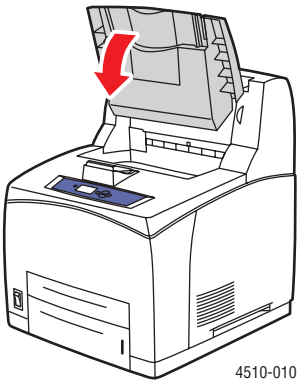
9. Replace all the trays.



10. Close the top cover.



11. If you have a stacker, lower the stacker tray.



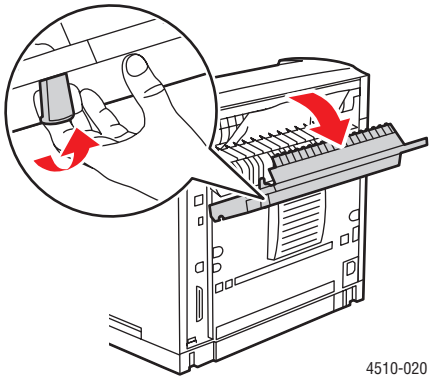
Jam at the Exit and Jam at the Rear

There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

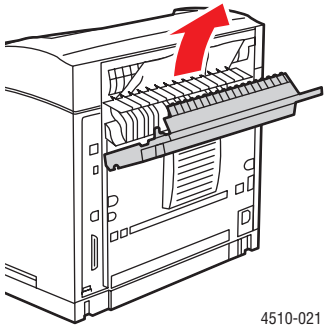
To clear the jam:

1. Open the rear cover.

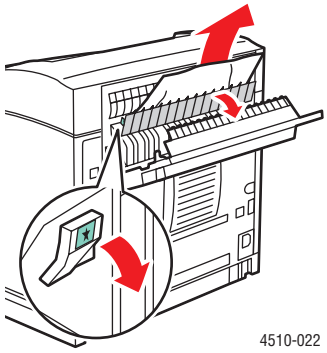
Warning: Be careful, some components inside the rear cover may be hot.



2. Remove the jammed paper. Confirm that all paper fragments are removed.

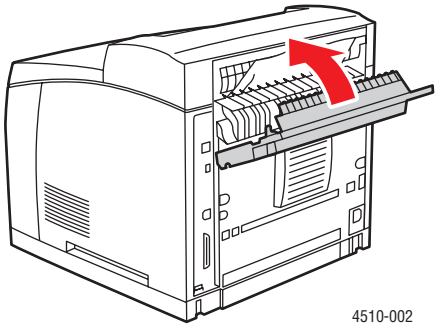


3. If you did not find jammed paper in Step 2, open the fuser exit cover and pull the jammed paper completely out of the printer.



Note: When you let go of the fuser exit cover it will return to it's original position.

4. Close the rear cover.

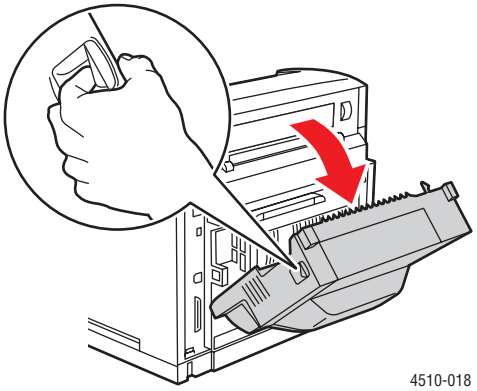


Jam at the Exit and Jam at the Rear (with Duplex Unit)

There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

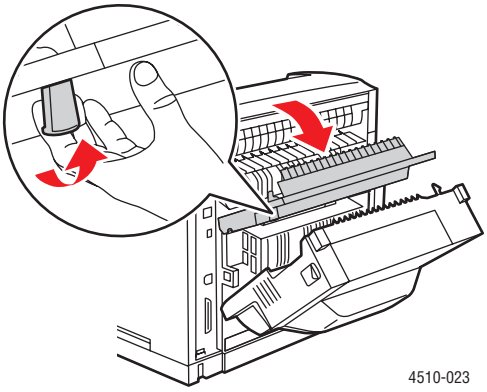
To clear the jam:

1. Open the duplex unit cover.

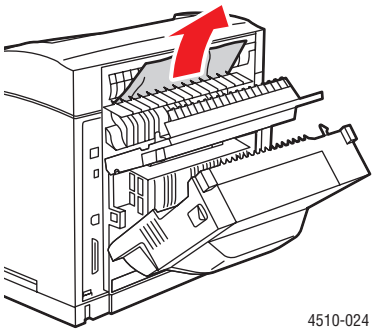


2. Open the rear cover.

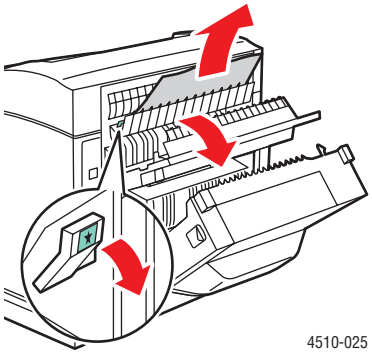
Warning: Be careful, some components inside the rear cover may be hot.



