



S U P E R S C R I P T 1 4 5 0
S U P E R S C R I P T 1 4 5 0 N

USER'S GUIDE

August, 2000
703-A0464-001

Proprietary Notice and Liability Disclaimer

The information disclosed in this document, including all designs and related materials, is the valuable property of NEC Technologies and/or its licensors, as appropriate reserve all patent, copyright and other proprietary rights to this document, including all design, manufacturing, reproduction, use and sales rights thereto, except to the extent said rights are expressly granted to others.

The NEC Technologies product(s) discussed in this document are warranted in accordance with the terms of the Limited Warranty Statement accompanying each product. However, actual performance of each such product is dependent upon factors such as system configuration, customer data and operator control. Since implementation by customers of each product may vary, the suitability of specific product configurations and applications must be determined by the customer and is not warranted by NEC Technologies.

To allow for design and specification improvements, the information in this document is subject to change at any time without notice. Reproduction of this document or portions thereof without prior approval of NEC Technologies is prohibited.

© NEC Technologies, Inc., 2000

Microsoft, Windows, Windows 95, Windows 98, Windows NT, Windows 2000, and MS-DOS are registered trademarks of Microsoft Corporation.

PostScript is a registered trademark of Adobe Corporation.

All other product, service, brand, or trade names used in this publication are the trademarks or registered trademarks of their respective companies or organizations. NEC disclaims any responsibility for specifying which marks are owned by which companies or organizations.

Copyright 2000
NEC Technologies, Inc.
1250 N. Arlington Heights Rd.
Itasca, IL 60143
All Rights Reserved.

Copyright 2000
NEC Corporation
7-1 Shiba 5-Chome, Minato-Ku
Tokyo 108-8001, Japan
All Rights Reserved.

CONTENTS

Chapter 1, Introduction	1
Overview	1
SuperScript 1450 Highlights	1
SuperScript 1450N Extras	1
Printer Options	1
System Requirements	2
Hardware Requirements	2
SuperScript 1450/1450N Features	3
Printer Driver Features	3
Status Monitor	3
Remote Control Panel	4
Energy Saving	4
Chapter 2, Getting Started	5
Overview	5
Safety Instructions	5
Selecting a Location	5
Unpacking	6
Checking Printer Contents	7
Identifying Printer Parts	8
Front View	8
Back View	8
Back Internal View	8
Installing the Toner Cartridge	10
Loading the 550-sheet Cassette	12
Changing Paper Sizes	14
Connecting the Printer Locally	15
Connecting the Printer With USB	16
Printing a Configuration Sheet	17
Chapter 3, Installing the Software	19
Overview	19
Software Contents	19

Installing the Software	19
For Windows 95/98/NT/2000	19
Choosing a Printer Driver	21
For Windows 98 USB Connection	21
For Windows 2000 USB Connection	21
Using Add Printer	21
Selecting a Default Printer	21
Removing Printer Software	21
For the Macintosh	22
Installing the Macintosh Printer Software	22
Chapter 4, The Operator Panel	25
Overview	25
Operator Panel Buttons	25
Operator Panel Lights	26
Operator Panel Light Messages	27
Chapter 5, Using Print Media	29
Overview	29
Choosing Paper	29
Printing to the Output Trays	30
Using the Face-up Output Tray	31
Using Tray 1: The Multipurpose Tray	32
Printing Manually	34
Printing Envelopes	35
Printing Labels	36
Printing on Transparencies	37
Printing on Preprinted Media	38
Printing on Letterhead	38
Printing on Forms	39
Printing on Card Stock	40
Chapter 6, Printer Tasks	41
Overview	41
Basic Windows Document Printing	42
Windows Printer Properties	43

Macintosh Printer Properties	44	PostScript Compatibility Upgrade	67
Canceling a Print Job	45	Replacing the Side Cover	68
Canceling a Job From the Operator Panel	45	Chapter 9, Troubleshooting	69
Canceling a Job from the Printer Window	45	Overview	69
Saving Toner	45	General Printing Problems	69
Manual Duplexing	46	Error Messages	71
N-Up Printing	48	Operator Panel Error Messages	71
Booklet Printing	49	Print Quality Problems	73
First Page Printing	51	Solving Print Quality Problems	73
Scale Printing	51	Paper Jam Problems	77
Poster Printing	52	Tips for Avoiding Paper Jams	77
Printing Watermarks	53	Understanding the Paper Path	78
Using Page Overlays	54	Clearing Paper Jams	78
Creating a New Overlay	54	Paper Jams in the Input Area	79
Using an Overlay	54	Paper Jams in the Engine Area	80
Setting Graphic Properties	56	Paper Jams in the Output Area.	81
Chapter 7, Maintaining Your Printer	57	Paper Jams in Tray 3	82
Overview	57	Common Windows Problems	83
Precautions	57	Common Macintosh Problems	83
Internal Maintenance	57	Common PostScript Problems	85
Replacing the Toner Cartridge	58	Chapter 10, Customer Service	87
Cleaning the Printer	59	Overview	87
Moving the Printer	60	Assistance Nearby	87
Chapter 8, Printer Options	61	Help From Within Your Company	87
Overview	61	Help From Your Dealer	87
Precautions	61	NEC Technical Support	87
Disconnecting the Power Cord	61	How to Contact NEC	87
Discharging Static Electricity	61	Ordering Supplies	88
Installing the		NEC Warranty and Service	89
550-sheet 2nd Cassette (Tray 3)	62	NEC Service Contracts	89
Accessing the		SuperScript 1400 Series Printer Limited Warranty	89
Controller Board	65	Warranty Period	89
Printer Memory Upgrade	66	Warranty Coverage	89
		Warranty Support	90

Obtaining Warranty Service	90
Warranty Limitations	90
Appendix A, Printer Specifications	91
Operating Specifications	91
Media Specifications	93
Guidelines	93
Appendix B, The Remote Control Panel	97
Information Tab	97
Paper Tab	97
Print Quality Tab	98
Configuration Tab	99
PCL Tab	100
Advanced Tab	100
Shifting the Printable Area	100
Appendix C, Safety Information	101
Laser Safety	101
CDRH Regulations	101
Ozone Emission	101
FCC Statement	102
Appendix D, The Status Monitor	103
Index	107

CHAPTER 1

INTRODUCTION

OVERVIEW

The fully-featured NEC SuperScript™ 1450 and 1450N laser printers offer the best value today for dependable monochrome printing. They deliver high resolution results perfect for business presentations and reports. The Multipurpose Tray, 550-sheet Cassette, and optional 550-sheet 2nd Cassette combine to hold 1,200 sheets of paper.

The SuperScript 1450 and 1450N has been designed to support all major personal computer operating systems, including: Windows® 95/98, Windows 2000®, and Windows NT® 4.0. Macintosh System 7.x and 8.x are supported with the optional 10/100Base-TX network interface card (NIC). These networking features allow users or workgroups on a TCP/IP, Novell® Netware®, DLC/LLC, or Apple EtherTalk® network to share the printer.

The following section reviews the features and options that will allow you to take full advantage of your SuperScript 1450 or 1450N's capabilities.

SuperScript 1450 Highlights

- Prints up to 12 pages per minute
- PCL6 printer language—standard
- Prints envelopes, transparencies, or label sheets automatically from the Multipurpose Tray
- Up to 1,200 dpi
- A 66MHz RISC processor
- 4 MB of RAM standard, expandable to 68 MB

SuperScript 1450N Extras

- 16 MB of Ram standard, expandable to 80 MB
- PostScript® and PCL6 printer languages—standard
- Network ready with a NIC already built in

Printer Options

You can add these SuperScript options to increase productivity and performance.

- 550-sheet 2nd Cassette—accommodates several page sizes including legal and 40-envelopes
- PostScript® Compatibility Upgrade Kit—included with the 1450N model
- Network Interface Upgrade Kit (NIC) for the PC—included with the 1450N model
- Network Interface Upgrade Kit (NIC) for the Macintosh—included with the 1450N model
- Industry standard 72-pin DRAM SIMM's

note: The instructions in this guide assume that you are familiar with your computer and/or network configuration, and that your system is configured and operating properly.



The SuperScript 1450/1450N Laser Printer

System Requirements

The SuperScript 1450 and 1450N printers require the following minimum system configurations:

Windows Operating System

- Microsoft Windows 95/98, Windows 2000, or Windows NT 4.0
- 486 or higher CPU
- CD-ROM drive
- 5 MB of free hard disk space
- 8 MB or more of RAM

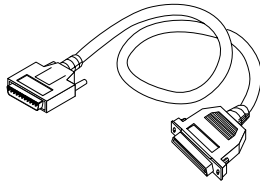
Macintosh Operating System

- MacOS 8.6 or higher
- CD-ROM drive

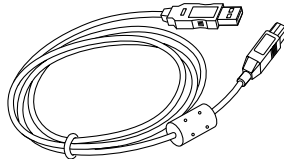
Hardware Requirements

You need to provide one of the following cables in order to connect your computer to this printer.

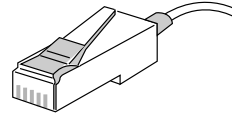
- For a direct connection, an IEEE 1284-compliant parallel cable.



- For a USB connection, a certified USB cable.



- For an Ethernet connection from the SuperScript 1450N printer (or a1450 with the optional NIC), use a Category 5 twisted pair cable with RJ-45 connectors for 10/100Base-TX Ethernet.



note: The SuperScript 1450(N) with a network interface card (NIC) automatically detects whether you have a 10 Mbps or 100 Mbps Ethernet connection. For better performance, NEC recommends that you use shielded cable when connecting to 100 Mbps Ethernet.

SUPERSCRIPT 1450/1450N

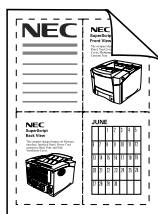
FEATURES

The features of the SuperScript 1450 printer give you several ways to set up and customize your print jobs. These include:

- The SuperScript 1400 Series printer driver
- PCL6 printer driver and the optional SuperScript PostScript driver (standard with 1450N)
- The printer's Remote Control Panel

Printer Driver Features

N-up Printing



This layout mode allows you to print out a reduced version of your document or booklet. It lets you scan multiple pages at a glance and is accessible through the Layout Mode area of the Finishing tab in your Window's driver.

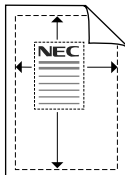
Watermarks



With the watermark feature found in the Window's printer driver you can superimpose a line of text diagonally across your final output. Typical examples of watermarks are the words "Draft" or "Confidential."

Macintosh user's can use this from the Macintosh PCL driver.

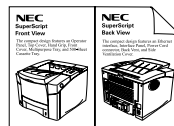
Scale Printing



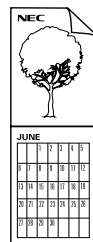
This feature allows you to scale your print job to any supported paper size regardless of the digital document size. This can be useful when you want to check the detail in a small layout.

Manual Duplex Printing

Duplex printing or "duplexing" allows you to manually print on both sides of the paper. You can use manual duplex printing two ways.



Choosing **Long Edge** lets you have the binding orientation along the long edge of the paper as in a magazine.



Choosing **Short Edge** lets you have the binding orientation along the short edge of the paper as in a calendar.

The duplexing feature can be accessed from the printer driver's Properties pages.

Status Monitor

The SuperScript Status Monitor keeps track of the connection between your PC and your printer. Printer status messages, such as "Check Printer Cable or Power" show up on your screen. See page 103 in Appendix D for more information on this useful feature.



Unfortunately, the Status Monitor cannot monitor a printer connected to a network. Nor does it work through Windows NT.

Remote Control Panel

The SuperScript Remote Control Panel or RCP gives you extra control over print jobs. See page 97 for more information on this advanced feature.

Energy Saving



The SuperScript 1450 and SuperScript 1450N printers meet the requirements of the Environmental Protection Agency's ENERGY STAR[®] Computers program for printers. The purpose of this program is to promote the manufacturing and marketing of energy-efficient office automation equipment, thereby potentially reducing combustion-related pollution. (The ENERGY STAR emblem does not represent EPA endorsement of any product or service.) As an ENERGY STAR partner, NEC has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

ENERGY STAR is a U.S. registered mark.

CHAPTER 2

GETTING STARTED

OVERVIEW

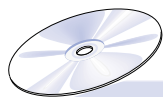
This chapter tells you how to safely set up and begin printing right away with your new SuperScript printer. Included are instructions for

- Unpacking and selecting a location for the printer
- Checking box contents
- Identifying printer parts
- Installing the Toner Cartridge
- Loading the 550-sheet Cassette
- Connecting the printer
- Printing a Configuration Sheet

SAFETY INSTRUCTIONS

To protect yourself and your equipment from possible damage, always follow these precautions.

- Protect the printer from dampness or spills
- Do not block or cover the vent on the left side of the printer.



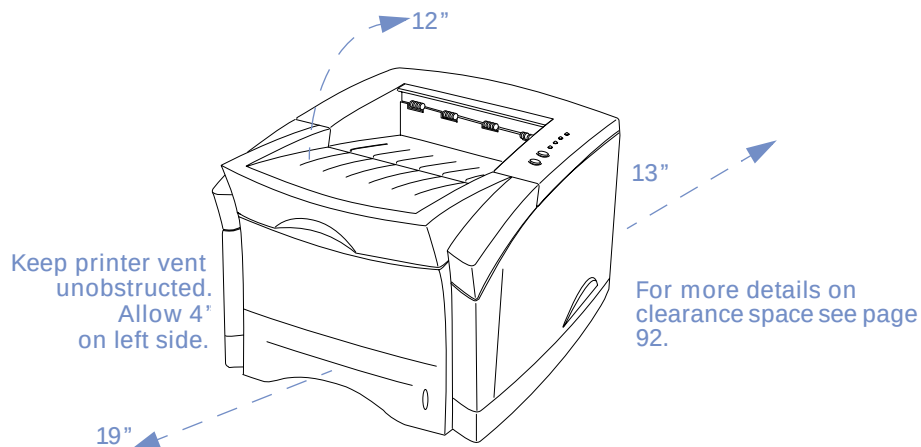
note: To take advantage of the many SuperScript 1450 and 1450N features, install the driver software after the printer is connected. See Chapter 3 for specific installation instructions for your operating system.

- Follow all set up, maintenance, and cleaning directions carefully.
- Do not attempt to repair the printer by tinkering with it yourself.
- Read the installation instructions carefully before you plug in your printer, and follow all warnings.
- After initial setup, keep this User's Guide and the *NEC SuperScript Solutions CD* handy for future referencing.
- The fuser area, under the Top and Back Covers is very hot. Let the printer cool before touching these areas.

WARNING! This printer is intended to be electrically grounded. It comes with a three-wire grounding plug. This plug will only fit a grounded AC outlet or power strip. This is a safety feature. Do not defeat the purpose of the grounding plug by removing the third pin.

SELECTING A LOCATION

Select a level, stable place with adequate space for air circulation. Allow extra space for opening covers and trays. The area should be well-ventilated and away from direct sunlight or sources of heat, cold, and humidity. See the image below for clearance space. Do not set the printer close to the edge of your desk or table!



