Dell™ Laser MFP 1600n User's Guide

Click the links to the left for information on the features, options, and operation of your machine. For information on other documentation included with your machine, see "Finding Information" on page 3.

To order replacement toner cartridges or supplies from Dell:

1 Double-click the what icon (????) on your desktop.

Data required!!

2 Visit Dell's website, or order Dell printer supplies by phone.

www.dell.com/supplies

For best service, have your Dell printer Service Tag available.

For help locating your Service Tag number, see page 3.

Notes, Notices, and Cautions

NOTE: A NOTE indicates important information that helps you make better use of your machine.

NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

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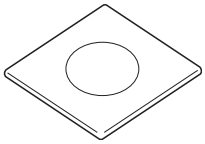
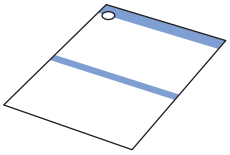
Finding Information

What are You Looking for?	Find It Here
• Drivers for my machine • My User's Guide	Driver and Utilities CD  You can use the CD to install/uninstall/reinstall drivers or access your User's Guide. For details, see "Software Overview" on page 33. Readme files may be included on your CD to provide last-minute updates about technical changes to your machine or advanced technical reference material for experienced users or technicians.
• Safety information • How to use my machine • Warranty information	Owner's Manual **CAUTION: Read and follow all safety instructions in your Owner's Manual prior to setting up and operating your machine.**
How to set up my machine	Setup Diagram 
Express Service Code and Service Tag number w	Express Service Code and Service Tag number. Please give us the data.

What are You Looking for?	Find It Here
• Latest drivers for my machine • Answers to technical service and support questions • Documentation for my machine	Dell Support Website The Dell Support Website provides several online tools, including: • Solutions - Troubleshooting hints and tips, articles from technicians, and online courses • Upgrades - Upgrade information for components, such as memory • Customer Care - Contact information, order status, warranty, and repair information • Downloads - Drivers • Reference - Machine documentation and product specifications You can access Dell Support at support.dell.com. Select your region on the WELCOME TO DELL SUPPORT page, and fill in the requested details to access help tools and information.

Fonts

Screen Fonts are fonts you install in Windows to match your printer scalable resident fonts. Selecting resident printer fonts improves printing performance. The screen fonts allow the documents displayed on the computer screen to match the output from your printer. When you install the screen fonts, you will have access to the full set of resident printer fonts by Windows programs for PCL emulation. Choose your printer model when prompted, and the program automatically installs the TrueType® screen fonts for your printer in Windows.

Your machine has the following fonts:

- ?????
- ?????
- ?????
- ?????
- ?????

Detailed information required, if this “Fonts” section is necessary!!!!

Dell Printer Configuration Web Tool

Have you ever sent a print job to the network printer down the hall, only to find it didn't print because of a paper jam or an empty paper tray? One of the features of the Dell Printer Configuration Web Tool is the Email Alert Setup, which sends you, or the key operator, an email when the printer needs supplies or intervention.

If you fill out printer inventory reports requiring the asset tag number of all of the printers in your area, the Dell Printer Configuration Web Tool has a Printer Information feature that makes it easy. Just type the IP address of each printer on the network to display the asset tag number.

The Dell Printer Configuration Web Tool feature also lets you change printer settings and keep track of printing trends. If you are a network administrator, you can easily copy the printer's settings to one or all printers on the network-right from your Web browser.

To launch the Dell Printer Configuration Web Tool, just type your network printer's IP address in your Web browser. You can also launch the Dell Printer Configuration Web Tool from the Network Status Monitor Center. For details, see page 85.

If you do not know what your printer's IP address is, print a network setup page, which lists the IP address:

1 Press <Menu> until you see "`Network Setup`"on the bottom line of the display.

2 Press the scroll button (◀ or ▶)until you see "`Print Sys. Data`" displays on the bottom line.

3 Press <Select>. The first menu item, "`Yes`" displays on the bottom line.

4 Press <Select> to print a network configuration page.

If the IP address shows 0.0.0.0. (the factory default), an IP address has not been assigned. To assign one for your printer, see "Configuring TCP/IP" on page 143.

Use the Dell Printer Configuration Web Tool for:

Printer Status

Get immediate feedback on printer supply status. When toner is running low, click the toner supplies link on the first screen to order additional toner cartridges.

Printer Settings

Change printer settings, view the operator panel remotely, and update the print server firmware.

Copy Printer Settings

Quickly clone the printer's settings to another printer or printers on the network just by typing each printer's IP address.

NOTE: You must be a network administrator to use this feature.

Printing Statistics

Keep track of printing trends, such as paper usage and types of jobs being printed.

Printer Information

Get the information you need for service calls, inventory reports, or the status of current memory and engine code levels.

Email Alert Setup

Receive an email when the printer needs supplies or intervention. Type your name or the key operator's name in the email list box to be notified.

Set Password

Lock the operator panel with a password so that other users don't inadvertently change the printer settings you have selected.

NOTE: You must be a network administrator to use this feature.

Online Help

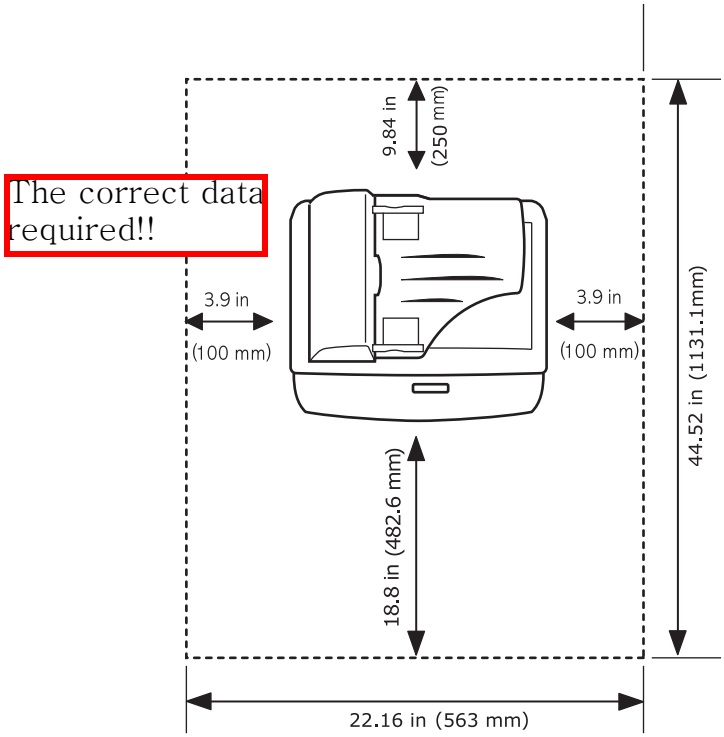
Click **Help** to visit the Dell website for machine troubleshooting.

NOTE: For more information about the All-In-One Main page, View Saved Images page, or the Maintain/Troubleshoot page, click the **Help** link located in the upper right corner of the screen.

Unpacking Your Machine

1 Select a location for your machine.

CAUTION: The machine requires at least two people to lift it safely.

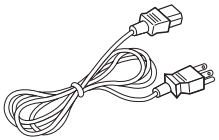


- Leave enough room to open the machine tray, covers, doors, and options. It is also important to allow enough space around the machine for proper ventilation.
- Provide the proper environment:
  - A firm, level surface
  - Away from the direct airflow of air conditioners, heaters, or ventilators
  - Away from sunlight, extreme humidity, or high fluctuations in temperature
  - A clean, dry, and dust free location

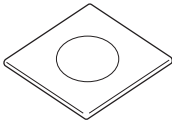
NOTE: Leave the machine in the box until you are ready to install it.

2 Remove all items from the box except the machine. Make sure you have the following items. *If there is a missing item,* contact the retailer where you bought the machine:

3K Cartridge

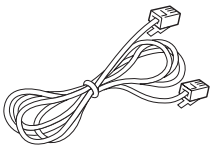


AC Power Cord[a]

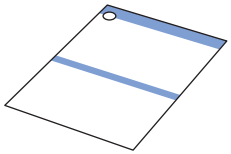


Driver and Utility CD[b]

Owner's Manual



Telephone Line Cord[a]



Setup Diagram

Operator Panel Cover[c]

Terminator[c]

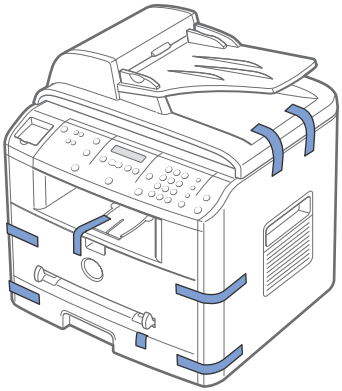
a. The appearance of the power cord and the telephone line cord may differ according to your country's specifications.
b. The CD-ROM contains a Dell MFP GDI/PCL/PS printer drivers, Scan drivers, Printer Settings Utility, Status Monitor, Paper Port and an HTML User's Guide.
c. These items are only provided in some countries.

NOTE: You should use the telephone line cord which is supplied with your machine. If you are replacing it with another vendor's, it should be an AWG #26 or a lower gage.

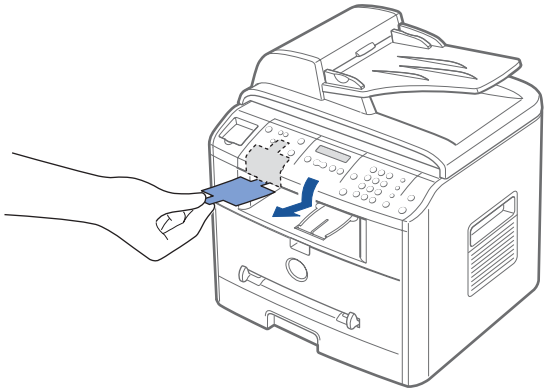
NOTE: The power cord must be plugged into a grounded power socket

3 Save the carton and packing material in case you need to repack the machine.

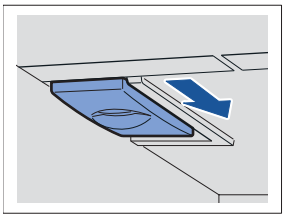
4 Remove the packing tape from the front, back and sides of the machine.



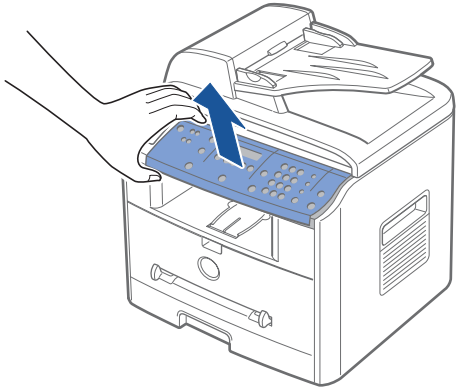
5 Remove the label completely from the scanner module by gently pulling it. The scan unlock switch automatically moves FORWARD to the unlock position.



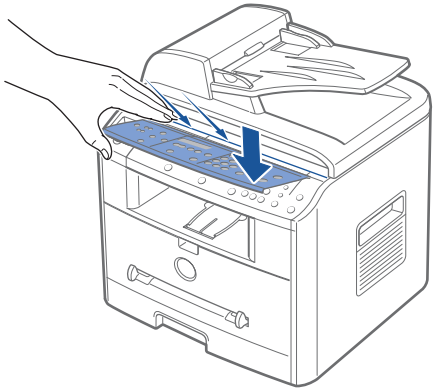
NOTE: When you are moving the machine or do not intend to use it for a long period of time, move the switch BACKWARD to the lock position, as shown. To scan or copy a document, the switch must be unlocked.



6 If your language is not already displayed on the operator panel, remove the attached English operator panel cover from the machine, by gently pulling it upwards, as shown.



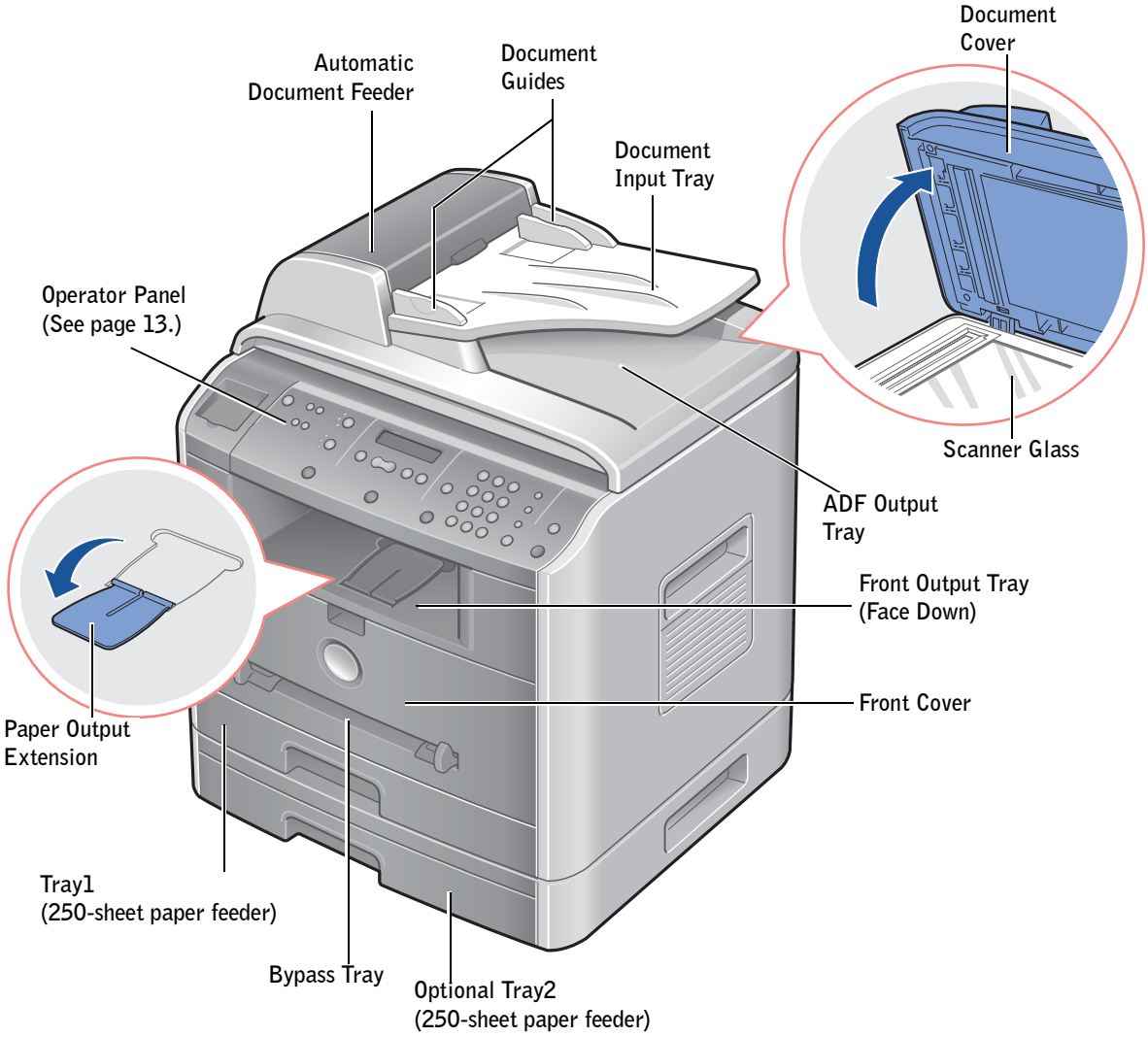
7 Place the supplied operator panel cover, according to your country, gently on the operator panel.



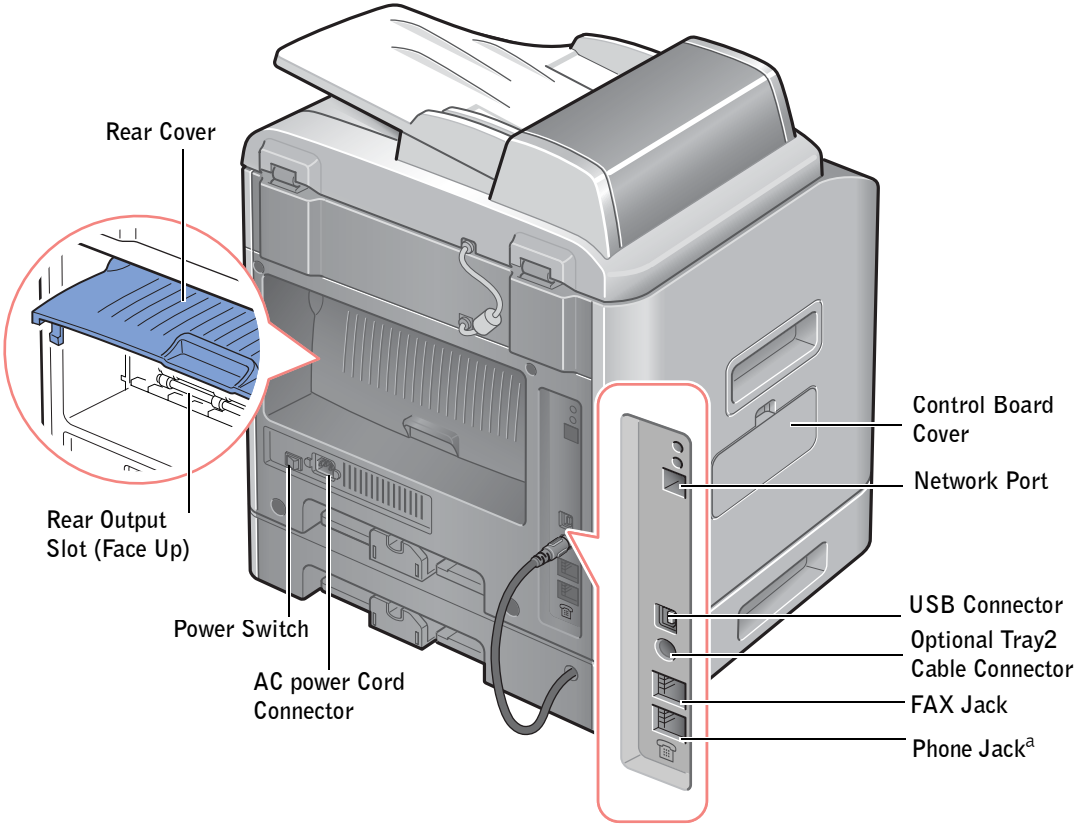
About Your Machine

These are the main components of your machine. The following illustrations show the standard **Dell Laser MFP 1600n** and an optional Tray 2 attached:

Front View

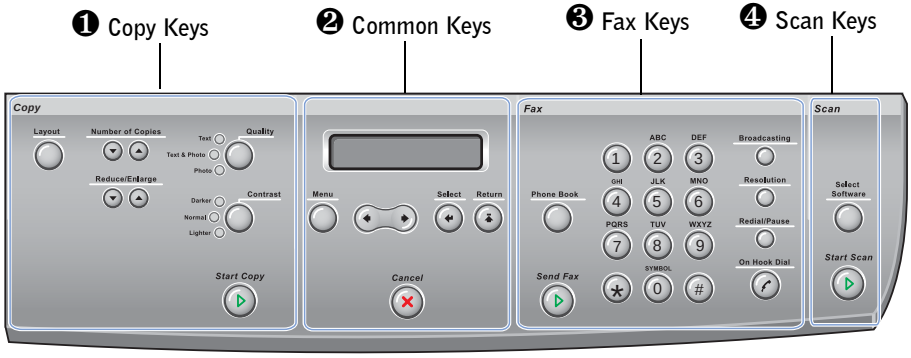


Rear View



[a] If you use this machine in the serial countries, such as Germany and Sweden, this socket may not be blocked.

Operator Panel Button Functions

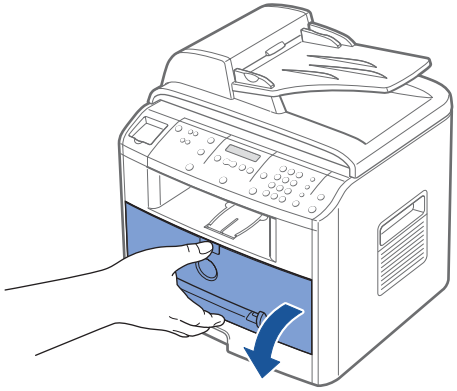


❶	Layout	Allows you to use copy layout features, such as Auto Fit, Clone, Collation, 2-sided, 2/4 Up (multiple pages on a sheet), and Poster copying.
	Number of Copies	Selects the number of copies.
	Reduce/Enlarge	Makes a copy smaller or larger than the original document.
	Quality	Adjusts the copy quality.
	Contrast	Adjusts the brightness of the documents for the current copy job.
	Start Copy	Starts a copy.
❷		Displays the current status and prompts during an operation.
		Scrolls through the options available for the selected menu item.

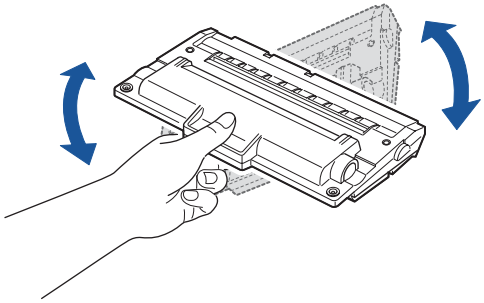
❷	Menu	Enters Menu mode and scrolls through the menus available.
	Select	Confirms the selection on the display.
	Return	Exits the menu and returns to Standby mode.
	Cancel	Stops an operation at any time. In Standby Mode, clears/cancels the copy options, such as the contrast, the image quality, the copy size, and the number of copies.
❸	Phone Book	Allows you to store frequently-dialed fax numbers using a one, two or three-digit speed dial or group number for automatic dialing and edit the stored numbers. It also allows you to print a Phonebook list.
	Send Fax	Sends a fax.
		Dials a number or enters alphanumeric characters.
	Broadcasting	Allows you to send a fax to multiple destinations.
	Resolution	Adjusts the resolution of the documents for the current fax job.
	Redial/Pause	Redials the last number in Standby mode or inserts a pause into a fax number in edit mode.
	On Hook Dial	Engages the telephone line.
❹	Select Software	Accesses a list of software programs that an image can be scanned to. You must configure the scan list using the software prior to this feature.
	Start Scan	Starts a scan.

Installing the Toner Cartridge

1 Open the front cover.



2 Remove the 3K Cartridge from its bag. Hold the toner cartridge by the handle and gently shake it from side-to-side to distribute the toner.



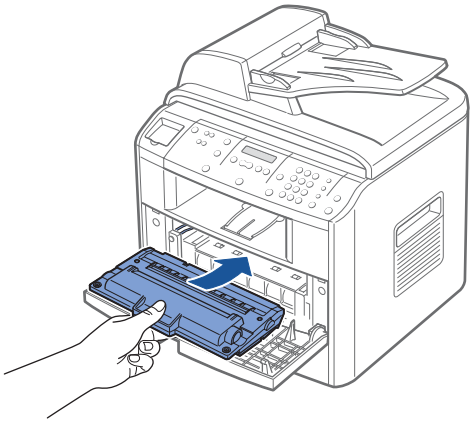
Thoroughly rolling the cartridge will assure the maximum copies per cartridge.

CAUTION: To prevent damage, do not expose the toner cartridge to light for more than a few minutes.

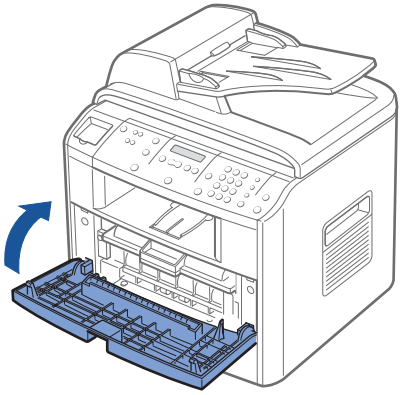
CAUTION: *If left exposed for more than a few minutes,* cover it with a piece of paper.

CAUTION: *If any toner gets on your clothing,* wipe it off with a dry cloth and wash your clothing in cold water. Hot water may set the toner into the fabric.

3 Slide the toner cartridge into the machine aligning it with the labeled arrows, until it locks firmly into place.



4 Close the front cover.



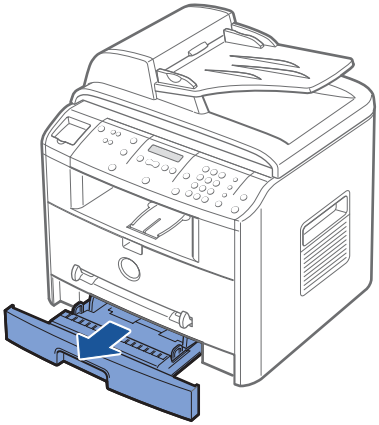
Loading Paper

You can load approximately 250 sheets of plain paper in the paper tray. For faxing, you can use A4-, Letter-, Legal sized paper only. For copying or PC-printing, you can use many different types and sizes of paper; see "Paper Handling" on page 37.

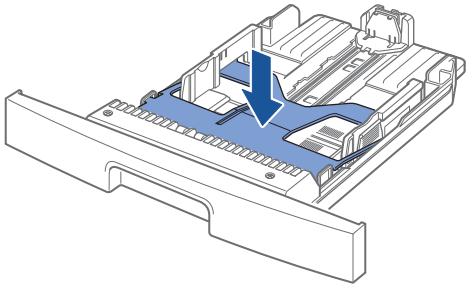
NOTE: After you load the paper, you need to set up your machine for the paper type and size you loaded. See page 56 and page 57 for the paper used in copying and faxing, or page 65 for PC-printing.

To load paper:

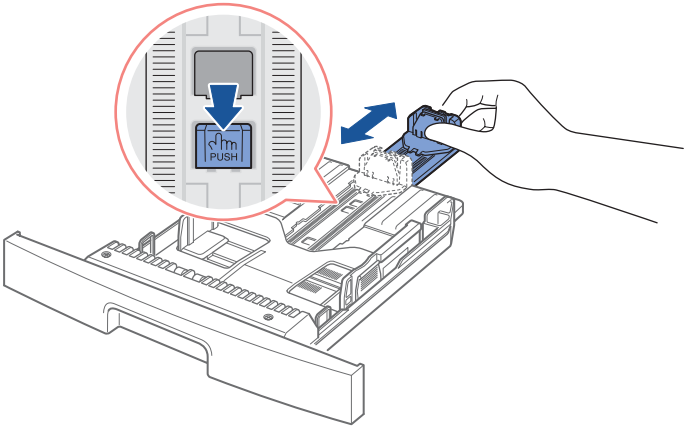
1 Pull open the paper tray and remove it from the machine.



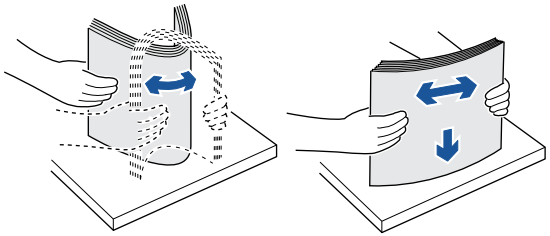
2 Push down on the pressure plate until it locks into place.



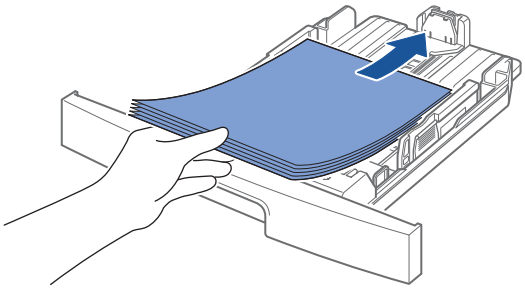
3 If you load longer sizes of paper, such as Legal-sized paper, press and unlatch the guide lock, and then slide the paper length guide out completely to extend the paper tray to its full length.



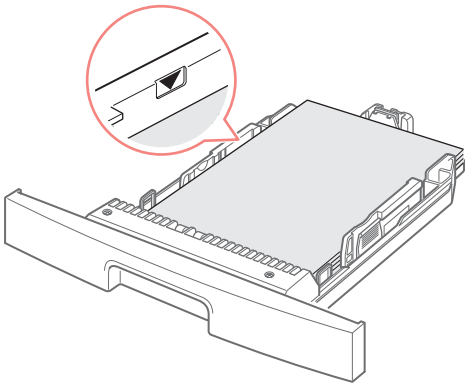
4 Flex the sheets back and forth to loosen them, and then fan them out. Do not fold or crease the print media. Align the edges on a level surface.



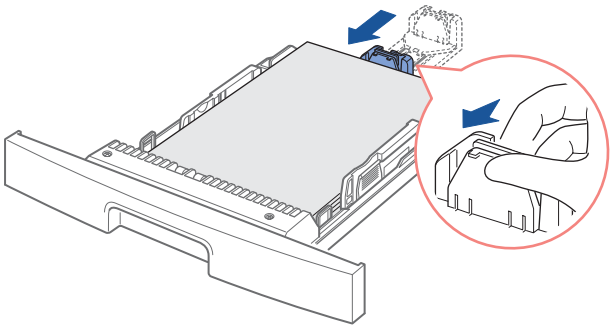
5 Insert the paper stack into the paper tray with the side you want to print facing down.



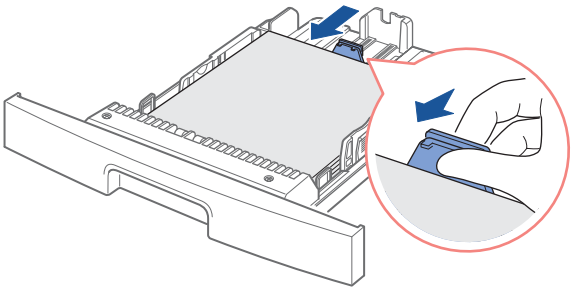
6 Do not exceed the maximum stack height indicated by the paper limit mark on the left side wall of the tray. Paper overloading may cause paper jams.



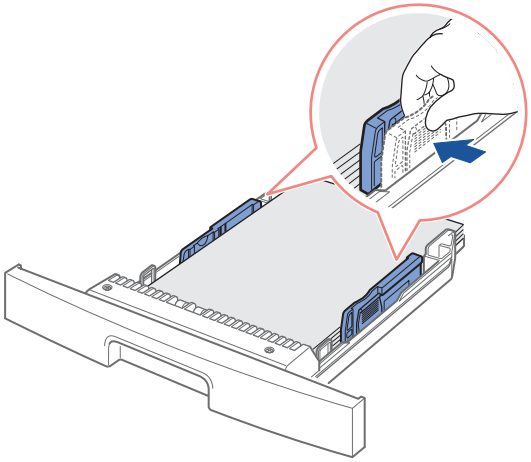
7 Slide in the length guide until it lightly touches the end of the paper stack.



For paper smaller than Letter size, adjust the inner paper length guide so that it lightly touches the paper stack.