3. Remove the jammed paper. Confirm that all paper fragments are removed.

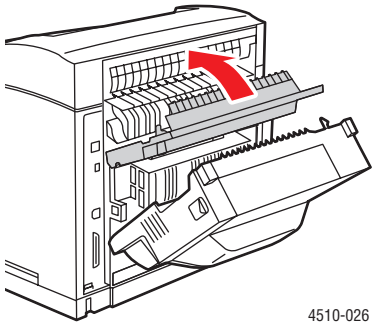


4. If you do not find jammed paper in Step 3, open the fuser exit cover and pull the jammed paper completely out of the printer.

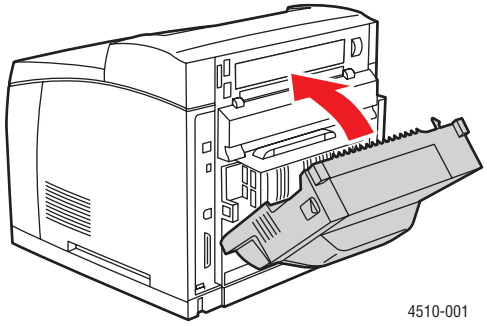


Note: When you let go of the fuser exit cover it will return to it's original position.

5. Close the rear cover.



6. Close the duplex unit cover.

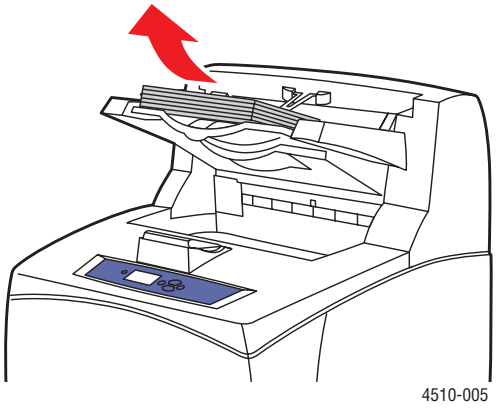


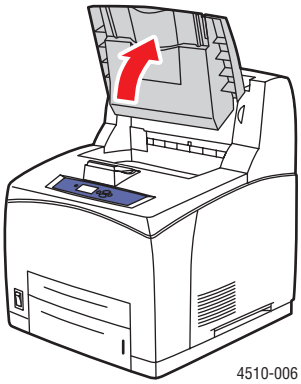
Jam at the Exit - Open Top Cover to Clear

There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

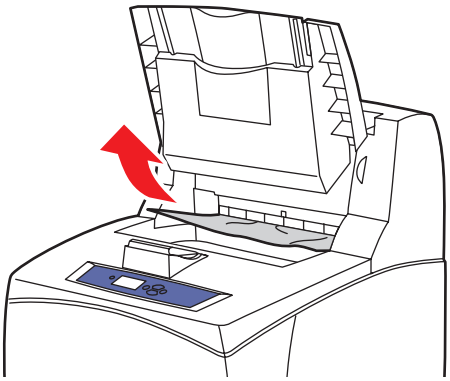
To clear the jam:

1. If you have a stacker, remove the paper from the stacker, then lift the stacker.

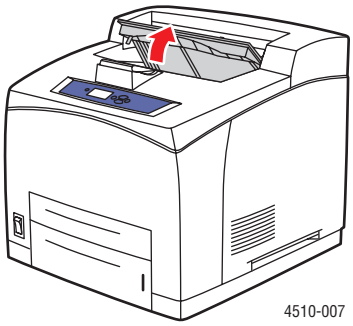




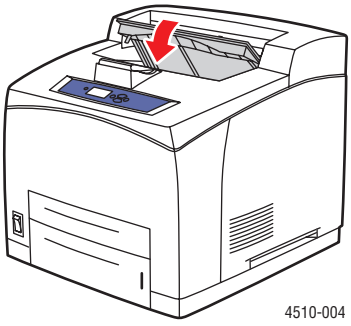
2. Remove the jammed paper from the exit. Confirm that all paper fragments are removed.



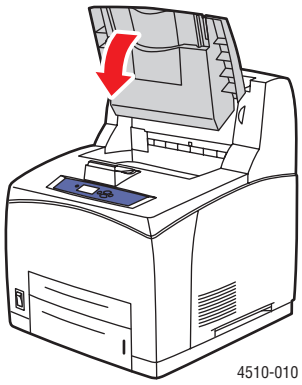
3. Open the top cover.