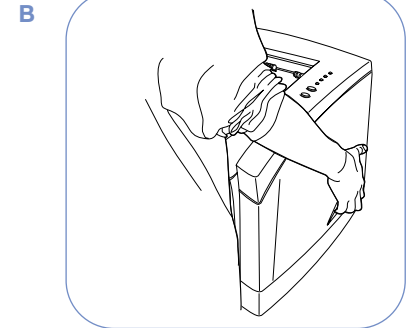
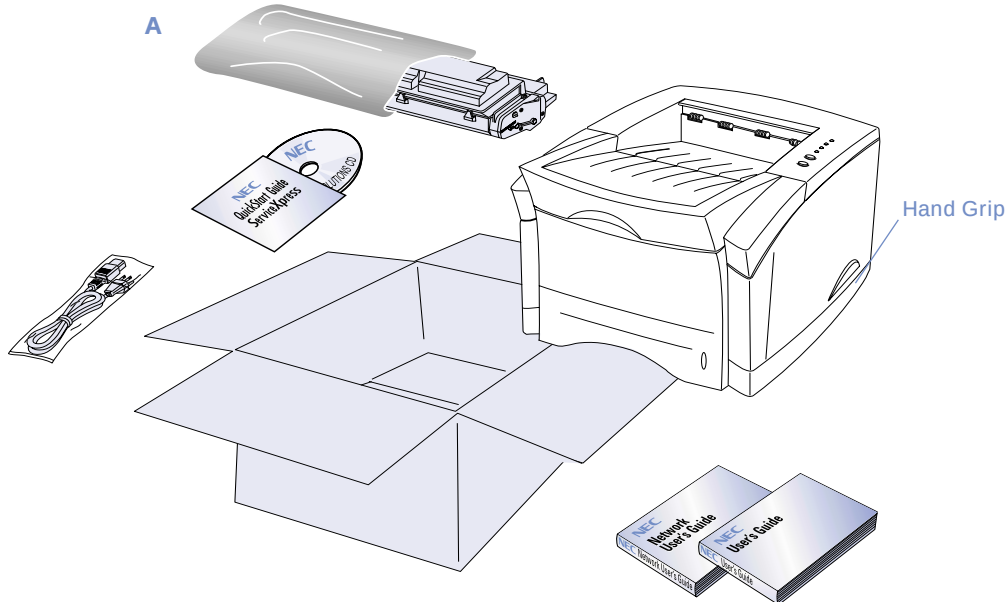
UNPACKING

Follow these steps to safely unpack the printer.

1. Open the top cover of the packing box and remove the QuickStart Guide (the SuperScript Solutions CD and ServiceXpress information are included), Toner Cartridge, User's Guide (s), and Power Cord (A).
2. Carefully lift the printer out of the box (B). Use the hand grips on both sides of the printer.
3. Make sure all items are included in the box (see the list on the next page).
4. Remove any packing tape from the printer.
5. Pull out the 550-sheet Tray from the printer and remove the packing tape (C).

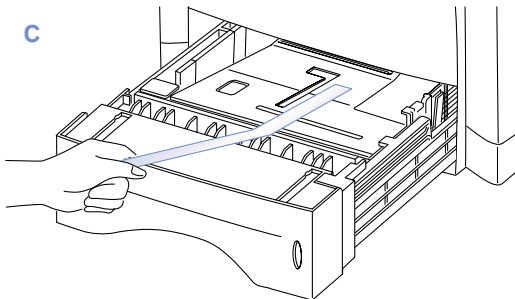
Save the printer box and all packing materials that came with your printer in case you need to ship it later.

Unpacking the Printer



The front of the printer should be facing you when you lift it!

This printer weighs about 24 lbs.



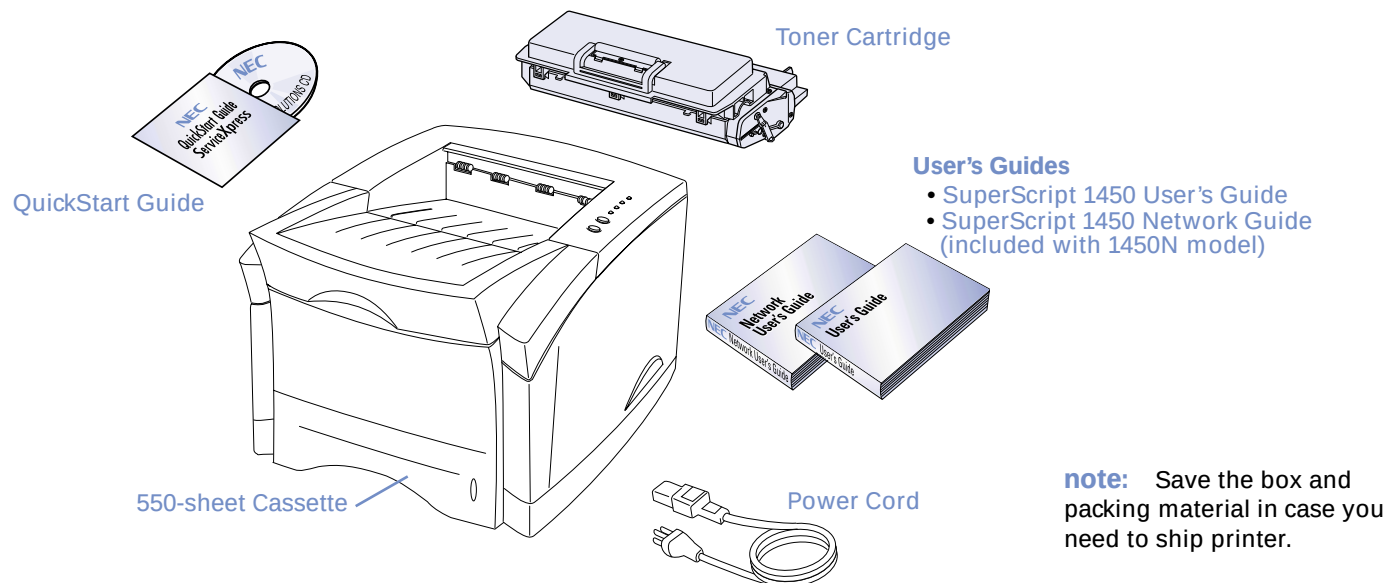
note: Do not discard the box and packing material in case you need to ship it later.

CHECKING PRINTER CONTENTS

Take a moment to verify that the following items were included in your printer box.

- SuperScript 1450 or 1450N Printer
- 550-sheet Cassette (already installed in printer)
- QuickStart Guide (includes the *SuperScript 1400 Series Solutions CD* and ServiceXpress information)
- Power Cord
- Toner Cartridge

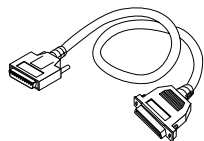
If any items are missing or damaged, immediately contact the store where you purchased the printer.



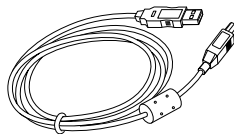
note: Save the box and packing material in case you need to ship printer.

Not Included ...

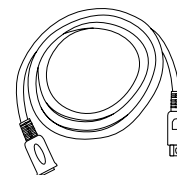
To connect your printer, you need to provide the proper cable.



For local connection:
IEEE 1284-compliant
bidirectional parallel cable



For USB connection:
Certified USB cable



For Ethernet network connection:
Category 5 twisted pair cable
with RJ-45 connectors

IDENTIFYING PRINTER PARTS

Use the illustrations on the facing page to identify printer parts for the SuperScript 1450 or 1450N.

Front View

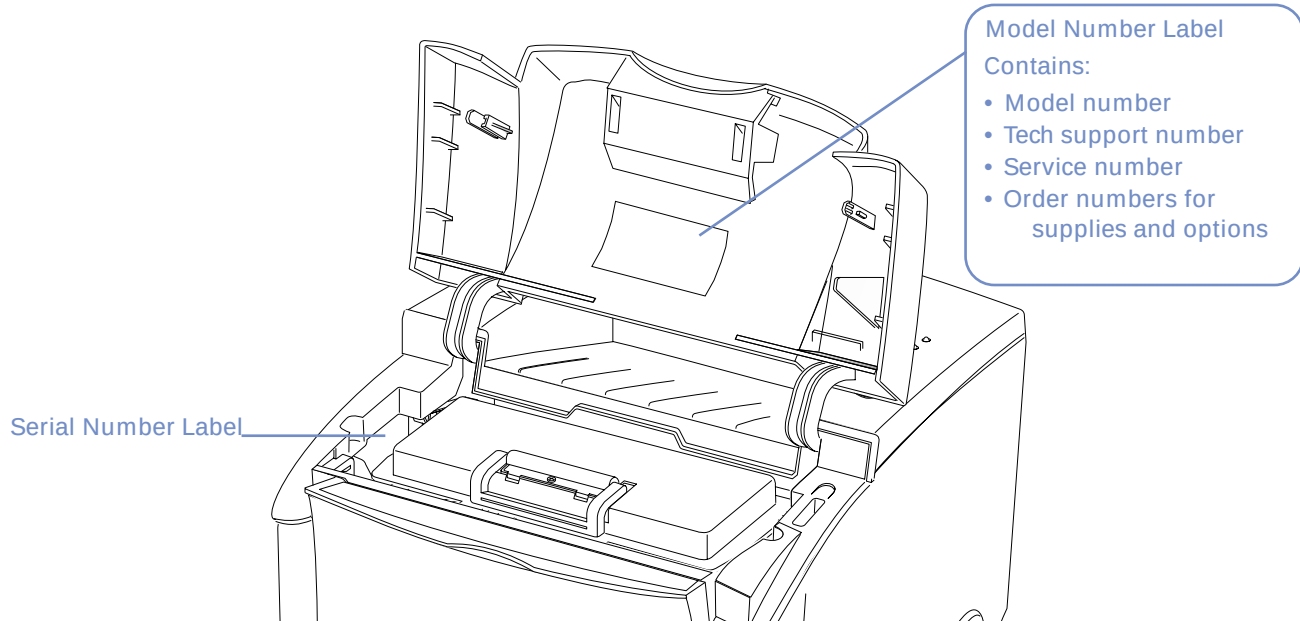
- **Top Cover**—provides access to the Toner Cartridge (also serves as the Main Output Tray).
- **Main Output Tray**—holds up to 250 printed sheets.
- **Operator Panel**—has two control buttons and four indicator lights (LEDs).
- **Hand Grips**—used for lifting the printer.
- **Paper Level Indicator**—a see through window showing paper supply.
- **550-sheet Cassette**—standard input tray. **Referred to as Tray 2 in the printer software.**
- **Multipurpose Tray**—drops open to hold various amounts of paper, envelopes, labels, or transparencies. **Referred to as Tray 1 or Tray 1 (Manual) in the printer software.**

Back View

- **Interface Panel**—contains the Controller Board ports and any added options such as a network interface card (NIC).
- **Back Cover**—acts as the Face-up Output Tray when opened out.
- **Power Cord Connector**—for attaching the Power Cord.
- **Power Switch**—for turning the printer ON and OFF.
- **Vent**—allows ventilation.

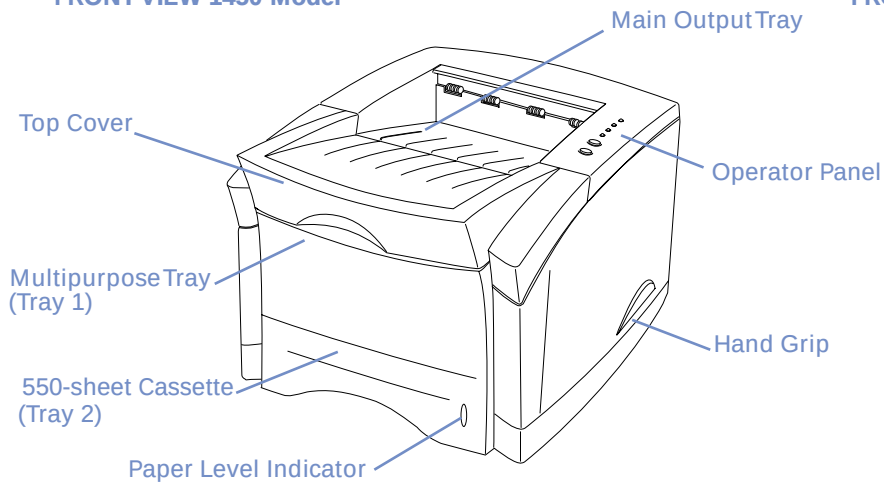
Back Internal View

- **Fuser Unit**—uses heat and pressure to adhere the image to the paper.
- **Face-up Output Tray**—receives heavier printed media.
- **Back Feed Roller**—feeds media to the Face-up Output Tray. Swings out to help clear paper jams.

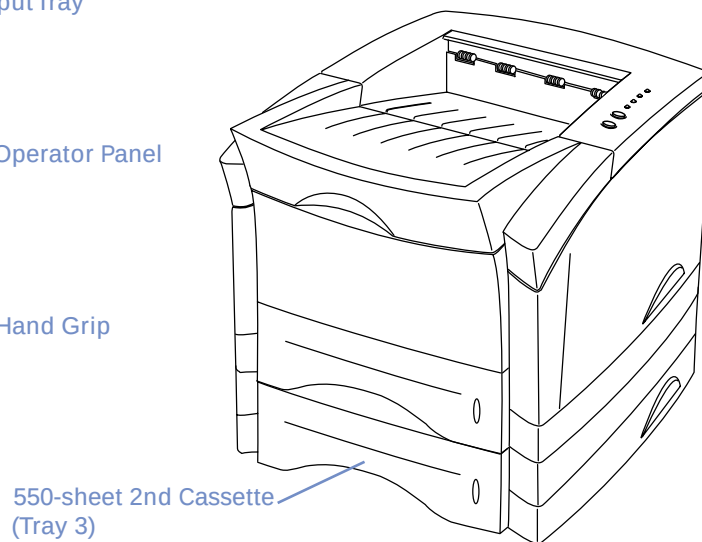


Important Printer Parts

FRONT VIEW 1450 Model



FRONT VIEW with the Optional 550-sheet 2nd Cassette



BACK VIEW

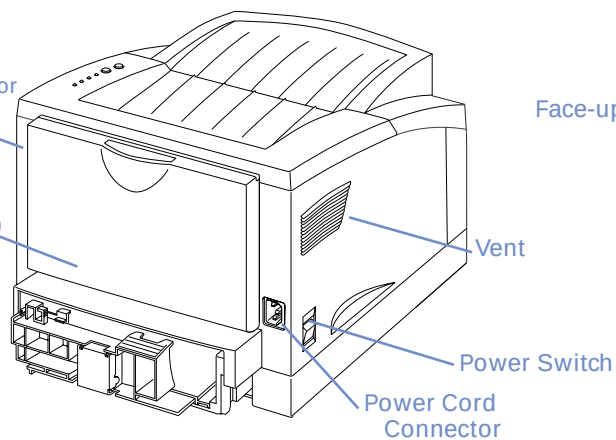
Interface Panel

Contains:

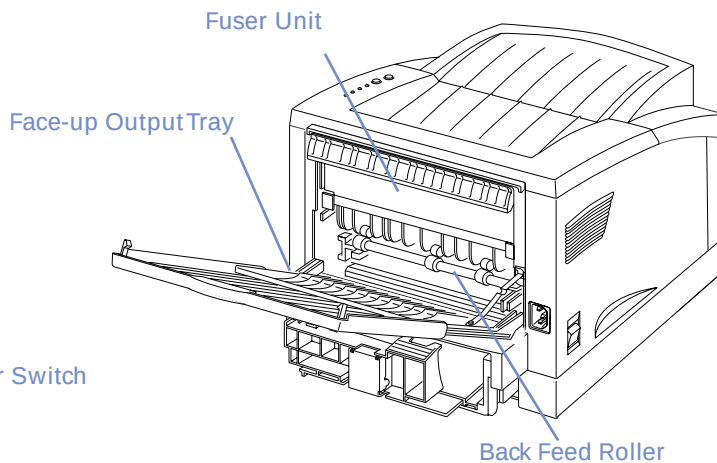
- Parallel port
- USB port
- NIC port

with 1450N model or
with NIC option

Back Cover
(Face-up Output Tray)