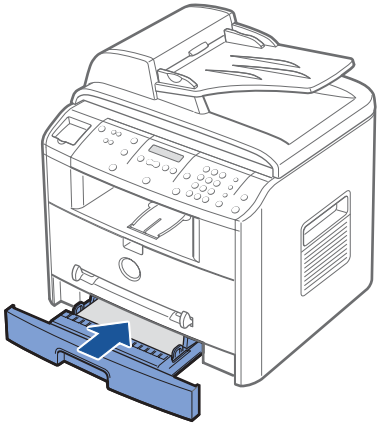


8 Pinch the paper width guide, as shown, and move it towards the stack of paper until it lightly touches the side of the stack.



NOTE: Do not push the paper width guide far enough to cause the materials to warp. If you do not adjust the paper width guide, it may cause paper jams.

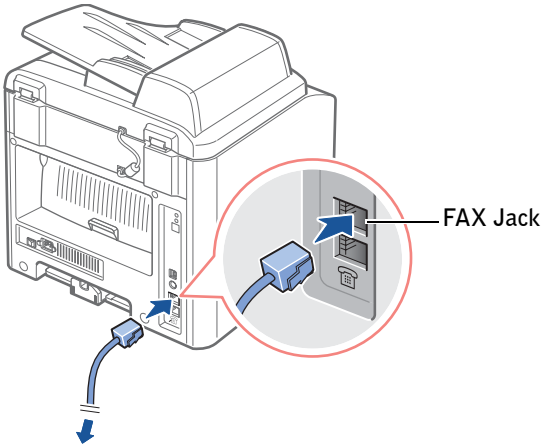
9 Insert and slide the paper tray back into the machine.



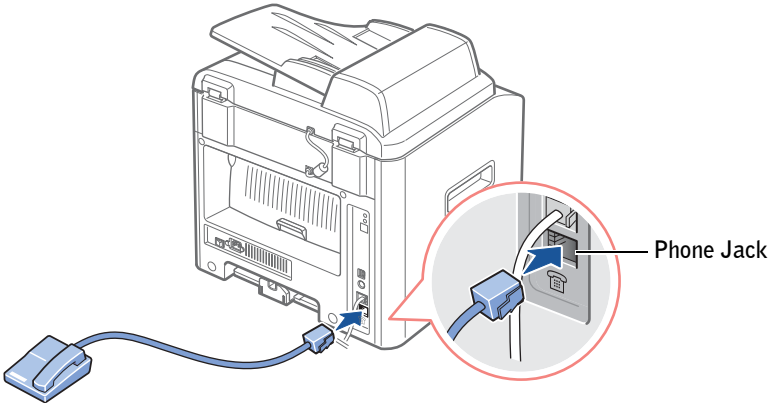
Making Connections

Connecting the Telephone Line

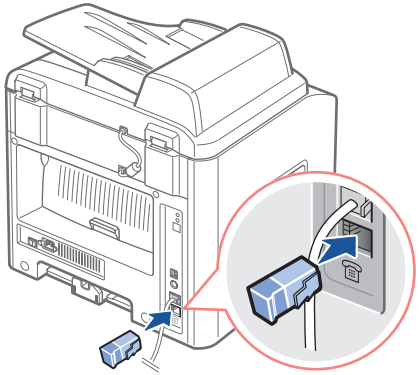
1 Plug one end of a telephone line cord into the FAX Jack and the other end into an active wall jack.



To connect a telephone and/or answering machine to your machine, remove the dummy from the Phone Jack (☎) and plug the telephone or answering machine into the Phone Jack.



If you use this machine in the serial countries, such as Germany, Sweden, Denmark, Austria, Belgium, Italy, France or Switzerland, you must remove the dummy from the Phone Jack (☎) and insert the supplied terminator.



Connecting the Printer Cable

Connecting the Printer Locally

A local printer is a printer connected to your computer using a USB cable. *If your printer is attached to a network instead of your computer,* skip this step and go on to "Connecting the Printer to the Network" on page 23.

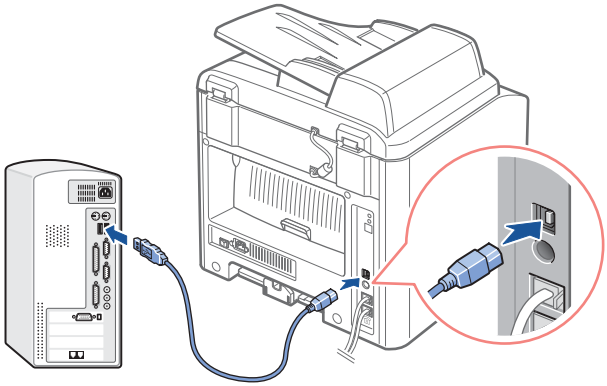
A USB cable doesn't come with your printer. You must purchase a USB cable from a nearby computer store.

NOTE: Connecting the printer to the USB port of the computer requires a certified USB cable. You will need to buy a USB 2.0 compliant cable that is about 3 m in length.

To connect the printer to a computer:

1 Make sure the printer, computer, and any other attached devices are turned off and unplugged.

2 Connect a USB cable to the USB connector on your printer.

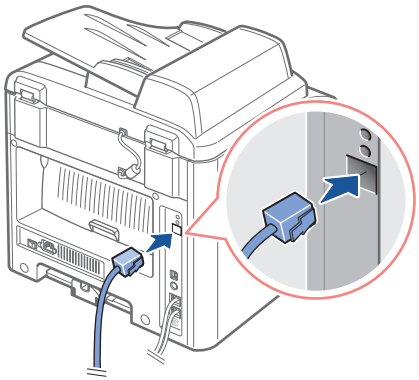


3 Plug the other end of the cable into a USB port on the back of the computer, not the USB keyboard.

Connecting the Printer to the Network

1 Make sure the printer, computer, and any other attached devices are turned off and unplugged.

2 Plug one end of the Ethernet cable into the Ethernet network port on the printer.



3 Plug the other end of the cable into a network LAN drop or hub. The printer automatically adjusts for the network speed.

NOTE: After connecting the printer you need to configure the network parameters on the operator panel. See page 143.

Turning the Machine On

CAUTION: The fusing area at the rear part of the inside of your machine becomes hot once the machine is turned on.

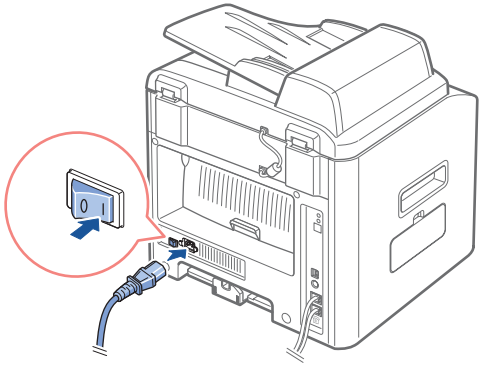
CAUTION: Be careful not to be burned when you access this area.

CAUTION: Do not disassemble the machine when it is turned on. If you do, it may give you an electric shock.

To turn the machine on:

1 Plug one end of the power cord into the socket at the back of the machine and the other end into a properly grounded outlet.

2 Press the power switch to turn the machine on. "`Warming Up Please Wait`" appears on the display indicating that the machine is now on.



To view your display text in another language, see page 25.

Changing the Display Language

To change the language that displays the operator panel display, follow these steps:

1 Press <Menu> until "`Printer Setup`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) until "`Language`" appears on the bottom line of the display.

3 Press <Select>. The current setting appears on the bottom line of the display.

4 Press the scroll button (◀ or ▶) until the language you want appears on the display.

   The available languages are English, French, German, Italian, Spanish, Portuguese, Dutch and Russian.

5 Press <Select> to save the selection.

6 To return to Standby mode, press <Return>.

Toner Save Mode

The Toner Save mode allows your machine to use less toner on each page. Activating this mode extends the life of the toner cartridge longer than the normal mode, but it reduces the print quality.

NOTE: For PC-printing, you can also turn on or off the Toner Save mode in the printer properties. See page 67.

To turn the Toner Save mode on:

1 Press <Menu> until "`Printer Setup`" appears on the top line of the bottom line. Press <Select>.

2 Press the scroll button (◀ or ▶) until you see "`Toner Save`" appears on the bottom line. Press <Select>.

3 Press the scroll button (◀ or ▶) to display "`On`" on the bottom line and press <Select>.

   Selecting "`Off`" means that the Toner Save mode is turned off.

4 To return to Standby mode, press <Return>.

Power Save Mode

The Power Save mode allows your machine to reduce power consumption when it is not in actual use. You can turn this mode on by selecting the length of time for which the machine waits after a job is printed before it switches to a reduced power state.

1 Press <Menu> until "`Printer Setup`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) until "`Power Save`" appears on the bottom line. Press <Select>.

3 Press the scroll button (◀ or ▶) to display "`On`" on the bottom line and press <Select>.

   Selecting "`Off`" means that the Power Save mode is turned off.

4 Press the scroll button (◀ or ▶) until the time settings you want appears.

5 The available options are 5, 10, 15, 30 and 45 (minutes).

6 Press <Select> to save the selection.

7 To return to Standby mode, press <Return>.

CCD Power Save Mode

The scan lamp under the scanner glass automatically turns off when it is not in actual use during a preset period to reduce power consumption and extend the lamp life. The lamp automatically turns-on and the warm-up cycle begins whenever any key pressed or the document cover is opened or a document is deleted in the ADF.

You can set the length of time for which the scan lamp waits after a scan job is completed before it switches to the Power Save mode.

1 Press <Menu> until "`Printer Setup`" appears on top line of the display.

2 Press the scroll button (◀ or ▶) until "`CCD Power Save`" appears on the bottom line. Press <Select>.

3 Press the scroll button (◀ or ▶) until the time setting you want appears on the bottom line.

   The available time options are 1, 4, 8, and 12 (hours).

4 Press <Select> to save the selection.

5 To return to Standby mode, press <Return>.

Software Overview

After setting up your machine and connecting it your computer, you must install the drivers. The drivers are available on the CD packaged with your machine. The CD-ROM contains the following:

- Dell MFP drivers- lets your computer communicate with your printer. To use your machine as a printer in Windows, you must install the MFP driver(s). For information about installing the MFP drivers in Windows, see page 34.
- Printer Settings Utility - allows you to set up the fax phonebook entries and additional system options on your desktop. You can also configure the destination which launches automatically when you press the **Select Software** button on the operator panel, and update the firmware of your machine.
- Status Monitor - displays the status of the printer and the name of the job when you send a job to print. The Status Monitor window also displays the level of toner and allows you to order replacement toner cartridges.
- Paper Port - allows you to scan documents and edit the scanned images. Paper Port provides improved scanning features and supports annotations on all image types. Paper Port's enhanced search feature allows you to find items by specific item properties.
- Scan Driver - TWAIN or WIA driver is available for scanning documents on your machine.
- User's Guide - HTML documentation provides a detailed information about using your multi-function printer.

Installing Dell Software

Before you begin, ensure that your system meets the minimum requirements. (Correct information required!!!)

NOTE: For Windows NT 4.0/2000/XP, the system administrator should install Dell software.

Supported Operating Systems

- Windows 98/98 SE/Me/NT 4 Workstation or Server with Service Pack 3
- Windows 2000 Professional or Advanced Server
- Windows XP Home edition or Professional.

Minimum Requirements

- Disk space: 120 MB for installation

- Memory: 64 MB
- CPU: Pentium II 233 or higher
- Required software: Internet Explorer 4.01

Recommended

- Disk space: 220 MB for installation
- Memory: 128 MB
- CPU: Pentium II 400 or higher
- Required software: Internet Explorer 5.5

Installing Dell Software for Local Printing

A local printer is a printer attached to your computer using a USB cable. *If your printer is attached to a network instead of your computer,* skip this step and go to "Installing Dell Software for Network Printing" on page 35.

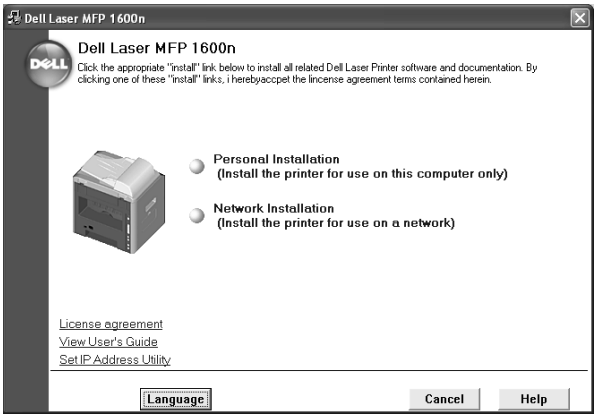
A printer driver is software that lets your computer communicate with your printer. The procedure to install drivers depends on the operating system you are using.

NOTE: If you attach a USB printer cable while your printer and computer are turned on, the Windows hardware wizard launches immediately. You may answer the plug and play screen or cancel the screen and use the drivers CD to install the Dell software.

1 Make sure that the printer is connected to your computer and powered on. Close all unnecessary programs.

NOTE: If the printer is not connected to your computer when you install the CD-ROM, the No Printer Found screen appears. Follow the instructions to install the software.

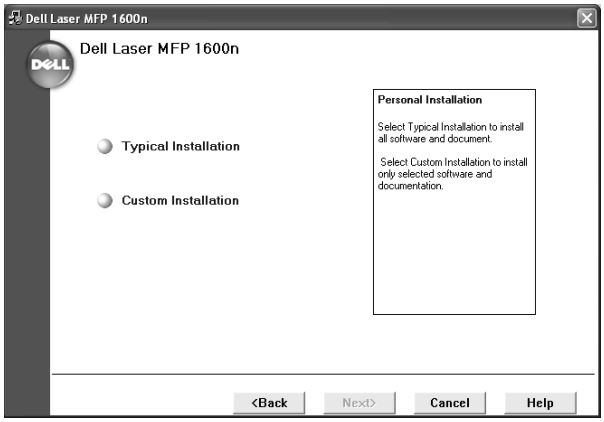
2 Insert the supplied Dell software CD into the CD-ROM drive in your computer.



3 If necessary, select a language by pressing the **Language** button on the main screen.

4 Select **Personal Installation**.

5 Select **Typical Installation** to install the MFP drivers for printing and scanning, and user's guide as default settings.



To install only selected software, select **Custom Installation**. If you want to use a PS driver, select **Custom Installation**. You can change the destination directly.

6 When the installation is completed, you may print a test page. Click **Finish** to complete the installation and close the wizard. You are now ready to print.

Installing Dell Software for Network Printing

(Correct introduction required!!)

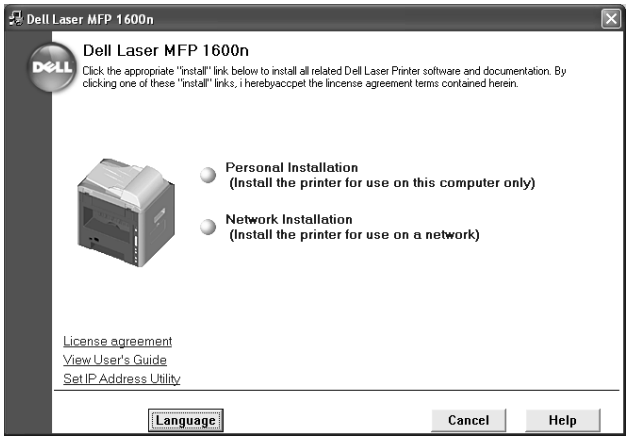
When you connect your printer to the network, you must first configure the TCP/IP settings for the printer. After you have assigned and verified the TCP/IP settings, you are ready to install the Dell software on each network computer.

You can install the Dell software on the network computers locally or remotely.

NOTE: You need administrative access to install printer drivers on the network computers.

1 Make sure that the printer is connected to your network and powered on. Close all unnecessary programs.

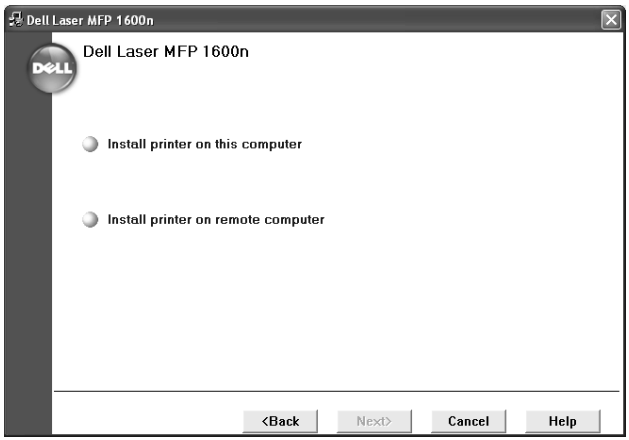
2 Insert the supplied Dell software CD.



3 If necessary, select a language by pressing the **Language** button on the main screen.

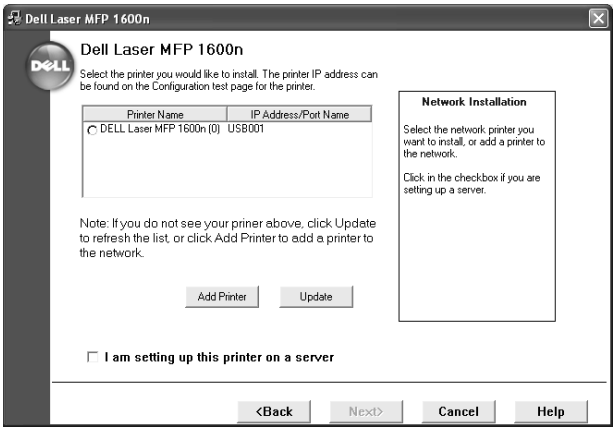
4 Select **Network Installation**.

5 If you want to install the printer on this computer or network server, select **Install printer on this computer**, and click **Next**.



If you want to install the Dell software in the remote computers on the same network, select **Install printer on remote computer**. The network administrator's ID and password are required. Select the client computer(s) and click **Next**.

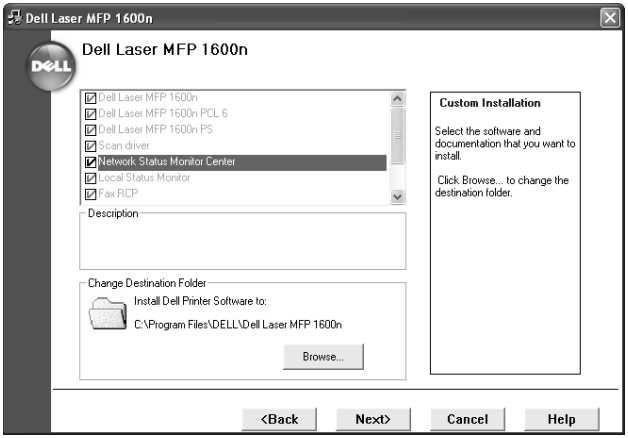
6 The list of printers available in the network appears. Select the printer you want to install from the list and then click **Next**.



If you do not see your printer in the list, click **Update** to refresh the list or click **Add Printer** to add your printer to the network. To add the printer to the network, enter the port name and an existing IP address for the printer. (What????)

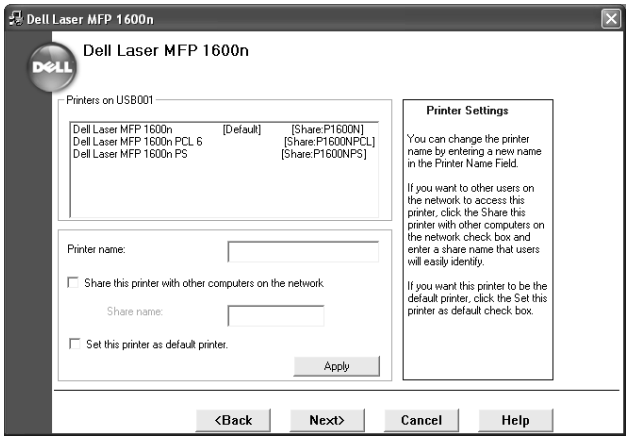
If you want to install it on a server, select the **I am setting up this printer on a server** check box. (What????)

7 The list of the MFP drivers which will be installed displays. You can select the Network Status Monitor Center to be included or not. The Network Status Monitor Center allows you to manage multiple printers' status. Click **Next.**



8 The next screen shows the MFP drivers installed in your computer. You can change the printer name.

You can also set this printer to be shared on the network and/or set the printer as a default printer. Click **Next**.



9 When the installation is completed, you may print a test page. Click **Finish**.

Assigning a Printer IP Address

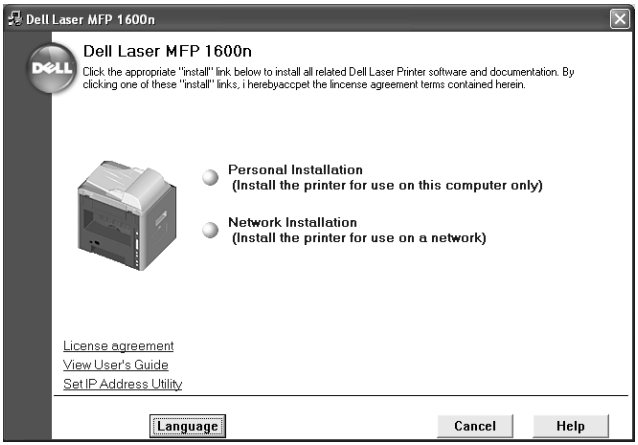
(introduction required!!!)

Before using the printer in the network, you must set an IP address, subnet mask, and gateway for the printer. The default address of the printer is preset at the factory, but you must change the IP address for use in your network environment. If you want the IP address to be set automatically by the DHCP, BOOTP, or RARP server, the server must be installed on your computer.

To configure the IP address manually, you can use the supplied Dell CD. Print the Configuration page of the printer to see the current network configuration and MAC address. You will need this information to configure the printer for the network.

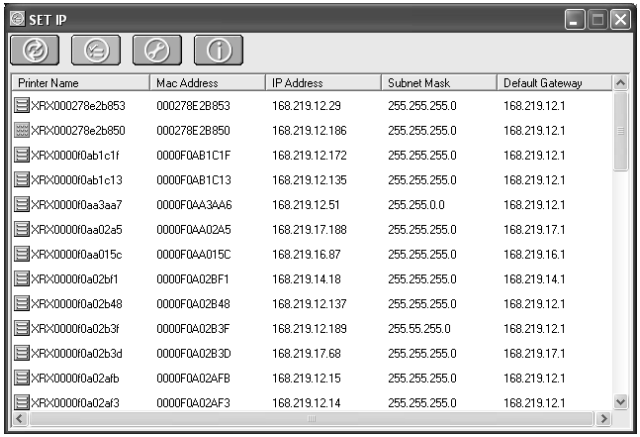
1 Make sure that the printer is connected to your network and powered on. Close all unnecessary programs.

2 Insert the supplied Dell software CD.



3 If necessary, select a language by pressing the Language button on the main screen.

4 Select **SetIP Address Utility**. The list of printers available in the network displays.



Printer Name	Mac Address	IP Address	Subnet Mask	Default Gateway
XRX000278e2b853	000278E2B853	168.219.12.29	255.255.255.0	168.219.12.1
XRX000278e2b850	000278E2B850	168.219.12.186	255.255.255.0	168.219.12.1
XRX0000f0ab1c1f	0000F0AB1C1F	168.219.12.172	255.255.255.0	168.219.12.1
XRX0000f0ab1c13	0000F0AB1C13	168.219.12.135	255.255.255.0	168.219.12.1
XRX0000f0aa3aa7	0000F0AA3AA6	168.219.12.51	255.255.0.0	168.219.12.1
XRX0000f0aa02a5	0000F0AA02A5	168.219.17.188	255.255.255.0	168.219.17.1
XRX0000f0aa015c	0000F0AA015C	168.219.16.87	255.255.255.0	168.219.16.1
XRX0000f0a02bf1	0000F0A02BF1	168.219.14.18	255.255.255.0	168.219.14.1
XRX0000f0a02b48	0000F0A02B48	168.219.12.137	255.255.255.0	168.219.12.1
XRX0000f0a02b3f	0000F0A02B3F	168.219.12.189	255.55.255.0	168.219.12.1
XRX0000f0a02b3d	0000F0A02B3D	168.219.17.68	255.255.255.0	168.219.17.1
XRX0000f0a02afb	0000F0A02AFB	168.219.12.15	255.255.255.0	168.219.12.1
XRX0000f0a02af3	0000F0A02AF3	168.219.12.14	255.255.255.0	168.219.12.1

5 Select the printer you want to assign an IP. The printer's default IP address can be found on the Configuration page for the printer.

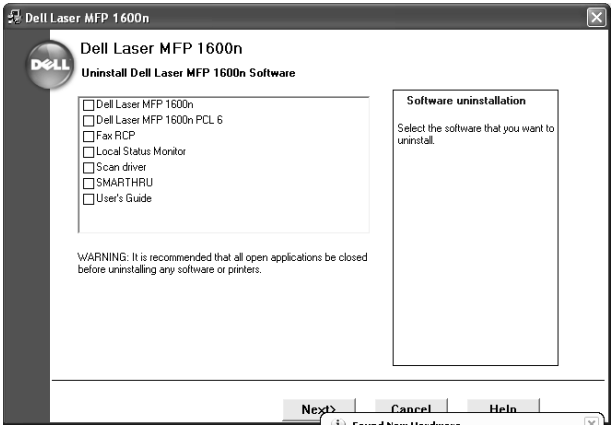
6 When you finish setting the IP address for the printer, exit the program.

Removing Dell Software

You should remove the MFP drivers if you are upgrading the software or if your driver installation fails. You can remove the software using the CD or the Windows uninstallshield.

NOTE: Before removing, close all programs. You must restart your computer after removing the drivers.

1 From the **Start** menu, select **Programs→ DELL→ DELL Laser MFP 1600n→ Dell MFP Software Uninstall**.



2 Select the software you want to remove.

3 When your computer prompts you to confirm your selection, click Yes. The selected driver and all of its components are removed from your computer.

4 Click **OK**.

5 Restart your computer.

Paper Handling

Print Media Guidelines
Storing Print Media
Identifying Print Media Sources and Specifications
Selecting an Output Location
Loading Print Media in the Paper Tray
Using the Bypass Tray
Setting the Paper Type
Setting the Paper Size

Print Media Guidelines

Print media is paper, card stock, transparencies, labels, and envelopes. Your machine provides high quality printing on a variety of print media. Selecting the appropriate print media for your machine helps you avoid printing problems. This chapter provides information on how to help you make print media selections, how to care for the print media, and how to load it in the standard Tray1, optional Tray2 or Bypass tray.

Paper

For the best print quality, use 75 g/m^2 (20 lb) xerographic, grain long paper. Try a sample of any paper you are considering using with the machine before buying large quantities.

When loading paper, note the recommended print side on the paper package, and load paper accordingly. See "Loading Print Media in the Paper Tray" on page 53 and "Using the Bypass Tray" on page 54 for detailed loading instructions.

Paper Characteristics

The following paper characteristics affect print quality and reliability. We recommend that you follow these guidelines when evaluating new paper stock.

Weight

The machine can automatically feed paper weights from 60 to 135 g/m^2 (16 to 36 lb bond) grain long. Paper lighter than 60 g/m^2 (16 lb) may not be stiff enough to feed properly, causing jams. For best performance, use 75 g/m^2 (20 lb bond) grain long paper. To use paper narrower than 7.2 by 10.1 in. (182 by 257 mm), we recommend that the weight be greater than or equal to 90 g/m^2 (24 lb bond).

Curl

Curl is the tendency of print media to curve at its edges. Excessive curl can cause paper feeding problems. Curl usually occurs after the paper passes through the machine, where it is exposed to high temperatures. Storing paper unwrapped in humid conditions, even in the paper tray, can contribute to paper curling prior to printing and can cause feeding problems.

Smoothness

The degree of smoothness of paper directly affects print quality. If the paper is too rough, the toner does not fuse to the paper properly, resulting in poor print quality. If the paper is too smooth, it can cause paper feeding problems. Smoothness needs to be between 100 and 300 Sheffield points; however, smoothness between 150 and 250 Sheffield points produces the best print quality.

Moisture Content

The amount of moisture in the paper affects both print quality and the ability of the machine to feed the paper properly. Leave the paper in its original wrapper until you are ready to use it. This limits the exposure of the paper to moisture changes that can degrade its performance.

Grain Direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either grain long, running the length of the paper, or grain short, running the width of the paper.

For 60 to 135 g/m^2 (16 to 36 lb bond) paper, grain long fibers are recommended. For papers heavier than 135 g/m^2 (36 lb bond), grain short is preferred. For the multipurpose feeder, 60 to 135 g/m^2 (16 to 36 lb bond) paper, grain long fibers are recommended. For the multipurpose feeder, papers heavier than 135 g/m^2 (36 lb bond), grain short is preferred.

Fiber Content

Most high-quality xerographic paper is made from 100% chemically pulped wood. This content provides the paper with a high degree of stability resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton possess characteristics that can result in degraded paper handling.

Recommended Paper

To ensure the best print quality and feed reliability, use 75 g/m^2 (20 lb) xerographic paper. Business papers designed for general business use may also provide acceptable print quality.

Always print several samples before buying large quantities of any type of print media. When choosing any print media, consider the weight, fiber content, and color.

The laser printing process heats paper to high temperatures of 225°C (437°F) for Magnetic Ink Character Recognition (MICR) applications, and 205°C (401°F) for non-MICR applications. Use only paper able to withstand these temperatures without discoloring, bleeding, or releasing hazardous emissions. Check with the manufacturer or vendor to determine whether the paper you have chosen is acceptable for laser printers.

Unacceptable Paper

The following papers are not recommended for use with the machine:

- Chemically treated papers used to make copies without carbon paper, also known as carbonless papers, carbonless copy paper (CCP), or no carbon required (NCR) paper
- Preprinted papers with chemicals that may contaminate the machine
- Preprinted papers that can be affected by the temperature in the machine fuser
- Preprinted papers that require a registration (the precise print location on the page) greater than ±0.09 in., such as optical character recognition (OCR) forms
- In some cases, you can adjust registration with your software application to successfully print on these forms.
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough or heavily textured surface papers or curled papers
- Recycled papers containing more than 25% post-consumer waste that do not meet DIN 19 309
- Recycled paper having a weight less than 60 g/m^2 (16 lb)
- Multiple-part forms or documents

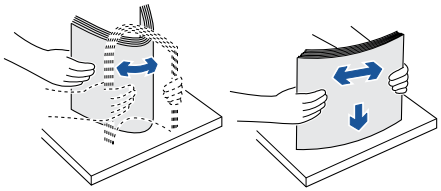
Selecting Paper

Proper paper loading helps prevent jams and ensures trouble-free printing.