4. Close the top cover.



5. If you have a stacker, lower the stacker.

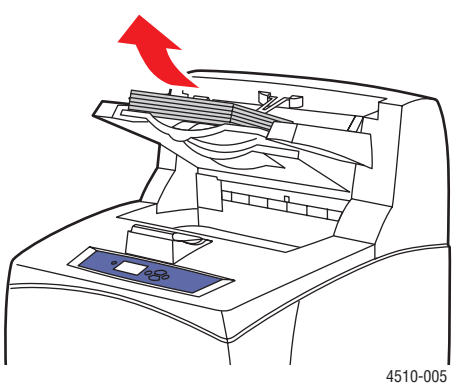


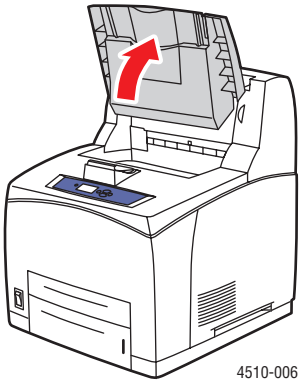
Jam at the Top Cover

There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

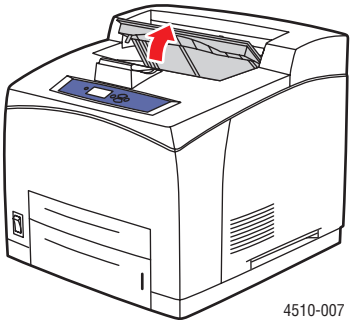
To clear the jam:

1. If you have a stacker, remove paper from the stacker, and then raise the stacker tray.

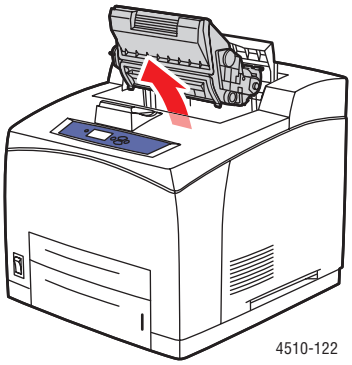




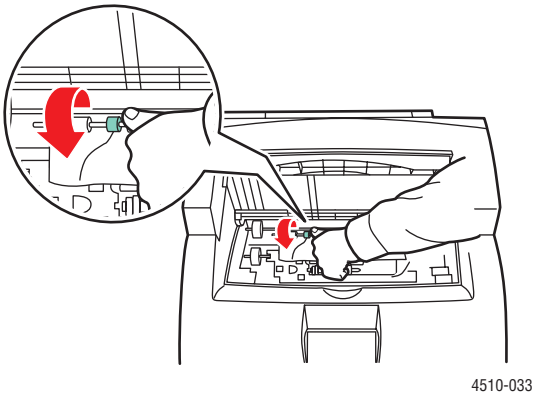
2. Open the top cover.



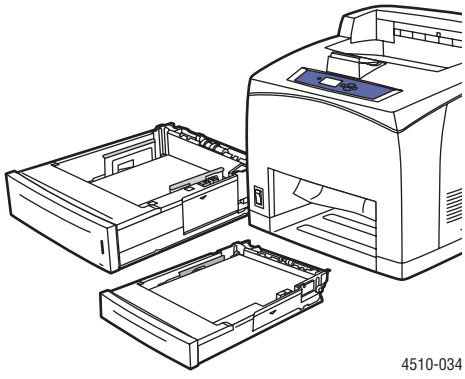
3. Remove the print cartridge.



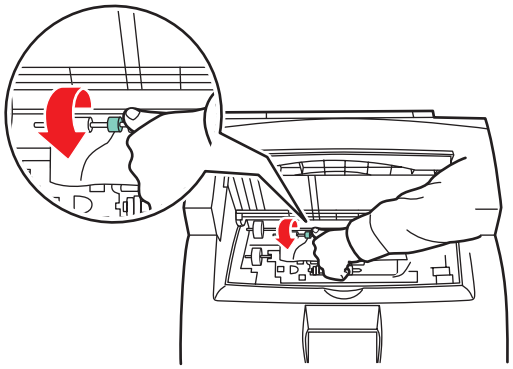
4. Turn the green roller to move the jammed paper out of the rollers, and then gently pull the jammed paper out of the rollers.