BACK INTERNAL VIEW

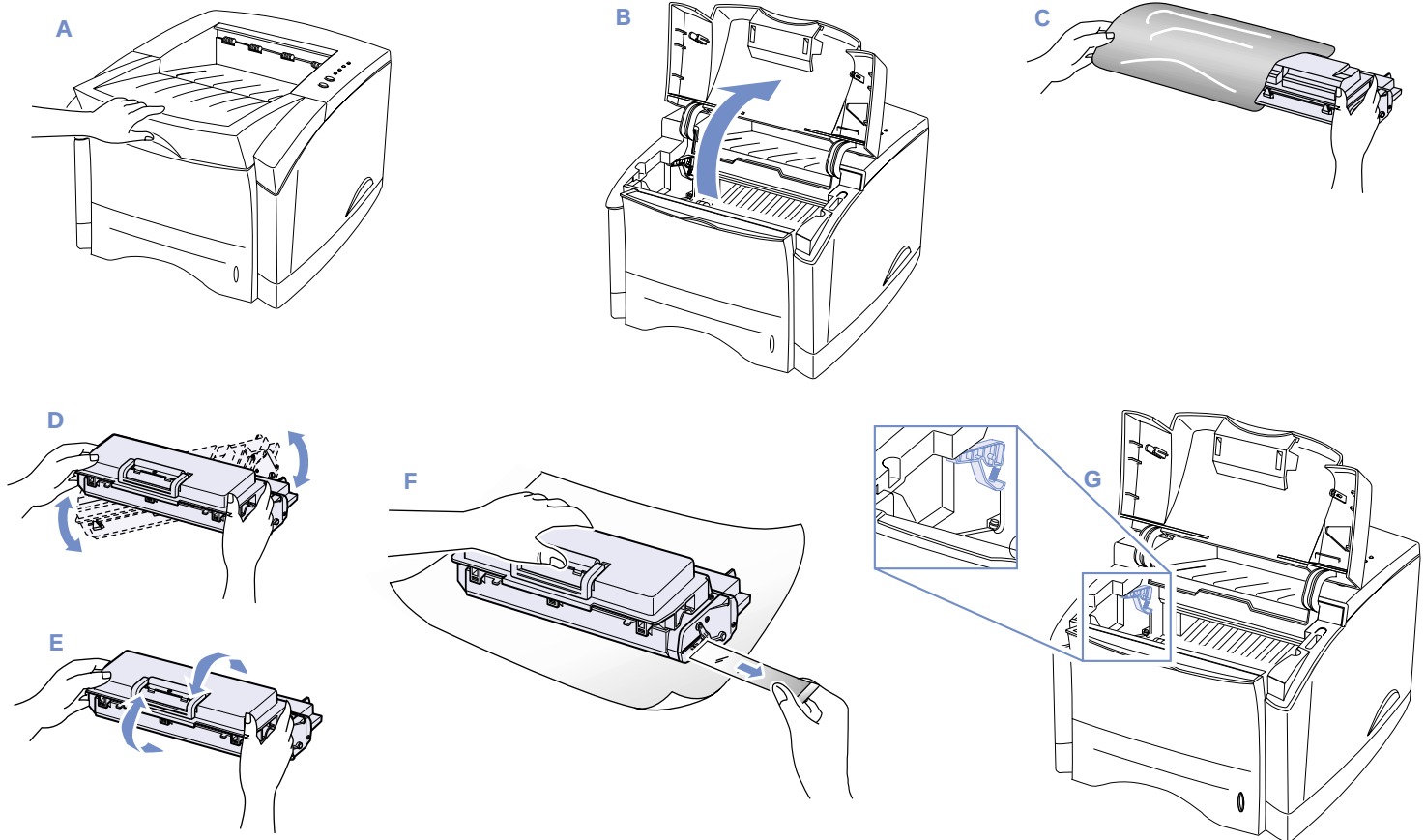


INSTALLING THE TONER CARTRIDGE

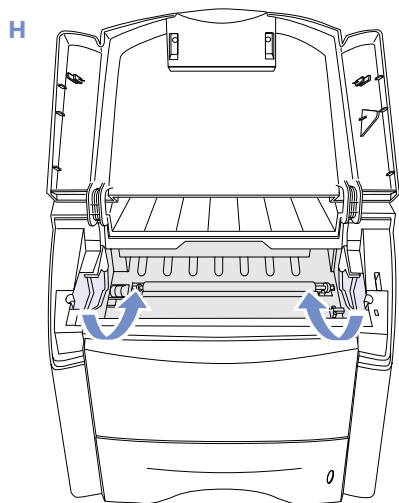
1. Lift the Top Cover (A, B).
2. Remove the Toner Cartridge from its bag (C). Do not open the shutter or touch the shiny green material on the OPC unit located on the underside of the Toner Cartridge.

Caution! To prevent damage from light, keep the Toner Cartridge covered until you are ready to install it.

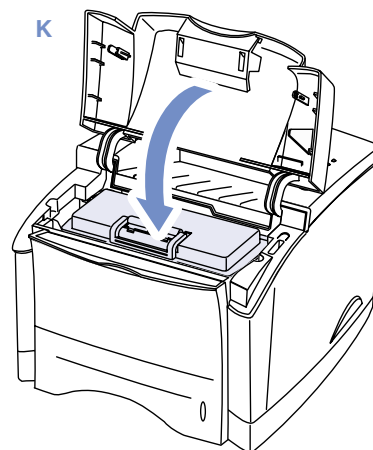
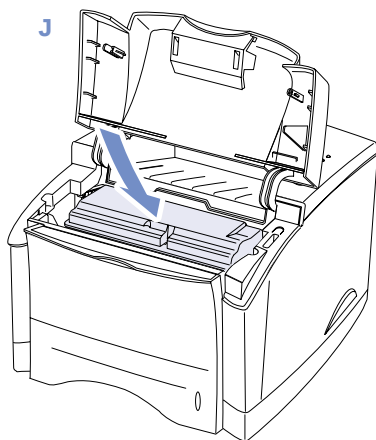
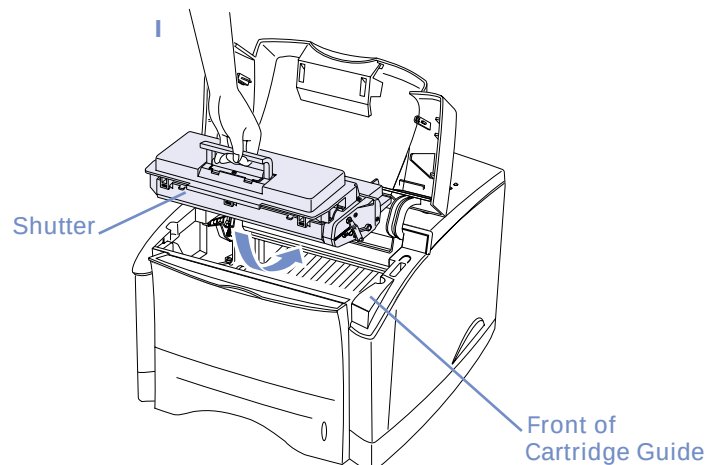
3. Hold the cartridge horizontally and shake as shown about 10 times (D).
4. Rock the Toner Cartridge forward and back several times (E) loosening and distributing any toner that may have settled during storage.
5. With the Toner Cartridge on a sturdy surface, pull the end of the sealing tape straight out (F).
6. Locate the cartridge slots on the inside of the printer (G).



7. Notice that the slots on both sides are curved (**H**).
note: During installation the shutter that covers the green shiny material inside the Toner Cartridge will flip up on the front of the Cartridge Guide exposing the green shiny material to the inside of the printer.



8. Grasp the handle and **gently** guide the Toner Cartridge into the printer (**I**).
9. The Toner Cartridge will click into place (**J**).
10. Close the Top Cover (**K**).

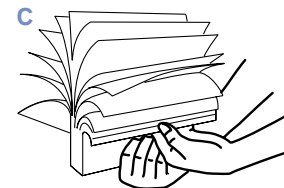
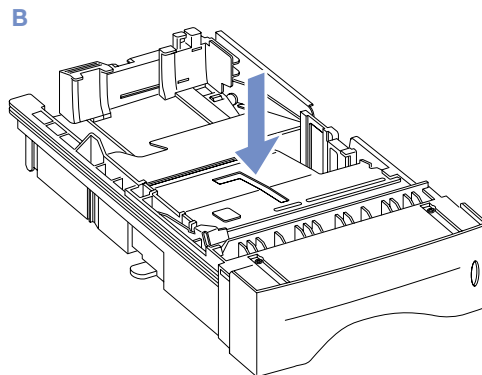
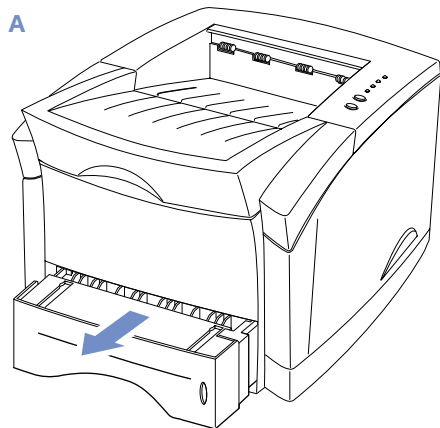


LOADING THE 550-SHEET CASSETTE

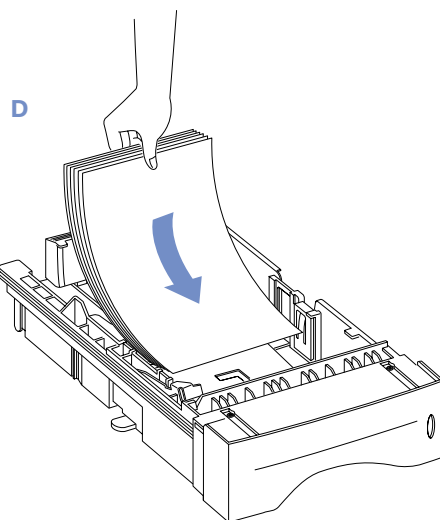
The 550-sheet Cassette (Tray 2) can hold up to 550 sheets of medium weight paper—letter (U.S.), legal, folio, or A4. See page 95 for a list of media that can be used.

1. Pull the 550-sheet Cassette tray out of the printer (A).
2. Push down the metal plate in the bottom of the tray until it clicks (B).
3. Fan the paper (C).

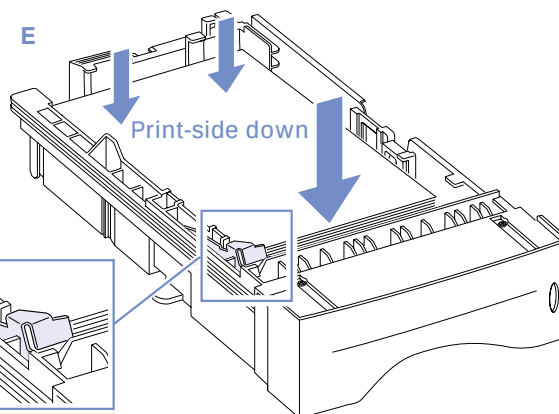
4. Load paper print-side down (D). If tray needs adjusting to fit your paper stack, see page 14.
5. Make sure the paper stack is flat and that it fits under the metal corner tab (E).



note: The 550-sheet Cassette will be referred to as Tray 2 in the printer driver and Operator Panel.

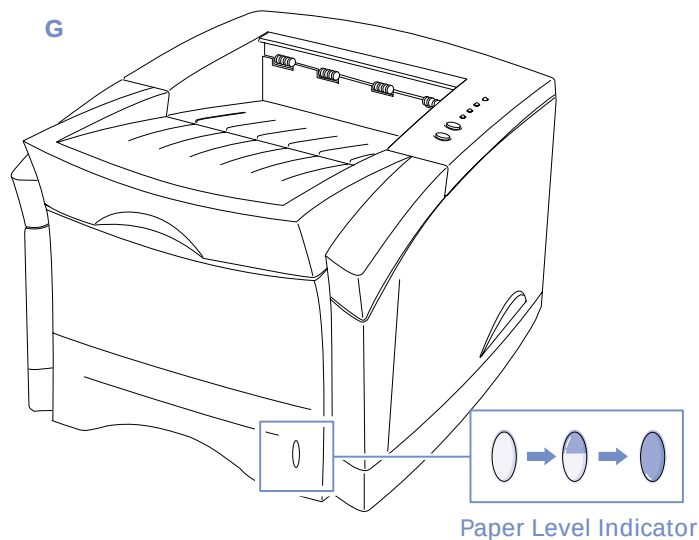
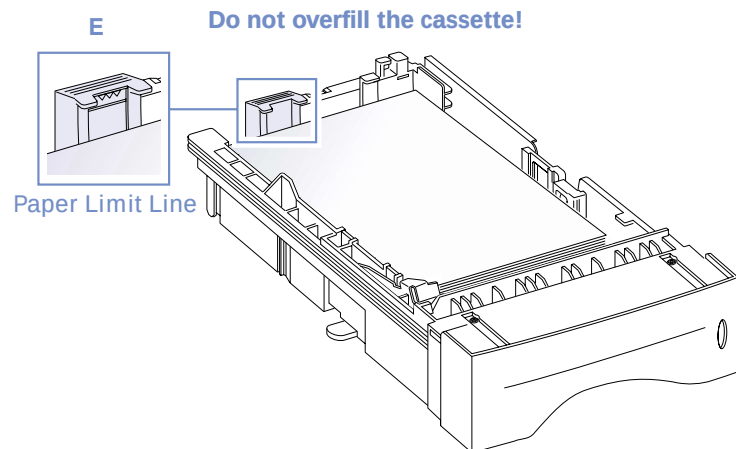


Do not overfill the cassette!

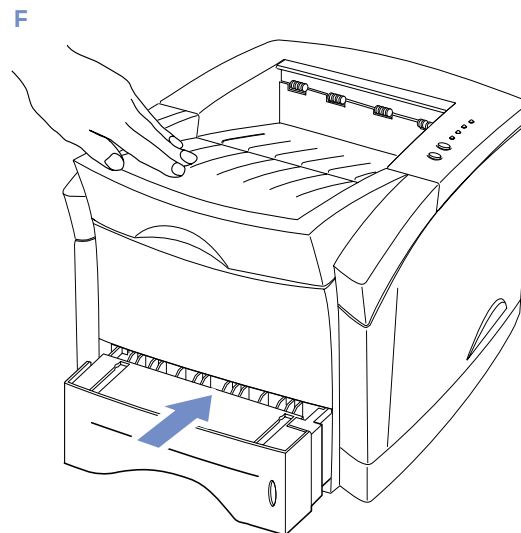


Metal Corner Tab

6. You can fill the tray to the Paper Limit Line on the Back Paper Guide of the tray (E).
7. Steady the printer with one hand and slide the tray back into the printer (F). Directions for adjusting the paper tray size are in the following section, “Changing Paper Sizes.”



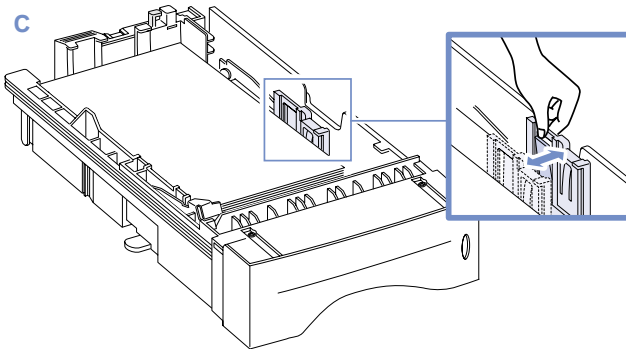
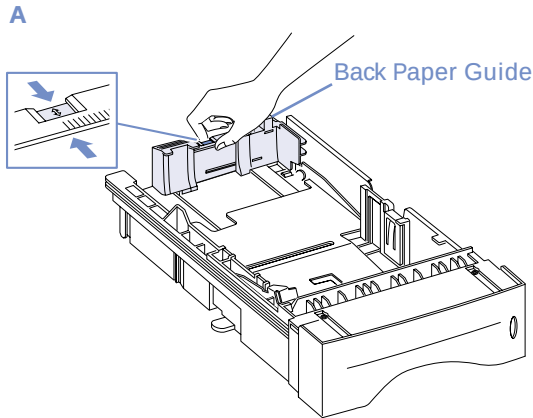
8. The Paper Level Indicator will show how much paper is in the tray (G).



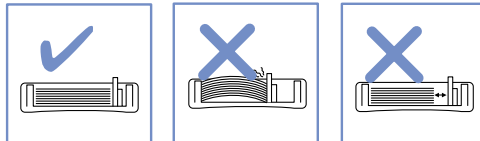
WARNING! When inserting the tray, do not steady the printer by putting one hand at the back of the printer. Steady the printer with one hand on top of the printer instead.