To help avoid jams or poor print quality:

- Always use new, undamaged paper.
- Before loading paper, know the recommended print side of the paper you are using. This information is usually indicated on the paper package.
- Do not use paper that you have cut or trimmed yourself.
- Do not mix print media sizes, weights, or types in the same source; mixing results in jams.
- Do not use coated papers.
- Do not forget to change the paper size setting when you use a source that does not support auto size sensing.
- Do not remove trays while a job is printing or Busy is displayed on the operator panel.

- Make sure the paper is properly loaded in the source.
- Flex paper back and forth. Do not fold or crease the paper. Straighten the edges on a level surface.



Selecting Preprinted Forms and Letterhead

Use the following guidelines when selecting preprinted forms and letterhead paper for the machine:

- Use grain long papers for best results.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Choose papers that absorb ink, but do not bleed.
- Avoid papers with rough or heavily textured surfaces.

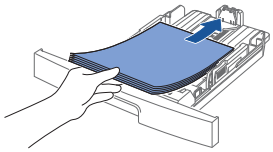
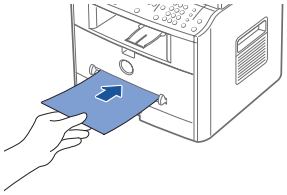
Use papers printed with heat-resistant inks designed for use in xerographic copiers. The ink must withstand temperatures of 225°C (437°F) without melting or releasing hazardous emissions. Use inks that are not affected by the resin in toner or the silicone in the fuser. Inks that are oxidation-set or oil-based should meet these requirements; latex inks might not. *If you are in doubt,* contact your paper supplier.

Preprinted papers such as letterhead must be able to withstand temperatures up to 225°C (437°F) without melting or releasing hazardous emissions.

Printing on Letterhead

Check with the manufacturer or vendor to determine whether the preprinted letterhead you have chosen is acceptable for laser machines.

Page orientation is important when printing on letterhead. Use the following table for help when loading letterhead in the print media sources.

Print Media Source	Top of Page		
	Print Side	Portrait	Landscape
Tray 1 (standard tray) Optional Tray 2	Face down 	Front of tray	Left side of tray
Bypass tray	Face up 	Logo enters the machine first	Left side of tray

Selecting Prepunched Paper

Prepunched paper brands can differ in the number and placement of holes and in manufacturing techniques.

Use the following guidelines to select and use prepunched paper:

- Test paper from several manufacturers before ordering and using large quantities of pre-punched paper.
- Paper should be punched at the paper manufacturer and not drilled into paper already packaged in a ream. Drilled paper can cause jams when multiple sheets feed through the machine.
- Prepunched paper can include more paper dust than standard paper. Your machine may require more frequent cleaning and feed reliability may not be as good as that of standard paper.
- Weight guidelines for prepunched paper are the same as for nonpunched paper.

Transparencies

Try a sample of any transparencies you are considering using with the machine before buying large quantities:

- Use transparencies designed specifically for laser printers. Transparencies must be able to withstand temperatures of 205°C (401°F) without melting, discoloring, offsetting or releasing hazardous emissions.
- Avoid getting fingerprints on the transparencies, which can cause poor print quality.
- Before loading transparencies, fan the stack to prevent sheets from sticking together.
- Load one transparency in the Bypass tray.

Selecting Transparencies

The machine can print directly on transparencies designed for use in laser printers. Print quality and durability depend on the transparency used. Always print samples on the transparencies you are considering before buying large quantities.

Check with the manufacturer or vendor to determine whether your transparencies are compatible with laser printers that heat transparencies to 205°C (401°F). Use only transparencies that are able to withstand these temperatures without melting, discoloring, offsetting, or releasing hazardous emissions.

Envelopes

You can load one envelope at a time in the Bypass tray. Try a sample of any envelopes you are considering using with the machine before buying large quantities. See page 54 for instructions on loading an envelope.

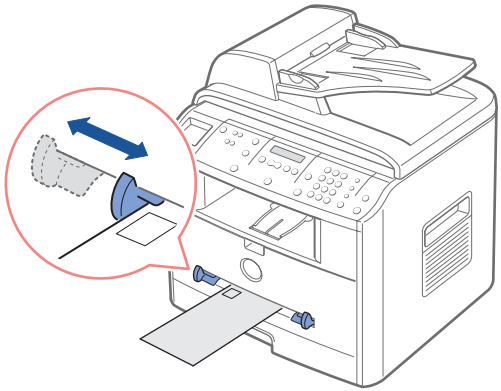
When printing on envelopes:

- To achieve the best possible print quality, use only high-quality envelope that are designed for use in laser printers.
- For best performance, use envelopes made from 75 g/m^2 (20 lb bond) paper. You can use up to 90 g/m^2 (28 lb bond) weight for the Bypass tray as long as the cotton content is 25 percent or less.
- Use only new, undamaged envelopes.
- For best performance and to minimize jams, do not use envelopes that:
  - Have excessive curl or twist
  - Are stuck together or damaged in any way

- Contain windows, holes, perforations, cutouts or embossing
- Use metal clasps, string ties, or metal folding bars
- Have an interlocking design
- Have postage stamps attached
- Have any exposed adhesive when the flap is in the sealed or closed position
- Have nicked edges or bent corners
- Have rough, cockle, or laid finishes

- Use envelopes that can withstand temperatures of 205°C (401°F) without sealing, excessive curling, wrinkling, or releasing hazardous emissions. *If you have any doubts about the envelopes you are considering using,* check with the envelope supplier.
- Adjust the width guide to fit the width of the envelopes.
- Load an envelope with the flap side down and with the stamp area on the top left side. The end of the envelope with the stamp area enters the Bypass tray first.

  See "Using the Bypass Tray" on page 54 for instructions on loading an envelope.



- Load only one size of envelope at a time in Bypass tray.
- A combination of high humidity (over 60%) and the high printing temperatures may seal the envelopes.

Labels

Your machine can print on many labels designed for use with laser printers. These labels are supplied in letter size, A4 size, and legal size sheets. Label adhesives, face sheet (printable stock), and topcoats must be able to withstand temperatures of 205°C (401°F) and pressure of 25 pounds per square inch (psi). You can load one label sheet.

Try a sample of any label you are considering using with the machine before purchasing a large quantity:

- You may feed vinyl labels from the standard 250-sheet Tray1, or the optional 250-sheet Tray2.
- Do not load labels together with paper or transparencies in the same source; mixing print media can cause feeding problems.
- Do not use label sheets with a slick backing material.
- Do not print within 0.04 in. (1 mm) of the die cut.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate your machine and your cartridge with adhesive, and could void your machine and cartridge warranties.
- Use labels that can withstand temperatures of 205°C (401°F) without sealing, excessive curling, wrinkling, or releasing hazardous emissions.
- Do not print within 0.04 in. (1 mm) of the edge of the label, of the perforations, or between die-cuts of the label.
- Do not use label sheets that have adhesive to the edge of the sheet. We recommend zone coating of the adhesive at least 0.04 in. (1 mm) away from edges. Adhesive material contaminates your machine and could void your warranty.
- If zone coating of the adhesive is not possible, a 0.125 in. (3 mm) strip should be removed on the leading and driver edge, and a non-oozing adhesive should be used.
- Remove a 0.125 in. (3 mm) strip from the leading edge to prevent labels from peeling inside the machine.
- Portrait orientation is preferred, especially when printing bar codes.
- Do not use labels that have exposed adhesive.

Card Stock

Card stock is single ply, and has a large array of properties, such as the moisture content, thickness, and texture, that can significantly affect print quality. See Identifying print media sources and specifications for information on the preferred weight for the grain direction of print media.

Try a sample of any card stock you are considering using with the machine before purchasing a large quantity:

- Be aware that preprinting, perforation, and creasing can significantly affect the print quality and cause print media handling or jamming problems.
- Avoid using card stock that may release hazardous emissions when heated.
- Do not use preprinted card stock manufactured with chemicals that may contaminate the machine. Preprinting introduces semi-liquid and volatile components into the machine.
- We recommend the use of grain short card stock.

Storing Print Media

Use the following guidelines for proper print media storage. These help avoid print media feeding problems and uneven print quality:

- For best results, store print media in an environment where the temperature is approximately 21°C (70°F) and the relative humidity is 40%.
- Store cartons of print media on a pallet or shelf, rather than directly on the floor.
- *If you store individual packages of print media out of the original carton,* make sure they rest on a flat surface so the edges do not buckle or curl.
- Do not place anything on top of the print media packages.

Identifying Print Media Sources and Specifications

The following tables provide information on standard and optional sources, including the print media sizes you can select from the paper size menu and supported weights.

NOTE: *If you use a print media size not listed,* select the next larger size.

Print Media Sizes and Support

Legend Y- indicates Support Print Media Size	Dimensions	Paper Tray (Standard Tray1 and Optional Tray2)	Bypass Tray
A4	8.27 x 11.7 in. (210 x 297 mm)	Y	Y
A5	5.83 x 8.27 in. (148 x 210 mm)	-	Y
A6 card	4.13 x 5.85 in. (105 x 148.5 mm)	-	Y
JIS B5	7.17 x 10.1 in. (182 x 257 mm)	-	Y
ISO B5	6.93 x 9.84 in. (176 x 250 mm)	-	Y
Letter	8.5 x 11 in. (215.9 x 279.4 mm)	Y	Y
Legal	8.5 x 14 in. (215.9 x 355.6 mm)	Y	Y
Executive	7.25 x 10.5 in. (184.2 x 266.7 mm)	-	Y
Folio	8.5 x 13 in. (216 x 330 mm)	Y	Y
Envelope 7-3/4 (Monarch)	3.875 x 7.5 in. (98.4 x 190.5 mm)	-	Y

Legend Y- indicates Support Print Media Size	Dimensions	Paper Tray (Standard Tray1 and Optional Tray2)	Bypass Tray
Envelope COM-10	4.12 x 9.5 in. (105 x 241 mm)	-	Y
Envelope DL	4.33 x 8.66 in. (110 x 220 mm)	-	Y
EnvelopeC5	6.38 x 9.01 in. (162 x 229 mm)	-	Y
Custom	3 x 5 in. to 8.5 x 14 in. (76 x 127 mm to 216 x 356 mm)	-	Y

Print Media Supported

Print Media	Paper Tray	Bypass Tray	Standard Output bin
Paper	Y	Y	Y
Card Stock	-	Y	Y
Transparencies	-	Y	Y
Labels	-	Y	Y
Dual-web and Integrated Labels	-	Y	Y
Envelope	-	Y	Y

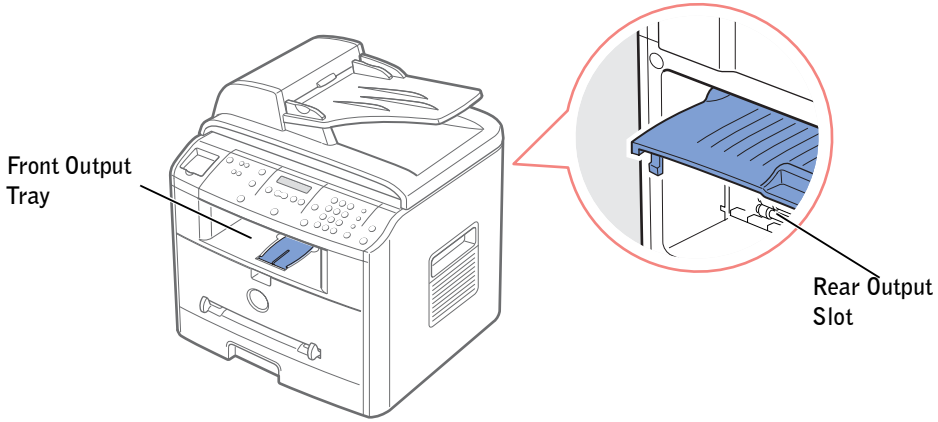
Print Media Types and Weights

Print Media	Type	Print Media Weight	
		Standard Tray1 and Optional Tray2	**Bypass Tray**
Paper	Xerographic or business paper	60-135 g/m^2 grain long (16-36 lb bond)	60-135 g/m^2 grain long (16 to 36 lb bond)
Card stock-maximum (grain long)[a]	Index Bristol	163 g/m^2 (90 lb)	120 g/m^2 (67 lb)
	Tag	163 g/m^2 (100 lb)	120 g/m^2 (74 lb)
	Cover	176 g/m^2 (65 lb)	135 g/m^2 (50 lb)
Card stock-maximum (grain short)[a]	Index Bristol	199 g/m^2 (110 lb)	163 g/m^2 (90 lb)
	Tag	203 g/m^2 (125 lb)	163 g/m^2 (100 lb)
	Cover	216 g/m^2 (80 lb)	176 g/m^2 (65 lb)
Transparencies	Laser printer	138-146 g/m^2 (37-39 lb bond)	138-146 g/m^2 (37-39 lb bond)
Labels-maximum	Paper	180 g/m^2 (48 lb bond)	163 g/m^2 (43 lb bond)
	Dual-web paper	180 g/m^2 (48 lb bond)	163 g/m^2 (43 lb bond)
	Polyester	220 g/m^2 (59 lb bond)	220 g/m^2 (59 lb bond)
	Vinyl	300 g/m^2 (92 lb liner)	260 g/m^2 (78 lb liner)
Integrated Forms	Pressure-sensitive area (must enter the machine first)	140-135 g/m^2	140-135 g/m^2
	Paper base (grain long)	75-135 g/m^2 (20-36 lb bond)	75-135 g/m^2 (20-36 lb bond)
Envelopes 100% Cotton Content Maximum Weight- 24 lb	Sulfite, wood-free or up to 100% cotton bonds	75-90 g/m^2 (20-24 lb)	75-90 g/m^2 (20-24 lb)

a. Grain short is preferred for papers over 135 g/m^2.

Selecting an Output Location

The machine has two output locations; the front output tray (face down) and the rear output slot (face up).



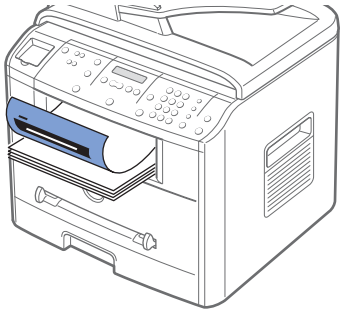
To use the front output tray, make sure that the rear cover is closed. To use the rear output slot, open the cover.

NOTE: *If paper coming out of the front output tray has problems, such as excessive curl,* try printing to the rear output slot.

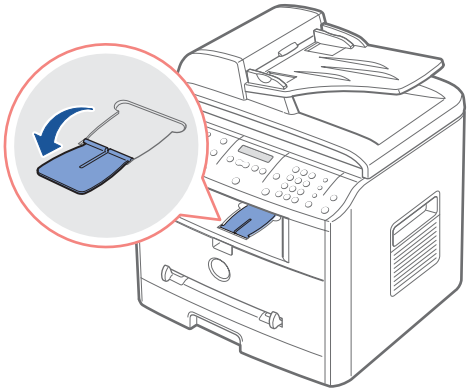
NOTE: To avoid paper jams, do not open or close the rear cover while the machine is printing.

Printing to the Front Output Tray *(Face down)*

The front output tray collects printed paper face-down, in correct order. The tray should be used for most print jobs.

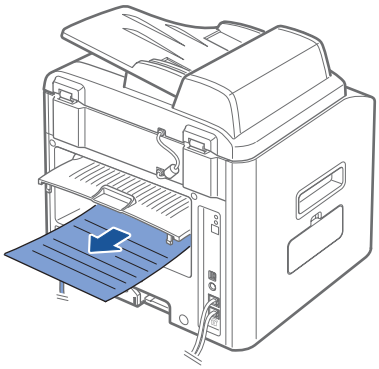


If necessary, expand the paper support extension to keep print media from falling off the front output tray.



Printing to the Rear Output Slot *(Face up)*

Using the rear output slot, paper comes out of the machine face up.

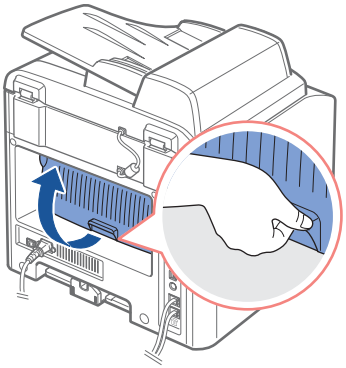


Printing from the Bypass tray to the rear output slot provides a **straight paper path**. Using the rear output slot might improve the output quality with the following:

- Envelopes
- Labels
- Small Custom-sized Paper
- Card Stock
- Transparencies

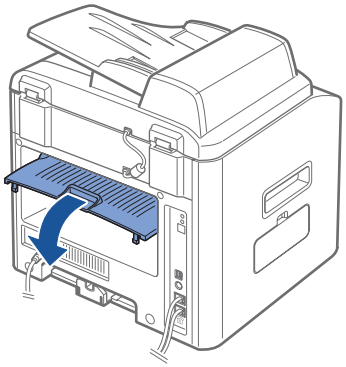
To use the rear output slot:

1 Open the rear cover by pulling it upward.



CAUTION: The fusing area at the rear part of the inside of your machine is hot when powered. Be careful not to get burned when you access this area.

2 *If you do not want to stack the printed pages on the rear output slot,* close the rear cover. The pages stack on the front output tray.

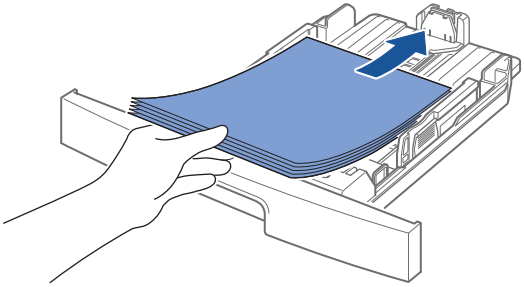


Loading Print Media in the Paper Tray

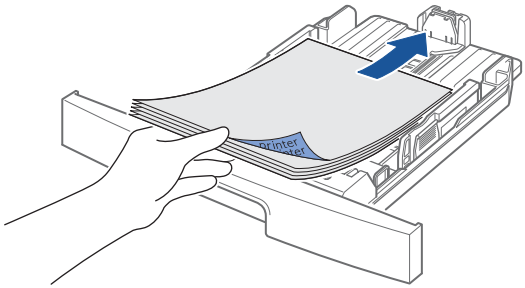
You can load approximately 250 sheets of plain paper in the standard Tray1 or the optional Tray2. If you purchased the optional Tray2, see page 189 for installing instructions. For faxing, you can use A4-, Letter-, Legal sized paper only. For copying or PC printing, you can use many different types and sizes of paper; see page 47.

Complete these instructions to load print media into the standard Tray1 or optional Tray2. These trays are loaded the same way.

1 Pull open the paper tray and load paper with the print side face down.



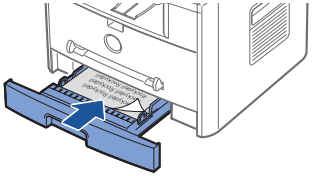
You can load letterhead paper with the design side face down. The top edge of the sheet with the logo should be placed at the front side of the tray.



For details about loading paper in the paper tray, see page 17.

NOTE: *If you experience problems with paper feed,* place the paper in the Bypass tray.

NOTE: You can load up to 150 sheets of previously printed paper. The printed side should be facing up with an uncurled edge at the top side. *If you experience problems with paper feed,* turn the paper around. Note that the print quality is not guaranteed.



Using the Bypass Tray

Use the Bypass tray to print transparencies, labels, envelopes or postcards in addition to making quick runs of paper types or sizes that are not currently loaded in the paper tray.

Postcards, 3.5 by 5.83 in.(index) cards and other custom-sized materials can be printed with this machine. The minimum size is 3.0 by 5.0 in. (76 by 127 mm) and the maximum size is 8.5 by 14 in. (216 by 356 mm)

Acceptable print materials are plain paper with sizes ranging from 3.9 by 5.8 in. (100 by 148 mm) to Legal, 8.5 by 14 in. (216 by 356 mm), the largest size acceptable, and weighing between 16 lb and 32 lb.

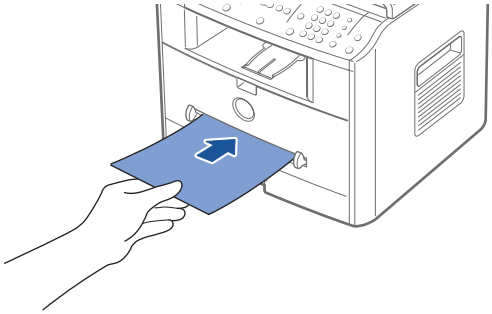
NOTE: Always load only the print materials specified in the Specifications on page 206 to avoid paper jams and print quality problems.

NOTE: Flatten any curl on postcards, envelopes and labels before loading them into the Bypass tray.

NOTE: When you print on 3 by 5 in. (76 by 127 mm) sized media with loading into the tray, open the rear output tray.

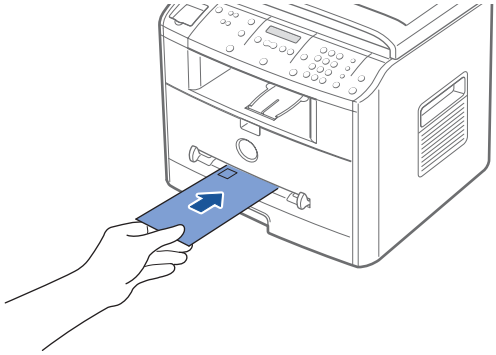
To use the Bypass tray:

1 Load a sheet of the print material with the print side face up into the center of the tray.



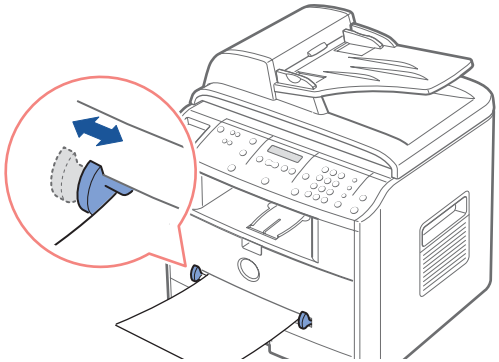
CAUTION: Make sure to open the rear output slot when you print on transparencies. If not, they may tear while exiting the machine.

For envelopes, load a sheet with the flap side face down and with the stamp area on the top left side. The end of the envelope with the stamp area enters the Bypass tray first.



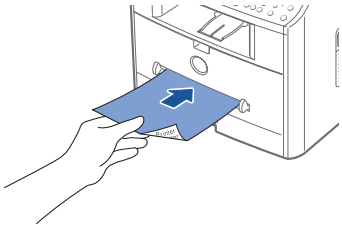
NOTICE: Never use envelopes with stamps, clasps, snaps, windows, coated linings, or self-stick adhesives. These envelopes may severely damage the machine. The stamp is shown in the illustration only for placement.

2 Adjust the paper guide to the width of the print material.

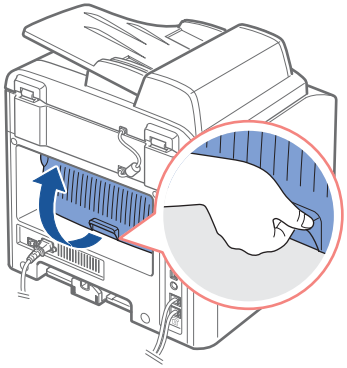


The machine picks up the material from the tray and begins printing.

NOTE: When printing on previously printed paper from the Bypass tray, the printed side should be facing down with an uncurled edge to the machine. *If you experience problems with paper feed,* turn the paper around.



3 Open the rear cover to use the rear output slot.



4 After printing, close the rear cover.

Setting the Paper Type

After loading paper in the paper tray or the Bypass tray, you need to set the paper type using the operator panel buttons. This setting will apply to Fax and Copy modes. For faxing, you can only set the paper type to the Plain Paper. For PC-printing, you need to select the paper type in the application program you use.

1 Press <Menu>.

   The display shows "`Paper Setting`" on the top line and the first menu item, "`Paper Type`" on the bottom line.

2 Press <Select> to access the menu item.

3 Use the scroll button (◀ or ▶) to find the paper type you are using and press <Select> to save.

4 To return to Standby mode, press <Return>.

Setting the Paper Size

After loading paper in the paper tray, you need to set the paper size using the operator panel buttons. This setting will apply to Fax and Copy modes. If you load paper in the Bypass Tray and set the paper size, this setting will apply to Copy mode. For PC-printing, you need to select the paper type in the application program you use.

1 Press <Menu>.

2 Press the scroll button (◀ or ▶) until "`Paper Size`" display on the bottom line.

3 Press <Select>.

   The first item, "`Tray1 Paper`" displays on the bottom line.

4 Use the scroll button (◀ or ▶) to select the paper tray you want to use and press <Select>.

5 Use the scroll button (◀ or ▶) to find the paper size you are using and press <Select>.

6 To return to Standby mode, press <Return>.

Printing

Printing a Document
Printer Settings
Printing on Both Sides of the Paper
Printing Multiple Pages on One Sheet of the Paper
Printing a Reduced or Enlarged Document
Fitting Your Document to a Selected Paper Size
Printing Posters
Printing Booklets
Using Watermarks
Using Overlays
Using the Status Monitor

Printing a Document

Your printer prints a document using the GDI, PCL or PS printer driver. When you install the Dell software, your printer automatically install the GDI and PCL printer drivers. Installing the PS printer driver is your choice. See page 35.

Once you install the printer drivers, you can select the printer driver when you print a document.

The features provided by each printer driver are as follows:

Feature	**Printer Driver**		
	GDI	PS	PCL
Toner Save	Y	Y	Y
Print quality option	Y	Y	Y
Poster	Y	N	Y
Reduce/Enlarge	Y	Y	Y
Booklet Printing	Y	N	Y
Multiple Pages per Side	Y	Y	Y
Fit to Page	Y	N	Y
Watermark	Y	N	Y
Overlay	Y	N	Y

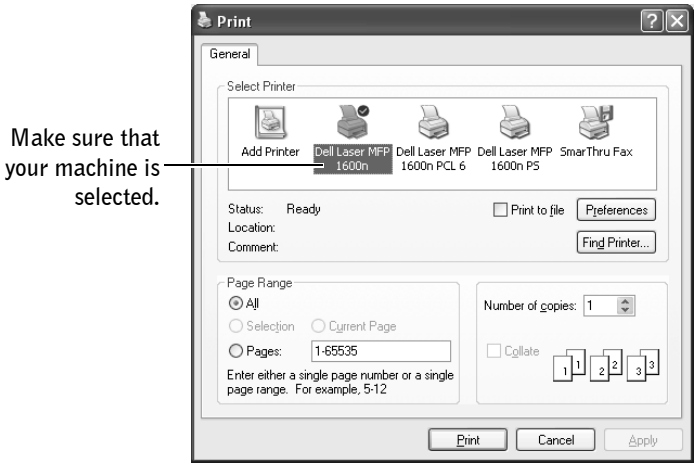
The following procedure describes the general steps required for printing from various Windows applications. The exact steps for printing a document may vary depending on the application program you are using. Refer to your software application's *User's Guide* for the exact printing procedure.

1 Open the document you want to print.

2 Select **Print** from the **File** menu.

The Print window displays. It may look slightly different depending on your application.

The basic print settings are selected within the Print window. These settings include the number of copies and print range.



▲ Windows XP

3 Select the printer driver you want to use from the Print window.

4 To take advantage of the printer features provided by your printer, click **Preferences** or **Properties,** depending on the program or operating system in the application's print window and go to step 4.

*If you see **Setup**, **Printer** or **Options**,* click that button instead. Then click **Properties** on the next screen.

5 Click **OK** to close the printer properties window.

6 To start the print job, click **Print** or **OK,** depending on the program or operating system in the Print window.

Cancelling a Print Job

There are two ways to cancel a print job:

To stop a print job from the operator panel:

Press the <Cancel> button.

Your printer finishes printing the page that is moving through the printer and deletes the rest of the print job. Pressing the button cancels only the current job. *If more than one print job is in the printer's memory,* you need to press the button once for each job.

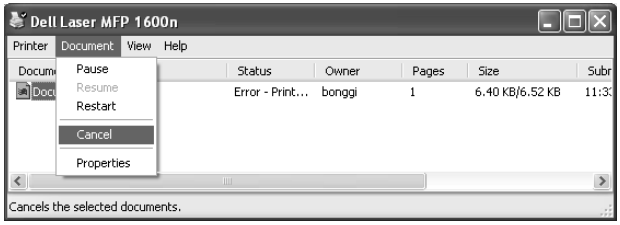
To stop a print job from the Printers folder:

NOTE: You can access this window simply by double-clicking the printer icon at the bottom right corner of the Windows desktop.

1 From the Windows **Start** button, click **Settings**.

2 Point to **Printers** (Windows 98/Me/NT 4.0/2000) or **Printers and Faxes** (Windows XP) to open the Printers window and double-click the **Dell Laser MFP 1600n** icon.

3 From the **Document** menu, click **Cancel** (Windows NT 4.0/2000/XP) or **Cancel Printing** (Windows 98/Me).



▲ Windows XP

Printer Settings

You can use the printer properties window, which allows you to access all of the printer options you need when using your printer. When the printer properties are displayed, you can review and change whatever settings needed for your print job.

The printer properties window may differ, depending on the printer driver you select and your operating system. For details about selecting printer driver, see page 60. This *User's Guide* shows the Printing Preferences window of the GDI printer driver on Windows XP.

NOTE: Most Windows applications override settings you specified in the printer driver. Change all of the print settings available in the software application first, and change any remaining settings using the printer driver.

NOTE: The settings you change remain in effect only while you are using the current program. To make your changes permanent, make them in the **Printers** folder. Follow these steps:

a Click the Windows **Start** button.

b For Windows 98/Me/NT 4.0/2000, click **Settings** and point to **Printers**.

For Windows XP, click **Printers and Faxes**.

c Point to the **Dell Laser MFP 1600n** printer.

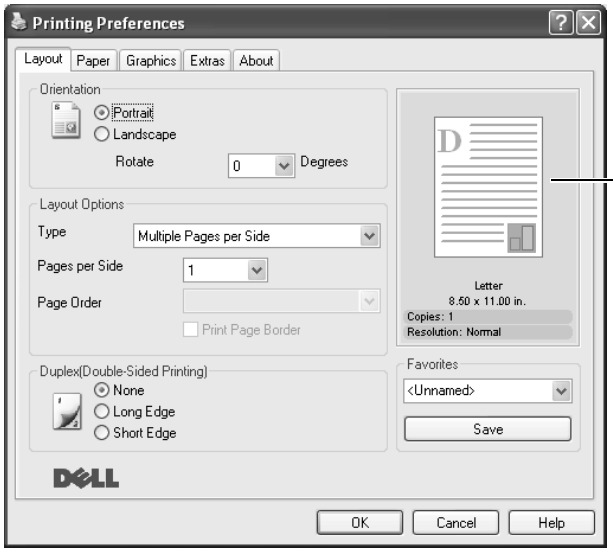
d Right-click on the printer icon and:

- For Window 98/Me, click **Properties**.
- For Windows 2000/XP, click **Print Setup** or click **Properties** and point to **Printing Preferences**.
- For Windows NT 4.0, click **Document Default**.

e Change the settings on each tab and click **OK**.