5. If you cannot move the jammed paper, pull Trays 1 and 2 completely out of the printer.

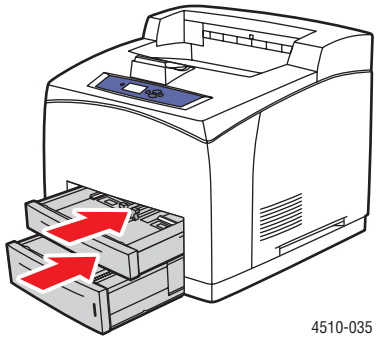


6. Turn the green roller and remove the jammed paper. Confirm that all paper fragments are removed.



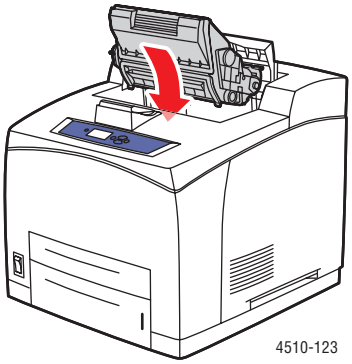
4510-033

7. Replace the trays.



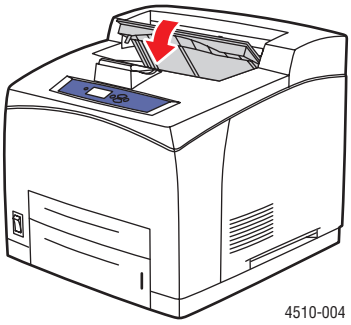
4510-035

8. Reinsert the print cartridge.

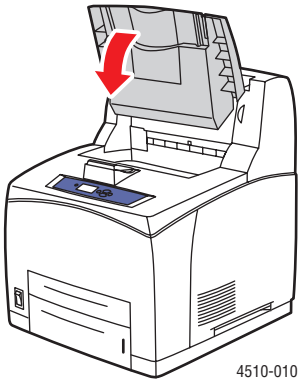


4510-123

9. Close the top cover.



10. If you have a stacker, lower the stacker tray.

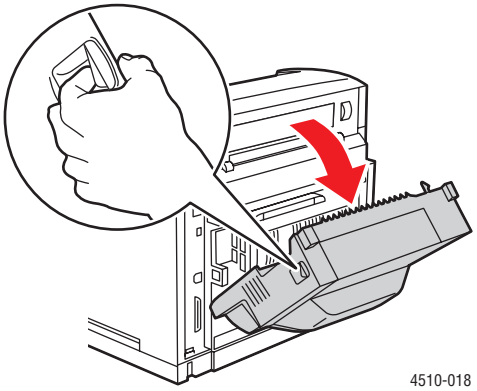


Jam at the Duplex Unit

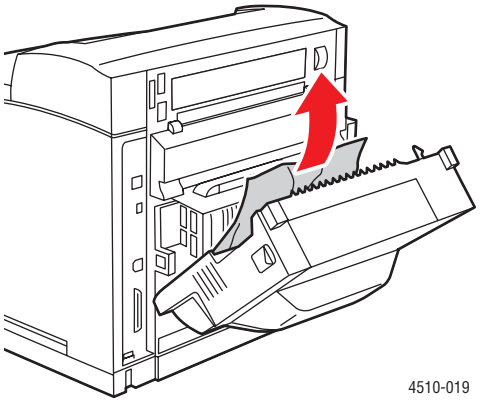
There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

To clear the jam:

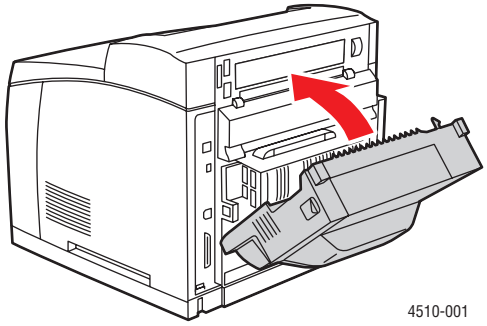
1. Open the duplex unit cover.



2. Remove the jammed paper. Confirm that all paper fragments are removed.



3. Close the duplex unit.

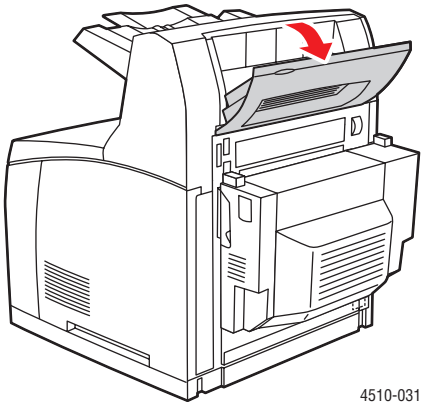


Jam at the Stacker

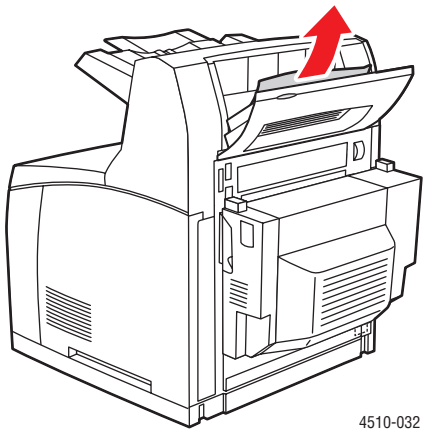
There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