CHANGING PAPER SIZES

1. To adjust for different paper lengths pinch the metal tab on the Back Paper Guide (A).
2. Slide the Back Paper Guide so that the pointer matches the desired size indicated on the bottom of the tray (B).
3. After loading the media print-side down, pinch the Side Guide and slide it until it lightly touches the media (C).

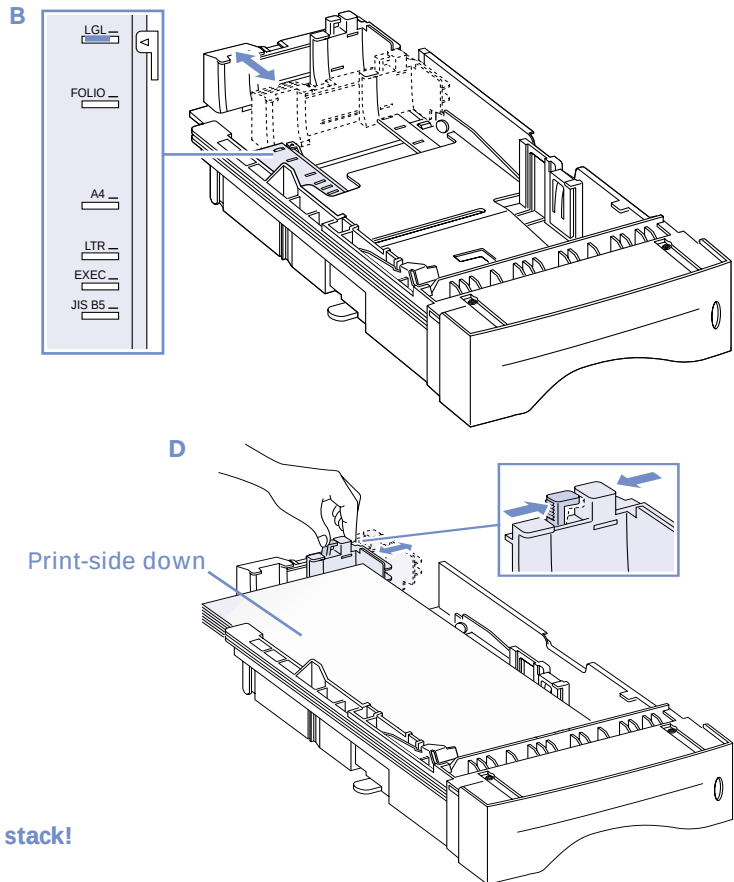


Do not move the Side Guide too far into or away from the paper stack!



4. If necessary, pinch and adjust the Back Corner Guide as shown (D).
5. When you first change paper sizes from Letter, a mismatched paper error warning may show on the Operator Panel. Press the **Go/Continue** button to continue printing.

note: You cannot use Tray 2 to print envelopes.



note: The 550-sheet Cassette will be referred to as Tray 2 in the printer software.

CONNECTING THE PRINTER LOCALLY

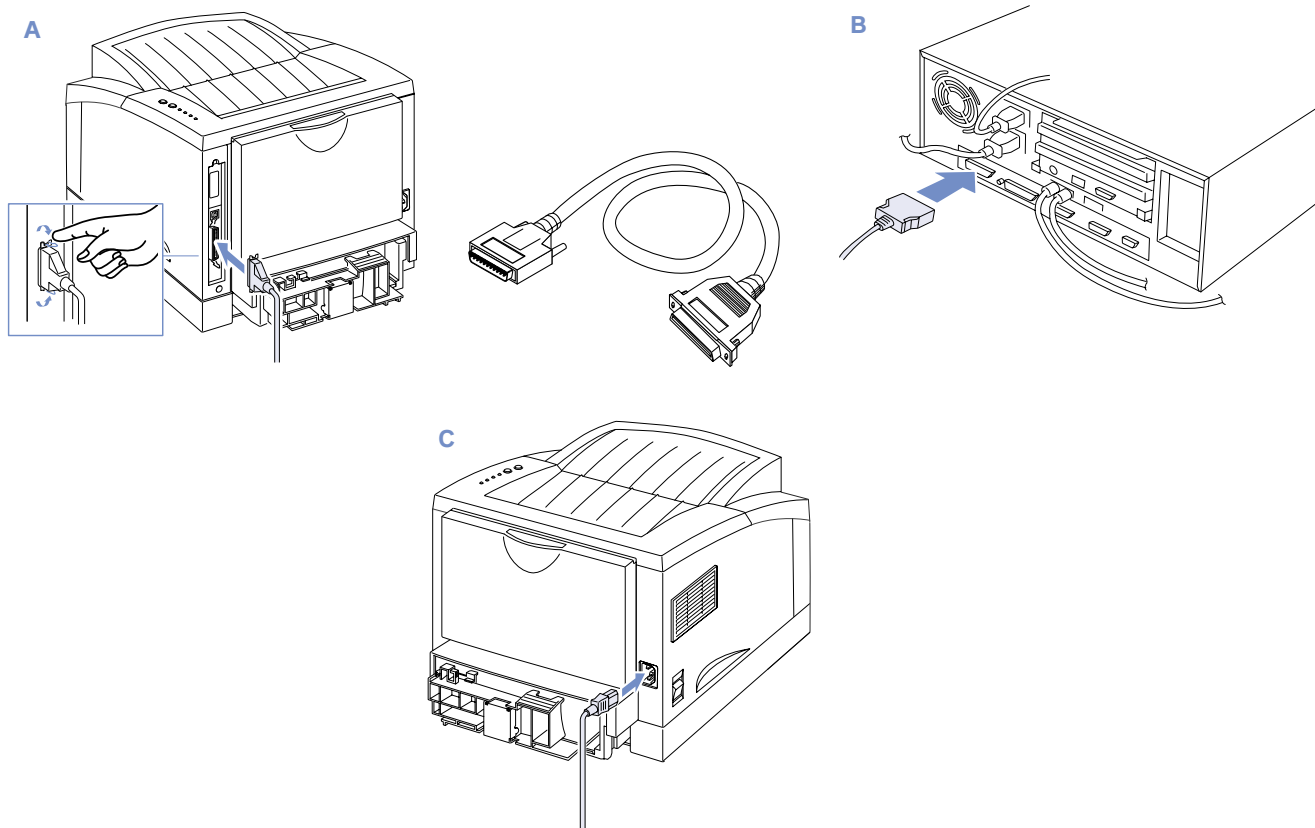
To connect the SuperScript 1450 printer locally with a parallel connection, we recommend using an IEEE 1284-compliant bidirectional parallel cable. To connect and configure the printer to a network, see the *SuperScript 1450 Network Guide*.

1. Make sure the printer and the computer are turned OFF and disconnected from the power.
2. Plug the appropriate end of the parallel cable into the connector on the back of the printer. Fasten the clips at the end of the connector into the notches on the plug (A).
3. Plug the other end of the cable into the appropriate

parallel connector on your computer (B).

4. Connect the Power Cord to the back of the printer. Plug the other end of the Power Cord into a properly grounded outlet (C).

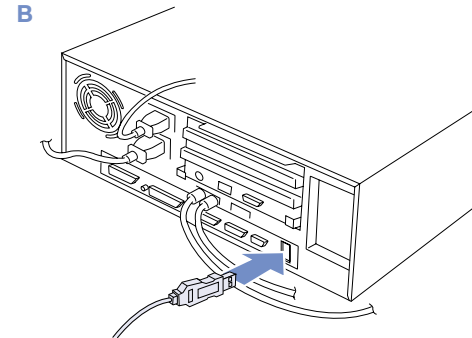
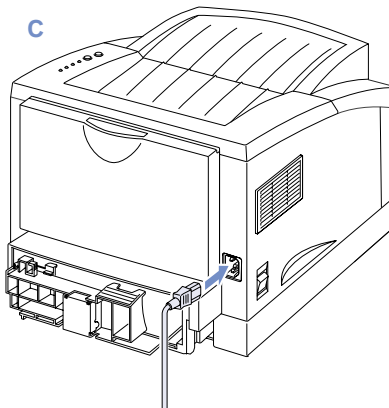
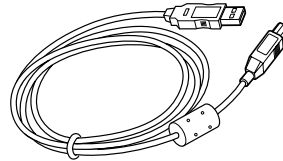
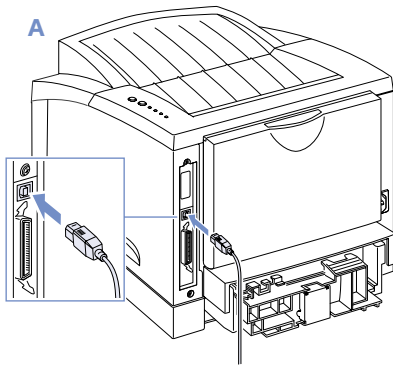
note: Do not turn on your computer until you have successfully printed out a Configuration Sheet **from the printer alone**, see page 17.



CONNECTING THE PRINTER WITH USB

If you have a USB (Universal Serial Bus) port enabled on your computer, and if your computer is running Windows 98 or Windows 2000, you can connect your 1450 or 1450N printer to the USB chain of devices.

1. Make sure the printer and the computer are turned OFF.
2. Plug the appropriate end of the USB cable into the socket on the back of the printer. (A).
3. Plug the other end of the cable into the USB connector on your computer (B).
4. Connect the Power Cord to the back of the printer. Plug the other end of the Power Cord into a properly grounded outlet (C).



note: Do not turn on your computer until you have successfully printed out a Configuration Sheet **from the printer alone**. Follow the directions on page 17.

5. For Windows 98 you must load the USB driver from the *SuperScript 1400 Series Solutions CD* when prompted by Windows Plug 'N Play. The driver is located at **x:\USB\Windows98\NEC USB Printer Port** where **x** is the letter of your CD-ROM drive. You do not have to do this for Windows 2000.

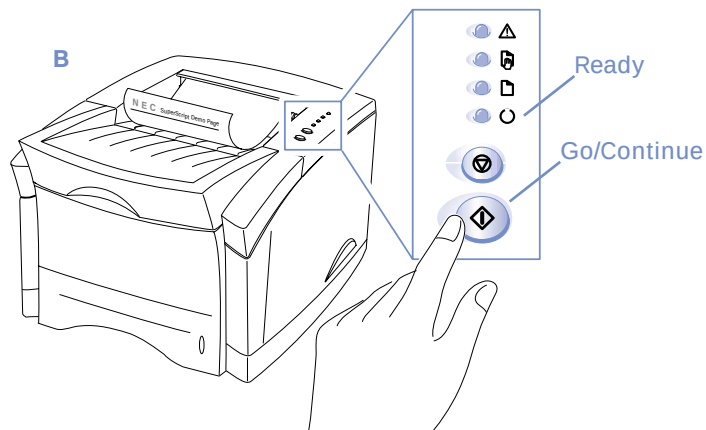
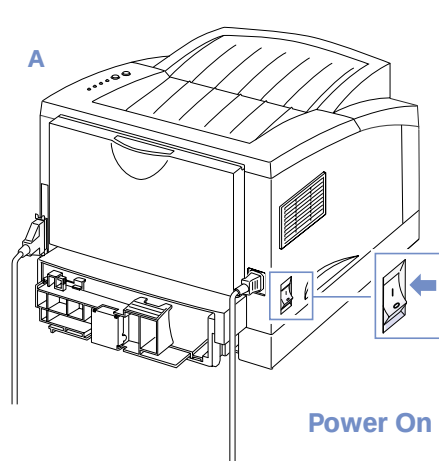
note: Before you can print a regular print job, you must load the appropriate SuperScript driver on your computer. Then go to **Properties** and select **NEC USB Port Monitor** instead of **LPT 1** in the **Details** tab.

note: If you are connecting to a **Macintosh** computer, see page 22.

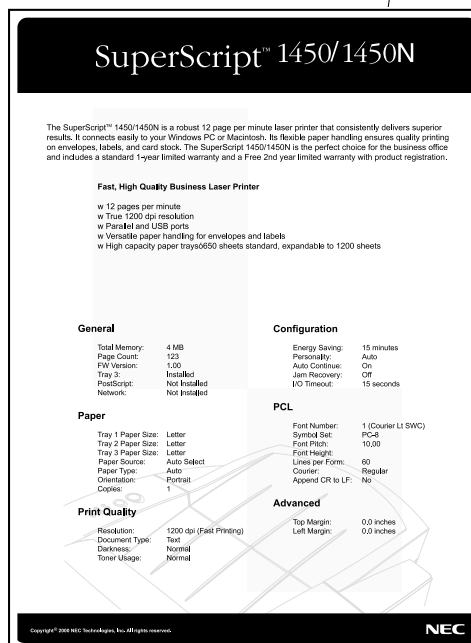
PRINTING A CONFIGURATION SHEET

You are now ready to print out a SuperScript 1450(N) Configuration Sheet. This sheet confirms that your printer is working properly and also contains information about your printer's settings.

1. With your computer turned OFF, turn the printer power ON (A). All the Operator Panel lights will come on.
2. When only the Ready light remains on, press and hold the **Go/Continue** button for 4 seconds (B). When you release the button, the Configuration Sheet will print in about 20 seconds (C).



C



Print a Configuration Sheet

SuperScript™ 1450/1450N

The SuperScript™ 1450/1450N is a robust 12 page per minute laser printer that consistently delivers superior results. It connects easily to your Windows PC or Macintosh. Its flexible paper handling ensures quality printing on envelopes, labels, and card stock. The SuperScript 1450/1450N is the perfect choice for the business office and includes a standard 1-year limited warranty and a Free 2nd year limited warranty with product registration.

Fast, High Quality Business Laser Printer

- w 12 pages per minute
- w True 1200 dpi resolution
- w Parallel and USB ports
- w Versatile paper handling for envelopes and labels
- w High capacity paper trays 650 sheets standard, expandable to 1200 sheets

General		Configuration	
Total Memory:	4 MB	Energy Saving:	15 minutes
Page Count:	123	Personality:	Auto
FW Version:	1.00	Auto Continue:	On
Tray 3:	Installed	Jam Recovery:	Off
PostScript:	Not Installed	I/O Timeout:	15 seconds
Network:	Not Installed		

Paper		PCL	
Tray 1 Paper Size:	Letter	Font Number:	1 (Courier Lt SWC)
Tray 2 Paper Size:	Letter	Symbol Set:	PC-8
Tray 3 Paper Size:	Letter	Font Pitch:	10/10
Paper Source:	Auto Select	Font Height:	60
Paper Type:	Auto	Lines per Form:	Regular
Orientation:	Portrait	Append CR to LF:	No
Copies:	1		

Print Quality		Advanced	
Resolution:	1200 dpi (Fast Printing)	Top Margin:	0.0 inches
Document Type:	Text	Left Margin:	0.0 inches
Darkness:	Normal		
Toner Usage:	Normal		

Copyright © 1998 NEC Technologies, Inc. All rights reserved. **NEC**

CHAPTER 3

INSTALLING THE SOFTWARE

OVERVIEW

Installing printer software from the *SuperScript 1400 Series Solutions CD* is quick and easy. Basically you just need to insert the CD into your CD-ROM drive and follow the prompts on your screen. You can even view Quick Reference Video clips with just a click of a button. Make sure all applications are closed on your PC before installation then choose between Easy Local, Easy Network, or Custom installations.

SOFTWARE CONTENTS

The *SuperScript 1400 Series Solutions CD* contains the following software:

- Quick Reference Video
- PCL6 printer driver
- PostScript® Printer Driver*
- SuperScript 1450 Status Monitor (not available for Windows NT)
- Remote Control Panel (for advanced, PCL, and DOS users)
- USB Printer Port
- Digital “online” versions of the *SuperScript 1450 User’s Guide* and the *SuperScript 1450 Network Guide*
- NEC Printer Manager
- NEC Network Printer Port
- Adobe Acrobat Reader 4

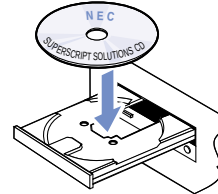
*If you have the SuperScript 1450 model and want to use the PostScript printer driver, you must order the NEC PostScript Compatibility Upgrade Kit (Order No. 1402). See page 67 of Chapter 8, “Printer Options,” for more information.