Layout Tab

The **Layout** tab provides options for you to adjust how the document appears on the printed page. The **Layout Options** includes advanced printing options, such as **Multiple Pages per Side** and **Poster**. You can also use **Duplex(Double-Sided Printing)** in this tab. See page 60 for more information on accessing your software application.



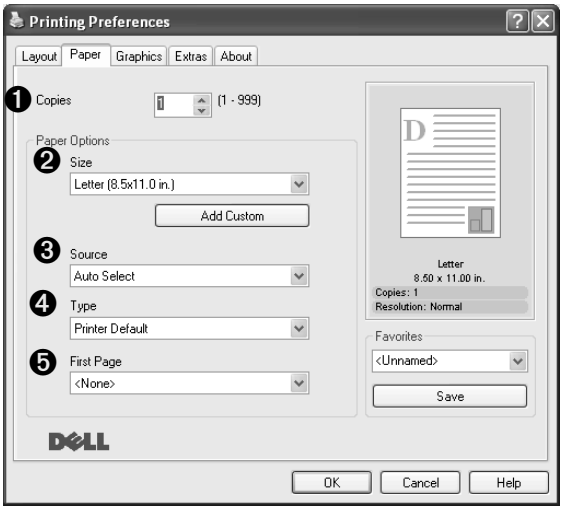
The preview image shows the sample page with the settings you currently specified.

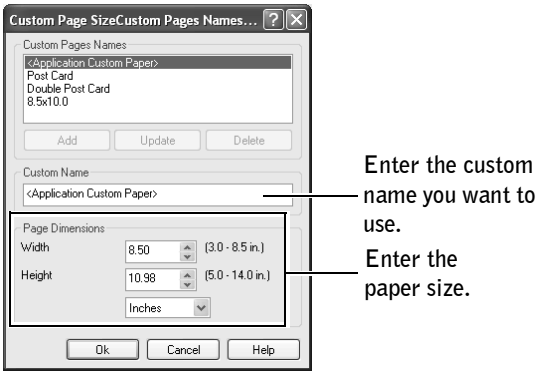
Property	Description
❶ Orientation	**Orientation** allows you to select the direction in which information is printed on a page. • **Portrait** prints across the width of the page, letter style. • **Landscape** prints across the length of the page, spreadsheet style. *If you want to rotate the page 180-degrees,* select **180** from the **Rotate** drop-down list. ▲ Portrait ▲ Landscape
❷ **Layout Options**	**Layout Options** allows you to select advanced printing options. For details, see page 71~page 77.
❸ **Duplex(Double-Sided Printing)**	**Duplex(Double-Sided Printing)** allows you to automatically print two-sided documents. For details, see page 71.

Paper Tab

Use the following options to set the paper handling needs when you access the printer properties. See page 60 for more information about accessing printer properties.

Click the **Paper** tab to access the paper properties.



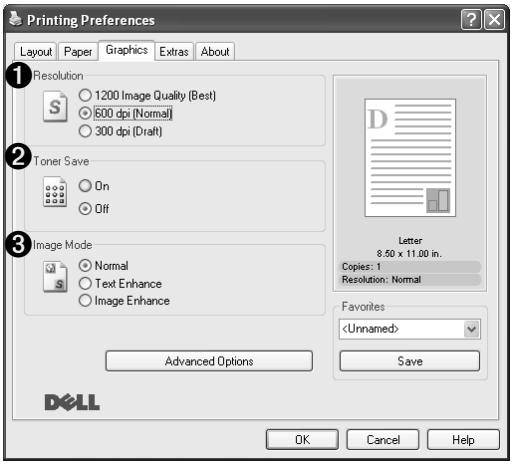
Property	Description
❶ **Copies**	**Copies** allows you to choose the number of copies to be printed. You can enter up to 999.
❷ **Size**	The **Size** option allows you to choose the size of paper loaded in the paper tray. *If the required size is not listed in the **Size** box,* click **Add Custom**. When the Custom Page SizeCustom Pages Names... window appears, set the paper size and click **Ok**. The setting appears on the list so that you can select it. 

Property	Description
❸ **Source**	Make sure that **Source** is set to the corresponding paper tray. The **Manual Feed** source is used when printing to special materials. You need to load one sheet at a time into the Bypass tray. See page 54. If the paper source is set to **Auto Select**, the machine automatically picks up print materials according to the following order: the Bypass tray and the paper tray.
❹ **Type**	Make sure that **Type** is set to **Printer Default**. *If you load a different type of print material,* select the corresponding paper type. For more information about print materials, refer to "Paper Handling" on page 37. *If you use cotton paper,* set the paper type to **Thick** for the best printing. To use recycled paper, which weights from 75-90g/m^2 (20- 24lb), or colored paper, select **Color Paper**.
❺ **First Page**	This property allows you to print the first page using a different paper type from the rest of the document. You can select the paper source for the first page.

Graphics Tab

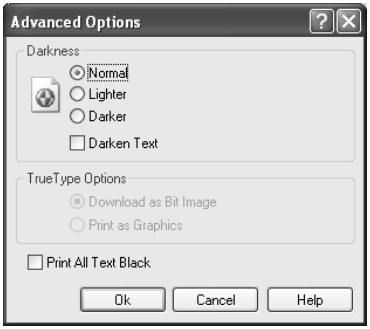
Use the following graphic options to adjust the print quality for your specific printing needs. See page 60 for more information about accessing printer properties.

Click the **Graphics** tab to display the properties shown below.



Property	Description
❶ **Resolution**	You can select the printing resolution by choosing from **1200 Image Quality (Best)**, **600 dpi (Normal)** or **300 dpi (Draft)**. The higher the setting, the sharper the clarity of printed characters and graphics. Higher settings may increase the time it takes to print a document.
❷ **Toner Save**	Selecting this option extends the life of your toner cartridge and reduces your cost per page without a significant reduction in the print quality. • **On**: Select this option to allow the printer to use less toner on each page. • **Off**: When you do not need to save toner to print a document, select this option.
❸ **Image Mode**	Selecting this option improves the print quality of your text and image, and makes the characters and images appear smoother. • **Normal**: Select to print images in the normal mode. • **Text Enhance**: Select to refine the print quality of characters by smoothing out jagged edges that can occur on the angles and curves of each character. • **Image Enhance**: Select to refine the print quality of photo images.

Property	Description
❹ **Advanced Options**	You can set advanced settings by clicking the **Advanced Options** button.



Darkness

Use this option to lighten or darken the image appearance in your print.

- **Normal**: This setting is for normal documents.
- **Lighter**: This setting is for bolder line widths or darker gray scale images.
- **Darker**: This setting is for finer line width, higher definition in graphics and lighter gray scale images.

When the **Darken Text** option is checked, all text in your document is allowed to print darker than a normal document.

True Type Options

This option determines what the driver tells the machine about how to image the text in your document. Select the appropriate setting according to the status of your document.

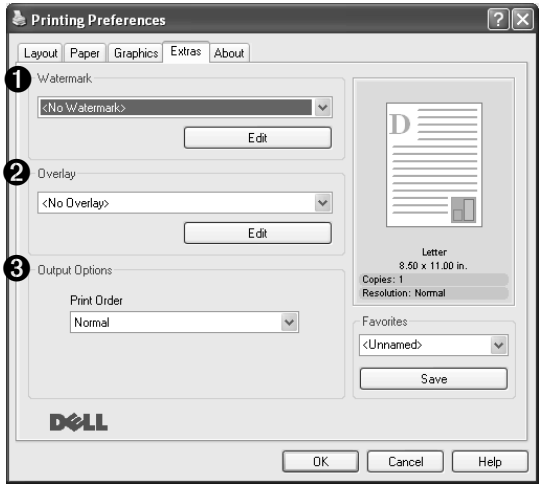
- **Download as Bit Image**: When this option is selected, the driver downloads the font data as bitmap images. Documents with complicated fonts, such as Korean or Chinese, or other various types of fonts print faster in this setting.
- **Print as Graphics**: When this option is selected, the driver downloads any fonts as graphics. When printing documents with high graphic content and relatively few TrueType fonts, printing performance (speed) may be enhanced in this setting.

Print All Text Black

When the **Print All Text Black** option is checked, all text in your document is allowed to print solid black, regardless of the color it appears on the screen. When it is not checked, colored text is allowed to print in shades of gray.

Extras Tab

See page 60 for more information about accessing your software application. Click the **Extras** tab to access the following features:



Property	Description
❶ **Watermark**	You can create a background image of text to print on each page of your document. See "Using Watermarks" on page 78.
❷ **Overlay**	Overlays are often used to take the place of preprinted forms and letterhead paper. See "Using Overlays" on page 81.
❸ **Output Options**	**Print Order:** You can set the sequence for the pages to print. Select the print order from the drop-down list. • **Normal**: Your printer prints all pages from the first page to the last page. • **Reverse All Pages**: Your printer prints all pages from the last page to the first page. • **Print Odd Pages**: Your printer prints only the odd pages of the document. • **Print Even Pages**: Your printer prints only the even pages of the document.

About Tab

Use the **About** tab to display the copyright notice and the version number of the driver. If you have an Internet browser, you can connect to the Internet by clicking the website icon. See page 60 for more information about accessing your software application.

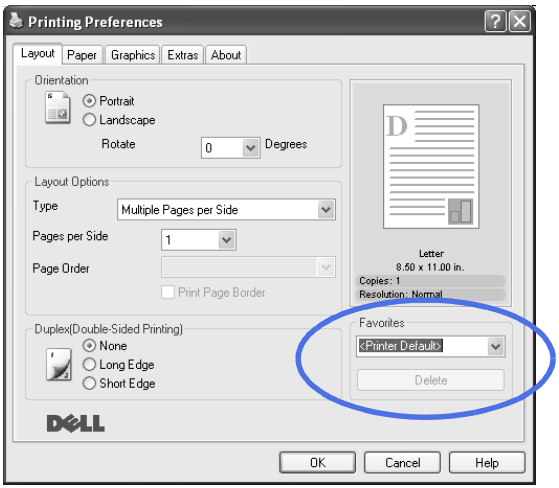
Using a Favorite Setting

The **Favorites** option, which is visible on each properties tab, allows you to save the current properties settings for future use.

To save a Favorites item:

1 Change the settings on each tab, as needed.

2 Enter a name for the item in the **Favorites** input box.



3 Click **Save**.

To use a saved setting, select it from the **Favorites** drop-down list.

To delete a favorite setting item, select it from the list and click **Delete**.

You can also restore the printer driver's default settings by selecting **<Printer Default>** from the list.

Using Help

Your machine has a help screen that can be activated by the **Help** button in the printer's properties window. These help screens give detailed information about the printer features provided by the printer driver.

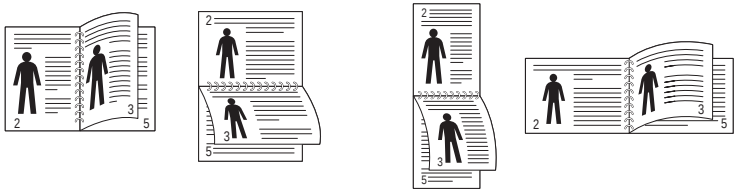
You can also click ? from the upper right hand corner, and then click on any setting.

Printing on Both Sides of the Paper

You can print on both sides of the paper automatically. Before printing, decide how you want your documents oriented.

The options are:

- **Long Edge**, which is the conventional layout used in book binding, or portrait.
- **Short Edge**, which is the type often used with calendars, or landscape.



¼ Long Edge ¼ Short Edge

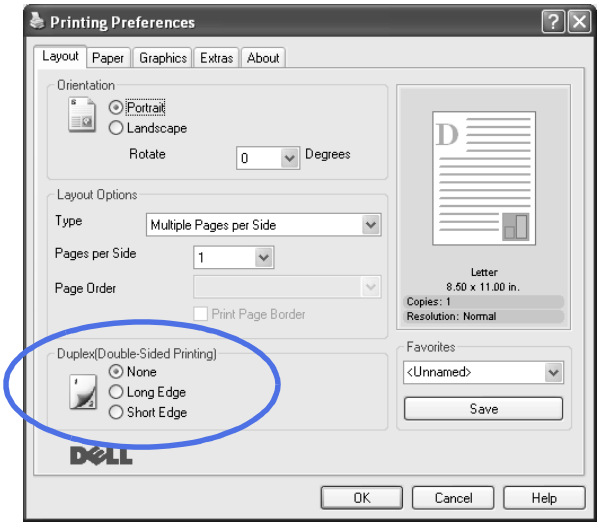
NOTE: Do not print on both sides of labels, transparencies, envelopes, or thick paper. Paper jamming and damage to the printer may result.

NOTE: To use double-sided printing, you can use only the following paper sizes: A4, Letter, Legal and Folio that weigh 75 to 90 g/m^2 (20 to 24 lbs).

To print on both sides of the paper:

1. When you change the print settings from your software application, access the printer properties. See page 60.
2. From the **Layout** tab, select the paper orientation.

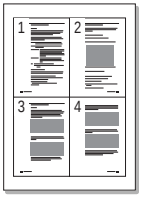
3 From the **Duplex(Double-Sided Printing)** section, select either None, Long Edge, or Short Edge.



4 Click the **Paper** tab and select the paper source, size and type.

5 Click **OK** and print the document.

Printing Multiple Pages on One Sheet of the Paper

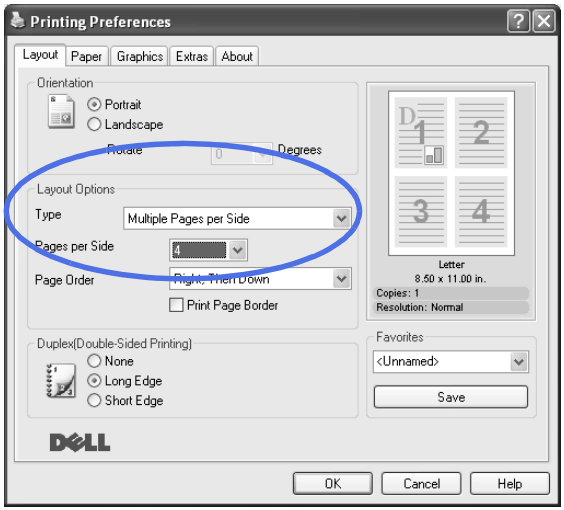


You can select the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will appear decreased in size and arranged on the sheet. You can print up to 16 pages on one sheet.

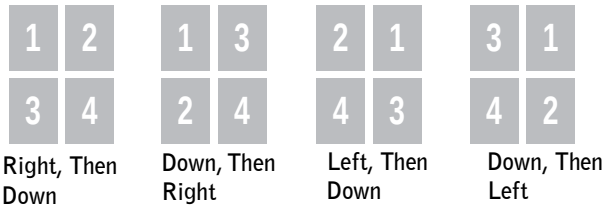
1 When you change the print settings from your software application, access the printer properties. See page 60.

2 From the **Layout** tab, choose **Multiple Pages per Side** on the **Type** drop-down list.

3 Select the number of pages you want to print per sheet (1, 2, 4, 9, or 16) on the **Pages per Side** drop-down list.



4 *If necessary,* select the page order on the **Page Order** drop-down list.

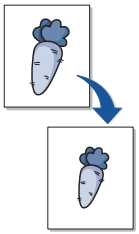


Check **Print Page Border** to print a border around each page on the sheet. **Print Page Border** is enabled only, if the pages per sheet is 2, 4, 9, or 16.

5 Click the **Paper** tab and select the paper source, size and type.

6 Click **OK** and print the document.

Printing a Reduced or Enlarged Document



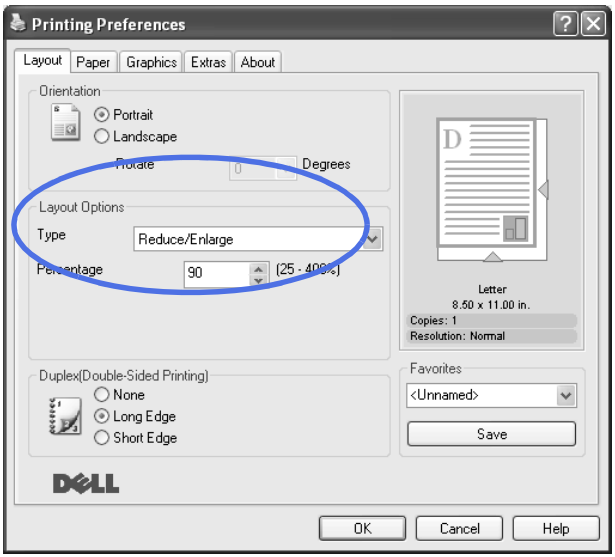
You can scale your print job on a page.

1 When you change the print settings from your software application, access the printer properties. See page 60.

2 From the **Layout** tab, select **Reduce/Enlarge** on the **Type** drop-down list.

3 Enter the scaling rate in the **Percentage** input box.

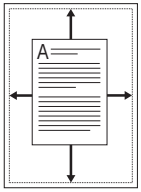
You can also click the ▲ or ▼ button.



4 Click the **Paper** tab and select the paper source, size and type.

5 Click **OK** and print the document.

Fitting Your Document to a Selected Paper Size

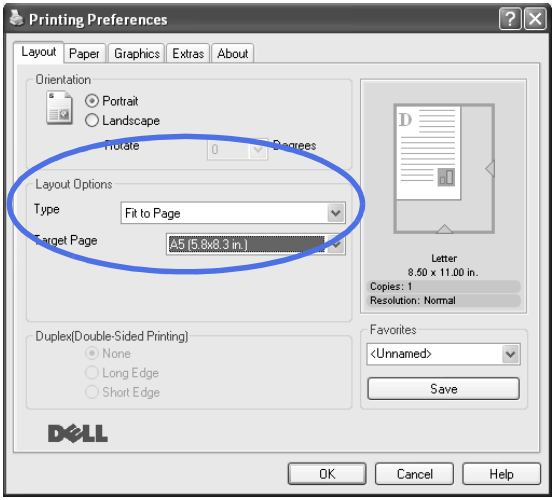


You can scale your print job to any selected paper size regardless of the digital document size. This can be useful when you want to check fine details on a small document.

1 When you change the print settings from your software application, access the printer properties. See page 60.

2 From the **Layout** tab, select **Fit to Page** on the **Type** drop-down list.

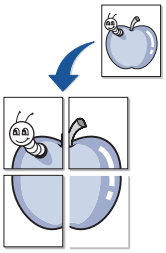
3 Select the correct size from the **Target Page** drop-down list.



4 Click the **Paper** tab and select the paper source, size and type.

5 Click **OK** and print the document.

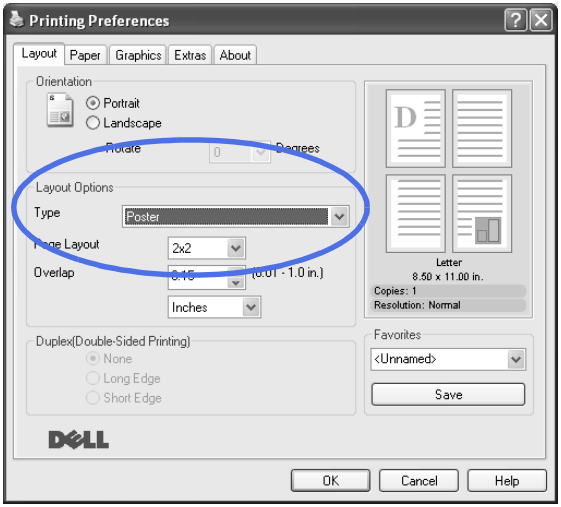
Printing Posters



You can print a single-page document onto 4, 9, or 16 sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.

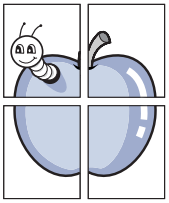
1 When you change the print settings from your software application, access the printer properties. See page 60.

2 From the **Layout** tab, select **Poster** on the **Type** drop-down list.

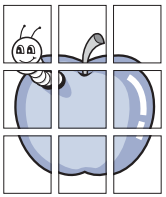


3 Configure the poster option:

You can select the page layout from **2x2**, **3x3,** or **4x4**. If you select **2x2**, the output will be automatically stretched to cover 4 physical pages.

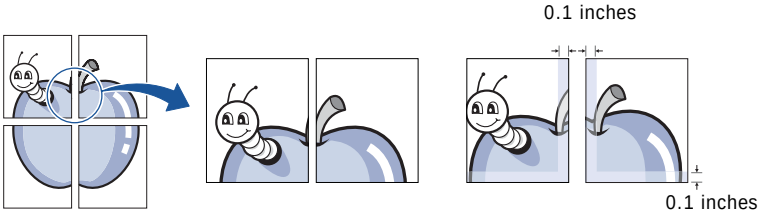


▲2 x 2



▲3 x 3

Specify an overlap in millimeters or inches to make it easier to reconstruct the resulting poster.



4 Click the **Paper** tab and select the paper source, size and type.

5 Click **OK** and print the document. You can complete the poster by reconstructing the results.

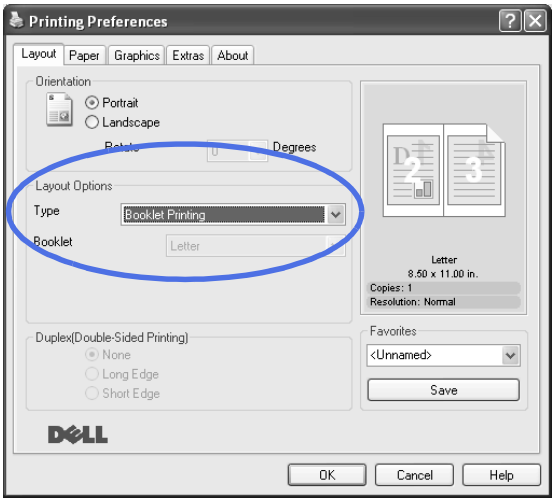
Printing Booklets

The Booklet printing feature allows you to print your document on both sides of the paper and arranges the pages so that the paper can be folded in half after printing to produce a booklet.

NOTE: The booklet printing option is available when A4, Letter, Legal or Folio size is selected in the **Size** option on the **Paper** tab.

1 When you change the print settings from your software application, access the printer properties. See page 60.

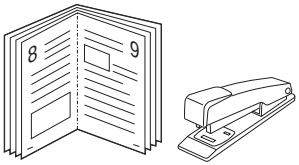
2 From the **Layout** tab, choose **Booklet Printing** from the **Type** drop-down list.



3 Click the **Paper** tab, and select the paper source, size and type.

4 Click **OK** and print the document.

5 After printing, fold and staple the pages.



Using Watermarks

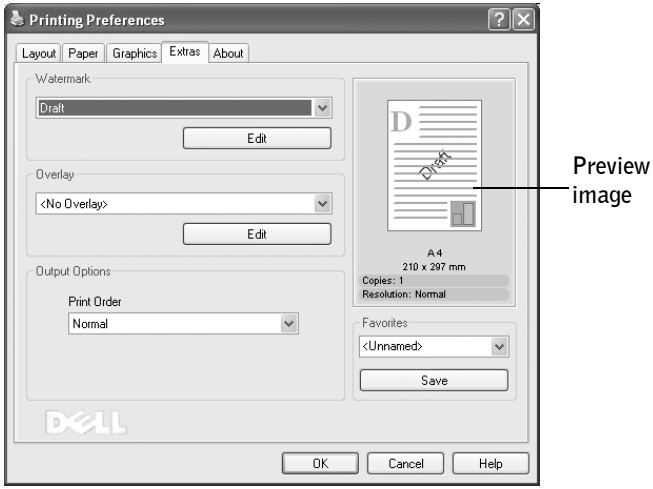
The Watermark option allows you to print text over an existing document. For example, you may want to have large gray letters reading “DRAFT” or “CONFIDENTIAL” printed diagonally across the first page or all pages of a document.

There are several predefined watermarks that come with your machine, and they can be modified or you can add new ones to the list.

Using an Existing Watermark

1 When you change the print settings from your software application, access the printer properties. See page 60.

2 Click the **Extras** tab and select a watermark on the **Watermark** drop-down list. It appears in the preview image window.



3 Click **Ok** and start printing.

Creating a Watermark

1 When you change the print settings from your software application, access the printer properties. See page 60.

2 Click the **Extras** tab and click **Edit** in the **Watermark** section. The Edit Watermarks window appears.

3 Enter the text message you want to print in the **Watermark Message** box.

The message displays in the preview image window. The preview image is provided so that you can see how the watermark will appear on the printed page.

When the **First Page Only** box is checked, the watermark is printed on the first page only.

4 Select the watermark options.

You can select the font name, style and size and gray scale level from the **Font Attributes** section and set the angle of the watermark from the **Message Angle** section.

5 Click **Add** to add a new watermark to the list.

6 When you finish creating, click **Ok** and start printing.

To stop printing the watermark, select **<No Watermark>** on the **Watermark** drop-down list.

Editing a Watermark

1. When you change the print settings from your software application, access the printer properties. See page 60.
2. Click the **Extras** tab and click **Edit** in the **Watermark** section. The Edit Watermarks window appears.
3. Select the watermark you want to edit on the **Current Watermarks** list, and change the watermark message and the options.
4. Click **Update** to save the changes.
5. Click **Ok**.

Deleting a Watermark

1. When you change the print settings from your software application, access the printer properties. See page 60.
2. From the **Extras** tab, click **Edit** in the **Watermark** section. The Edit Watermarks window appears.
3. Select the watermark you want to delete on the **Current Watermarks** list and click **Delete**.
4. When a confirming message window appears, click **Yes**.
5. Click **Ok**.

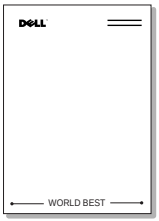
Using Overlays

What is an Overlay?

An overlay is text and/or images stored in the computer hard disk drive (HDD) as a special file format that can be printed on any document. Overlays are often used to take the place of preprinted forms and letterhead paper. Rather than using preprinted letterhead, you can create an overlay containing the exact same information that is currently on your letterhead. To print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the machine. You need only tell the machine to print the letterhead overlay on your document.

Creating a New Page Overlay

To use a page overlay, you must create a new page overlay containing your logo or image.

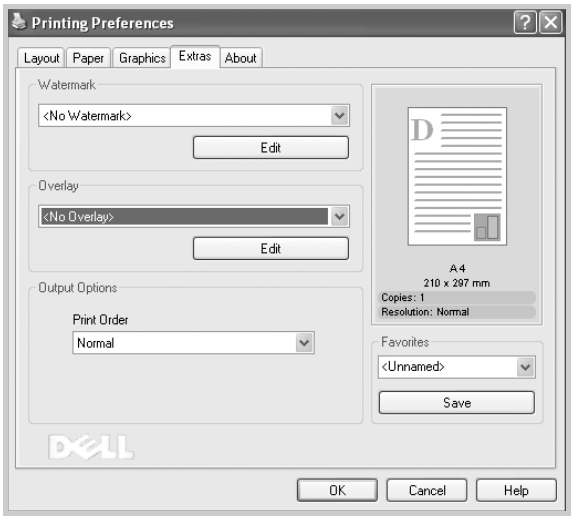


NOTE: The overlay document size must be the same as documents you will print with the overlay. Do not create an overlay with a watermark.

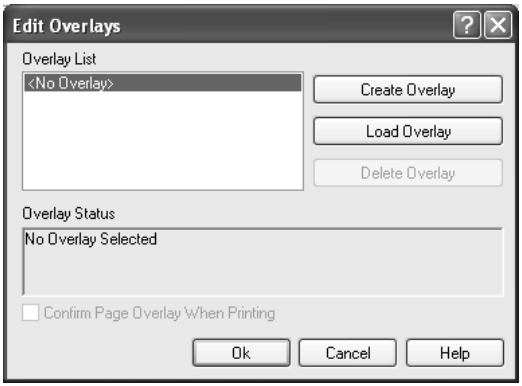
1 Create or open a document containing text or an image for use in a new page overlay. Position the items exactly as you wish them to appear when printed as an overlay. *If needed,* save the file for later use.

2 When you change the print settings from your software application, access the printer properties. See page 60.

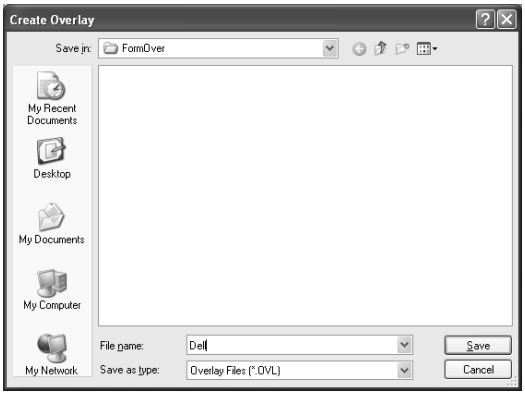
3 Click the **Extras** tab and click **Edit** in the **Overlay** section.



4 In the Edit Overlays window, click **Create Overlay**.



5 In the Create Overlay window, type a name of up to eight characters in the **File name** box. Select the destination path, if necessary. (The default is **C:\Formover**).



6 Click **Save**. You can see the name on the **Overlay List**.

7 Click **OK** or **Yes** until you complete creating.

The file is not printed out; it is stored in your computer.

Using a Page Overlay

After an overlay has been created, it is ready to be printed with your document. To print an overlay with a document:

NOTE: The resolution of the overlay document must be the same as that of the document you will print with the overlay.

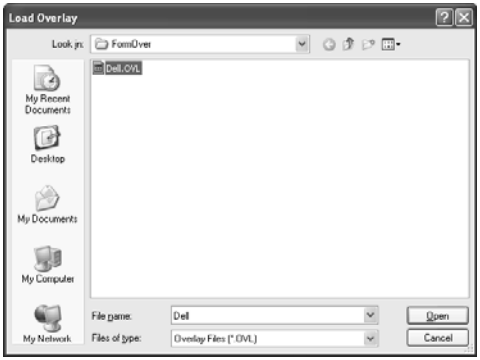
1 Create or open the document you want to print.