To clear the jam:

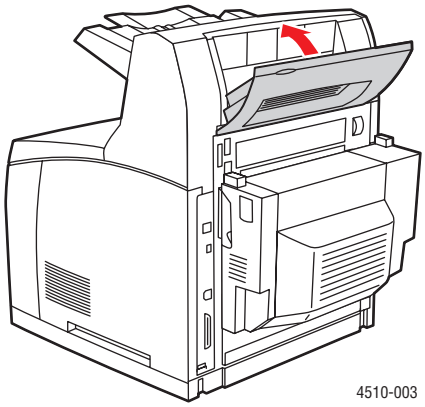
1. Open the rear stacker cover.



2. Remove the jammed paper. Confirm that all paper fragments are removed.



3. Close the rear stacker cover.

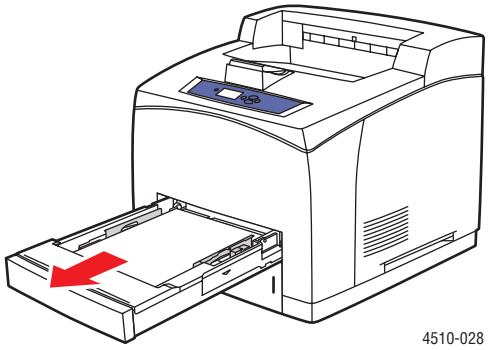


Paper Size Jam

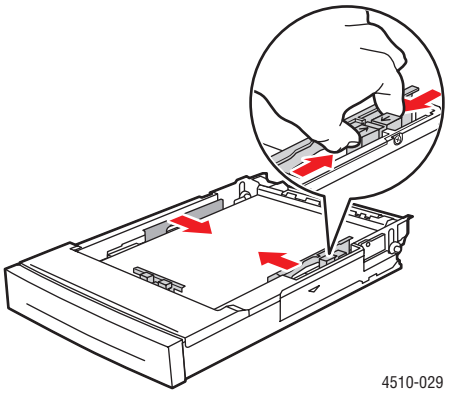
There is a jam at the exit or at the rear cover. On the control panel of the printer, press the **Help (?)** button to view information about the control panel message.

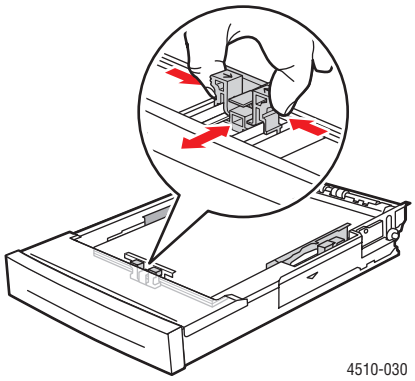
To clear the jam:

1. Pull the tray completely out of the printer.

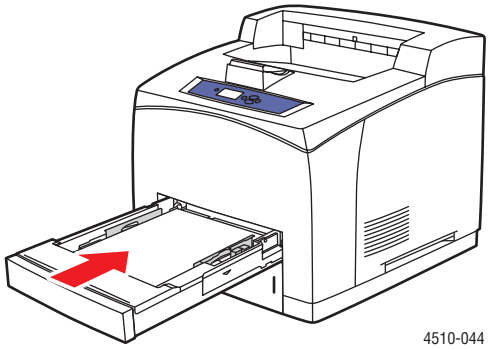


2. Confirm that the paper tray guides are pressed firmly against the paper.

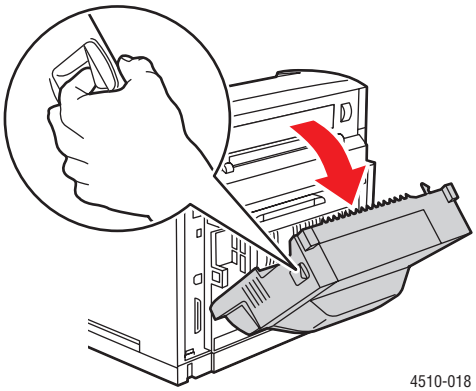




3. Insert the tray into the printer slot and push it completely to the back of the printer.

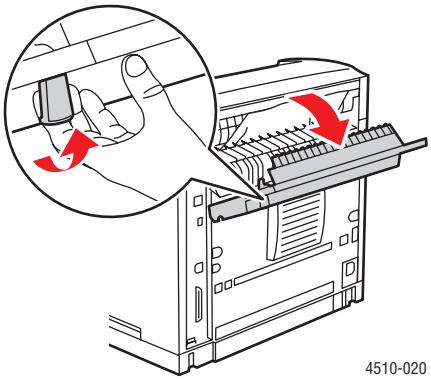


4. If the control panel prompts you:
   - If you haven't changed the type of paper, press the **OK** button.
   - If you have changed the type of paper, scroll to the correct paper type and press the **OK** button.
5. If you have a duplex unit, open the duplex unit cover.