INSTALLING THE SOFTWARE

For Windows 95/98/NT/2000

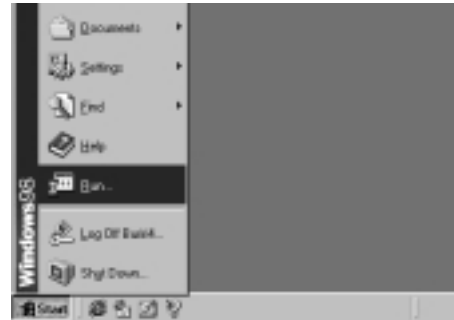
These directions demonstrate how to install the SuperScript software files on your Windows drive.

1. Place the *SuperScript 1400 Series Solutions CD* in your computer.



note: If the Windows **New Hardware Found** dialog box appears during installation, clicking **Cancel** is the preferred action.*

2. If the installer does not launch automatically, select **Run** from the **Start** menu and type **x:\Start.exe** in the **Open** dialog box (where x is your CD ROM drive number). Then click **OK**.



*If using Plug 'N Play, the installation files are located at **x:\SuperScript 1450(N)\Your operating system\PlugNPlay** (where x is the letter of your CD-ROM drive).

3. The NEC License Agreement will appear. Choose **I Accept** to proceed.
4. When the home page screen appears choose your printer model, for example **SuperScript 1450N**.
5. From there you will be asked whether you want to install from the CD or from the Web server. The advantage of installing from the Web is that you will be installing the very latest printer drivers from NEC. The disadvantage is that the install may be interrupted or slowed down by your Internet provider.
6. When options are given on the next screen, you may want to view the reference videos. Select **Reference** and then **Help Videos**.

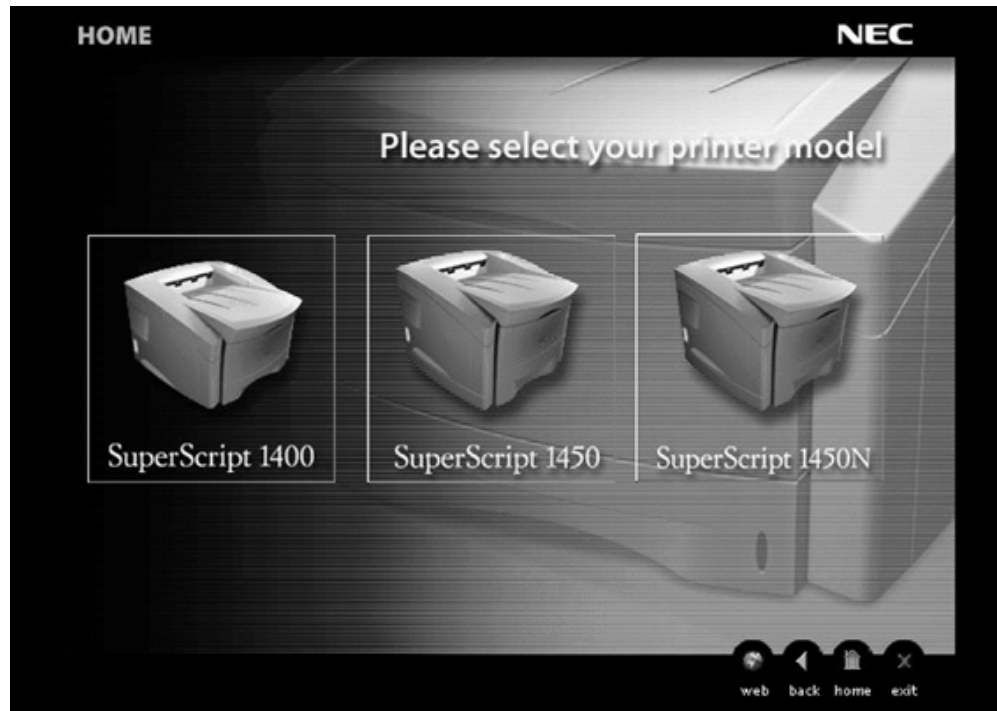
note: To navigate back to the main menu from the Reference screen, select the **back** button and then the **main** button.

7. Choose to install either from the CD or from the Web. Select **Install**.
8. Next you will be asked to choose between the following install options:

Easy Local Install: Use this if you have a parallel connection between your PC and the printer. Printer drivers and online user's guides will be automatically loaded on your PC.

Easy Network Install: Use this if you are going to be printing from your PC to a networked SuperScript printer. You will choose your network printer ports. NEC Network Printer port files will automatically load with this setup.

Custom Install: Use this if you want to choose individual items such as, Network Printer Manager (tools for network administrators), the Remote Control Panel, PostScript (PS) printer driver, or Acrobat Reader 4.



Choosing a Printer Driver

Software for computers running Windows 95, 98, NT, or 2000 is in the form of three printer drivers: the SuperScript printer driver, the PCL6, and the PostScript printer driver. All three can be installed from the *SuperScript 1400 Series Solutions CD*.

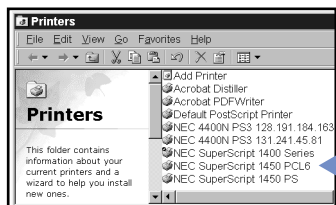
When you select **Easy Local Install** or **Easy Network Install**, the PCL6 driver is automatically installed on your system. For the 1450N model, the NEC PostScript driver is also automatically installed. If you want to install these drivers separately, choose **Custom Install**

note: To use the NEC PostScript printer driver a PostScript SIMM must be installed. Use the NEC PostScript Compatibility Upgrade Kit (Order No. 1402). See page 67 for more information.

If you have the 1450N model printer, the PostScript SIMM is already installed.

NEC recommends using the default Windows driver because of its speed. You can also use the PCL6 driver. If you have the 1450N model printer or, have installed the PostScript Compatibility Upgrade Kit in your 1450 printer, you can use the PostScript driver. Some documents, especially longer ones may print easier with the PostScript driver. The PostScript driver is part of the Easy Local Install and Easy Network Install for the 1450N model. Or you can install it separately through the Custom Install option on the *SuperScript 1400 Series Solutions CD*.

You can load more than one driver on your computer. Each driver will produce a separate icon in your Printers Folder.



For Windows 98 USB Connection

Windows 98 supports USB printing, but you must load the driver from the *SuperScript 1400 Series Solutions CD* when prompted by Windows Plug 'N Play. The USB driver is

located at **x:\USB\Windows98\NEC USB Printer Port** where **x** is the letter of your CD-ROM drive. You will also need to go to the driver **Properties** and select **NEC USB Port Monitor** instead of LPT 1 in the **Details** tab.

For Windows 2000 USB Connection

Windows 2000 has USB support already included in the operating system.

Using Add Printer

To install the printer drivers through Add Printer follow these steps:

(Press shift key, if needed, to disable auto run when inserting CD)

1. From **Start**, select **Settings**, then **Printers**.
2. In the **Printers** folder double-click **Add Printer**.
3. Follow the **Add Printer Wizard**. When you are asked to select the manufacturer and model of your printer, click **Have Disk**.
4. In the **Install From Disk** dialog box, navigate to the Plug 'N Play folder using the following path:
D:\SuperScript 1450 (or 1450N)\Windows 9x (or other operating system)\1400 Series Printer Driver (or other driver)\PlugNPlay
5. Open the **PlugNPlay** folder, then click **OK**. Click **OK** again.
6. Then click **Finish** and continue following the instructions on the screen.

Selecting a Default Printer

To select the SuperScript 1450/N as your default printer:

1. From the Windows **Start** button, select **Settings**, then **Printers**.
2. Highlight and right-click the printer driver icon you want.
3. From the drop-down menu, select **Set as Default**, and a small check mark will appear by the selected printer icon.

Removing Printer Software

Use the following method for removing the SuperScript software from computers running Windows 95, 98, or 2000.

To remove a printer driver:

1. Click the Windows **Start** button and select **Programs**.
2. Select **NEC SuperScript 1400**.
3. Select **Uninstall NEC SuperScript 1400 Series Driver** to start the uninstall process.

For the Macintosh

This section describes the hardware and software requirements for Macintosh computers, and how to install the printer software.

Software Requirements

For Macintosh computers to connect to the printer, they must meet three software requirements:

- The operating system must be Mac OS 8.6 or higher.
- The standard Macintosh *LaserWriter* printer driver must be installed.
- The NEC SuperScript 1450 PPD must be installed.

Hardware Requirements

The hardware required by your Macintosh is based on how you plan on connecting it to the printer. You can connect the 1450(N) directly by using a USB connection, or you can network it by using an Ethernet connection.

- To directly connect to the printer using USB, your Macintosh must have a USB port. A USB cable is then used for connecting the port directly to the printer. The cable is not supplied with the printer, but is available at your local computer hardware store.
- To connect through an Ethernet network, your SuperScript 1450 must have been upgraded with the SuperScript Network Upgrade Kit for Macintosh. (The kit contains a NIC and a PostScript SIMM.) Then use the appropriate cable to connect the NIC to your network.

Options for the Macintosh

To receive print jobs from a Macintosh computer, the printer must be upgraded so that it can process the PostScript printer language, and also be upgraded to use either a LocalTalk or an Ethernet connection.

For detailed information about the following upgrades, see Chapter 8, “Printer Options.” For ordering information, see page 88.

POSTSCRIPT COMPATIBILITY UPGRADE KIT (ORDER NO. 1402)

To send PostScript files to the SuperScript 1450 the printer *must* be upgraded with the PostScript Level 3 SIMM included in this kit.

The 1450N model printer already has the PostScript SIMM installed.

NETWORK INTERFACE UPGRADE KIT FOR MACINTOSH (ORDER NO. 1404)

If you plan on connecting your Macintosh to the printer through a network and you do not have a USB, the *Network Interface Upgrade Kit for Macintosh* must be installed in your printer. The kit includes a NIC and a PostScript SIMM.

The 1450N model printer already has the NIC and PostScript SIMM installed.

Installing the Macintosh Printer Software

There are three sets of directions for installing the printer software for the Macintosh: installing over USB, installing over USB with PostScript, and installing over Ethernet.

Installing the SuperScript Printer Software

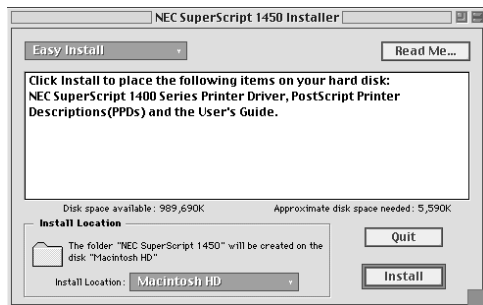
OVER USB

Follow these directions for installing Macintosh printer software over USB:

1. Insert the *SuperScript 1400 Series Solutions CD* into your Macintosh.
2. Double-click the **SuperScript 1450 Installer** icon to begin installing the software. Follow the instructions presented on the screen.

note: Double-click on the **Videos** folder to see tutorials on setting up the printer.

3. Double-click on the **1450** or **1450N** installer icon.
4. The **Start Up Screen** and **NEC License Agreement** will appear. Select **Accept** to continue.
5. From the **Installer** dialog box, choose **Easy Install** to install the SuperScript printer driver, the PostScript PPDs, and the online User's Guide. Choose **Custom Install** to install items separately. Choose your install location and click the **Install** button.



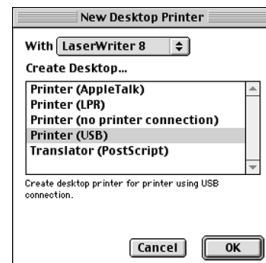
6. From the **Apple** menu, select **Chooser**.
7. Select the **NEC 1400 Series** icon from the left pane of the Chooser window.
8. **SuperScript 1450** will appear in right pane.
9. Close the **Chooser** window.
10. A **SuperScript 1450** icon will be placed on your desktop.



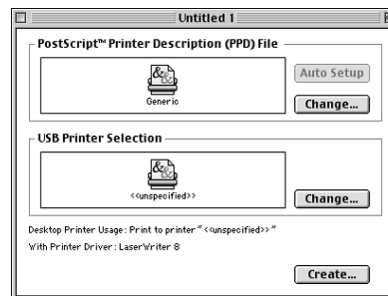
OVER USB WITH POSTSCRIPT

1. Follow the previous instructions for "Installing the SuperScript Printer Software Over USB" through step number 5.
2. Open the **Apple Extras** folder located on your main Macintosh hard disk.

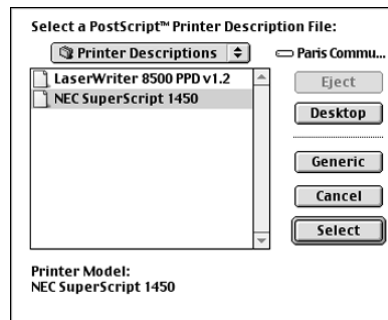
3. From there open the **Apple LaserWriter Software** folder.
4. Double-click on the **Desktop Printer Utility** program and select **Printer (USB)** from the **Create Desktop** list in the **New Desktop Printer** dialog box.



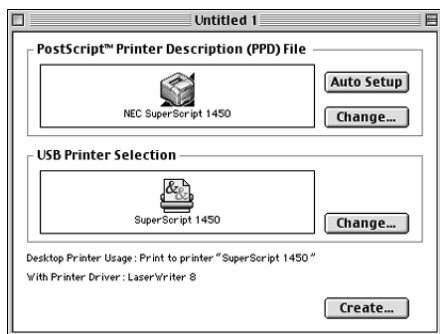
5. Click **OK**.
6. The **Untitled 1** dialog box appears, click the **Change...** button in the **PostScript Printer Description (PPD) File** area.



7. Select **NEC SuperScript 1450(N)** from the **Printer Descriptions** list.



8. Click the **Select** button.
9. In the **USB Printer Selection** area of the **Untitled 1** dialog box, click the **Change...** button.
10. The printer's model name should appear in the window.
11. Select the printer and click the **OK** button.
12. Click on the **Create...** button.



13. Name your printer and click **Save**.
14. An icon with your printer's name on it will appear on your desktop.

OVER ETHERNET

Follow these directions for installing the SuperScript 1450 PPD on your Macintosh:

1. Insert the *SuperScript 1400 Series Solutions CD* into your Macintosh.
2. Double-click the **SuperScript 1450 Installer** icon to begin installing the software. Follow the instructions presented on the screen.

note: Double-click on the **Videos** folder to see tutorials on setting up the printer.

3. Double-click on the **1450** or **1450N** installer icon.
4. The **Start Up Screen** and **NEC License Agreement** will appear. Select **Accept** to continue.
5. From the **Installer** dialog box, choose **Easy Network** to install the SuperScript printer driver, the PostScript PPDs, and the online User's Guide and Network Guide. Choose your install location and click the **Install** button.
6. From the **Apple** menu, select **Chooser**.

7. From the bottom left pane of the **Chooser** window, make sure that the correct **AppleTalk Zone** is selected.
8. From the top left pane of the **Chooser** window, select **LaserWriter 8** and a list of available printers will appear in the right pane.
9. Select your SuperScript printer from the list. The name of the printer depends on whether or not a name was assigned to it. (If a name was not assigned, the MAC address for the NIC will be seen; for example NEC000f0-A06AA.)
10. Click **Create** to set up the printer. When created, the NEC SuperScript 1450 icon will appear on the desktop.
11. Close the **Chooser** window.
12. For more information on network printing, see the *SuperScript 1450 Network Guide*.