2 When you change the print settings from your software application, access the printer properties. See page 60.

3 Click the **Extras** tab.

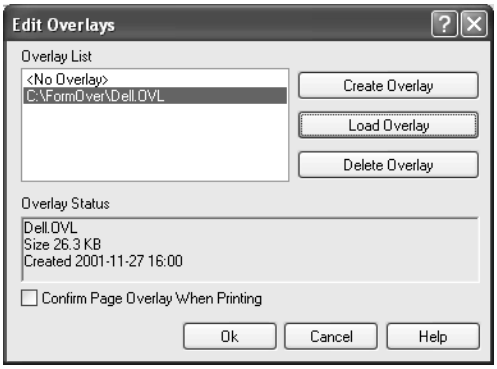
4 Select the overlay you want to print from the **Overlay** drop-down list box.

5 If the overlay file doesn't appear on the **Overlay List**, click **Edit** and then **Load Overlay**, and select the overlay file.



If you have stored the overlay file you want to use on an external source, such as a CD or floppy disk, you can also load the file when you access this Load Overlay window.

After you select the file, click **Open**. The file is now shown in the **Overlay List** box and is available for printing. Select the overlay from the **Overlay List** box.



6 If necessary, click **Confirm Page Overlay When Printing**. When this box is checked, a message window appears each time you submit a document for printing, asking you to confirm your wish to print an overlay on your document.

   Answering **Yes** to the window means that the selected overlay will be printed with your document. Answering **No** to the window cancels overlay printing.

   If this box is empty and an overlay has been selected, the overlay will be automatically printed with your document.

7 Click **OK** or **Yes** until the printing starts.

   The overlay is downloaded with your print job and printed on your document.

Deleting a Page Overlay

You can delete page overlays that are no longer used.

1 In the printer properties window, click the **Extras** tab.
2 Click **Edit** in the **Overlay** section.
3 Select the overlay you want to delete from the **Overlay List** box.
4 Click **Delete Overlay**.
5 When a confirming message window appears, click **Yes**.
6 Click **OK** until you exit the Print window.

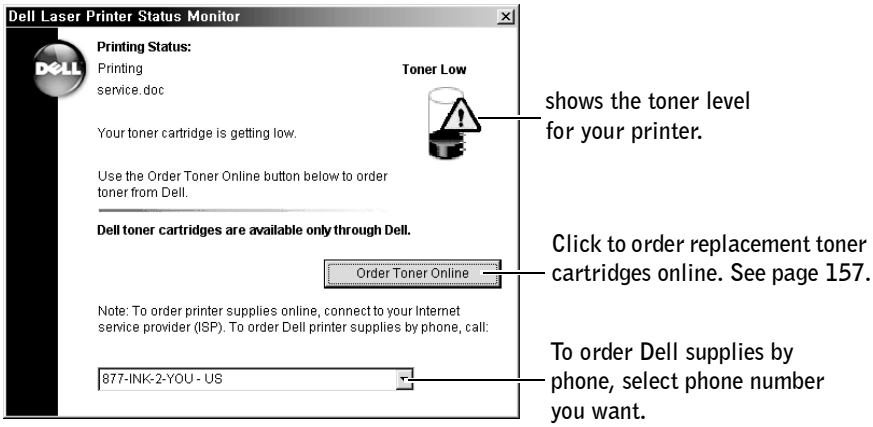
Using the Status Monitor

The Local Status Monitor displays the status of the printer (Printer Ready, Printer Offline, and Error-Check Printer), the name of the job printed and the toner level for your printer. You can order toner cartridge from the Status Monitor.

If you are a network user, you can access the Network Status Monitor Center which shows the status of all the printers available in the network.

Local Printer Status Monitor

The Local Status Monitor launches when you send a print job to the printer. This only appears on the computer screen.



Network Status Monitor Center

If your printer is connected to a network, you can use the Network Status Monitor Center. Using the Network Status Monitor Center, you can launch the Dell Printer Configuration Web Tool and manage the printer status all of multiple printers in the network.

1 Click **Start**→ **Programs**→ **DELL**→ **DELL Laser MFP 1600n**→ **Network Status Monitor Center**.

2 Double-click a printer name to open its Status Monitor, or select **Run** to open a Status Monitor for a particular printer.

3 Select **View** to change the appearance of the list of printers.

4 Select **Help** to read the online Help.

NOTE: This application is only available when the printer is connected to a network.

Copying

Loading Paper for Copying

Selecting Paper Tray

Preparing a Document

Making Copies From the Scanner Glass

Making Copies From the Automatic Document Feeder (ADF)

Setting Copy Options

Using Special Copy Features

Changing the Default Settings

Setting the Time Out Option

Loading Paper for Copying

The instructions for loading print materials are the same whether you are printing, faxing, or copying. For further details, see page 17 for loading paper in the paper tray and page 54 for loading paper in the Bypass tray.

Selecting Paper Tray

After loading the print media for copy output, you have to select the paper tray you will use for the copy job.

1 Press <Menu> on the operator panel until "`Copy Setup`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) to display "`Select Tray`" on the bottom line.

3 Press <Select> to access the menu item.

4 Press the scroll button (◀ or ▶) until the paper tray you want appears on the display.

   You can select from Tray1, Tray2(option) and Bypass. If you do not install the optional Tray 2, the Tray2(option) menu item will not appear on the display.

5 Press <Select> to save the selection.

6 To return to Standby mode, press <Return>.

Preparing a Document

You can use the scanner glass or the Automatic Document Feeder (ADF) to load an original document for copying, scanning and sending a fax. Your ADF can load up to 50 documents for one job. Using the scanner glass, you can load one sheet at a time.

When you use the ADF:

- Do not load documents smaller than 5.59 by 5.83 in. (142 by 148 mm) or larger than 8.5 by 14 in. (216 by 356 mm).
- Do not attempt to feed the following types of documents:
  - Carbon-paper or carbon-backed paper
  - Coated paper
  - Onion skin or thin paper

- Wrinkled or creased paper
- Curled or rolled paper
- Torn paper

- Remove all staples and paper clips before loading documents.
- Make sure any glue, ink or correction fluid on the paper is completely dry before loading documents.
- Do not load documents containing different sizes or weights of paper.
- Do not load booklets, pamphlets, transparencies or documents having other unusual characteristics.

Making Copies From the Scanner Glass

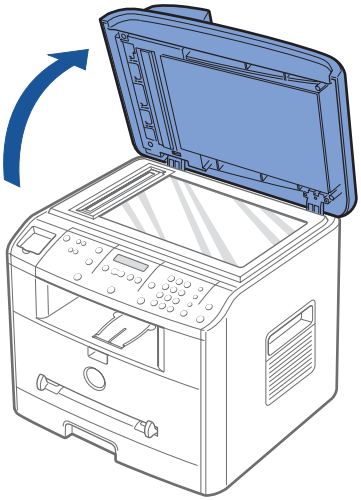
NOTE: Make sure that no other documents are in the ADF (Automatic Document Feeder). If a document is detected in the ADF, it has priority over the document on the scanner glass.

NOTE: Dust on the scanner glass may cause black spots on the printout. Always keep it clean. For details, see page 150.

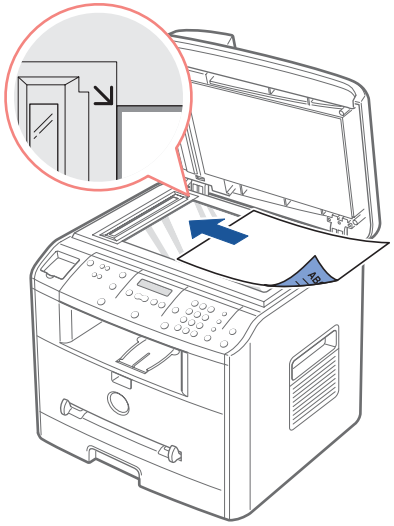
NOTE: To get the best scan quality, especially for colored or gray scaled images, use the scanner glass instead of the ADF.

To make a copy from the scanner glass:

1 Lift and open the document cover.



2 Place the document **face down** on the scanner glass and align it with the registration guide on the top left corner of the glass.



3 Close the document cover.

NOTE: Leaving the cover open while copying may affect the copy quality and toner consumption.

NOTE: *If you are copying a page from a book or magazine,* lift the cover until its hinges are caught by the stopper and then close the cover. *If the book or magazine is thicker than 30 mm,* start copying with the cover open.

4 Customize the copy settings including the number of copies, copy size, the contrast, and the image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.

To clear the settings, use the <Cancel> button.

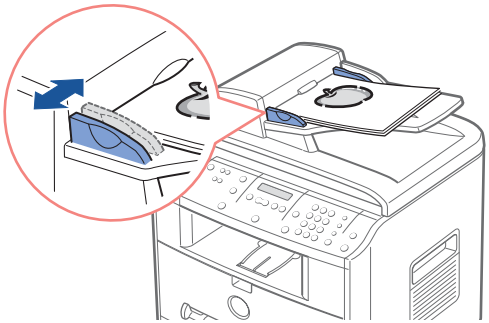
5 *If necessary,* you can use special copy features, such as Auto Fit, Clone, and 2 Sided copying referring to page 90.

6 Press <Start Copy> to begin copying. The display shows the copy processing.

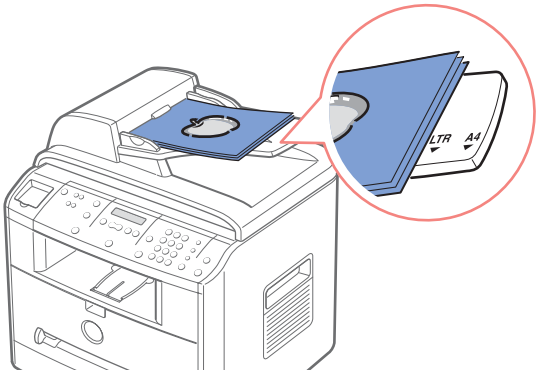
NOTE: You can cancel the copy job at any time. Press <Cancel>, and the copying will stop.

Making Copies From the Automatic Document Feeder (ADF)

1 Load up to 50 pages of the documents **face up** with top edge in first into the ADF and adjust the document guides to the document size.



2 Make sure that the bottom of the document stack matches the paper size marked on the document input tray.



3 Customize the copy settings including the number of copies, copy size, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.

To clear the settings, use the <Cancel> button.

4 *If necessary,* you can use special copy features, such as Collation and 2 Up, or 4 Up copying referring to page 90.

5 Press <Start Copy> to begin copying. The display shows the copy processing.

Setting Copy Options

The buttons on the operator panel let you customize all the basic copy options; contrast, image quality, copy size and number of copies. Set the following options for the current copy job before pressing <Start Copy> to make copies.

NOTE: If you press <Cancel> while you set the copy options, all of the options you have set for the current copy job will be canceled and return to their default status. Or, they automatically return to their default status after copying.

Contrast

If you have an original document containing faint markings and dark images, you can adjust the brightness to make a copy that is easier to read.

To adjust the contrast, press <Contrast>.

Each time you press the button, the LED labeled with the selected mode turns on.

You can choose from the following contrast modes:

- **Darker**: works well with light print or faint pencil markings.
- **Normal**: works well with standard typed or printed documents.
- **Lighter**: works well with dark print.

Quality

The Quality setting is used to improve the image quality by selecting the document type for the current copy job.

To select the image quality, press <Quality>.

Each time you press the button, the LED labeled with the selected mode turns on.

You can choose from the following the image quality modes:

- **Text**: Use for documents with fine details, such as fine text.
- **Text/ Photo**: Use for documents with both text and photo/gray tones.
- **Photo**: Use for documents with photo or gray tones.

Reduced/Enlarged Copy

Using the <Reduce/Enlarge> (▼or ▲)button, you can reduce or enlarge the size of a copied image, from 25 percent to 400 percent when you copy original documents from the scanner glass or from 25 percent to 100 percent from the ADF. Note that the zoom rate available is different depending on the document loading method.

NOTE: When you make a reduced copy, black lines may appear at the bottom of your copy.

To select from the predefined copy sizes:

1 Press <Reduce/Enlarge> (▼or ▲).

The default setting appears on the bottom line of the display.

2 Press <Reduce/Enlarge> (▼or ▲) to find the size setting you want.

3 Press <Select> to save the selection.

To fine-tune the size of copies:

1 Press <Reduce/Enlarge> (▼or ▲).

2 Press <Reduce/Enlarge> (▼or ▲) until "`Custom:25-100%` (from the ADF)," or "`Custom:25-400%`" (from the scanner glass) displays on the bottom line. Press <Select>.

3 Press <Reduce/Enlarge> (▼or ▲) until the copy size you want appears on the display.

Pressing and holding the button allows you to quickly scroll to the number you want.

You can also enter the value using the number keypad.

4 Press <Select> to save the selection.

Number of Copies

Using the <Number of Copies> (▼or ▲)button, you can select the number of copies from 1 to 99.

1 Press <Number of Copies> (▼or ▲).

2 Press <Number of Copies> (▼or ▲) until the number you want appears on the display.

Pressing and holding the button allows you to quickly scroll to the number you want.

You can also enter the value using the number keypad.

3 Press <Select> to save the selection.

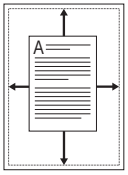
Using Special Copy Features

NOTE: Some features may not be available depending on where you loaded the document, on the scanner glass or in the Automatic Document Feeder.

You can use the following copy features using the <Layout> button on the operator panel:

- **Auto Fit**: Automatically reduces or enlarges the original image to fit on the paper currently loaded in the machine. See page 90.
- **Clone**: Prints multiple image copies from the original document on a single page. The number of images is automatically determined by the original image and paper size. See page 91.
- **Collation**: Sorts the copy job. For example, if you make 2 copies of 3 page documents, one complete 3 page document will print followed by the second complete document. See page 91.
- **2 Sided**: Prints a 2-sided original document on one sheet of paper. See page 92.
- **2 Up**: Prints 2 original images to fit onto one sheet of paper. See page 93.
- **4 Up**: Prints 4 original images to fit onto one sheet of paper. See page 93.
- **Poster**: Prints an image onto 9 sheets of paper (3 by 3). You can paste the printed pages together to make one poster-size document. See page 93.
- **Off**: Prints in normal mode.

Auto Fit Copying



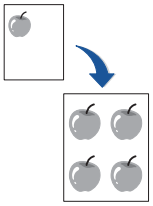
This special copy mode can be applied when you load a document using only the scanner glass. If a document is detected in the ADF, the Auto Fit does not work.

NOTE: You cannot adjust the copy size using the <Reduce/Enlarge> (▼or ▲) button while the Auto Fit copying is enabled.

To make the Auto Fit copying:

1. Load the document to be copied on the scanner glass, and close the document cover.
2. Press <Layout>.
3. Press <Layout> or the scroll button (◀ or ▶) until "`Auto Fit`" displays on the bottom line.
4. Press <Select> to save the selection.
5. *If necessary,* customize the copy settings including the number of copies, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.
6. Press <Start Copy> to begin copying.

Clone Copying



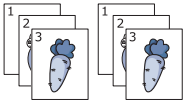
This special copy mode can be applied when you load a document using only the scanner glass. If a document is detected on the ADF, the Clone copying feature does not work.

NOTE: You cannot adjust the copy size using the <Reduce/Enlarge> (▼or ▲) button while making a clone copy.

To make the Clone copying:

1. Load the document to be copied on the scanner glass, and close the cover.
2. Press <Layout>.
3. Press <Layout> or the scroll button (◀ or ▶) until "`Clone`" displays on the bottom line.
4. Press <Select> to save the selection.
5. *If necessary,* customize the copy settings including number of copies, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.
6. Press <Start Copy> to begin copying.

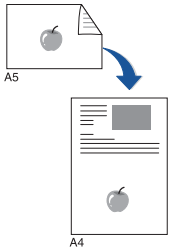
Collation Copying



The Collation copying feature is available only when you load documents in the ADF.

1. Load the documents to be copied in the ADF.
2. Press <Layout>.
3. Press <Layout> or the scroll button (◀ or ▶) until "`Collation`" displays on the bottom line.
4. Press <Select> to save the selection.
5. *If necessary,* customize the copy settings including the number of copies, copy size, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.
6. Press <Start Copy> to begin copying.

2-side Copying



You can copy a 2-sided document on one page of A4, Letter, or Legal-sized paper.

When you copy using this feature, the machine prints one side on the upper half of the paper and the other side on the lower half without reducing the original. This feature is helpful for copying a small-sized document, such as a name card.

If the original document is larger than the printable area, some portions may not be printed.

This special copy mode can be applied when you load a document using only the scanner glass. If a document is detected in the ADF, the 2 Sided copying feature does not work.

NOTE: You cannot adjust the copy size using the <Reduce/Enlarge> (▼or ▲) button for 2 Sided copying.

To make the 2 Sided copying:

1 Load the document to be copied on the scanner glass, and close the cover.

2 Press <Layout>.

3 Press <Layout> or the scroll button (◀ or ▶) until "`2 Sided`" displays on the bottom line.

4 Press <Select> to save the selection.

5 *If necessary,* customize the copy settings including the number of copies, copy size, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.

6 Press <Start Copy> to begin copying.

Your machine begins scanning the front side.

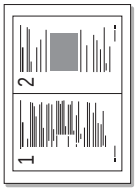
7 When "`Set Backside`" displays on the bottom line, open the document cover and flip the document over with the second side facing down. Close the document cover.

NOTE: If you press the <Cancel> button or if no buttons are pressed for about 30 seconds, the machine cancels the copy job and returns to Standby mode.

8 Press <Start Copy> again.

2-up or 4-up Copying

The 2 or 4-up copying feature is available only when you load documents in the ADF.



▲2-up copying

NOTE: You cannot adjust the copy size using the <Reduce/Enlarge> (▼or ▲) button for making a 2 or 4-up copy.

NOTE: 2-up copy reduces your original document by 50 percent. 4-up copy reduces the document by the following rates depending on the paper loaded: 76 percent for Letter, 81 percent for A4 and 95 percent for Legal.

▲4-up copying

To make the 2 or 4-up copying:

1 Load the documents to be copied in the ADF.

2 Press <Layout>.

3 Press <Layout> or the scroll button (◀ or ▶) until "`2 Up`" or "`4 Up`" displays on the bottom line.

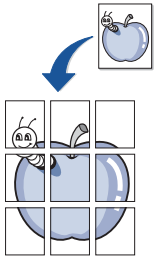
4 Press <Select> to save the selection.

5 *If necessary,* customize the copy settings including the number of copies, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.

6 Press <Start Copy> to begin copying.

Poster Copying

This special copy mode can be applied when you load a document using only the scanner glass. If a document is detected in the ADF, the Poster copying feature does not work.



NOTE: You cannot adjust the copy size using the <Reduce/Enlarge> button for making a poster.

To make the Poster copying:

1 Load the documents to be copied on the scanner glass and close the cover.

2 Press <Layout>.

3 Press <Layout> or the scroll button (◀ or ▶) until "`Poster`" displays on the bottom line.

4 Press <Select> to save the selection.

5 *If necessary,* customize the copy settings including the number of copies, contrast, and image quality by using the operator panel buttons. See "Setting Copy Options" on page 88.

6 Press <Start Copy> to begin copying.

Your original document is divided into 9 portions. Each portion is scanned and printed one by one in the following order:

1	2	3
4	5	6
7	8	9

Changing the Default Settings

The copy options, including contrast, image quality, copy size, and the number of copies, can be set to the most frequently used modes. When you copy a document, the default settings are used unless they are changed by using the corresponding buttons on the operator panel.

NOTE: While you set copy options, pressing <Cancel> cancels the changed settings and returns to the default status.

To create your own default settings:

1 Press <Menu> on the operator panel until "`Copy Setup`" appears on the top line of the display.

The first menu item, "`Default-Change`", appears on the bottom line.

2 Press <Select> to access the menu item. The first setup option, "`Contrast`" appears on the bottom line.

3 Press the scroll button (◀ or ▶) to scroll through the setup options.

4 When the option you want to set appears, press <Select> to access the option.

5 Change the setting using the scroll button (◀ or ▶) or enter the value using the number keypad.

6 Press <Select> to save the selection.

7 Repeat steps 3 through 6, as needed.

8 To return to Standby mode, press <Return>.

Setting the Time Out Option

You can set the time the machine waits before it restores the default copy settings, if you do not start copying after changing them on the operator panel.

1. Press <Menu> on the operator panel until "`Copy Setup`" appears on the top line of the display.
2. Press the scroll button (◀ or ▶) to display "`Timeout`" on the bottom line.
3. Press <Select> to access the menu item.
4. Press the scroll button (◀ or ▶) until the status you want appears on the display.

   You can select from 15, 30, 60 and 180 (seconds). Selecting "`Off`" means that the machine does not restore the default settings until you press <Start Copy> to begin copying, or <Cancel> to cancel.
5. Press <Select> to save the selection.
6. To return to Standby mode, press <Return>.

Scanning

Scanning Overview
Scanning from Operator Panel
Scanning using WIA driver

Scanning Overview

Scanning with your machine lets you turn pictures and text into digital files on your computer. Then you can fax or e-mail the images, display them on your web site, or use them to create projects that you can print out using an image editing program such as PaperPort which came with your machine.

Your machine provides TWAIN and WIA drivers for scanning an image. After you install Dell software, you can start scanning an image using the operator panel buttons or TWAIN-compatible applications such as PaperPort and Adobe Photoshop.

To scan a document using an application, you'll first need to select your machine as your TWAIN source in the application you will use. Please refer to the user's guide for the application.

Your machine provides PaperPort for an image scan program. If you have other favorite programs, for example, Adobe Photoshop, you can assign the applications to the machine and then select one from the list of applications available using the <Select Software> button each time you start scan. Please refer to the Printer Settings Utility section on page 158. If you do not assign applications to the <Select Software> button, PaperPort is automatically selected when you start scanning

Scanning from Operator Panel

1. Load the document(s) face up with top edge in first into the ADF.

   OR

   Place a single document face down on the scanner glass.

   For details about loading a document, see page 118.

2. If necessary, press <Select Software> and select an application to which you want to send the scanned image.

3. Press <Start Scan>. The selected application window opens. Adjust the scan settings and start scan. For details, please refer to the user's guide of the application.

Scanning using WIA driver

Your machine also supports Windows Image Acquisition (WIA) driver for scanning an image. WIA is one of the standard components provided by the Windows Me and XP and works for a digital camera and scanner. Using the WIA driver, you can scan an image .???... compared with TWAIN driver..... Please give us a brief information on what the difference is between TWAIN and WIA in an end user's view.

NOTE: WIA driver works only on Windows Me, XP and Loghorn (What???). It will not work on Windows 98, NT, and 2000.

1 Load the document(s) face up with top edge in first into the ADF.

OR

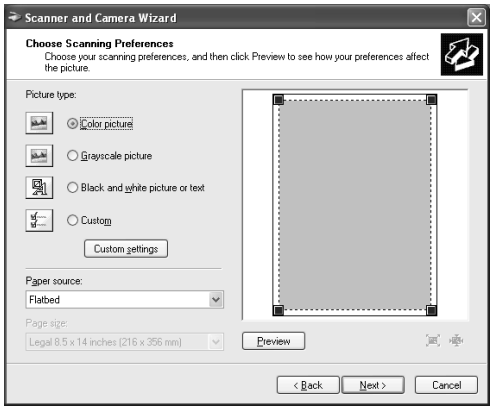
Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 From the **Start** menu on your desktop window, select **Settings**, **Control Panel** and then **Scanner and Cameras**.

3 Double click your machine. The Scanner and Camera Wizard launches.

4 Choose your scanning preferences and click Review to see how your preferences affect the picture.



5 Enter a picture name, and select a file format and destination to save the picture.

6 When the picture is successfully copied to your computer, you can choose to keep working with the picture. Follow the on-screen instructions.

Faxing

Setting the Machine ID
Entering Characters Using the Number Keypad
Setting the Time and Date
Changing the Clock Mode
Setting Sounds
Toll Save Mode
Setting up the Fax System
Sending a Fax
Receiving a Fax
Automatic Dialing
Other Ways to Fax
Additional Features

Setting the Machine ID

In most countries, you are required by law to indicate your fax number on any fax you send. The Machine ID, containing your telephone number and name or company name, will be printed at the top of each page sent from your machine.

1 Press <Menu> until "`Printer Setup`" appears on the top line of the display. The first available menu item, "`Machine ID`" displays on the bottom line.

2 Press <Select>. The display asks you to enter the fax number.

3 If there is a number already set, the number appears.

4 Enter your fax number using the number keypad.

NOTE: *If you make a mistake while entering numbers,* press the left scroll (◀) button to delete the last digit.

5 Press <Select> when the number on the display is correct. The display asks you to enter the ID.

6 Enter your name or company name using the number keypad.

7 You can enter alphanumeric characters using the number keypad, including special symbols by pressing the **0** button.

For details on how to use the number keypad to enter alphanumeric characters, see page 111.

If you want to enter the same letter or number in succession (e.g. SS, AA, 777), enter one digit, move the cursor by pressing the right scroll (▶) button and enter the next digit.

If you want to insert a space in the name, you can also use the right scroll (▶) button to move the cursor to skip the position.

8 Press <Select> when the name on the display is correct.

9 Press <Return> to return to Standby mode.

Entering Characters Using the Number Keypad

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name and telephone number. When you store one, two or three digit speed dial or group dial numbers, you may also need to enter the corresponding names.

To enter alphanumeric characters:

1. When you are prompted to enter a letter, locate the button labeled with the character you want. Press the button until the correct letter appears on the display.

   For example, to enter the letter **O**, press **6**, labeled with "MNO".
2. Each time you press **6**, the display shows a different letter, **M**, **N**, **O** and finally **6**.
3. You can enter special characters, such as a space, a plus sign, and so on. For details, see the table below.
4. To enter additional letters, repeat step 1.

   If the next letter is printed on the same button, move the cursor by pressing the right scroll (▶) button and then press the button labeled with the letter you want. The cursor moves to the right and the next letter appears on the display.
5. You can enter a space by pressing the sharp (#) button.
6. When you finish entering letters, press <Select>.

Keypad Letters and Numbers

Key	Assigned numbers, letters or characters
1	1 Space
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	+ - , . ' / * # & 0

Changing Numbers or Names

If you make a mistake while entering a number or name, press the left (◀) button to delete the last digit or character. Then enter the correct number or character.

Inserting a Pause

With some telephone systems, you must dial an access code (9, for example) and listen for a second dial tone. In such cases, you must insert a pause in the telephone number. You can insert a pause while you are setting up speed or group dial numbers.

To insert a pause, press <Redial/Pause> at the appropriate place while entering the telephone number. A "–" appears on the display at the corresponding location.

Setting the Time and Date

All of your faxes will have the time and date printed on them.

NOTE: *If power to the machine is cut off,* you need to reset the correct time and date once the power is restored.

To set the time and date:

1. Press <Menu> until "`Printer Setup`" appears on the top line of the display.
2. Press the scroll button (◀ or ▶) to display "`Date & Time`" on the bottom line and press <Select>.
3. Enter the correct time and date using the number keypad.

   Day = 01 ~ 31
   Month = 01 ~ 12
   Year = requires all four digits
   Hour = 01 ~ 12 (12-hour mode)
   00 ~ 23 (24-hour mode)
   Minute = 00 ~ 59

   NOTE: The date format may differ from each country.

   You can also use the scroll button (◀ or ▶) to move the cursor under the digit you want to correct and enter a new number.

4 To select “AM” or “PM” for 12-hour format, press the asterisk (✱) or the sharp (#) button.

When the cursor is not under the AM or PM indicator, pressing the asterisk (✱) or the sharp (#) button immediately moves the cursor to the indicator.

You can change the clock mode to 24-hour format (e.g. 01:00 PM as 13:00). For details, see page 113.

5 Press <Select> when the time and date on the display is correct.

When you enter a wrong number, the machine beeps and does not proceed to the next step. *If this happens,* just re-enter the correct number.

Changing the Clock Mode

You can set your machine to display the current time using either the 12-hour or the 24-hour format.

1 Press <Menu> until “Printer Setup” appears on the top line of the display.

2 Press the scroll button (◀ or ▶) until you see “Clock Mode” on the bottom line and press <Select>.

The printer displays the Clock Mode that is currently set.

3 Press the scroll button (◀ or ▶) to select the other mode and then press <Select> to save the selection.

4 To return to Standby mode, press <Return>.

Setting Sounds

You can control the following sounds:

- Speaker: You can turn on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone. When this option set to Com, the speaker is on until the remote machine answers.
- Ringer: You can adjust the ringer volume.
- Key Sound: When this option set to `On`, a key tone sounds each time any key is pressed.
- Alarm Sound: You can turn the alarm sound on or off. When this option set to `On`, an alarm tone sounds when an error occurs or fax communication ends.

  You can adjust the speaker volume level using the <On Hook Dial> button.

Speaker, Ringer, Key Sounds and Alarm Sounds

1. Press <Menu> until "`Sound/Volume`" appears on the top line of the display.
2. Press the scroll button (◀ or ▶) to scroll through the options. Press <Select> when you see the sound option you want.
3. Press the scroll button (◀ or ▶) to display the status or loudness you want for the option you have selected.

   For the ringer volume, you can select from "`Off`", "`Low`", "`Med`" and "`High`". Setting "`Off`" means that the ringer turns off. The machine works normally even if the ringer is turned off.
4. Press <Select> to save the selection.
5. *If necessary,* repeat steps 2 through 4.
6. To return to Standby mode, press <Return>.

Speaker Volume

NOTE: You can adjust the speaker volume only when the telephone line is connected.

1. Press <On Hook Dial>. A dial tone sounds from the speaker.
2. Press the scroll button (◀ or ▶) until you hear the loudness you want. The display shows the current volume level.
3. Press <On Hook Dial> to save the change and return to Standby mode.

Toll Save Mode

Using the Toll Save mode, you can set your machine so all the document prescanned throughout the day are sent during a preset time slot, when the call charge is lowered. This Toll Save mode helps you to take advantage of lower long distance rates at night, for example.

NOTE: The toll-saving time slot may vary depending on your contract with a long distance phone company.

To turn the Toll Save mode on:

1. Press <Menu> until "`Advanced Fax`" appears on the top line of the display.
2. Press the scroll button (◀ or ▶) until you see "`Toll Save`"on the bottom line and press <Select>.
3. Press the scroll button (◀ or ▶) until "`On`" displays on the bottom line and press <Select>.
4. Press <Select> when "`Start Time`" displays on the bottom line.
5. Enter the time when your machine starts sending toll save faxes, using the number keypad.

   To select "`AM`" or "`PM`" for 12-hour format by pressing the asterisk (✱) or the sharp (#) button.
6. Press <Select> when the starting time on the display is correct.
7. Press the scroll button (◀ or ▶) to display "`End Time`" and press <Select>.
8. Enter the time when the toll save transmission ends, using the number keypad.
9. Press <Select> to save the setting.
10. To return to Standby mode, press <Return>.

Once Toll Save mode is activated, your machine stores all of the documents to be faxed into its memory and sends them at the programmed time.