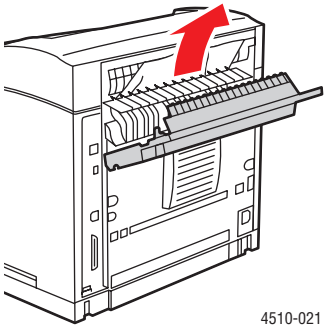


6. Open the rear cover.

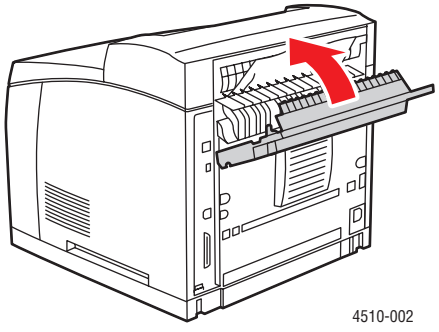
Warning: Be careful, some components inside the rear cover may be hot.



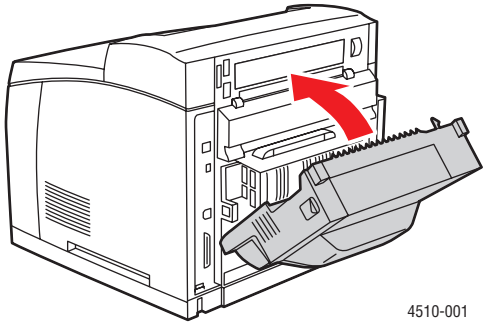
7. Remove the jammed paper. Confirm that all paper fragments are removed.



8. Close the rear cover.



9. If you have a duplex unit, close the duplex unit cover.



Getting Help

This section includes:

- Control Panel Messages on page 6-24
- PrintingScout Alerts on page 6-24
- PhaserSMART Technical Support on page 6-25
- Web Links on page 6-26

Xerox provides several automatic diagnostic tools to help you produce and maintain print quality.

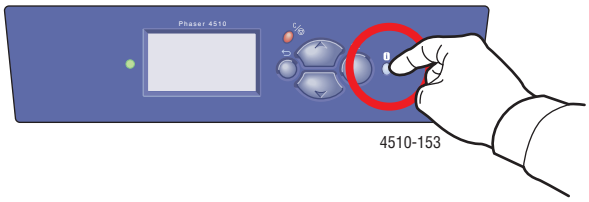
See also:

Xerox Support Centre on page 1-11

Control Panel Messages

The control panel provides you with information and troubleshooting help. When an error or warning condition occurs, the control panel displays a message informing you of the problem. In many cases, the control panel also displays an animated graphic showing the location of the problem, such as the location of a paper jam.

Press the **Help** button on the control panel to view additional information about the message or menu displayed. The **Help** button is labeled with a **?** symbol.



PrintingScout Alerts

PrintingScout is a tool that is installed with your Xerox printer driver. It automatically checks the printer status when you send a print job. If the printer is unable to print your job, PrintingScout automatically displays an alert on your computer screen to let you know that the printer needs attention. Click the alert to view instructions explaining how to fix the problem.

PhaserSMART Technical Support

PhaserSMART Technical Support is an automated, internet-based support system that uses your default web browser to send diagnostic information from your printer to the Xerox website for analysis. PhaserSMART Technical Support examines the information, diagnoses the problem, and proposes a solution. If the problem is not resolved with the solution, PhaserSMART Technical Support assists you in opening a Service Request with Xerox Customer Support.

To access PhaserSMART Technical Support:

1. Open your browser and go to www.phaserSMART.com.
2. Enter your printer's IP address in the browser window.
3. Follow the instructions on the screen.

Online Support Assistant

The Online Support Assistant is a knowledge base that provides instructions and troubleshooting help to solve your printer problems. You can find solutions for print quality, media jams, software installation, and much more.

To access the Online Support Assistant, go to www.xerox.com/office/4510support.

Web Links

Xerox provides several websites that offer additional help on your Phaser 4510 printer. A set of Xerox links is installed in your web browser's **Favorites** folder when you install the Xerox printer drivers on your computer. The **Troubleshooting** tab in your Windows printer driver also includes useful links. Use the following websites to obtain more information.