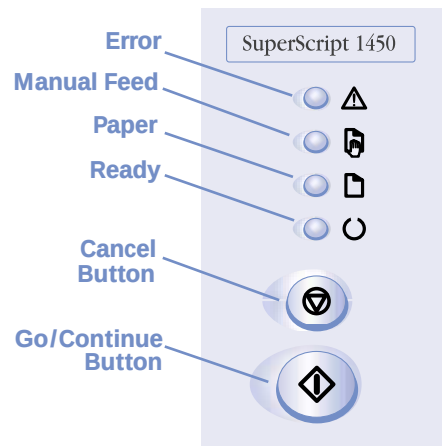
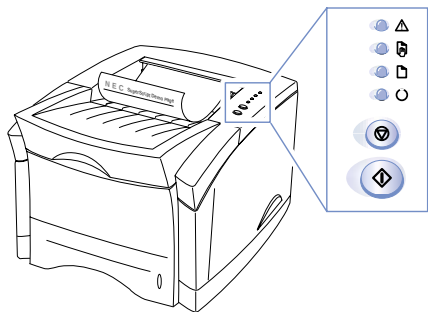
CHAPTER 4

THE OPERATOR PANEL

OVERVIEW

This chapter describes how to interpret and use the SuperScript 1450 and 1450N's Operator Panel. Most printer tasks can be accomplished through the printer driver software but in some cases it is more convenient to use the Operator Panel. For example, you can cancel a print job by simply pressing the Cancel button.

Signals from the Operator Panel lights, or LEDs, indicate printer status.

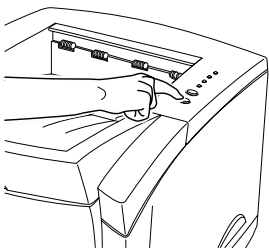


OPERATOR PANEL BUTTONS

The printer has two buttons, **Cancel** and **Go/Continue**. Use these buttons to cancel a print job, reset the printer, print a Configuration Sheet, or clean internal printer parts.

The table shown on this page explains single button functionality.

The table on the next page explains dual button functionality.



Button	Function
	Cancel - When the printer is processing a print job, you can press this button to cancel the print job. Pressing the Cancel button for 1 second will cause the printer to flush out all received data. The time it takes to cancel a job depends on the size of the print job. - When there is no print job in the printer, pressing the Cancel button has no effect.
	Go/Continue - Press the Go/Continue button to resume printing as in a manual print job. - Use this button to print a Configuration Sheet. From the Ready state, press and hold the Go/Continue button. You must press and hold the button (approximately 4 seconds) until all four LEDs blink twice, and then cycle.

Buttons	Function
 	Factory Default Reset During power-up, press and hold the Go/Continue and Cancel buttons simultaneously. Press and hold the buttons approximately 4 seconds until all lights blink three times and cycle once, then release the buttons. The printer will revert to its factory default settings.*
 	Factory Default NIC Reset After performing the Factory Default Reset above, press and hold the Go/Continue and Cancel Job buttons simultaneously to reset the NIC (network interface card) to its default settings. You must continue holding down the buttons for 20 seconds, all four LEDs will once again blink three times and then cycle one more time. At this point the printer will execute a NIC Factory Default Reset.
 	Reprint the Last Printed Page Press and hold the Go/Continue and Cancel buttons momentarily to reprint the last printed page. If you hold the buttons down too long you will enable the internal cleaning process described below.
 	Internal Cleaning Sheet To enable the internal cleaning process, press and hold the Go/Continue and Cancel buttons simultaneously for about 4 seconds or until all four lights are blinking. An Internal Cleaning Sheet will print.

OPERATOR PANEL LIGHTS

The four lights, or LEDs, on the Operator Panel have the following functionality.

LED	Function
	The Error LED (red light) indicates various error conditions affecting the printer.
	The Manual Feed LED (amber light) indicates a manual feed job in the Multipurpose Tray.
	The Paper LED (amber light) indicates the paper tray supply.
	The Ready LED (green light) indicates whether the printer is online, offline, or in Energy Saving mode.

note: Both the Operator Panel and the on-screen Status Monitor, available in some circumstances, can show printer status. For more information about the Status Monitor see page 103.

*Factory default settings can be found on the printer's Configuration Sheet

Operator Panel Light Messages

The Operator Panel lights, or LEDs, indicate the status of your printer.

Light Status Legend



Mode	Message
	Startup The four LEDs cycle one after another at a three-second frequency.
	Online The Ready LED is on The printer is ready to print.
	Energy Saving The Ready LED blinks slowly at five-second intervals. The printer is in Energy Saving mode.

Mode	Message
	Processing Job/Warming Up The Ready LED blinks fast when the printer is printing a page or is receiving data. The Ready LED also blinks fast when the printer is warming up.
	Manual Feed Both the Ready and Manual Feed LEDs are on. The printer is ready to receive a manual feed job. Feed media into the Multipurpose Tray (Tray 1) and press the Go/Continue button each time you want to print.
	Paper Out The Paper LED is blinking. Tray 2 or Tray 3 is empty.
	Paper Out Manual Feed Tray The Manual Feed LED is blinking. The Multipurpose Tray (Tray 1) is empty.

Mode	Message
	Paper Jam The Paper LED is lit and the Error LED is blinking. There is a paper jam in the printer. Check the Status Monitor on your screen (if available) for jam location.
	Paper Size Error The Paper LED and the Error LED are both blinking. The printer detects a paper size mismatch.
	Memory Overflow Error The Error LED is blinking. The document is too complex, and the printer does not have enough memory to print the job.
	Cover Open/No Toner Cartridge The Error LED is on steady. Either the Top Cover is open or the Toner Cartridge is missing.

Mode	Message
	Internal Error All four LEDs blink sequentially and fast. The printer detects an internal error (i.e., memory link crash).
	Engine Error All four LEDs blink at the same time. The printer detects an engine error (LSU or Fuser).

CHAPTER 5

USING PRINT MEDIA

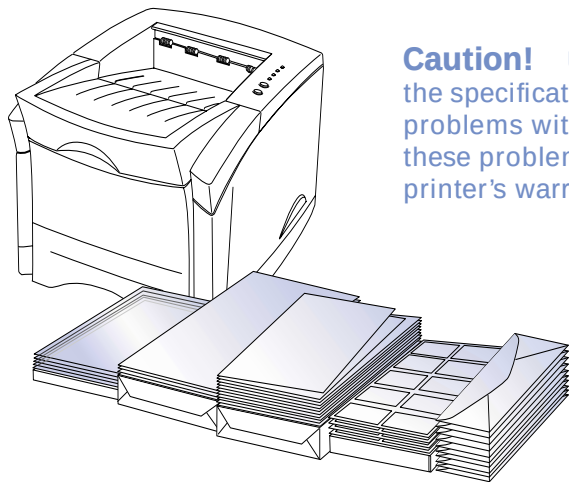
OVERVIEW

This chapter explains the kinds of paper and other media that can be used with the SuperScript 1450 and 1450N printers. It explains how to properly load paper in the different trays so that the best possible print results are achieved. Topics include:

- Choosing the right paper and other media
- Selecting an output tray
- Loading the paper trays
- Printing on envelopes
- Printing on labels
- Printing on transparencies
- Printing on letterhead and forms

CHOOSING PAPER

Besides just paper you can print on a variety of medias including envelopes, labels, transparencies, and card stocks.



Caution! Using media that does not conform to the specifications listed in Appendix A can cause problems with the printer. If service is required to fix these problems it will not be covered under the printer's warranty or service agreement.

See page 93 for a list of paper specifications. To get the best results use only high-quality paper. For most office communication, copier paper is fine. Consider the following guidelines:

Desired result: Choose paper that will be appropriate for the project you have in mind. For example, a matte, ecru colored recycled paper works for natural subjects because it has a casual look and feel.

Size: Use a paper size that fits easily within the paper tray.

Weight: Your printer supports the following paper weights,

- 16–28 lbs. bond for Tray 2 and 3
- 16–47 lbs. bond (maximum 97 lb. index and 65 lb. cover) for Tray 1 (Multipurpose Tray)

Brightness: The whiter the paper, the brighter and more vibrant the image.

Smoothness: A smooth surface will produce a crisp more formal looking page.

Opacity: Use a slightly thicker, more opaque paper when you want to print on both sides of a page (as in duplex printing).

See Appendix A on page 93 for more paper guidelines.

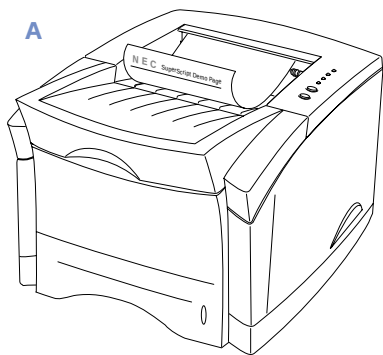
PRINTING TO THE OUTPUT TRAYS

The printer has two output trays: the Main Output Tray, located on top, and the Face-up Output Tray located in back. For most print jobs you can print to the Main Output Tray. The tray will collect paper **face down (A)**. Make sure the Face-up Output Tray in back of the printer is closed when you want to print to the Main Output Tray.

Use the Face-up Output Tray for smaller media like envelopes and heavier media like greeting cards. The printer will always print to the Face-up Output Tray if it is open. Media comes out of the printer **face-up**, with the last page on top. Printing from Tray 1 (Multipurpose Tray) to the Face-up Output Tray uses a straighter paper path resulting in less paper curl **(B)**.

Printing to the Main Output Tray

A

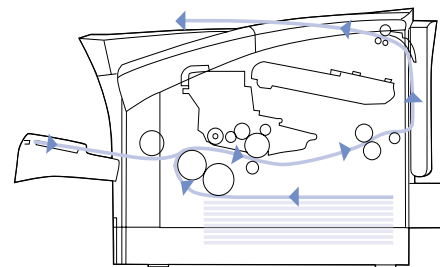


Use the Main Output Tray for:

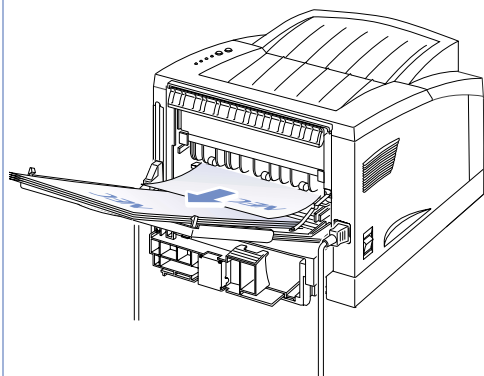
- Continuous printing
- Holds up to 250 sheets
- Transparencies

Paper Path to Main Output Tray

Used for printing to the Main Output Tray



Printing to the Face-up Output Tray



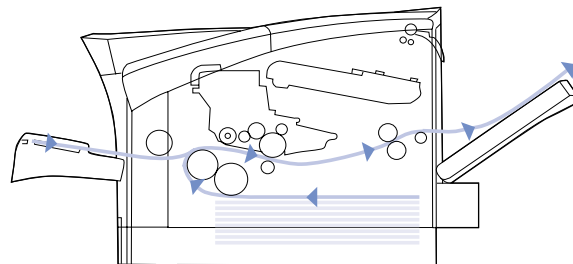
Use the Face-up Output Tray for:

- Envelopes
- Label sheets
- Small custom-sized paper
- Greeting cards
- Paper weights less than 16 lb. or more than 28 lb.

B

Paper Path to Face-up Output Tray

Used for printing to the Face-up Output Tray

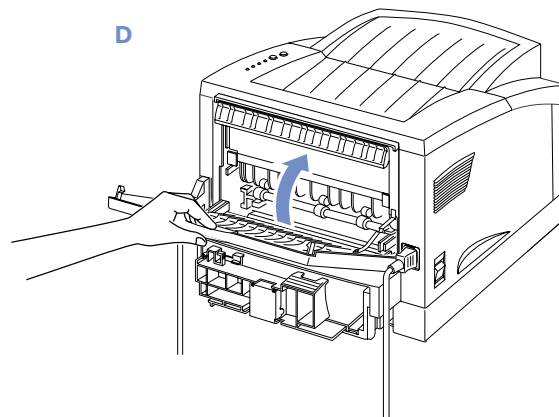
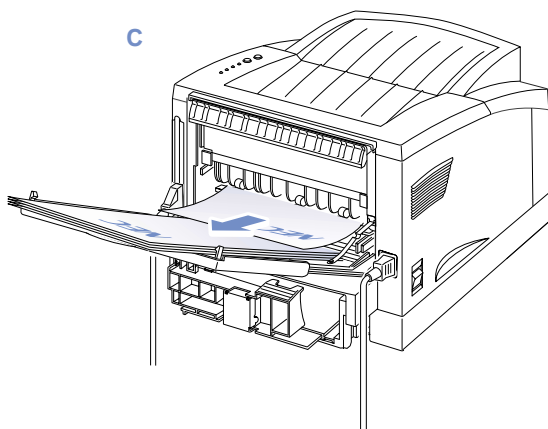
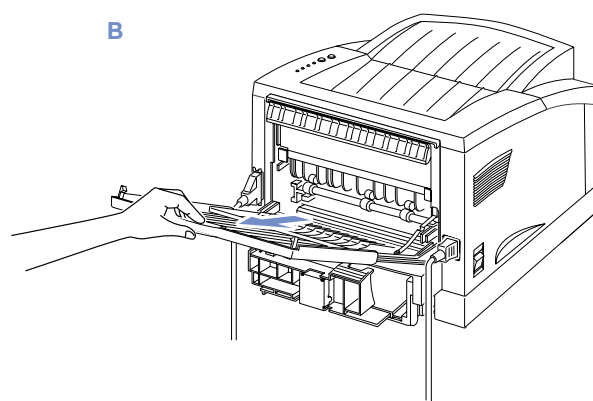
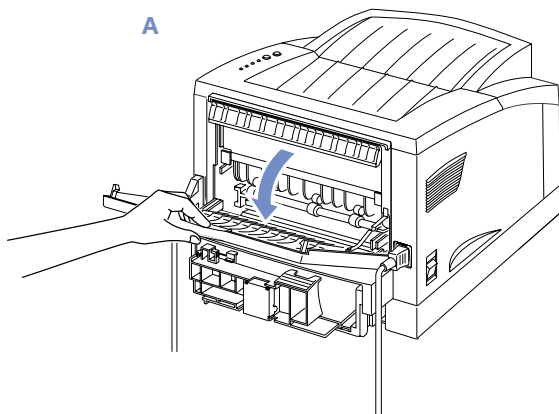


USING THE FACE-UP OUTPUT TRAY

Here's how to use the Face-up Output Tray:

1. Open the Back Cover as shown (A).
2. Pull the tray extender out for longer paper (B).
3. The Back Cover now functions as the Face-up Output tray (C).
4. The Face-up Output tray will continue collecting printed media until you close the Back Cover (D). After that, media will print to the Main Output Tray on top of the printer.

Using the Face-up Output Tray



note: The capacity of the Face-up Output Tray is the same as Tray 1 for any given media. Do not over load the tray!

USING TRAY 1: THE MULTIPURPOSE TRAY

Tray 1, also known as the Multipurpose Tray, is located in front of the printer. It folds out to hold several sizes and types of media such as transparencies, cards, and envelopes. You can also use the tray for single page print jobs on letterhead, colored separator sheets, or other special sheets not kept in Tray 2 or 3.

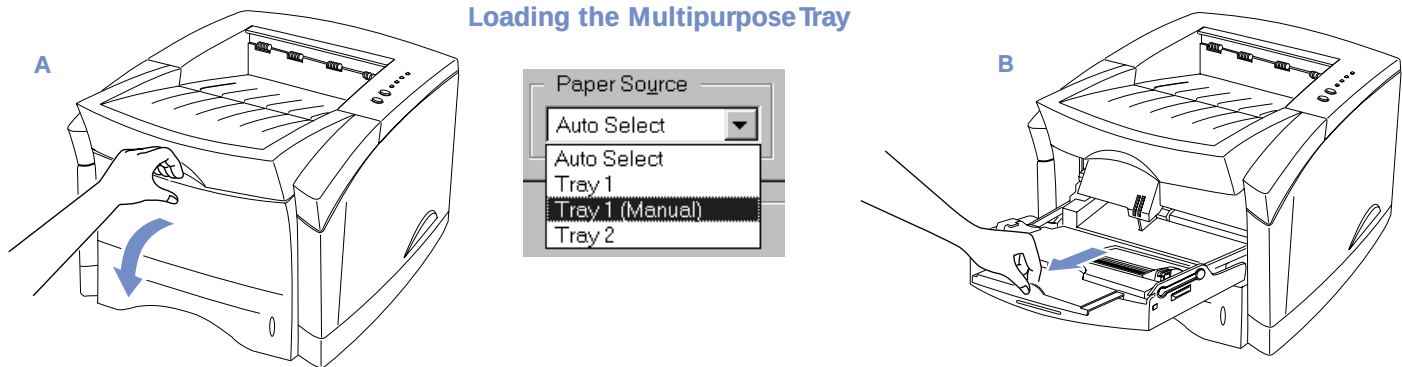
The minimum size the Multipurpose Tray supports is 3.15 inches by 5.8 inches. The maximum size it supports is 8.5 inches by 14 inches.