To turn Toll Save mode off, follow steps 1 and 2 above and then press the scroll button (◀ or ▶) until "`Off`" displays at the bottom line and press <Select>.

Setting up the Fax System

From the Fax Setup menu, you can configure many settings for the fax system.

Changing the Fax Setup Options

1. Press <Menu> until "`Fax Setup`" appears on the top line of the display.

   The first available menu item, "`Receive Mode`" displays on the bottom line.

2. Press the scroll button (◀ or ▶) until you see the desired menu item on the bottom line and press <Select>.
3. Use the scroll button (◀ or ▶) to find the status or use the number keypad to enter the value for the option you have selected.
4. Press <Select> to save the selection.
5. *If necessary,* repeat steps 2 through 4.
6. To return to Standby mode, press <Return>.

Available Fax Setup Options

You can use the following setup options for configuring the fax system:

Option	Description
Receive Mode	You can select the default fax receiving mode. • **Fax** mode: The machine answers an incoming call and automatically goes into receive mode. The ring count that needs to go into receiving is set in the System Data. If the user memory is full, the machine is changed to Tel mode. • **Tel** mode: Automatic fax reception is turned off. You can receive a fax by picking up the handset of the extension phone and then pressing the remote receive code (refer to the *User's Guide*), or press <On Hook Dial> (you can hear voice or fax tone from the remote machine) and then pressing <Send Fax> on the operator panel of your machine. • **Ans/Fax** mode: The machine can share one phone line with TAD (Telephone Answering machine). In this mode, TAD will pick up the phone and machine will monitor the FAX signal (CNG), and it catch line if there is FAX Tone. • **DRPD** mode: One of service of Exchanger is Distinctive Ring Pattern Detection. Before service, User should program machine to distinguish Fax No. Machine will go to reception if it detect Fax Ring Pattern. In some country, machine does not support it. This option is available only when you set up the **DRPD Mode**. For details, see page 125.

Option	Description
Ring To Answer	You can specify the number of times the machine rings, 1-7, before answering an incoming call.
Contrast	You can select the default contrast mode to fax your documents lighter or darker. • **Lighter** works well with dark print. • **Normal** works well with standard typed or printed documents. • **Darker** works well with light print or faint pencil markings.
Redial Term	Your machine can automatically redial a remote fax machine if it was busy. Intervals from 1-15 minutes can be entered.
Redials	You can specify the number of redial attempts, 0-13. If you enter 0, the machine will not redial.
MSG Confirm	You can set your machine to print a report showing whether the transmission was successful, how many pages were sent, and more. The available options are **On**, **Off** and **On-Error**, which prints only when a transmission is not successful.
Auto Report	A report with detailed information about the previous 50 communications operations, including time and dates. The available options are **On** or **Off**.
Auto Reduction	When receiving a document as long as or longer than the paper loaded in the paper tray, the machine can reduce the size of the document to fit the size of paper loaded in the machine. Select **On** if you want to automatically reduce the incoming document. With this feature set to **Off**, the machine cannot reduce the document to fit onto one page, the document is divided and printed in actual size on two or more pages.
Discard Size	When receiving a document as long as or longer than the paper installed in your machine, you can set the machine to discard any excess at the bottom of the page. If the received page is outside the margin you set, it will print on two sheets of paper at the actual size. When the document is within the margin and the Auto Reduction feature is turned on, the machine reduces the document to fit it onto the appropriate sized paper and discard does not occur. If the Auto Reduction feature is turned off or fails, the data within the margin will be discarded. Settings range from 0-30 mm.
Receive Code	The Receive Code allows you to initiate fax reception from an extension phone plugged into the Phone Jack (☎) on the back of the machine. *If you pick up the extension phone and hear fax tones,* enter the Receive Code. The Receive Code is preset to *9* at the factory. Settings range from 0-9. See page 125 for more information about using the code.
DRPD Mode	You can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature which enables a user to use a single telephone line to answer several different telephone numbers. In this menu, you can set the machine to recognize the ring patterns to answer. For details about this feature, see page 125.

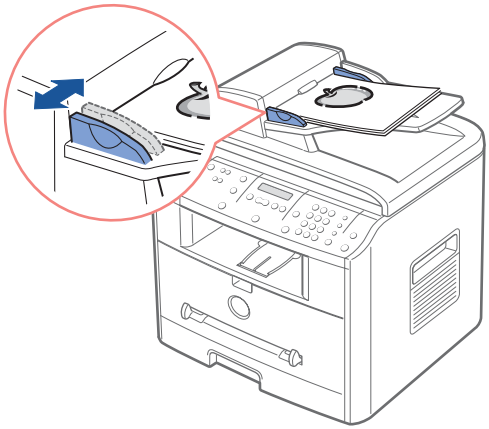
Sending a Fax

Loading an Original Document

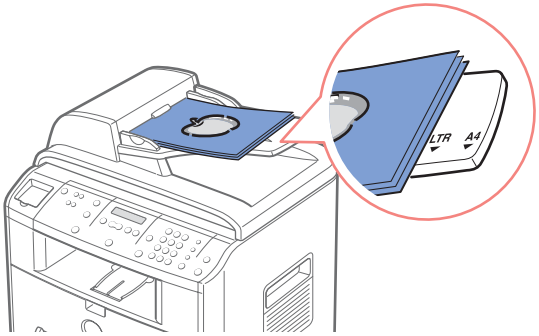
You can use the Automatic Document Feeder (ADF) or the scanner glass to load an original document for faxing. Your ADF can load up to 50 sheets at a time. Using the scanner glass, you can load one sheet at a time.

To fax a document using the Automatic Document Feeder (ADF):

1 Load up to 50 pages of documents **face up** with top edge in first into the ADF and adjust the document guides to the document size.



2 Make sure that the bottom of the document stack matches the paper size marked on the input tray.



For detailed guidelines for preparing an original document, see page 84.

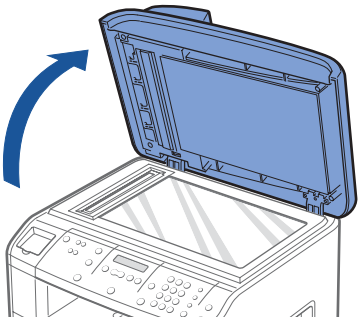
3 Adjust the document resolution, referring to page 120.

To fax a document from the scanner glass:

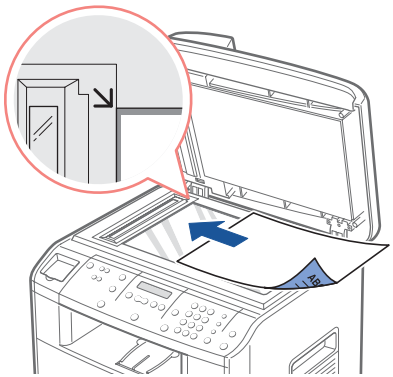
NOTE: Make sure that no document is in the ADF. If any document is detected in the ADF, it has priority over the document on the scanner glass.

NOTE: To get the best scan quality, especially for colored or gray scaled images, use the scanner glass instead of the ADF.

1 Open the document cover.



2 Place the document ***face down*** on the scanner glass and align it with the registration guide on the top left corner of the glass.



For detailed guidelines for preparing an original document, see page 84.

3 Adjust the document resolution, referring to page 120.

4 Close the document cover.

NOTE: *If you are copying a page from a book or magazine,* lift the cover until its hinges are caught by the stopper and then close the cover. *If the book or magazine is thicker than 30 mm,* start copying with the cover open.

Adjusting the Document Resolution

The default document settings produce good results when setting typical text based documents.

However, if you send documents that are of a poor quality, or contain photographs, you can adjust the resolution to produce a higher quality fax.

1 Press <Resolution>.

2 By pressing <Resolution> or the scroll button (◀ or ▶), you can choose from Standard, Fine, Super Fine, Photo and Color.

3 When the mode you want to use displays, press <Select> to save the selection.

The document types recommended for the resolution settings are described in the table below.

Mode	Recommended for:
Standard	Documents with normal sized characters.
Fine	Documents containing small characters or thin lines or documents printed using a dot-matrix printer.
Super Fine	Documents containing extremely fine detail. The super fine mode is enabled only if the remote machine also supports the Super Fine resolution. See the notes below.
Photo	Documents containing shades of gray or photographs.
Color	Documents with colors. Sending a color fax is enabled only if the remote machine supports color fax reception and you send the fax manually. In this mode, the memory transmission is now available.

NOTE: For the memory transmission, the Super Fine mode is not available. The resolution setting is automatically changed to Fine.

NOTE: When your machine is set to Super Fine resolution and the remote fax machine does not support the Super Fine resolution, the machine transmits using the highest resolution mode supported by the remote fax machine.

Sending a Fax Automatically

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Enter the remote fax phone number using the number keypad.

You can use one, two or three-digit speed or group dial numbers. For details, see "Automatic Dialing" on page 127.

4 Press <Send Fax>.

5 When the document is loaded from the scanner glass, the display shows "`Another Page?`" on the top line after the document is scanned into the memory. *If you have the next page,* remove the scanned page and load the next page from the glass and select "`1:Yes`". Repeat as necessary.

After all of the pages are scanned, select "`2:No`" when the display shows "`Another Page?`"

6 The number is dialed and then the machine begins sending the fax when the remote fax machine is ready.

NOTE: When you want to cancel the fax job, press <Cancel> at any time while sending the fax.

Sending a Fax Manually

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Press <On Hook Dial>. You hear a dial tone.

4 Enter the remote fax machine's fax number using the number keypad.

5 When you hear a high-pitched fax signal from the remote fax machine, press <Send Fax>.

NOTE: When you want to cancel the fax job, press <Cancel> at any time while sending the fax.

Confirming Transmissions

When the last page of your document has been sent successfully, the machine beeps and returns to Standby mode.

If something goes wrong while sending your fax, an error message appears on the display. For a listing of error messages and their meanings, see page 169.

If you receive an error message, press <Cancel> to clear the message and try to send the document again.

You can set your machine to print a confirmation report automatically each time sending a fax is completed. For further details, see the MSG Confirm item in "Available Fax Setup Options" on page 116.

Automatic Redialing

If the number you have dialed is busy or there is no answer when you send a fax, the machine will automatically redial the number every three minutes up to seven times by the factory default settings.

When the display shows "`Retry Redial?`" press <Select> to redial the number without waiting. To cancel the automatic redialing, press <Cancel>.

To change the time interval between redials and the number of redial attempts. See page 116.

Receiving a Fax

About Receiving Modes

NOTE: To use the Ans/Fax mode, attach an answering machine to the Phone Jack (☏) on the back of your printer.

NOTE: *If you do not want other people to view your received documents,* you can use the secure receiving mode. In this mode, all received faxes are stored in the memory. For further details, see page 136.

- **Fax mode**: The machine answers an incoming call and automatically goes into receive mode. The ring count that needs to go into receiving is set in the System Data. If the user memory is full, the machine is changed to Tel mode.
- **Tel mode**: Automatic fax reception is turned off. You can receive a fax by picking up the handset of the extension phone and then pressing the remote receive code (refer to the *User's Guide*), or press <On Hook Dial> (you can hear voice or fax tone from the remote machine) and then pressing <Send Fax> on the operator panel of your machine.
- **Ans/Fax mode**: The machine can share one phone line with TAD (Telephone Answering machine). In this mode, TAD will pick up the phone and machine will monitor the FAX signal (CNG), and it catch line if there is FAX Tone.
- **DRPD mode**: One of service of Exchanger is Distinctive Ring Pattern Detection. Before service, User should program machine to distinguish Fax No. The machine will go to reception if it detect Fax Ring Pattern. In some country, machine does not support it. This option is available only when you set up the **DRPD Mode**. For further details, see page 125.

When the memory is full, the receiving mode automatically switches to Tel.

For details about changing the receiving mode, see page 116.

Loading Paper for Receiving Faxes

The instructions for loading paper in the paper tray are the same whether you are printing, faxing, or copying, except that faxes can only be printed on Letter-, A4-, or Legal-sized paper. For details about loading paper, see page 17 and setting the paper type and size in the tray, see page 56 and page 57.

Receiving Automatically in the Fax Mode

Your machine is preset to the fax mode at the factory.

When you receive a fax, the machine answers the call on a specified number of rings and automatically receives the fax.

To change the number of rings, see "Available Fax Setup Options" on page 116.

If you want to adjust the ringer volume, see "Setting Sounds" on page 114.

Receiving Manually in the Tel Mode

You can receive a fax by picking up the handset of the extension phone and then pressing the remote receive code (see page 116), or press <On Hook Dial> (you can hear voice or fax tone from the remote machine) and then pressing <Send Fax> on the operator panel of your machine.

The machine begins receiving a fax and returns to Standby mode when the reception is completed.

Receiving Automatically in the Ans/Fax Mode

For this mode, if an answering machine is used, you must attach an answering machine to the Phone Jack (☏) on the back of your printer.

If the caller leaves a message, the answering machine stores the message as it would normally. If your printer hears a fax tone on the line, it automatically starts to receive fax.

NOTE: If you have set your printer to Ans/Fax mode and your answering machine is switched off, or no answering machine is connected to your printer, your printer will automatically go into Fax mode after a predefined number of rings.

NOTE: *If your answering machine has a 'user-selectable ring counter',* set the printer to answer incoming calls within 1 ring.

NOTE: *If you are in Tel mode (manual reception) when the answering machine is connected to your printer,* you must switch off the answering machine, or the outgoing message from the answering machine will interrupt your phone conversation.

Receiving Manually Using an Extension Telephone

This features works best when you are using an extension telephone connected to the Phone Jack (☏) on back of your machine. You can receive a fax from someone you are talking to on the extension telephone without having to go to the fax machine.

When you receive a call on the extension phone and hear fax tones, press the keys "*9*" (star nine star) on the extension telephone.

The machine receives the document.

Press the buttons slowly in sequence. *If you still hear the fax tone from the remote machine,* try pressing "*9*" once again.

"*9*" is the remote receive code preset at the factory. The first and the last asterisks are fixed, but you can change the middle number to whatever you choose. For details on changing the code, see page 116.

Receiving Faxes Using the DRPD Mode

"Distinctive Ring" is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers. The particular number someone uses to call you on is identified by different ringing patterns, which consist of various combinations of long and short ringing sounds. This feature is often used by answering services who answer telephones for many different clients and need to know which number someone is calling in on to properly answer the phone.

Using the Distinctive Ring Pattern Detection feature, your fax machine can "learn" the ring pattern you designate to be answered by the FAX machine. Unless you change it, this ringing pattern will be recognized and answered as a FAX call, and all other ringing patterns will be forwarded to the extension telephone or answering machine plugged into the Phone Jack (☏) on back of your machine. You can easily suspend or change Distinctive Ring Pattern Detection at any time.

Before using the Distinctive Ring Pattern Detection option, Distinctive Ring service must be installed on your telephone line by the telephone company. To set up Distinctive Ring Pattern Detection, you will need another telephone line at your location, or someone available to dial your FAX number from outside.

To set up the DRPD mode:

1 Press <Menu> until "`Fax Setup`" appears on the top line of the display.

  The first available menu item, "`Receive Mode`" displays on the bottom line.

2 Press the scroll button (◀ or ▶) until you see "DRPD Mode" on the bottom line and press <Select>.

3 When "Set" displays on the bottom line, press <Select>.

The LCD displays "Waiting Ring"

4 Call your fax number from another telephone. It is not necessary to place the call from a fax machine.

5 When your machine begins to ring, do not answer the call. The machine requires several rings to learn the pattern.

6 When the machine completes learning, the LCD displays "End DRPD Setup".

If the DRPD setup fails, "DRPD Ring Error" appears. Press <Select> when "DRPD Mode" displays and retry from step 3.

7 To return to Standby mode, press <Cancel>.

When the DRPD feature is set up, the DRPD option is available in the Receive Mode menu. To receive faxes in the DRPD mode, you need to set the menu to DRPD; see page 116.

NOTE: DRPD must be set up again if you re-assign your fax number, or connect the machine to another telephone line.

NOTE: After DRPD has been set up, call your fax number again to verify that the machine answers with a fax tone. Then have a call placed to a different number assigned to that same line to be sure the call is forwarded to the extension telephone or answering machine plugged into the Phone Jack (☎)on the back of the machine.

Receiving Faxes in the Memory

Since your machine is a multi-tasking device, it can receive faxes while you are making copies or printing. If you receive a fax while you are copying, printing, or run out of consumables (such as paper), your machine stores incoming faxes in the memory. Then, as soon as you finish copying, printing, or resupply the consumables, the machine automatically prints the fax.

Automatic Dialing

Speed Dialing

You can store up to 200 frequently dialed numbers in one, two or three-digit speed dial locations (0-199).

Storing a Number for Speed Dialing

1 Press <Phone Book> on the operator panel.

2 Press <Phone Book> or the scroll button (◀ or ▶) to display "`Store&Edit`" on the bottom line of the display. Press <Select>.

3 Press <Select> when "`Speed Dials`" appears on the display.

4 Enter a one, two or three-digit speed dial number between 0 and 199, using the number keypad and press <Select>.

   Or select the location by pressing the scroll button (◀ or ▶) and then press <Select>.

   If a number is already stored in the location you chose, the display shows the number to allow you to change it. To start over with another speed-dial number, press <Return>.

5 Enter the number you want to store using the number keypad and press <Select>.

   To insert a pause between numbers, press <Redial/Pause> and a "-" appears on the display.

6 To assign a name to the number, enter the name. For details about how to enter names, see "Entering Characters Using the Number Keypad" on page 111.

   OR

   If you do not want to assign a name, skip this step.

7 Press <Select> when the name appears correctly or without entering a name.

8 To store more fax numbers, repeat steps 4 through 7.

   OR

   To return to Standby mode, press <Return> or <Cancel>.

Sending a Fax using a Speed Number

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Enter the speed dial number.

- For a one-digit speed dial number, press and hold the appropriate digit button.
- For a two-digit speed dial number, press the first digit button and hold the last digit button.
- For a three-digit speed dial number, press the first and second digit buttons and hold the last digit button.

The corresponding entry's name briefly displays.

4 The document scans into the memory.

When the document is loaded on the scanner glass, the LCD display asks if you want to send another page. Select "`1:Yes`" to add more documents or "`2:No`" to begin sending the fax immediately.

5 The fax number stored in the speed dial location is automatically dialed. The document is sent when the remote fax machine answers.

Group Dialing

If you frequently send the same document to several destinations, you can create a group of these destinations and set them under a one, two or three-digit group dial location. This enables you to use a group dial number setting to send the same document to all the destinations in the group.

NOTE: You cannot include one group dial number within another group dial number.

Setting Group Dial

1 Press <Phone Book> on the operator panel.

2 Press <Phone Book> or the scroll button (◀ or ▶) to display "`Store&Edit`" on the bottom line of the display. Press <Select>.

3 Press the scroll button (◀ or ▶) to display "`Group Dials`" on the bottom line and press <Select>.

4 Press <Select> when "`New`" displays on the bottom line.

5 Enter a group number between 0 and 199 and press <Select>.

Or select the location you want by pressing the scroll button (◀ or ▶)) and then press <Select>.

If a number is already stored in the location you chose, the display shows the number to allow you to change it. To start over with another speed-dial number, press <Return>.

6 Enter a one, two or three-digit speed number you want to assign to the group and press <Select>.

- For a one-digit speed dial number, press and hold the appropriate digit button.
- For a two-digit speed dial number, press the first digit button and hold the last digit button.
- For a three-digit speed dial number, press the first and second digit buttons and hold the last digit button.

7 Repeat step 6 to enter other speed dial numbers into the group.

8 Press <Return> when you have entered all of the desired numbers. The display prompts you to enter a group ID.

9 To assign a name to the group, enter the name.

OR

If you do not want to assign a name, skip this step.

10 Press <Select> when the name appears correctly or without entering a name.

11 *If you want to assign another group,* repeat from step 4.

OR

To return to Standby mode, press <Cancel>.

Editing Group Dial Numbers

You can delete a specific speed dial number from a selected group or add a new number to the selected group.

1 Press <Phone Book> on the operator panel.

2 Press <Phone Book> or the scroll button (◀ or ▶) to display "`Store&Edit`" on the bottom line of the display. Press <Select>.

3 Press the scroll button (◀ or ▶) to display "`Group Dials`" on the bottom line and press <Select>.

4 Press the scroll button (◀ or ▶) to display "`Edit`" on the bottom line and press <Select>.

5 Enter the group number you want to edit or select the group number by pressing the scroll button (◀ or ▶).

6 Press <Select>.

The display prompts you to enter a speed dial number.

7 Enter a speed dial number to be added or deleted.

8 When you enter the specific number from the group, the display shows "`Delete?`"

When you enter a new number, the display shows "`Add?`"

NOTE: When you delete the last speed dial in a group, the group itself is deleted.

9 Press <Select>.

10 *If you want to edit another group,* repeat from step 4.

OR

To return to Standby mode, press <Return>.

Sending a Fax Using Group Dialing (Multi-address Transmission)

You can use group dialing for Broadcasting or Delayed transmissions.

Follow the procedure of the desired operation (Broadcasting transmission; see page 132, Delayed transmission; see page 133). When you come to a step in which the display asks you to enter the remote fax number:

- For a one-digit group number, press and hold the appropriate digit button.
- For a two-digit group number, press the first digit button and hold the last digit button.
- For a three-digit speed dial number, press the first and second digit buttons and hold the last digit button.

You can use only one group number for one operation. Then continue the procedure to complete the desired operation.

Your machine automatically scans the document loaded in the Automatic Document Feeder or on the scanner glass into the memory. The machine dials each of the numbers included in the group.

Searching for a Number in the Memory

There are two ways to search for a number in the memory. You can either scan from A to Z sequentially, or you can search using the first letter of the name associated with the number.

Searching Sequentially through the Memory

1 Press <Phone Book>.

2 Press <Select> when "`Search&Dial`" appears on the display.

3 Press the scroll button (◀ or ▶) to scroll through the memory until the name and number you want to dial displays. You can search upwards or downwards through the entire memory in alphabetical order, from A to Z.

   While searching through the machine's memory, you can see that each entry is preceded by one of two letters; "`S`" for speed dial or "`G`" for group dial number. These letters tell you how the number is stored.

4 When the name and/or the number you want displays, press <Send Fax> or <Select> to dial.

Searching with a Particular First Letter

1 Press <Phone Book>.

2 Press <Select> when "`Search&Dial`" appears on the bottom of the display.

3 Press the button labeled with the letter you want to search for. A name beginning with the letter displays.

   For example, if you want to find the name "MOBILE", press the **6** button, which is labeled with "MNO".

4 Press the scroll button (◀ or ▶) to display the next name.

5 When the name and/or the number you want displays, press <Send Fax> or <Select> to dial.

Printing a Phonebook List

You can check your automatic dial setting by printing a Phonebook list.

1 Press <Phone Book>.

2 Press <Phone Book> or the scroll button (◀ or ▶) until "`Print`" appears on the bottom line and press <Select>.

   A list showing your speed dial and group dial entries prints out.

Other Ways to Fax

Redialing

To redial the number you last called:

Press <Redial/Pause>.

When a document is loaded in the ADF (Automatic Document Feeder; see page 118), the machine automatically begins to send.

For the document loaded on the scanner glass, the display asks if you want to load another page. Select "`1:Yes`" to add. Otherwise, select "`2:No`"

Sending Broadcasting Faxes

Using the <Broadcasting> button on the operator panel, you can use the broadcasting fax feature, which allows you to send a document to multiple locations. Documents are automatically stored in the memory and sent to a remote station. After transmission, the documents are automatically erased from the memory.

1. Load the document(s) face up with top edge in first into the ADF.

   OR

   Place a single document face down on the scanner glass.

   For details about loading a document, see page 118.

2. Adjust the document resolution to suit your fax needs (see page 120).

   If you need to change the contrast, see page 116.

3. Press <Broadcasting> on the operator panel.

4. Enter the number of the remote machine using the number keypad.

   You can also use one, two, or three-digit speed dial or group dial numbers. For details, see "Automatic Dialing" on page 127.

5. Press <Select> to confirm the number. The display asks you to enter another fax number to send the document to.

   NOTE: Your machine can send one broadcasting fax to multiple destinations. The "`Enter Number`" prompt does not appear if a broadcast is set up and not completed. You must wait until the current broadcast is completed.

6. *If you want to enter more fax numbers,* repeat steps 4 and 5. You can add up to 10 destinations.

   Note that you cannot use group dial numbers for another fax number.

7 When you finish entering fax numbers, press <Send Fax>.

The document is scanned into the memory before transmission. The display shows the memory capacity and the number of pages being stored in the memory.

For documents loaded on the scanner glass, the display asks if you want to load another page. Select "`1:Yes`" to add. Otherwise, select "`2:No`"

8 The machine begins sending the document in the order of the numbers you entered.

Sending a Delayed Fax

You can set your machine to send a fax at a later time when you will not be present.

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Press <Menu> until "`Fax Feature`" appears on the top line of the display. The first available menu item, "`Delay Fax`," displays on the bottom line.

4 Press <Select>.

5 Enter the number of the remote machine using the number keypad.

To enter the number, you can use one, two, or three-digit speed dial or group dial numbers. For details, see "Automatic Dialing" on page 127.

6 Press <Select> to confirm the number on the display. The display asks you to enter a name.

7 *If you want to assign a name to the transmission,* enter the name. *If not,* skip this step.

For details on how to enter the name using the number keypad, see "Entering Characters Using the Number Keypad" on page 111.

8 Press <Select>. The display shows the current time and asks you to enter the start time when the fax is to be sent.

9 Enter the time using the number keypad.

To select "`AM`" or "`PM`" for 12-hour format, press the asterisk (*) or the sharp (#) button.

When the cursor is not under the AM or PM indicator, pressing the asterisk (*) or the sharp (#) button immediately moves the cursor to the indicator.

If you set a time earlier than the current time, the document will be sent at that time the following day.

10 Press <Select> when the start time displays correctly.

11 The document is scanned into the memory before transmission. The display shows the memory capacity and the number of pages being stored in memory.

For the document loaded on the scanner glass, the display asks if you want to load another page. Select "`1:Yes`" to add. Otherwise, select "`2:No`"

12 The machine returns to Standby mode. The display reminds you that you are in Standby mode and that a delayed fax is set.

NOTE: *If you want to cancel the delayed transmission,* see "Cancelling a Scheduled Fax" on page 135.

Sending a Priority Fax

Using the Priority Fax feature, a high priority document can be sent ahead of reserved operations. The document is scanned into the memory and transmitted when the current operation is finished. In addition, the priority transmission interrupts a broadcast operation between stations (i.e., when the transmission to station A ends, before transmission to station B begins) or between redial attempts.

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Press <Menu> until "`Fax Feature`" appears on the top line of the display.

4 Press the scroll button (◀ or ▶) to display "`Priority Fax`" on the bottom line and press <Select>.

5 Enter the number of the remote machine using the number keypad.

To enter the number, you can use one, two, or three-digit speed dial or group dial numbers. For details, see "Automatic Dialing" on page 127.

6 Press <Select> to confirm the number. The display asks you to enter a name.

7 *If you want to assign a name to the transmission,* enter the name. *If not,* skip this step.

For details on how to enter a name using the number keypad, see "Entering Characters Using the Number Keypad" on page 111.

8 Press <Select>.

The document is scanned into the memory before transmission. The display shows the memory capacity and the number of pages being stored in the memory.

For the document loaded on the scanner glass, the display asks if you want to load another page. Select "`1:Yes`" to add. Otherwise, select "`2:No`"

9 The machine shows the number being dialed and begins sending the document.

Adding Documents to a Scheduled Fax

You can add documents to the delayed transmission previously reserved in your machine's memory.

1 Load the document(s) face up with top edge in first into the ADF.

OR

Place a single document face down on the scanner glass.

For details about loading a document, see page 118.

2 Adjust the document resolution to suit your fax needs (see page 120).

If you need to change the contrast, see page 116.

3 Press <Menu> until "`Fax Feature`" appears on the top line of the display.

4 Press the scroll button (◀ or ▶) to display "`Add Page`" on the bottom line and press <Select>.

The display shows the last job reserved in memory.

5 Press the scroll button (◀ or ▶) until you see the fax job to which you want to add documents to and press <Select>.

The machine automatically stores the documents in the memory, and the display shows the memory capacity and the number of pages.

For the document loaded on the scanner glass, the display asks if you want to load another page. Select "`1:Yes`" to add. Otherwise, select "`2:No`"

6 After storing, the machine displays the numbers of total pages and added pages and then returns to Standby mode.

Cancelling a Scheduled Fax

1 Press <Menu> until "`Fax Feature`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) to display "`Cancel Job`" on the bottom line and press <Select>.

The display shows the last job reserved in memory.

3 Press the scroll button (◀ or ▶) until you see the fax job you want to cancel, and press <Select>.

4 When the confirming message displays, select "`1:Yes`" to cancel the job.

The selected job is canceled and the machine returns to Standby mode.

Additional Features

Using the Secure Receiving Mode

You may need to prevent your received faxes from being accessed by unauthorized people. You can turn on the secure fax mode using the Secure Receive option to restrict printing out all of the received faxes when the machine is unattended. In the secure fax mode, all incoming faxes will go in memory. When the mode turns off, any faxes stored will be printed.

To turn the secure receiving mode on:

1 Press <Menu> until "`Advanced Fax`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) until "`Secure Receive`" appears on the bottom line and press <Select>.

3 Press <Select> when "`On`" displays at the bottom line.

4 Enter a four-digit passcode you want to use, using the number keypad and press <Select>.

5 Re-enter the passcode again and then press <Select>.

NOTE: You can use the secure receiving mode without setting a passcode, but cannot protect your faxes.

6 To return to Standby mode, press <Return>.

When a fax is received in the secure receiving mode, your machine stores it into memory and displays "`Secure Receive`" to let you know that there is a fax stored.

To print received documents:

1 Access the Secure Receive menu by following steps 1 and 2 above.

2 Press the scroll button (◀ or ▶) to display "`Print`" on the bottom line and press <Select>.

3 Enter the four-digit passcode and press <Select>.

The faxes stored in memory are printed all together.

To turn the secure receiving mode off:

1 Access the Secure Receive menu by following steps 1 and 2 in "To turn the secure receiving mode on:" on page 136.

2 Press the scroll button (◀ or ▶) to display "Off" on the bottom line and press <Select>.

3 Enter the four-digit passcode and press <Select>.

The mode is deactivated and the machine prints all of the faxes stored in memory.

4 To return to Standby mode, press <Return>.

Printing Reports

Your machine can print reports containing useful information. The following reports are available:

Phonebook List

This list shows all of the numbers currently stored in the machine's memory as speed dial and group dial numbers.

You can print this Phonebook list using the <Phone Book> button on the operator panel; see page 131.

Sent Fax Report

This report shows information of the faxes you recently sent.