Resource	Link
PhaserSMART Technical Support automatically diagnoses problems on your networked printer and proposes solutions:	www.phaserSMART.com
Technical support information for your printer, includes online Technical Support, Online Support Assistant, driver downloads, documentation, video tutorials, and much more:	www.xerox.com/office/4510support
Supplies for your printer:	www.xerox.com/office/4510supplies
A resource for tools and information, such as interactive tutorials, printing templates, helpful tips, and customized features to meet your individual needs:	www.colorconnection.xerox.com
Local sales and support center:	www.xerox.com/office/contacts
Printer registration:	www.xerox.com/office/register
Material Safety Data Sheets identify materials, and provide information on safely handling and storing hazardous materials:	www.xerox.com/msds (U.S. and Canada) www.xerox.com/environment_europe (European Union)
Information about recycling supplies:	www.xerox.com/gwa

User Safety

A

Your printer and the recommended supplies have been designed and tested to meet strict safety requirements. Attention to the following information ensures the continued safe operation of your printer.

Electrical Safety

- Use the power cord supplied with your printer.
- Plug the power cord directly into a properly grounded electrical outlet. Make sure each end of the cord is securely connected. If you do not know if an outlet is grounded, ask an electrician to check the outlet.
- Do not use a ground adapter plug to connect the printer to an electrical outlet that does not have a ground connection terminal.
- Do not use an extension cord or power strip.
- Verify that the printer is plugged into an outlet that is capable of providing the correct voltage and power. Review the printer's electrical specification with an electrician if necessary.

Warning: Avoid the potential of electrical shock by ensuring that the printer is properly grounded. Electrical products may be hazardous if misused.

- Do not place the printer in an area where people might step on the power cord.
- Do not place objects on the power cord.
- Do not block the ventilation openings. These openings are provided to prevent overheating of the printer.
- Do not drop paper clips or staples into the printer.

Warning: Do not push objects into slots or openings on the printer. Making contact with a voltage point or shorting out a part could result in fire or electrical shock.

If you notice unusual noises or odors:

1. Turn off the printer immediately.
2. Disconnect the power cord from the electrical outlet.
3. Call an authorized service representative to correct the problem.

The power cord is attached to the printer as a plug-in device at the back of the printer. If it is necessary to disconnect all electrical power from the printer, disconnect the power cord from the electrical outlet.

Warning: Do not remove the covers or guards that are fastened with screws unless you are installing optional equipment and are specifically instructed to do so. Power should be OFF when performing these installations. Except for user-installable options, there are no parts that you can maintain or service behind these covers.

Note: Leave the printer on for optimum performance; it does not pose a safety hazard. If however the printer will not be used over an extended period of time, it should be turned off and unplugged. For additional details, see Extended Periods of Non-Use on page 5-7.

The following are hazards to your safety:

- The power cord is damaged or frayed.
- Liquid is spilled into the printer.
- The printer is exposed to water.

If any of these conditions occur, do the following:

1. Turn off the printer immediately.
2. Disconnect the power cord from the electrical outlet.
3. Call an authorized service representative.

Laser Safety

With specific regard to lasers, this printer complies with laser product performance standards set by governmental, national, and international agencies and is certified as a Class 1 Laser Product. The printer does not emit hazardous light because the beam is totally enclosed during all modes of customer operation and maintenance.

Maintenance Safety

- Do not attempt any maintenance procedure that is not specifically described in the documentation supplied with your printer.
- Do not use aerosol cleaners. The use of supplies that are not approved may cause poor performance and could create a hazardous condition.
- Do not attempt to open, reuse, or burn any consumables or routine maintenance items. For information on Xerox supplies recycling programs, go to www.xerox.com/gwa.

Operational Safety

Your printer and supplies were designed and tested to meet strict safety requirements. These include safety agency examination, approval, and compliance with established environmental standards.Your attention to the following safety guidelines helps to ensure the continued, safe operation of your printer.

Printer Location

Place the printer in a dust-free area within a temperature range of 41° F to 95° F (5° C to 35° C) and a relative humidity range of 15 percent to 85 percent.

Humidity should be 70 percent or below at 90° F, and temperature should be 82° F or below at 85 percent humidity.

Note: Sudden temperature fluctuations can affect print quality. Rapid heating of a cold room can cause condensation inside the machine, directly interfering with image transfer.

Printer Clearance

Place the printer in an area where there is adequate space for ventilation, operation, and servicing. The recommended minimal spacing is:

Overhead Clearance:

- 400 mm (16 in.) above the printer

Total Height Requirements:

- Printer: 820 mm (32 in.)