Load only one size or type media in at a time. You can load

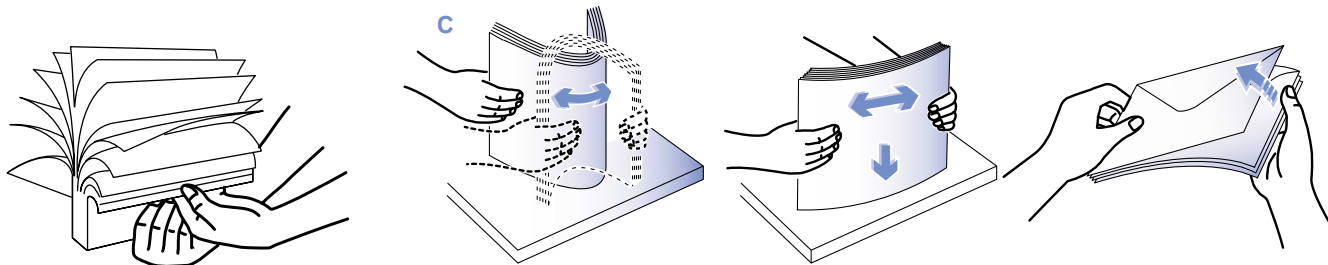
approximately 100 sheets of paper, 10 envelopes, 20 transparencies, 10 cards, or 20 labels sheets each time.

Load media face-up into Tray 1, which is opposite from the other input trays.

1. From your software application, select **Tray 1** or **Tray 1 (Manual)** as your paper source. Also select the paper size and type (see page 42).
2. Open Tray 1 as shown (A).
3. Slide the tray extender as needed (B).
4. Fan or flex a stack of paper. Then straighten the edges on a level surface (C).

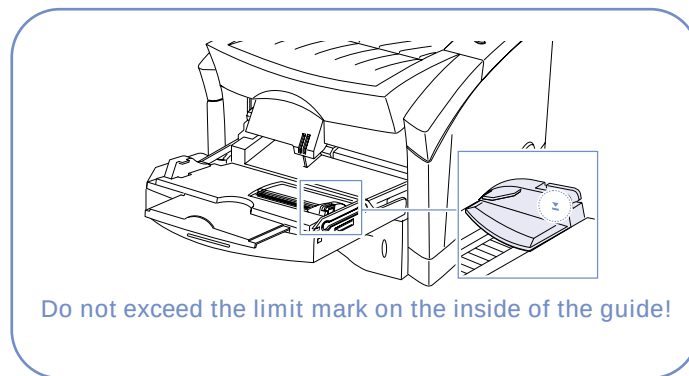
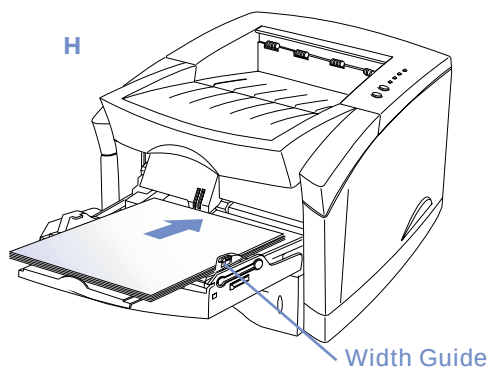


Caution! Do not put weight or put heavy objects on the Multipurpose Tray.

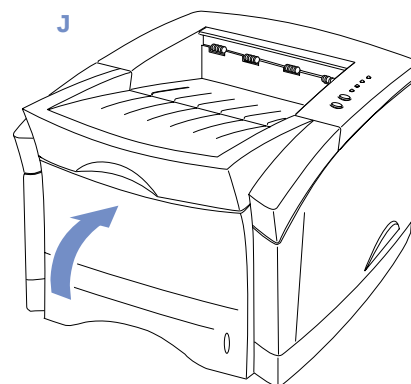
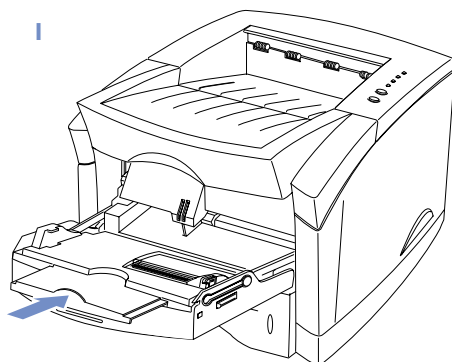


5. Place stack against left edge of tray and adjust the Width Guide until it lightly touches the stack **(H)**. **Load paper print side up.**
6. After printing, push the tray extender in **(I)**.
7. Close the tray **(J)**.

note: In **Windows 4.0**, if media is loaded in Tray 1 the printer may use it, even if Tray 2 or Tray 3 is specified in the driver.



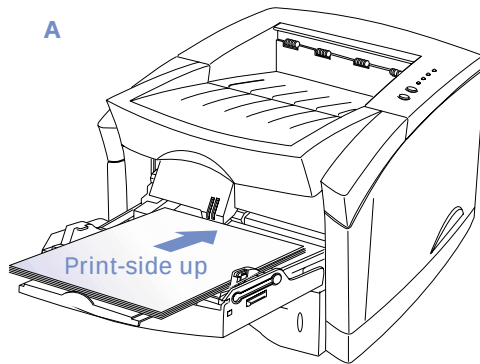
note: Close the Multipurpose Tray (Tray 1) when not in use.



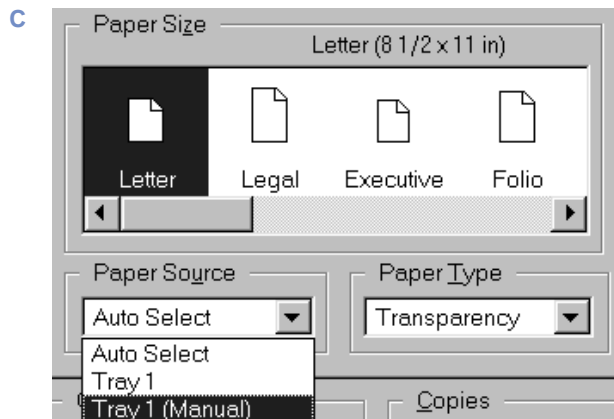
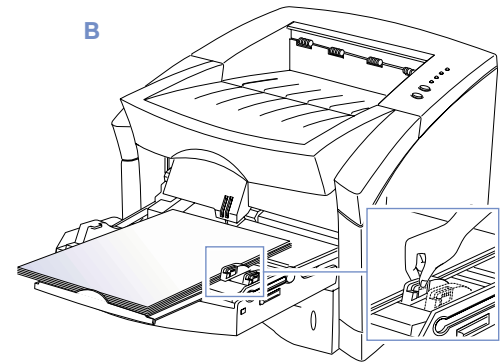
PRINTING MANUALLY

You can print manually from the Multipurpose Tray as long as you select **Tray 1 (Manual)** for your paper source in the printer driver. Manual printing can be helpful when you want to check print quality after each page. You load paper sheet-by-sheet, send the print data from your application, and then press the **Go/Continue** button to print each page.

1. Load media in the Multipurpose Tray print side up (A).
2. Adjust the Width Guide so that it lightly touches the side of the stack (B).
3. Select **Tray 1 (Manual)** in the Paper Source area of your printer driver (C) In Windows, set up the paper source

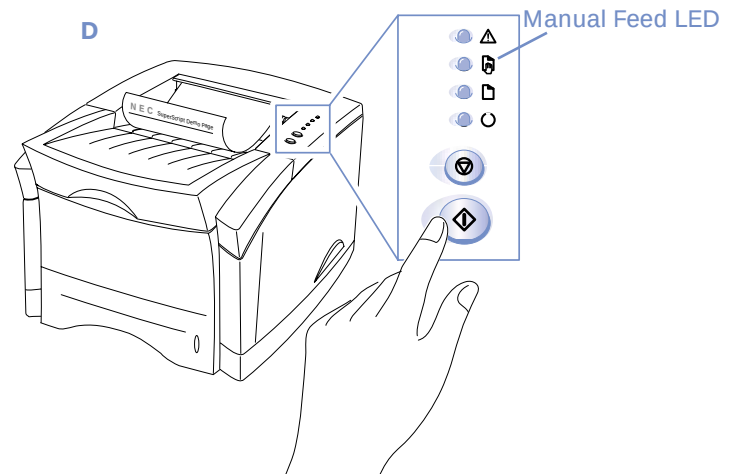


note: The MultipurposeTray will be referred to as Tray 1 or Tray 1 (Manual) in the printer driver and the Remote Control Panel.



- on the **Paper** tab of the printer **Properties** window. On the Macintosh, select your paper source from the **General** menu inside the **Page Setup** dialog box.
4. Select print from your screen.
5. The Manual Feed light on the Operator Panel will start blinking (D). Press the **Go/Continue** button.
6. After one page has printed, the Manual Feed LED will start blinking again prompting you to feed the next sheet. Press the **Go/Continue** button for each page.

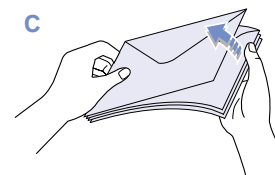
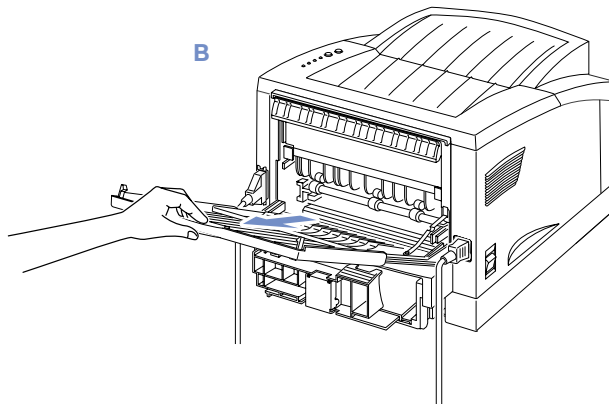
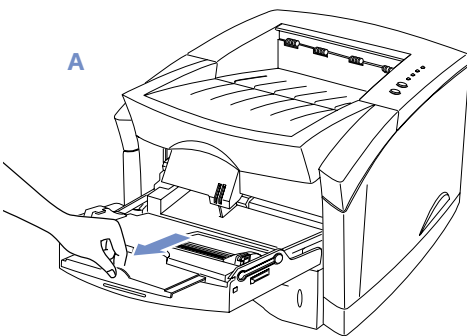
The minimum size the Multipurpose Tray supports is 3.15 inches by 5.8 inches. The maximum size it supports is 8.5 inches by 14 inches.



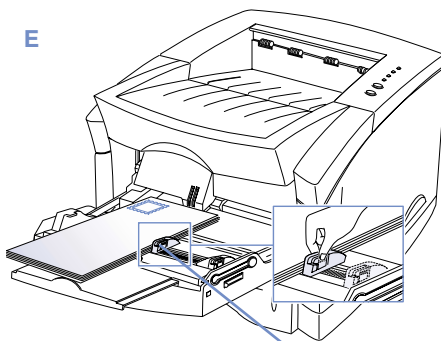
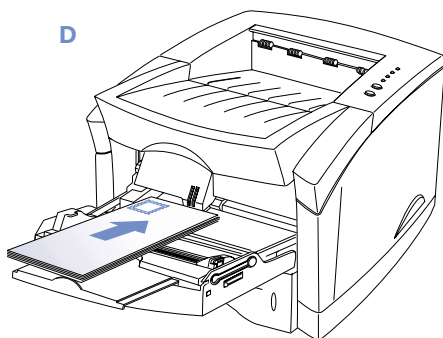
PRINTING ENVELOPES

You can print envelopes from Tray 1 (Multipurpose Tray). Use only undamaged envelopes that are recommended for laser printers.

1. Open Tray 1 and pull out the tray extender (A).
2. Open and extend the Face-up Output Tray in back of the printer (B).
3. Fan the envelope stack (C).
4. Load envelopes flap-side down against the left tray edge

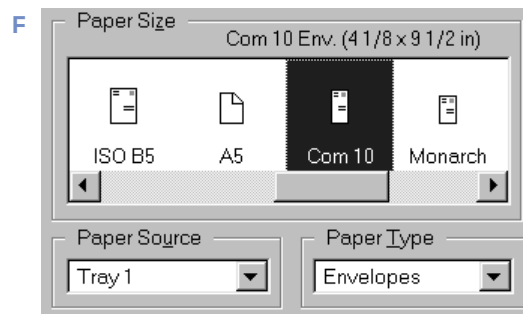


note: Do not load any more than 10 envelopes from Tray 1.



Width Guide

5. Adjust the Width Guide to the envelope stack (E).
6. Configure the paper source, type and size in the printer driver, see page 42 for details (F).
7. After printing, close Tray 1.



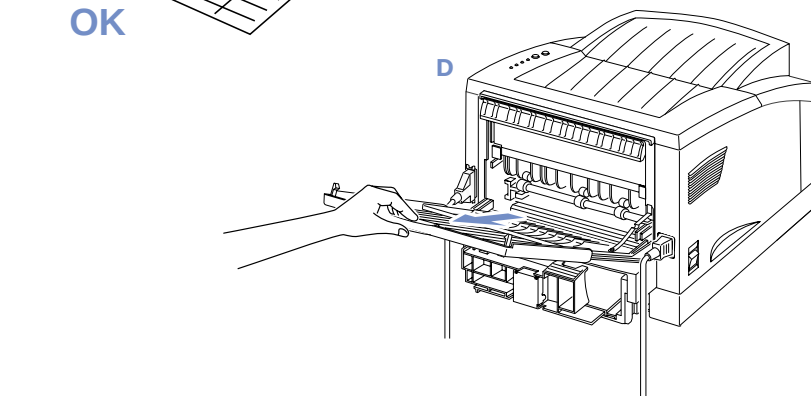
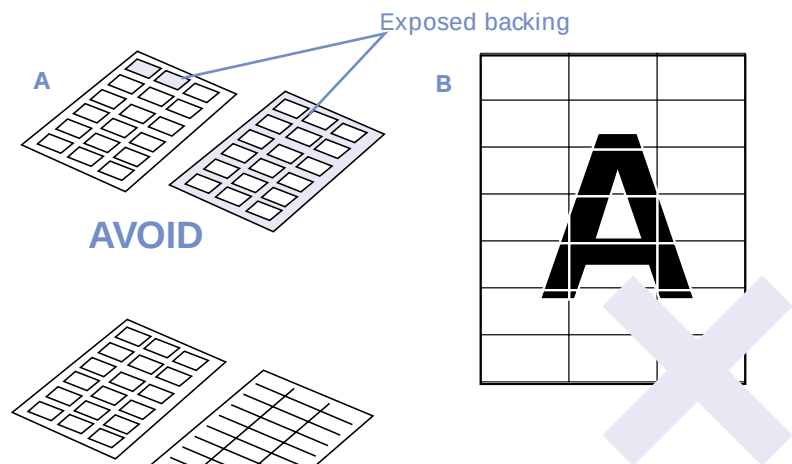
PRINTING LABELS

Follow these guidelines when printing label sheets from the SuperScript1450 or 1450N printer.

Print labels as you would print paper from Tray 1 (Multipurpose Tray). Keep in mind that printing labels, envelopes, thick paper, or transparencies takes slightly longer than plain paper.

Use letter or A4 size label sheets. Make sure all labels are attached to the backing sheet.