Received Fax Report

This report shows information of the faxes you recently received.

System Data List

This list shows the status of the user-selectable options. You may print this list to confirm your changes after changing any settings.

Scheduled Job Information

This list shows the document currently stored for Delayed faxes or Toll Save faxes. The list shows the starting time and type of operation.

Message Confirmation

This report shows the fax number, the number of pages, the elapsed time of the job, the communication mode, and the communication results.

You can set up your machine to automatically print the message confirmation report after each fax job. See page 116.

Junk Fax Number List

This list shows up to 10 fax numbers specified as junk fax numbers by using the Junk Fax Setup menu; see page 139. When the Junk Fax Barrier feature is turned on, incoming faxes from those numbers will be blocked.

This features recognize the last 6 digits of the fax number set as a remote fax machine's ID.

Multi-communication Report

This report is printed automatically after sending documents to more than one location.

Power Failure Report

This report is printed out automatically when power is restored after a power failure, if there is any data loss due to the power failure.

NOTE: The lists you have set to print out automatically don't print out when there is no paper loaded or a paper jam has occurred.

Printing a Report

1. Press <Menu> until "`Reports`" appears on the top line of the display. The first available menu item, "`Phone Book`" displays on the bottom line.
2. Press the scroll button (◀ or ▶) to display the report or list you want to print on the bottom line.
   - Phone Book: Phonebook list
   - Sent Report: Sent fax report
   - RCV Report: Received fax report
   - System Data: System data list
   - Scheduled Jobs: Scheduled job information
   - MSG Confirm: Message confirmation
   - Junk Fax List: Junk fax number list
3. Press <Select>.

   The selected information prints out.

Using Advanced Fax Settings

Your machine has various user-selectable setting options for sending or receiving faxes. These options are preset at the factory, but you may need to change them. To find out how the options are currently set, print the System Data list. For details about printing the list, see "Printing Reports" on page 137.

Changing Setting Options

1. Press <Menu> until "`Advanced Fax`" appears on the top line of the display. The first available menu item, "`Send Forward`," displays on the bottom line.
2. Press the scroll button (◀ or ▶) until you see the desired menu item on the bottom line and press <Select>.
3. When the option you want appears on the display, choose the desired status by pressing the scroll button (◀ or ▶) or enter the desired value using the number keypad.
4. Press <Select> to save the selection.
5. You can exit from the setup mode at any time by pressing <Return>.

Advanced Fax Setting Options

Option	Description
Send Forward	You can set the machine to always forward all of the outgoing faxes to the specified destination besides the fax numbers you entered. Select **Off** to turn this feature off. Select **On** to turn this feature on. You can set the number of the remote fax machine to which faxes are forwarded.
RCV Forward	You can set your machine to forward incoming faxes to another fax number during a specified time period. When a fax arrives at your machine, it is stored in the memory. Then, the machine dials the fax number that you have specified and sends the fax. Select **Off** to turn this feature off. Select **On** to turn this feature on. You can set the fax number to which faxes are forwarded. Then, you can enter the start time and/or the end time. The Print Local Copy option allows you to set the machine to print the fax, if fax forwarding is completed with no error.
Toll Save	You can set your machine to store your faxes in memory and to send them at the specified toll-saving time. For details about sending toll save faxes, see page 115. Select **Off** to turn this feature off. Select **On** to turn this feature on. You can set the start time and/or the end time for toll save mode.

Option	Description
Junk Fax Setup	Using the Junk Fax Barrier feature, the system will not accept faxes sent from remote stations. Their numbers are stored in memory as junk fax numbers. This feature is useful for blocking any unwanted faxes. Select **Off** to turn the feature off. Anybody can send you a fax. Select **On** to turn the feature on. You can set up to 10 fax numbers as junk fax numbers. After storing the numbers, you do not receive any faxes from the registered stations.
Secure Receive	You can keep your received faxes from being accessed by unauthorized people. For further details about setting this mode, see page 136.
Prefix Dial	You can set a prefix dial number of up to five digits. This number dials before any auto dial number is started. It is useful for accessing the PABX exchange.
Stamp RCV Name	This option allows the machine to automatically print the page number, and the date and time of the reception at the bottom of each page of a received document. Select **Off** to turn this feature off. Select **On** to turn this feature on.
Cover Page	When you send a fax, you can attach the cover page together. It contains date, sender's fax number and machine ID, recipient's fax number and machine ID and total pages. You can create a cover page by using the Printer Settings Utility. For details, see page 158. Select **Off** to turn this feature off. Select **On** to turn this feature on.
ECM Mode	The Error Correction Mode helps with poor line quality and makes sure that any faxes sent are sent smoothly to any other ECM-equipped fax machine. If the line quality is poor, it takes more time to send a fax when you are using the ECM mode. Select **Off** to turn this feature off. Select **On** to turn this feature on.

Troubleshooting

Clearing Document Jams
Clearing Paper Jams
Clearing LCD Error Messages
Solving Problems

Clearing Document Jams

When a document jams while it passes through the Automatic Document Feeder (ADF), "`Document Jam`" appears on the display.

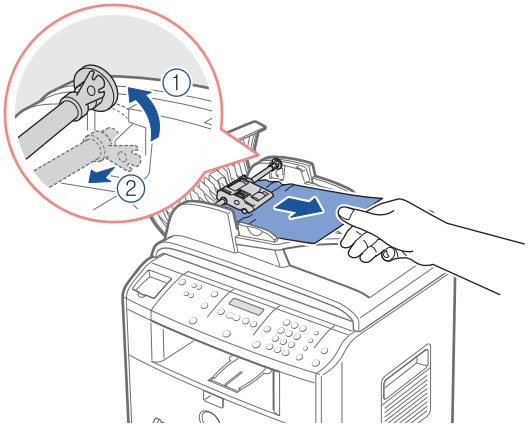
NOTE: To prevent document jams, use the scanner glass for thick, thin or mixed documents.

Input Misfeed

1 Remove the remaining documents from the ADF.

2 Open the ADF cover.

3 Rotate the bushing on one end of the ADF roller toward the ADF (①) and remove the roller from the slot(②). Pull the document gently away from the ADF.

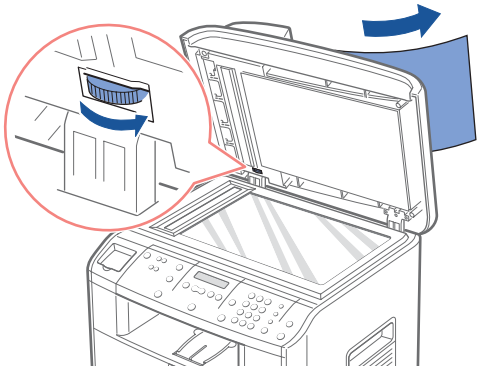


4 Close the ADF cover. Then load the documents back into the ADF.

Exit Misfeed

1 Remove the remaining documents from the ADF.

2 Open the document cover and turn the release knob to remove the misfed documents from the ADF output tray.



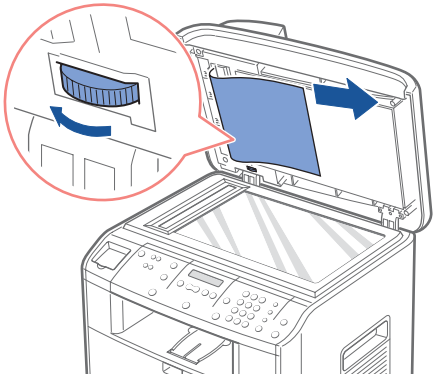
3 Close the document cover. Then load the documents back into the ADF.

Roller Misfeed

1 Remove the remaining documents from the ADF.

2 Open the document cover.

3 Turn the release knob so that you can easily seize the misfed document, and remove the document from the roller or the feed area by carefully pulling it gently to the right.



4 Close the document cover. Then load the documents back into the ADF.

Clearing Paper Jams

When a paper jam occurs, "`Paper Jam`" appears on the display. Refer to the table below to locate and clear the paper jam.

Message	Location of Jam	Go to
`[Paper Jam 0]` `Open/Close Door`	In the paper feed area In the optional Tray2	below. page 167.
`[Paper Jam 1]` `Open/Close Door`	In the paper exit area	page 164.
`[Paper Jam 2]` `Check Inside`	In the fuser area or around the toner cartridge	page 165.
`[Bypass Jam]`	In the Bypass tray	page 167.

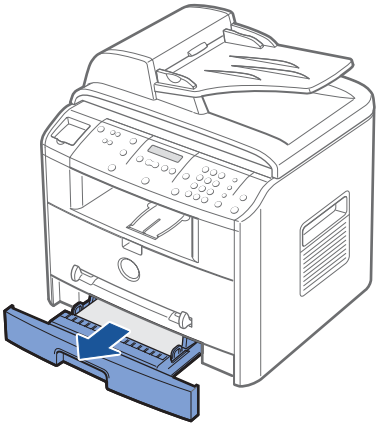
To avoid tearing the paper, pull the jammed paper out gently and slowly. Follow the steps below to clear the jam.

In the Paper Feed Area

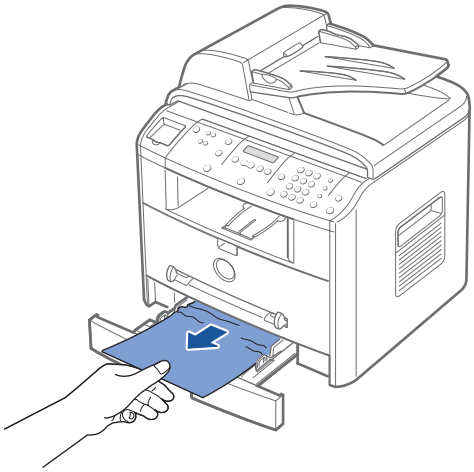
1 Open and close the front cover. The jammed paper automatically exits the machine.

If the paper does not exit, continue to step 2.

2 Pull the paper tray open.

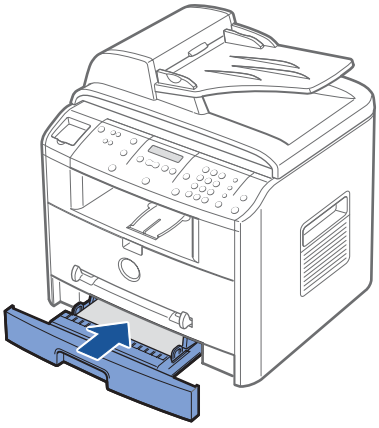


3 Remove the jammed paper by gently pulling it straight out.



If there is any resistance and the paper does not move when you pull or if you cannot see the paper in this area, skip to the fuser area around the toner cartridge. See page 165.

4 Insert the paper tray into the machine until it snaps into place.



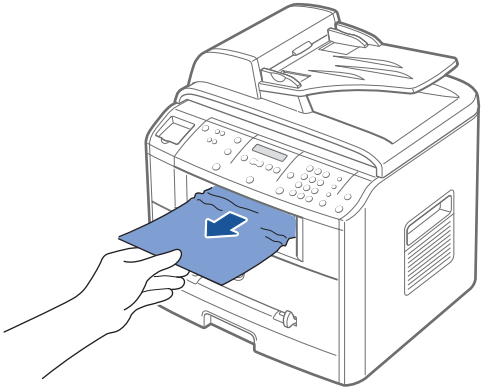
5 Open and close the front cover to resume printing.

In the Paper Exit Area

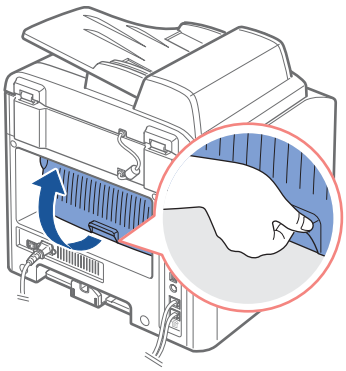
1 Open and close the front cover. The jammed paper automatically exits the machine.

If the paper does not exit, continue to step 2.

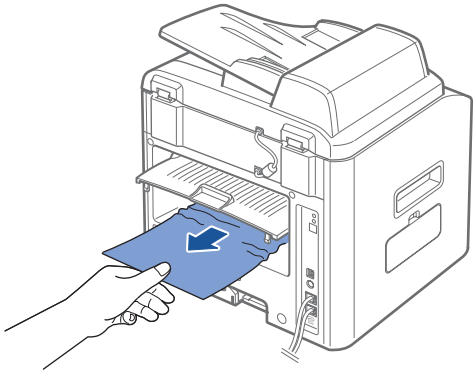
2 Gently pull the paper out of the front output tray. Skip to step 6.



3 *If there is any resistance and the paper does not move when you pull or if you cannot see the paper in the front output tray,* open the rear cover.



4 Remove the jammed paper by gently pulling it straight out.



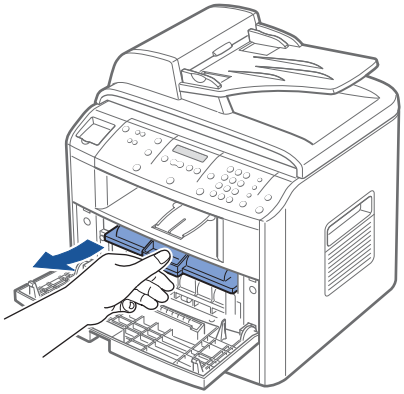
5 Close the rear cover.

6 Open and close the front cover to resume printing.

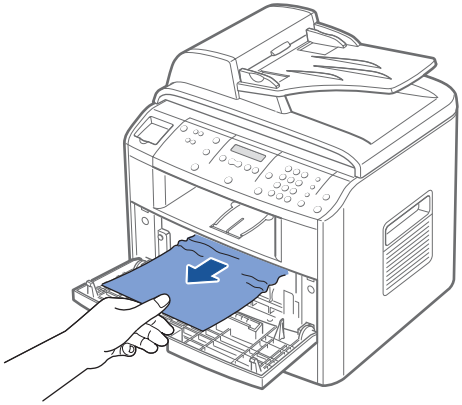
In the Fuser Area or Around the Toner Cartridge

NOTICE: The fuser area is hot. Take care when removing paper from the machine.

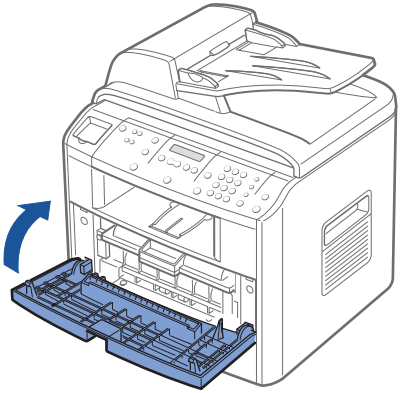
1 Open the front cover and lightly pull the toner cartridge straight out.



2 Remove the jammed paper by gently pulling it straight out.



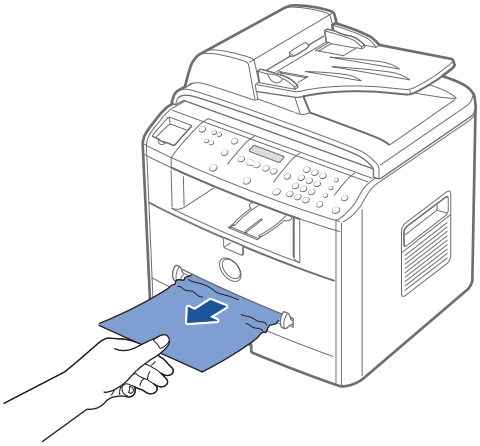
3 Replace the toner cartridge and close the front cover. Printing automatically resumes.



In the Bypass Tray

"`Bypass Jam`" appears on the display when you try to print using the Bypass tray and the machine does not detect paper, due to no paper or improper paper loading.

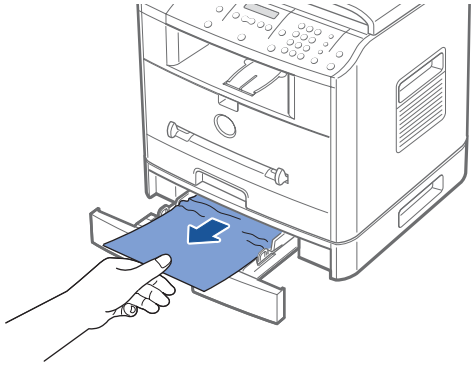
The error message may also occur when the paper is not properly fed into the machine through the Bypass tray. In that case, gently pull the paper straight out of the machine.



In the Optional Tray2

1 Pull the optional Tray2 open.

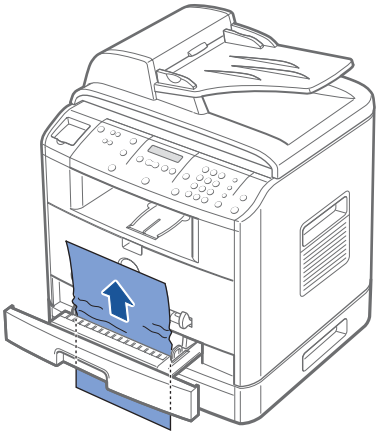
2 Remove the jammed paper from the machine.



If there is any resistance and the paper does not move when you pull or if you cannot see the paper in this area, go to step 3.

3 Pull the standard Tray1 open.

4 Pull the jammed paper straight up and out.



5 Insert Tray1 into the machine until it snaps into place.

6 Open and close the front cover to resume printing.

Tips for Avoiding Paper Jams

By selecting the correct paper types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined in "Clearing Paper Jams" on page 162.

- Follow the procedures in "Loading Print Media in the Paper Tray" on page 53. Ensure that the adjustable guides are correctly positioned.
- Do not overload the paper tray. Ensure that the paper is below the paper capacity mark on the inside wall of the paper tray.
- Do not remove the paper from the tray while your machine is printing.
- Flex, fan and straighten the paper before loading.
- Do not use creased, damp or curled paper.
- Do not mix paper types in the paper tray.
- Use only recommended print materials. See "Paper Specifications" on page 206.
- Ensure that the recommended print side of print materials is facing down in the paper tray and facing up in the Bypass tray.

Clearing LCD Error Messages

Display	Meaning	Suggested solutions
[Bypass Jam]	A paper jam has occurred in the Bypass tray or the machine detects non-feeding from the Bypass tray.	Clear the paper jam. See page 162. Load paper in the Bypass tray.
Cancel ? 1:Yes 2:No	Your machine's memory is full and cannot store the document to send a fax into its memory.	To cancel the fax job, press the **1** button to accept "Yes." *If you want to send the pages that were stored,* press the **2** button to accept "No." You should send the remaining pages later when memory is available.
[COMM. Error]	The machine has a communication problem.	Ask the sender to try again.
CRU Fuse Error [Low Heat Error] Heating Error Open Heat Error [Over Heat]	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. *If the problem persists,* please call for service.
Delayed Function Full	The delayed fax jobs are full.	Cancel the unnecessary delayed fax job. For details, see page 135.
Document Jam	The loaded document has jammed in the Automatic Document Feeder (ADF).	Clear the document jam. See page 160.
[Door Open]	The front or rear cover is not securely latched.	Close the cover until it locks into place.
Enter Again	You entered an unavailable item.	Enter the correct item again.
Funtion Not Available	You have tried to use a combination of machine functions that can not be used at the same time.	Reduce the number of selected functions or use only one function at a time.
Group No. is assigned	The group dial location you tried to select has speed dial numbers assigned to it.	Press <Return> to start over with another group dial location.
Group Not Available	You have tried to select a group location number where only a single location number can be used, such as when adding locations for a broadcasting operation.	Use a speed dial number or dial the number manually using the number keypad.

Display	Meaning	Suggested solutions
[Hsync Error] [LSU Error]	A problem has occurred in the Laser Scanning Unit (LSU).	Unplug the power cord and plug it back in. *If the problem persists,* please call for service.
[Jam 1] [No Cartridge]	The toner cartridge is not installed.	Install the toner cartridge. See page 15.
[Line Error]	Your machine cannot connect with a remote machine or has lost contact because of a problem with the phone line.	Try again. *If the problem persists,* wait an hour or so for the line to clear and try again. Or, turn the ECM mode on. See page 139.
Load Document	You have attempted to set up a copy or fax operation with no document loaded.	Load a document and try again.
Memory Full	The memory is full.	Delete unnecessary documents, retransmit after more memory becomes available or split the transmission into more than one operation.
[No Answer]	The remote fax machine has not answered after several redial attempts.	Try again. Make sure that the remote machine is operational.
No. Not Assigned	The speed dial location you tried to use has no number assigned to it.	Dial the number manually using the number keypad or assign the number. See page 127.
No. Not Available	You have tried to delete the number for the delayed fax job.	Make sure that you select the number you want to delete correctly. OR Delete the number after the delayed fax job is sent.
[No Paper] Add Paper	The paper in the paper tray has run out.	Load paper in the paper tray. See page 17.
No Job Found	You are performing on Add/Cancel operation, but there are no jobs waiting.	Check the display to see if there are any scheduled jobs. The display should indicate them in Standby mode, for example, Delay Fax.
[Paper Jam 0] Open/Close Door	Paper has jammed in the feeding area of the paper tray.	Clear the jam. See page 162.
[Paper Jam 1] Open/Close Door	Paper has jammed in the paper exit area.	Clear the jam. See page 162.
[Paper Jam 2] Check Inside	Paper has jammed in the fuser area.	Clear the jam. See page 162.

Display	Meaning	Suggested solutions
Power Failure	The power has been turned off and then on and the machine's memory has not been saved.	You need to start the job again which you were trying to do before the power failure.
Registered	The group dial location is already registered with another speed dial number.	Select another group dial location.
Retry Redial?	The machine is waiting for a specified time interval to redial a previously busy station.	You can press <Select>to immediately redial, or <Cancel> to cancel the redial operation.
[Toner Low]	The toner is almost empty.	Take out the toner cartridge and gently shake it. By doing this, you can temporarily reestablish printing operations. OR Replace the toner cartridge with a new one for the best print quality. See page 153.
Tray 1 Paper Empty	The optional Tray 2 is installed and the paper in Tray 1 has run out.	Load paper in Tray1. For details, see page 17.
Tray 2 Paper Empty	The paper in the optional Tray2 has run out.	Load paper in the optional Tray2. For details, see page 17.

Solving Problems

The following chart lists some conditions that may occur and the recommended solutions. Follow the suggested solutions until the problem is corrected. *If the problem persists,* please call for service.

Paper Feeding Problems

Condition	Suggested solutions
Paper is jammed during printing.	Clear the paper jam. See page 162.
Paper sticks together.	• Ensure that there is not too much paper in the paper tray. The paper tray can hold up to 250 sheets of paper, depending on the thickness of your paper. • Make sure that you are using the correct type of paper. See "Paper Specifications" on page 206. • Remove paper from the paper tray and flex or fan the paper. • Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	• Different types of paper may be stacked in the paper tray. Load paper of only one type, size and weight. • *If multiple sheets have caused a paper jam,* clear the paper jam. See page 162.
Paper does not feed into the machine.	• Remove any obstructions from inside the machine. • Paper has not been loaded correctly. Remove paper from the tray and reload it correctly. • There is too much paper in the paper tray. Remove excess paper from the tray. • The paper is too thick. Use only paper that meets the specifications required by the machine. See "Paper Specifications" on page 206.
The paper keeps jamming.	• There is too much paper in the paper tray. Remove excess paper from the tray. *If you are printing on special materials,* use the Bypass tray. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. See "Paper Specifications" on page 206. • There may be debris inside the machine. Open the front cover and remove the debris.
Transparencies stick together in the paper exit.	Use only the transparencies specifically designed for a laser printer. Remove each transparency as it exits from the machine.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

Printing Problems

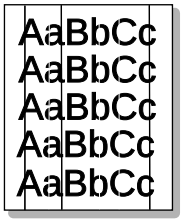
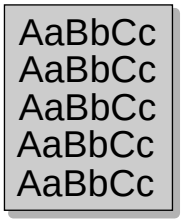
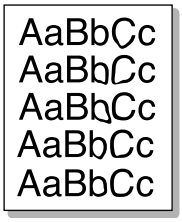
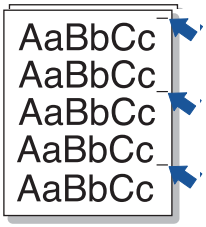
Condition	Possible cause	Suggested solutions
The printer does not print.	The printer is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The printer is not selected as the default printer.	Select **Dell Laser MFP 1600n** as your default printer in your Windows.
	Check the printer for the following:	• The front or rear cover is not closed. • Paper is jammed. • No paper is loaded. • The toner cartridge is not installed. *If a printer system error occurs,* contact your service representative.
	The connection cable between the computer and the printer is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the printer is defective.	*If possible,* attach the cable to another computer that is working properly and print a job. You can also try using a different printer cable.
	The machine may be configured incorrectly.	Check the Windows printer setting to make sure that the print job is sent to the correct port, for example, LPT1. *If the computer has more than one port,* make sure that the printer is attached to the correct one.
	The printer driver may be incorrectly installed.	Check the printer properties to ensure that all of the print settings are correct.
	The printer is malfunctioning.	Remove the printer driver and then reinstall it; see page 40 and page 33 respectively.
The printer selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the **Paper** tab within the printer properties. Select the correct paper source. See page 65.
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings. The maximum print speed of your machine is 17 PPM for Letter-sized paper.
	If you are using Windows 98/Me, the Spooling Setting may be set incorrectly.	Click the **Start** button→ **Settings**→ **Printers**. Right-click the **Dell Laser MFP 1600n** printer icon, click **Properties**→ **Details**→ **Spool Settings**. Select the desired spool setting.

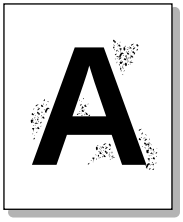
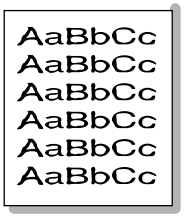
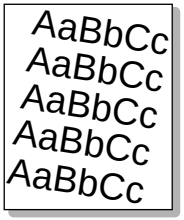
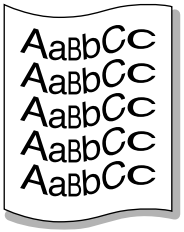
Condition	Possible cause	Suggested solutions
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. See page 64.
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray.
The printer prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect. Try a print job that you have already printed successfully. *If possible,* attach the cable and the machine to another computer and try a print job that you know works. Finally, try a new printer cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and then back on again.
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Gently shake the toner. if necessary. See page 152. *If necessary,* replace the toner cartridge.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
The illustrations print incorrectly in Adobe Illustrator.	The setting in the software application is wrong.	Print the document by selecting **Download as Bit Image** in the **Advanced Options** window of the Graphic properties.
An error occurs repeatedly when you are printing with the USB connection.	When the USB mode is set to "`Fast`," some PC users may experience poor USB communication.	Change the USB mode to "`Slow`." To do so, follow these steps: **1** Press <Menu> on the control panel until "`Printer Setup`" appears on the top line of the display. **2** Press the scroll button (◀ or ▶) until "`USB Mode`" appears on the bottom line, and press <Select>. **3** Press the scroll button (◀ or ▶) to select "`Slow`." **4** Press <Select> to save the selection. **5** Press <Return> to return to Standby mode.

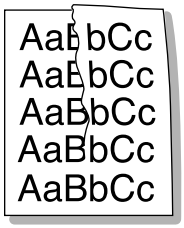
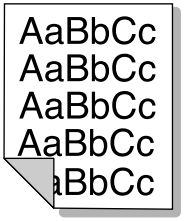
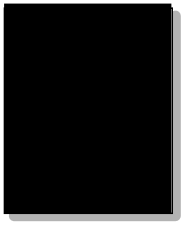
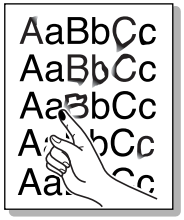
Printing Quality Problems

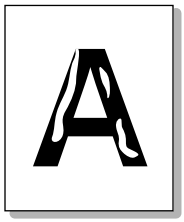
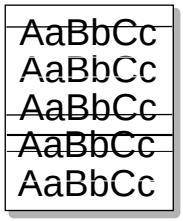
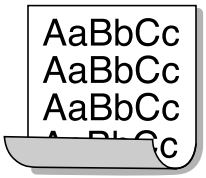
The inside of the machine may be dirty or improper paper loading may reduce the print quality. See the table below to clear the problem.

Condition	Suggested solutions
Light or faded print	If a vertical white streak or faded area appears on the page: • The toner supply is low. You may be able to temporarily extend the toner cartridge life. See page 152. *If this does not improve the print quality,* install a new toner cartridge. • The paper may not meet paper specifications; for example, the paper is too moist or too rough. See "Paper Specifications" on page 206. • If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. See page 67. • A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. See "Paper Specifications" on page 206.
Toner specks	• The paper may not meet specifications; for example, the paper is too moist or too rough. See "Paper Specifications" on page 206. • The transfer roller may be dirty. Clean the inside of your machine. See page 149. • The paper path may need cleaning. See "Cleaning the Drum" on page 155.
Dropouts	If faded areas, generally rounded, occur randomly on the page: • A single sheet of paper may be defective. Try reprinting the job. • The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. See "Paper Specifications" on page 206. • The paper lot is bad. The manufacturing process can cause some areas to reject toner. Try a different kind or brand of paper. • The toner cartridge may be defective. Vertical repetitive defects on the next page. • *If these steps do not correct the problems,* contact a service representative.

Condition	Suggested solutions
Vertical lines  	If black vertical streaks appear on the page, the drum inside the toner cartridge has probably been scratched. Install a new toner cartridge. See "Installing the Toner Cartridge" on page 15.
Gray background  	If the amount of background shading becomes unacceptable: • Change to lighter weight pages. See "Paper Specifications" on page 206. • Check the machine's environment; very dry (low humidity) or high humidity (higher than 80% RH) conditions can increase the amount of background shading. • Remove the old toner cartridge and install a new one. See "Installing the Toner Cartridge" on page 15.
Toner smear  	• Clean the inside of the machine. See page 149. • Check the paper type and quality. See "Paper Specifications" on page 206. • Remove the toner cartridge and install a new one. See "Installing the Toner Cartridge" on page 15.
Vertical repetitive defects  	If marks repeatedly appear on the printed side of the page at even intervals: • The toner cartridge may be damaged. *If a repetitive mark occurs on the page,* print a cleaning sheet several times to clean the cartridge; see "Cleaning the Drum" on page 155. After the printout, if you still have the same problems, install a new toner cartridge. See "Installing the Toner Cartridge" on page 15 • Parts of the machine may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. • The fusing assembly may be damaged. Contact a service representative.