Other Clearances:

- 109 mm (4.3 in.) behind the printer
- 480 mm (19 in.) in front of the printer
- 210 mm (8 in.) on the left side of the printer
- 300 mm (12 in.) on the right side of the printer

Operational Guidelines

- Do not block or cover the slots and openings on the printer. The printer may overheat without adequate ventilation.
- For optimum performance, use the printer at elevations below 3,500 m (11,480 ft.).
- Do not place the printer near a heat source.
- Do not place the printer in direct sunlight to avoid exposing light-sensitive components when the doors are open.
- Do not place the printer in line with the cold air flow from an air conditioning system.
- Place the printer on a level, solid non-vibrating surface with adequate strength for the weight of the printer. It should be within 2° of horizontal with all four feet in solid contact with the surface. The base printer weight with consumables is 21 kg (45 lb.).
- Do not place the printer in locations exposed to magnetic forces.
- Do not place the printer in damp locations.
- Do not place the printer in locations susceptible to vibrations.

Printing Safety Guidelines

- Wait 10-15 seconds between turning the printer off and on.
- Keep hands, hair, neckties, etc., away from the exit and feed rollers.

When the printer is printing:

- Do not remove the paper source tray that you selected in either the printer driver or control panel.
- Do not open the doors.
- Do not move the printer.

Printer Supplies

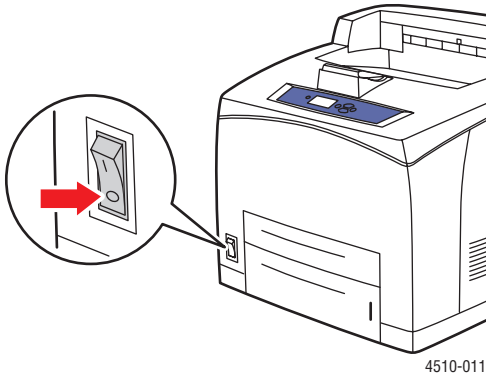
- Use the supplies specifically designed for your printer. The use of unsuitable materials may cause poor performance and a possible safety hazard.
- Follow all warnings and instructions marked on, or supplied with, the printer, options, and supplies.

Caution: Use of non-Xerox supplies is not recommended. The Xerox Warranty, Service Agreements, and Total Satisfaction Guarantee do not cover damage, malfunction, or degradation of performance caused by use of non-Xerox supplies, or the use of Xerox supplies not specified for this printer. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

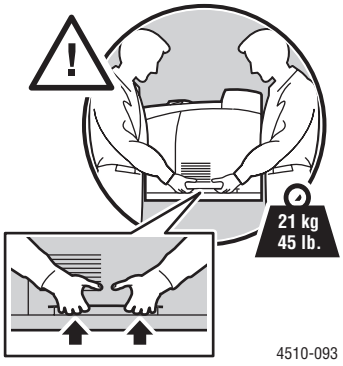
Moving the Printer

Follow these guidelines to avoid injuring yourself or damaging the printer:

- Turn off the printer and unplug all power cables before moving the printer.



- Always use two people to lift the printer.
- Always lift the printer from the designated lift points.



- Carry the printer without tilting it.

  Caution: Do not tilt the printer more than 10 degrees to the front/back or right/left. Tilting more than 10 degrees may lead to consumables inside the printer spilling out.

  Note: The rear side of this printer is heavier than the front. Be aware of this weight difference when moving the printer.

- Do not place any food or liquids on the printer.

Caution: Damage to the printer resulting from improper moving or failure to repackage the printer properly for shipment, is not covered by the warranty, service agreement, or Total Satisfaction Guarantee. The Total Satisfaction Guarantee is available in the United States and Canada. Coverage may vary outside these areas; please contact your local representative for details.

Safety Symbols Marked on Product

	Use caution (or draws attention to a particular component). See the manual(s) for information.
	Hot surface on or in the printer. Use caution to avoid personal injury.
	Do not touch the item.
	Do not burn the item.
	It may take 30 minutes or more for the fuser to cool down depending on your printer model.

Product Recycling and Disposal for North America

Xerox operates a worldwide equipment takeback and reuse/recycle program. Contact your Xerox sales representative (1-800-ASK-XEROX) to determine whether this Xerox product is part of the program. For more information about Xerox environmental programs, visit www.xerox.com/environment.

If you are managing the disposal of your Xerox product, please note that the product may contain, lead, mercury, perchlorate, and other materials whose disposal may be regulated due to environmental considerations. The presence of lead, mercury, and perchlorate is fully consistent with regulations applicable at the time that the product was placed on the market. For disposal information, contact your local authorities. Perchlorate Material - This product may contain one or more Perchlorate-containing devices, such as batteries. Special handling may apply, please see www.dtsc.ca.gov/hazardouswaste/perchlorate.

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