Condition	Suggested solutions
Background scatter 	Background scatter results from bits of toner distributed on the printed page. • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. • *If background scatter occurs on an envelope,* change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. • *If background scatter covers the entire surface area of a printed page,* adjust the print resolution through your software application or the printer properties.
Misformed characters 	• If characters are improperly formed and produce hollow images, the paper stock may be too slick. Try a different paper. See "Paper Specifications" on page 206. • If characters are improperly formed and produce a wavy effect, the scanner unit may need service. For service, contact a service representative.
Page skew 	• Ensure that the paper is loaded properly. • Check the paper type and quality. See "Paper Specifications" on page 206. • Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Curl or wave 	• Ensure that the paper is loaded properly. • Check the paper type and quality. Both high temperatures and humidity can cause paper curl. See "Paper Specifications" on page 206. • Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the paper tray.

Condition	Suggested solutions
Wrinkles or creases 	• Ensure that the paper is loaded properly. • Check the paper type and quality. See "Paper Specifications" on page 206. • Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the paper tray.
Back of printouts are dirty 	Check for leaks in the toner. Clean the inside of the machine. See page 149.
Black pages 	• The toner cartridge may not be installed properly. Remove the cartridge and reinsert. • The toner cartridge may be defective and need replacing. Install a new toner cartridge. See "Installing the Toner Cartridge" on page 15. • The machine may require repair. Contact a service representative.
Loose toner 	• Clean the inside of the machine. See page 149. • Check the paper type and quality. See "Paper Specifications" on page 206. • Install a new toner cartridge. See "Installing the Toner Cartridge" on page 15. • If the problem persists, the machine may require repair. Contact a service representative.

Condition	Suggested solutions
Character Voids 	Character voids have white areas where they should be solid black: • *If you are using transparencies,* try another type of transparency. Because of the composition of the transparency, some character voids are normal. • You may be printing on the wrong surface of the paper. Turn over the stack of paper in the paper tray. • The paper may not meet paper specifications. See "Paper Specifications" on page 206.
Horizontal stripes 	If horizontally aligned black streaks or smears appear: • The toner cartridge may be installed improperly. Remove the toner cartridge and reinsert. • The toner cartridge may be defective. Install a new toner cartridge. See "Installing the Toner Cartridge" on page 15. • If the problem persists, the machine may require repair. Contact a service representative.
Curl 	*If the printed paper is curled or the paper does not feed into the printer,* turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the paper tray.

Fax Problems

Condition	Suggested solutions
The machine is not working, there is no display and the buttons are not working.	• Unplug the power cord and plug it in again. • Ensure that there is power to the electrical receptacle.
No dial tone sounds.	• Check that the phone line is connected properly. See page 21. • Check that the phone socket in the wall is working by plugging in another phone.
The numbers stored in the memory do not dial correctly.	Make sure that the numbers are stored in the memory correctly. Print a Phonebook list, referring to page 131.
The document does not feed into the machine.	• Make sure that the document is not wrinkled and you are putting it in correctly. Check that the document is the right size, not too thick or thin. • Make sure that the Automatic Document Feeder (ADF) cover is firmly closed.
Faxes are not received automatically.	• The FAX mode should be selected. • Make sure that there is paper in the paper tray. • Check to see if the display shows "`Memory Full`".
The machine does not send.	• Make sure that the document is loaded in the ADF or on the scanner glass. • "`TX`" should show up on the display. • Check the other fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is received in poor-quality.	• The fax machine sending you the fax may be faulty. • A noisy phone line can cause line errors. • Check your machine by making a copy. • The toner cartridge may be empty. Replace the toner cartridge, referring to page 153.
Some of the words on an incoming fax are stretched.	The fax machine sending you the fax had a temporary document jam.
There are lines on the documents you send.	Check your scan glass for marks and clean it. See page 150.
The machine dials a number, but the connection with another fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask her/him to sort out the problem.
Documents are not stored in the memory.	There may not be enough memory to store the document. *If the display shows a "`Memory Full`" message,* delete any documents you no longer need from the memory and then restore the document.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. See page 56 and page 57.

Copying Problems

Condition	Suggested solutions
Copies are too light or too dark.	Use the <Contrast> button to darken or lighten the background of the copies.
Smears, lines, marks or spots appear on copies.	• *If defects are on the original,* press the <Contrast> button to lighten the background of your copies. • *If no defects are on the original,* clean the scanner glass and underside of the document cover. See page 150.
Copy image is skewed.	• Ensure that the original is positioned correctly on scanner glass. • Check that the copy paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the Automatic Document Feeder.
Image rubs off the copy easily.	• Replace the paper in the paper tray with paper from a new package. • In high humidity areas, do not leave paper in the machine for the extended periods of time.
Frequent copy paper jams occurs.	• Fan the stack of paper, then turn it over in the paper tray. Replace the paper in the tray with a fresh supply. *If necessary,* check/adjust the paper guides. • Ensure that the paper is the proper paper weight. $75g/m^2$ (20 lb) bond paper is recommended. • Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Fewer copies from the toner cartridge than expected prints out.	• Your originals may contain pictures, solids or heavy lines. For example, your originals may be forms, newsletters, books or other documents that use more toner. • The machine may frequently be turned on and off. • The document cover may be left open while copies are being made.

Scanning Problems

Condition	Suggested solutions
The scanner does not work.	• Make sure that you place the document to be scanned face down from the scanner glass, or face up in the Automatic Document Feeder. • There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. • Check that the USB cable is connected properly. • Make sure that the USB cable is not defective. Switch the cable with a known good cable. *If necessary,* replace the cable. • Check that the scanner is configured correctly. Check the scan setting in the SmarThru Configuration or the application you want to use to make certain that the scanner job is being sent to the correct port, for example, LPT1.
The unit scans very slowly.	• Check if the machine is printing received data. Scan the document after the current job is completed. • Graphics are scanned more slowly than text. • Communication speed becomes slow in scan mode because of the large amount of memory required to analyse and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer's user's guide.
Message appears on your computer screen: • "`Device can't be set to the H/W mode you want.`" • "`Port is being used by another program.`" • "`Port is Disabled.`" • "`Scanner is busy receiving or printing data. When the current job is completed, try again.`" • "`Invalid handle.`" • "`Scanning has failed.`"	• There may be a copying or printing job in progress. When the current job is complete, try the job again. • The Selected port is currently being used. Restart your computer and try again. • The printer cable may be improperly connected or the power may be off. • The scanner driver is not installed or an operating environment is not set up properly. • Ensure that the port is properly connected and the power is turned on, Then restart your computer. • Check, that the USB cable is properly connected.

Troubleshooting PS Errors

The following situations are PS language specific and may occur when several printer languages are being used.

NOTE: To receive a printed or screen displayed message when PS errors occur, open the Print Options window and click the desired selection next to the PostScript errors section.

Problem	Possible Cause	Solution
PostScript file can not be printed.	The PostScript option may not be installed.	Print a configuration page and verify that the PS version is available for printing.
"`This job contains binary data...`" message appears.	The pure binary data option is not supported by the PostScript driver.	Open the Properties of the PostScript driver, click on **PostScript**, and click on **Advanced**. The pure binary data option is not supported. Choose another.
A PS error page prints.	Print job may not be PS.	Make sure that the print job is a PS job. Check to see whether the software application expected a setup or PS header file to be sent to the printer.
The optional Tray2 is not selected in the driver.	The printer driver has not been configured to recognize the optional Tray2.	Open the PostScript driver properties and set the **Option Tray** item of the **Device** option to **Installed**.

Networking

About Sharing the Printer on a Network
Setting Up the Locally Shared Printer
Setting Up a Network-connected Printer

About Sharing the Printer on a Network

If you work in a networked environment, you can connect your printer to the network.

Locally-shared Printer

You can connect the printer directly to a selected computer, which is called the "host computer" on the network. The printer can then be shared by other users on the network through a Windows 98, Me, 2000, XP, or NT 4.0 network machine connection.

Wired Network-connected Printer

Your printer has a built-in network interface. For details, see page 23.

Printing Across a Network

Whether the printer is locally connected or network-connected, you need to install the **Dell Laser MFP 1600n** software on each computer that prints documents using the printer.

Setting Up the Locally Shared Printer

You can connect the printer directly to a selected computer, which is called the "host computer," on the network. Your printer can be shared by other users on the network through a Windows 98, Me, 2000, XP, or NT 4.0 network machine connection.

In Windows 98/Me

Setting Up the Host Computer

1. Start Windows.
2. Click the **Start** button and point to **Control Panel** and double-click the **Network** icon.
3. Check the **File and Print Sharing** box and click **OK**.
4. Click **Start** and point to **Printers** from **Settings**. Double-click your printer name.
5. Click **Properties** in the **Printer** menu.
6. Click the **Sharing** tab and check the **Shared As** box. Fill in the **Shared Name** field and then click **OK**.

Setting Up the Client Computer

1 Right-click the **Start** button and click **Explore**.

2 Open your network folder in the left column.

3 Right-click the shared name and click **Capture Printer Port**.

4 Select the port you want, check the **Reconnect at log on** box and then click **OK**.

5 Click the **Start** button and point to **Settings** and then **Printers**.

6 Double-click your printer icon.

7 Click the **Printer** menu and point to **Properties**.

8 Click the **Details** tab and point to the printer port and then click **OK**.

In Windows NT 4.0/2000/XP

Setting Up the Host Computer

1 Start Windows.

2 For Windows NT 4.0/2000, click the **Start** button→ **Settings**→ **Printers**.

For Windows XP, click the **Start** button and point to **Printers and Faxes**.

3 Double-click your printer icon.

4 Click the **Printer** menu and point to **Sharing**.

5 For Windows NT 4.0, check the **Shared** box.

For Windows 2000, check the **Shared As** box.

For Windows XP, check the **Share this printer** box.

6 For Windows NT 4.0, fill in the **Share Name** field and click **OK**.

For Windows 2000/XP, fill in the **Share Name** field and click **OK**.

Setting Up the Client Computer

1 Right-click the **Start** button and point to **Explore**.

2 Open your network folder in the left column.

3 Click the shared name.

4 For Windows NT 4.0/2000, from the **Start** button, Click **Settings** and point to **Printers**.

For Windows XP, from the **Start** button, click and point to **Printers and Faxes**.

5 Double-click your printer icon.

6 Click the **Printer** menu and point to **Properties**.

7 Click the **Ports** tab and point to **Add Port**.

8 Click **Local Port** and point to **New Port**.

9 Fill in the **Enter a port name** field and enter the shared name.

10 Click **OK** and point to **Close**.

11 For Windows NT 4.0, click **OK**.

For Windows 2000/XP, click **Apply** and point to **OK**.

Setting Up a Network-connected Printer

You have to set up the network protocols on the printer to use it as your network machine. Setting protocols can be accomplished by using the supplied network program. Please refer to *SyncThru User's Guide*.

You can configure the basic network parameters through the printer's operator panel. Use the printer operator panel to do the following:

- Enable or disable network protocols (IPX/SPX)
- Configure TCP/IP
- Configure IPX frame types

Configuring Network Parameters on the Operator Panel

Item	Requirements
Network Interface	10/100 Base-TX
Network Operating System	• Novell NetWare 4.*x*, 5.*x*, 6.*x* • Windows 98/Me, NT 4.0/2000/XP • Unix AT&T, BSD4.3, HP-UX, SUN OS, SOLARIS, SCO • Linux RedHat 6.0 or higher
Network Protocols	• Netware IPX/SPX • TCP/IP, DLC/LLC on Windows • Port9100 on Windows NT, Unix, Linux
Dynamic Addressing Server	• DHCP, BOOTP

Printing a Network Configuration Page

The Network Configuration page shows how the network interface card on your printer is configured. The default settings which are suitable for most applications are enabled.

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Print Sys. Data`" displayed on the bottom line.

3 Press <Select>.

The first available menu item, "`Yes`" displays on the bottom line.

4 Press <Select> to print a network configuration page.

The Network Configuration page prints out.

Setting Network Protocols

When you first install the printer, all supported network protocols are enabled when you turn the printer on. If a network protocol is enabled, the printer may actively transmit on the network even when the protocol is not in use. This may slightly increase network traffic. To eliminate unnecessary traffic, you can disable unused protocols.

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Configuration`" displays on the bottom line. Press <Select>.

3 Press the scroll button (◀ or ▶) until you see the desired protocol on the bottom line.

4 Press <Select>.

5 If you selected **Ethernet**, select a network speed.

If you selected **TCP/IP**, assign a TCP/IP address. For details, see below.

If you selected **Ether Talk**, press the scroll button (◀ or ▶) to change the setting to "`On`" (enable) or "`Off`" (disable).

6 Press <Select> to save the selection.

Configuring TCP/IP

Your printer can be set up on a variety of TCP/IP networks. There are several ways in which your printer can be assigned a TCP/IP address, depending on your network.

- Static Addressing: TCP/IP address is assigned manually by the system administrator.
- Dynamic Addressing BOOTP/DHCP(default): TCP/IP address is assigned automatically by the server.

Static Addressing

To enter the TCP/IP address from your printer's operator panel, take the following steps:

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Configuration`" displays on the bottom line. Press <Select>.

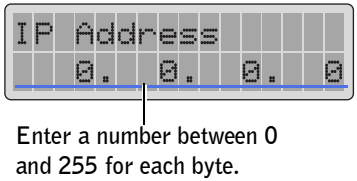
3 Press the scroll button (◀ or ▶) to display "`TCP/IP`" and press <Select>.

The first available menu item, "`Manual`", appears on the bottom line and press <Select>.

4 The first available menu item, "`IP Address`" displays on the bottom line.

5 Press <Select> to access the IP Address menu.

An IP address consists of 4 bytes.



6 Enter the numbers from the keypad and use the scroll button (◀ or ▶) to move between octets and press <Select>.

7 Repeat Step 5 to complete the address from the 1st byte to the 4th byte.

8 To select other parameters, such as the Subnet Mask, Gateway or Primary DNS, press <Return>, then use the scroll button (◀ or ▶). Press <Select>.

9 Repeat steps 5 through 8 to configure the other TCP/IP parameters.

Dynamic Addressing (BOOTP/DHCP)

To assign the TCP/IP address automatically by the server, take the following steps:

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Configuration`" displays on the bottom line. Press <Select>.

3 Press the scroll button (◀ or ▶) to display "`TCP/IP`" and press <Select>.

4 Press the scroll button (◀ or ▶) to display "`DHCP`" on the bottom line and press <Select>.

5 To assign the address from the BOOTP server, press <Select> when "`BOOTP`" displays on the bottom line.

Restoring the Network Configuration

You can return the network configuration to its default settings.

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Clear Setting`" displays on the bottom line.

3 Press <Select>.

   The first available menu item, "`Yes`" displays on the bottom line.

4 Press <Select> to restore the network configuration.

Resetting the Network Interface Card

You can reset the network interface card when a network problems occurs.

1 Press <Menu> until you see "`Network Setup`" on the bottom line of the display.

   The first available item, "`Reset NIC`", displays on the bottom line.

2 Press <Select>.

   The first available menu item, "`Yes`" displays on the bottom line.

3 Press <Select> to reset the network interface card.

Maintenance

Clearing the Memory
Cleaning Your Machine
Maintaining the Toner Cartridge
Consumables and Replacement Parts
Ordering Supplies
Printer Settings Utility

Clearing the Memory

You can selectively clear information stored in your machine's memory.

1 Press <Menu> on the operator panel until "`Maintenance`" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) until you see "`Clear Setting`" on the bottom line and press <Select>.

   The first available menu item, "`Paper Setting`" displays on the bottom line.

3 Press the scroll button (◀ or ▶) until you see the item you want to clear.

   - Paper Setting: Restores all of the Paper Setting options to the factory default.
   - Copy Setup: Restores all of the Copy Setup options to the factory default.
   - Fax Setup: Restores all of the Fax Setup options to the factory default.
   - Fax Feature: Cancels all of the scheduled fax jobs in the machine's memory.
   - Advanced Fax: Restores all of the Advanced Fax setting options to the factory default.
   - All Settings: Clears all of the data stored in the memory and resets all of your settings to the factory default.
   - Sent Report: Clears all of records of your faxes sent.
   - RCV Report: Clears all of records of your faxes received.
   - Phone Book: Clears the speed dial or group dial numbers stored in the memory.

4 Press <Select>. The selected memory is cleared and the display asks you to continue clearing the next item.

5 Repeat steps 2 and 3 to clear another item.

   OR

   To return to Standby mode, press <Return>.

Cleaning Your Machine

To maintain the print quality, follow the cleaning procedures below, each time the toner cartridge is replaced or *if print quality problems occur.*

NOTE: While cleaning the inside of the machine, be careful not to touch the transfer roller (located underneath the toner cartridge). Oil from your fingers can cause print quality problems.

CAUTION: Cleaning the cabinet of the machine with surfactants containing large amounts of alcohol, solvents or other strong substances can discolor or crack the cabinet.

Cleaning the Exterior

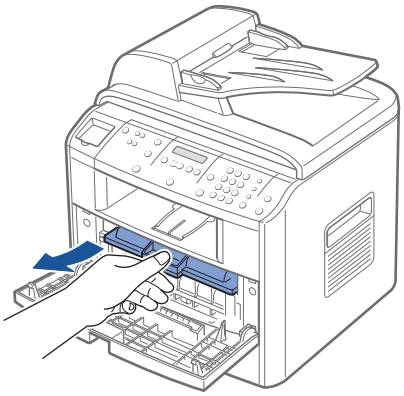
Clean the cabinet of the machine with a soft, lint-free cloth. You can dampen the cloth slightly with water, but be careful not to be let any water drip onto the machine or inside of it.

Cleaning the Interior

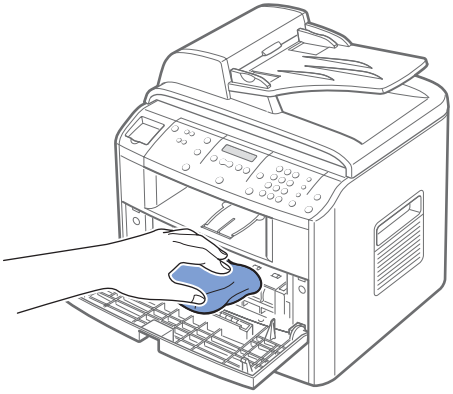
During the printing process, paper, toner and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears or reduces these problems.

1 Turn the machine off and unplug the power cord. Wait for the machine to cool down.

2 Open the front cover and lightly pull the toner cartridge straight out.



3 With a dry and lint-free cloth, wipe away any dust and spilled toner from the toner cartridge area and the toner cartridge cavity.



CAUTION: To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary. Do not touch the transfer roller inside the machine.

4 Reinsert the toner cartridge and close the front cover.

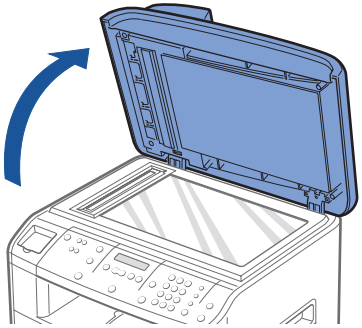
5 Plug in the power cord and turn the machine on.

Cleaning the scanner

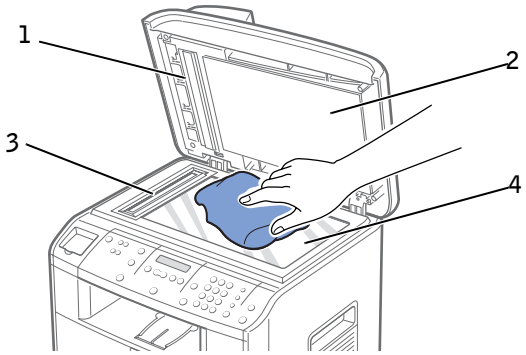
Keeping the scanner clean helps ensure the best possible copies. We suggest that you clean the scanner at the start of each day and during the day, as needed.

1 Slightly dampen a soft lint-free cloth or paper towel with water.

2 Open the document cover.



3 Wipe the surface of the scanner glass and ADF glass until it is clean and dry.



1	White Sheet
2	Document Cover
3	ADF Glass
4	Scanner Glass

4 Wipe the underside of the white document cover and white sheet until it is clean and dry.

5 Close the document cover.

Maintaining the Toner Cartridge

Storing the Toner Cartridge

Store the toner cartridge in the original packaging until you are ready to install it.

Do not store the toner cartridge in:

- Temperatures greater than 40°C (104°F)
- An environment with extreme changes in humidity or temperature
- Direct sunlight
- Dusty places
- A car for a long period of time
- An environment where corrosive gases are present
- An environment with salty air

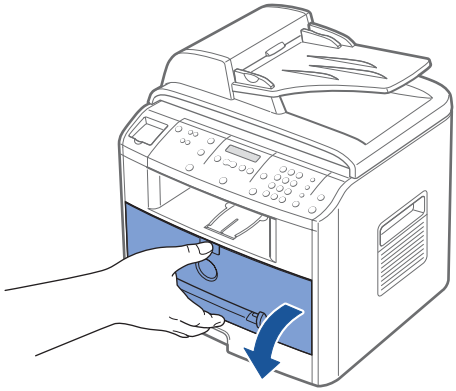
Expected Cartridge Life

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at IDC 5 percent coverage, a new toner cartridge lasts an average of 5,000 pages. (The original toner cartridge supplied with the machine lasts an average of 3,000 pages.) The actual number may be different depending on the print density of the page you print. *If you print a lot of graphics,* you may need to change the cartridge more often.

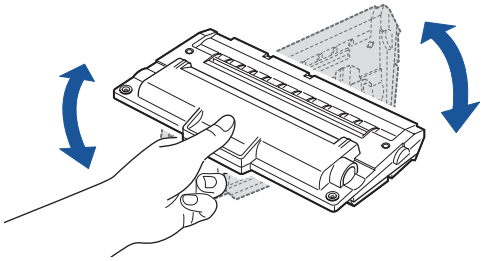
Redistributing Toner

When the toner cartridge is near the end of its life, white streaks or light print occurs. The LCD displays the warning message, "`Toner Low`". You can temporarily reestablish the print quality by gently shaking the remaining toner in the cartridge.

1 Open the front cover.



2 Pull the toner cartridge out and gently shake the cartridge to distribute the toner evenly inside the cartridge.



NOTE: If the toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets the toner into fabric.

3 Reinstall the cartridge and close the front cover.

Replacing the Toner Cartridge

When the toner eventually runs out, only blank pages print when a print job or copy job are sent. In that case the incoming faxes are only saved in the memory and not printed. At this stage, the toner cartridge needs to be replaced.

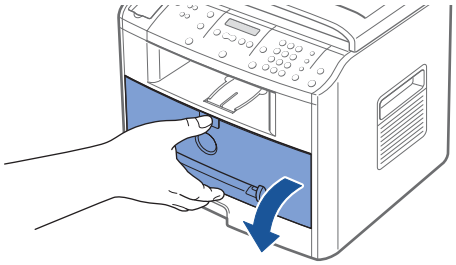
NOTE: You can also set the machine to continue printing a received fax. See page 156.

Order an extra toner cartridge so you will have it on hand when the current cartridge no longer prints satisfactorily. See page 157 to order toner cartridges.

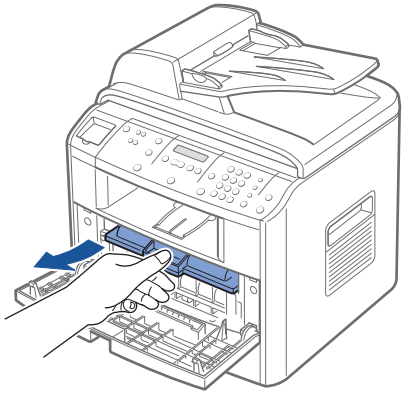
CAUTION: Dell does not recommend that you use toner cartridges from a third-party refiller. Print quality and machine reliability cannot be guaranteed if you do. For best results, use Dell supplies.

To replace the toner cartridge:

1 Open the front cover.

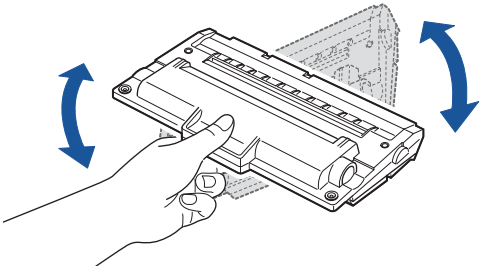


2 Lightly pull the used cartridge straight out.



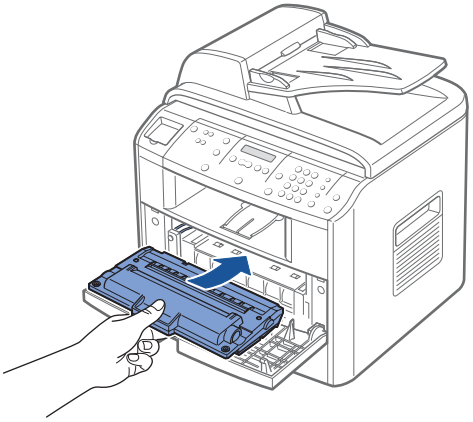
NOTE: Help the environment by recycling your used toner cartridge. Refer to the recycling brochure packed with the toner cartridge for details.

3 Unpack the new toner cartridge and hold the toner cartridge by the handle and gently shake it from side-to-side to distribute the toner.

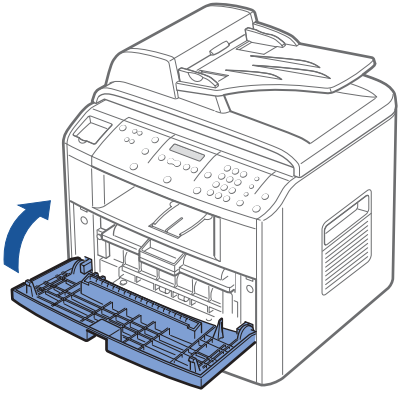


Save the box and the cover for shipping.

4 Slide the new toner cartridge in aligning it with the labeled arrows, until it locks firmly into place.



5 Close the front cover.



Setting the Notify Toner Option

If you have set the Notify Toner menu option to `On`, your machine automatically sends a fax to your service company or the dealer to notify them that your machine requires a new toner cartridge when the toner cartridge needs to be replaced. The fax number was preset by your dealer when you bought your machine.

1. Press <Menu> on the operator panel until "`Maintenance`" appears on the top line of the display.

   The first available menu item, "`Clean Drum`", displays on the bottom line.

2. Press the scroll button (◀ or ▶) to display "`Notify Toner`" on the bottom line and press <Select>.

3. Press the scroll button (◀ or ▶) to change the setting.

   Select "`On`" to enable this feature. Selecting "`Off`" disables this feature.

4. Press <Select> to save the selection.

Cleaning the Drum

If there are streaks or spots on your print, the OPC drum of the toner cartridge may require cleaning.

1. Before setting the cleaning procedure, make sure that paper is loaded in the paper tray.

2. Press <Menu> on the operator panel until "`Maintenance`" appears on the top line of the display.

   The first available menu item, "`Clean Drum`", displays on the bottom line.

3. Press <Select>.

   The display confirms your selection.

   The machine prints out a cleaning page. Toner particles on the drum surface are affixed to the paper.

4. *If the problem remains,* repeat steps 1 through 3.

Printing in the Toner Low Status

When the toner cartridge is nearly empty, the machine saves the incoming faxes in the memory without printing them. If you want to print the fax in the toner low status, you can set the machine to continue printing even though the print quality is not so good.

1 Press <Menu> until "`Fax Feature`" appears on the display.

2 Press the scroll button (◀ or ▶) until "`Ignore Toner`" appears on the bottom line and press <Select>.

3 Press the Scroll button (◀ or ▶) to select "`On`" or "`Off`".

   Select "`On`" to continue prining the incoming faxes in the toner low status.

   Select "`Off`" to stop printing when the toner cartridge is nearly empty. This is the default setting.

4 Press <Select> to save the selection.

Consumables and Replacement Parts

From time to time, you need to replace the toner cartridge, roller, and fuser unit to maintain top performance and to avoid print quality problems and paper feed problems resulting from worn parts.

The following items should be replaced after you have printed the specified number of pages:

Item	Yield (Average)
ADF Rubber Pad	20,000
Paper Feeding Roller	80,000
Transfer Roller	60,000
Fuser Unit	80,000

Ordering Supplies

You can order supplies using the Dell Toner Reorder Program window, the Status Monitor, or Dell Printer Configuration Web Tool.

If your printer is connected to a network, type your machine's IP address in your Web browser or open the Network Status Monitor Center (see page 85.) to launch the Dell Printer Configuration Web Tool and click the toner supplies link.

To purchase other parts, except for the toner cartridge, contact Dell. We strongly recommend that items be installed by a trained service professional.

Ordering Toner Cartridge in the Dell Toner Reorder Program

You can order the replacement toner cartridges in the Dell Toner Reorder Program window on your desktop. You can also open the Dell Toner Reorder Program window in the Status Monitor window. For details about the Status Monitor, see page 85.

1 From the **Start** menu, click **Programs→ DELL→ DELL Laser MFP 1600n→ Dell Toner ReOrder Program**. The Order Toner Cartridges window appears.

2 If ordering from the Web:

a Enter your Dell printer Service Tag number in the field provided.

Your Service Tag number is located on your printer.

b Click **Visit Dell's cartridge ordering website**.

If ordering by phone, call the number that appears under the By Telephone heading.

Printer Settings Utility

Using the Printer Settings Utility window, you can set up fax system data options, create and edit Phonebook entries on desktop. You can also configure the destination launches when you use the <Select Software> button on the operator panel, and update the firmware of the machine.

When you install the Dell software, the Printer Settings Utility is automatically installed.

For information about installing the software, see page 33.

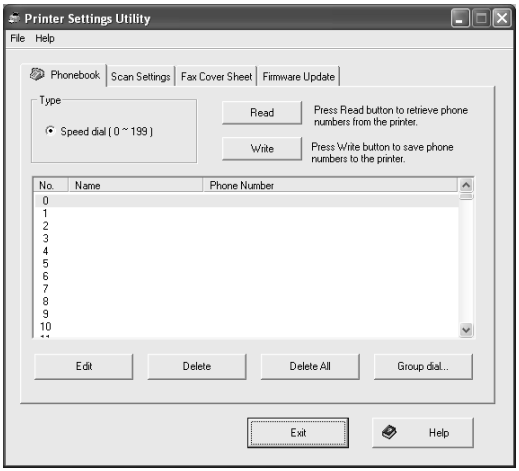
To open the Printer Settings Utility:

1 Start your Windows.

2 Click the **Start** button on your desktop computer.

3 From **Programs**, select **DELL→ DELL Laser MFP 1600n→ Printer Settings Utility**.

The Printer Settings Utility window opens.



4 The Printer Settings Utility window provides four tabs; **Phonebook**, **Scan Settings**, **Fax Cover Sheet**, and **Firmware Update**.

To exit, click the **Exit** button at the bottom of each tab.

For further details, click the **Help** button at the bottom of each tab.