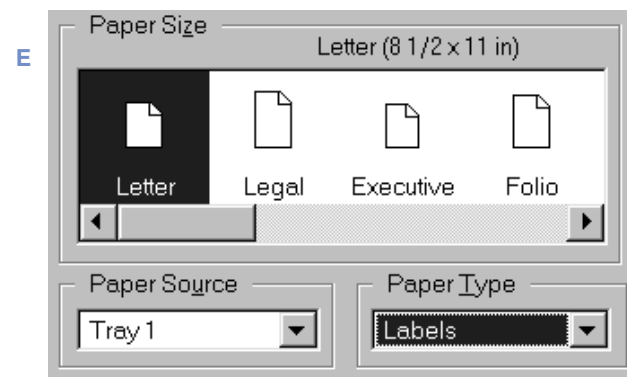
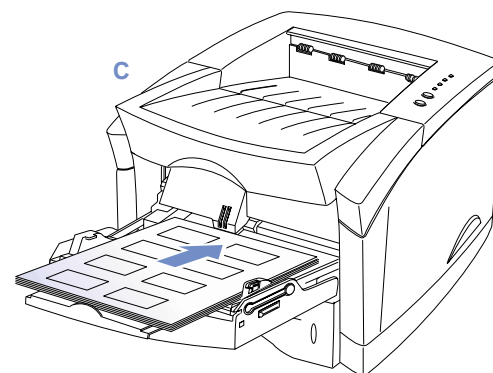
1. Avoid label sheets that have the backing sheet material exposed. Do not use label sheets with some labels



already removed (A). Do not “over print” label sheets (B).

2. Open and extend Tray 1 (Multipurpose Tray).
3. Load and align a stack of label sheets in Tray 1 (C).
4. Open and extend the Face-up Output Tray (D).
5. Configure the paper source, type, and label sheet size in your application (E).

note: When adding more label sheets, remove the ones already in the tray first and carefully stack them together. Load no more than 20 label sheets into the Multipurpose Tray at one time.

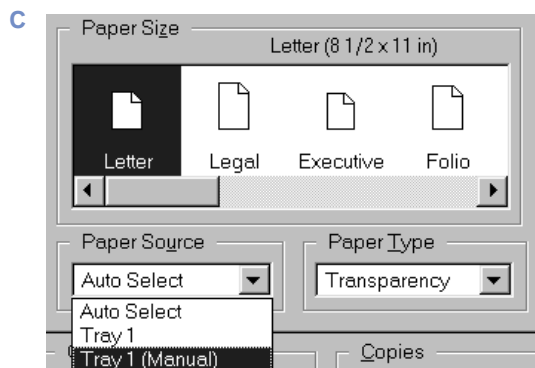
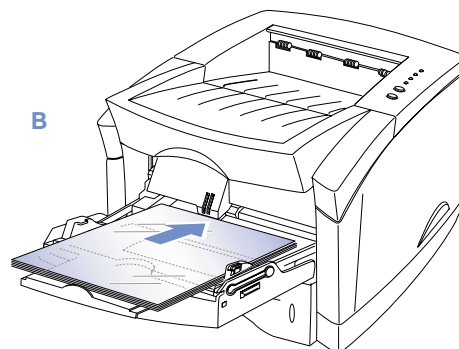
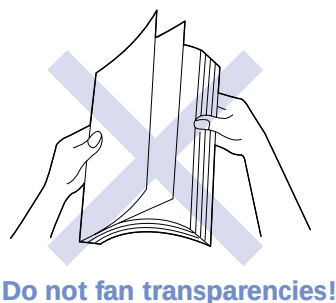
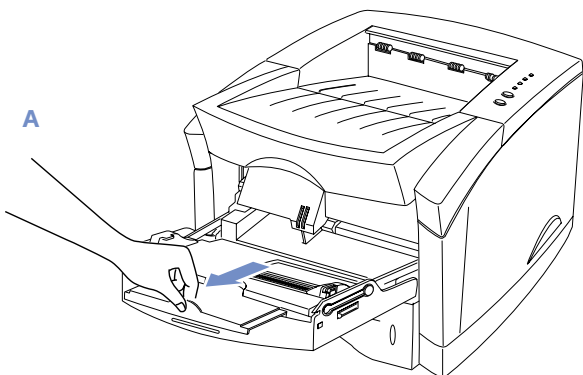


PRINTING ON TRANSPARENCIES

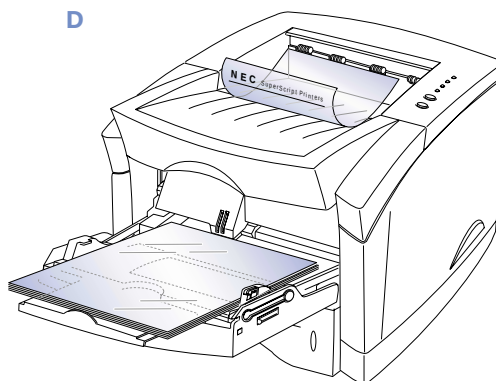
Keep the following considerations in mind before you print on transparencies:

- Create the information you need printed on the transparencies within your application. Try printing on a plain sheet of paper first for proper placement.
- You can only print transparencies from Tray 1.
- Load up to 20 transparencies in the Multipurpose Tray (Tray 1).
- Place transparencies on a flat surface after removing them from the output tray.
- If transparencies print out cloudy, make sure you have chosen **Transparency** in the printer driver rather than Auto Select.

- Use letter or A4 size transparencies only.
 - Transparencies must be able to withstand temperatures of 392°F (200°C) for at least 0.1 second.
 - Keep the paper path clean. Transparencies are especially sensitive to dirt. If shadows appear on the sheets, clean the inside of the printer, refer to page 59.
1. Open and extend Tray 1 (A).
 2. Load transparencies (B). Properly adjust the Width Guide.
 3. Configure the paper source, type, and size within your software application (C).
 4. Print to the Main Output Tray (D). See note below.



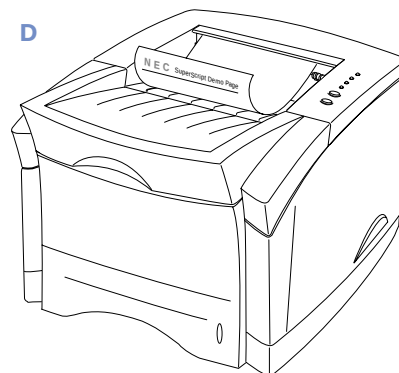
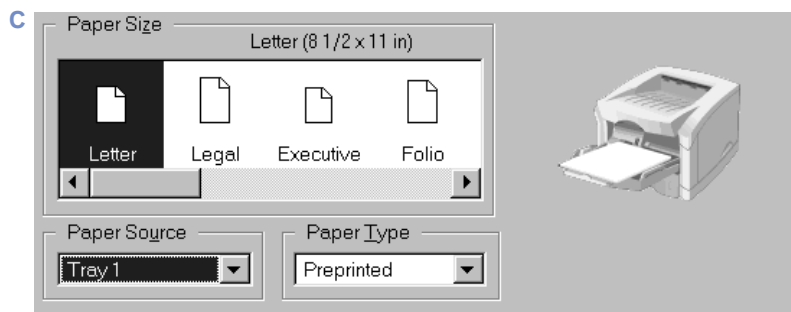
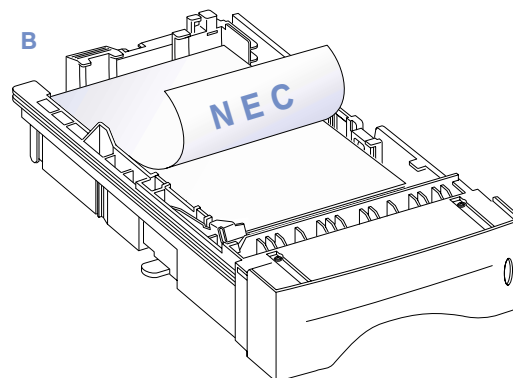
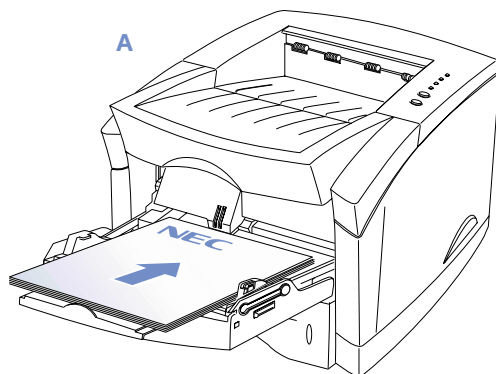
note: If scratches should occur on your transparencies, try printing to the Face-up Output Tray in back of the printer.



PRINTING ON PREPRINTED MEDIA

You can print on letterhead stationary or preprinted forms from any of the input trays. Keep the following considerations in mind:

- Letterhead must be printed with heat-resistant inks, which will not melt or vaporize when subjected to the printer's fusing temperature of 400 F for 0.1 seconds.
- Inks must be non-flammable.
- Paper and ink must both be dry.



Printing on Letterhead

1. Load letterhead stationary or other preprinted paper into Tray 1 **printed side up (A)**.
2. Or load into Tray 2 or 3 **printed side down (B)**. Adjust the Width Guide properly.
3. Configure the paper source, type, and size within your software application in **Properties**. Choose **Preprinted** as your paper type **(C)**.
4. Print to the Main Output Tray **(D)**. If you are changing paper sizes and a paper size error shows on the Operator Panel, press the **Go/Continue** button.

note: If you only want the first page of your print job to print on letterhead, see page 51.

Printing on Forms

Use the directions for printing on letterhead given on the previous page.

However, if you want to accurately fill in the blanks on preprinted forms, you may need to offset the printer's printable area slightly.

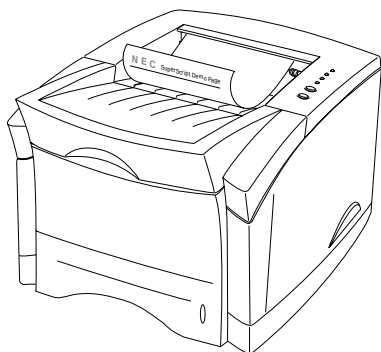
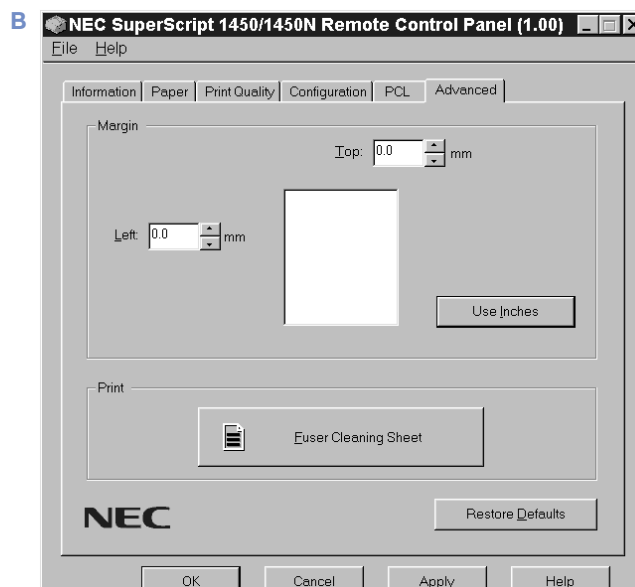
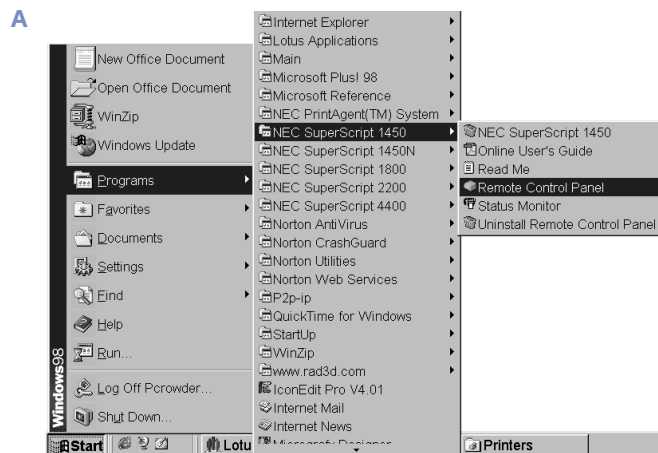
note: Adjusting the margins here does not affect the maximum printable area. Instead it shifts where the printable area begins and ends. The left and top margins of each tray can be set separately.

Follow these directions for offsetting printable area margins.

1. First you must go to the **RCP, Remote Control Panel (A)**.
2. Then select the **Advanced** tab (B).

note: If you do not have the RCP software on your computer, you can load it from the *SuperScript 1400 Series Solutions CD*. Select **Custom Install** and then **Remote Control Panel**.

3. Continue setting up your print job as you would for printing on letterhead.



note: If the Remote Control Panel does not show up from the NEC SuperScript 1450(N) folder, you can install it from the *NEC SuperScript 1400 Series Solutions CD* that came with your printer. Choose **Remote Control Panel** from **Custom Install**.

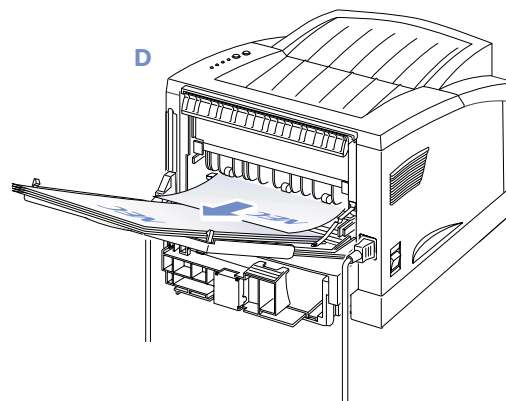
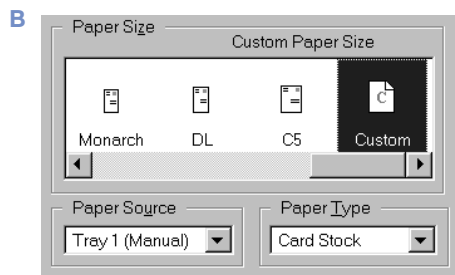
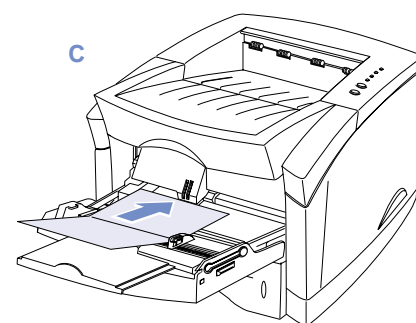
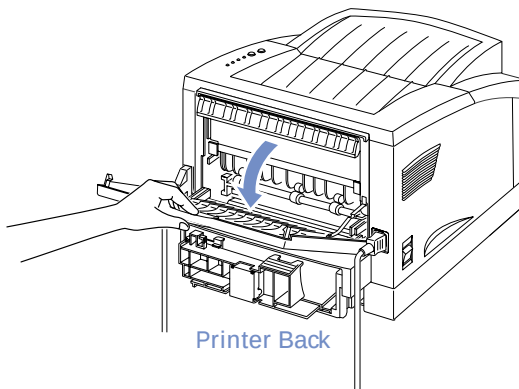
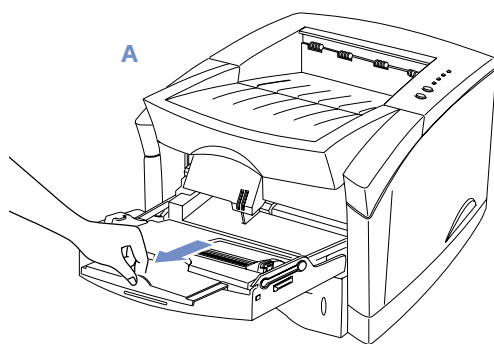
PRINTING ON CARD STOCK

You can print about 10 cards, large index cards, or other custom sized media from the Multipurpose Tray (Tray 1). Keep the following considerations in mind:

- Letterhead must be printed with heat-resistant inks that do not melt or vaporize when subjected to the printer's fusing temperature of 400 F for 0.1 seconds.
- Inks used on preprinted media must be non-flammable.
- Paper and ink must both must be dry.

Follow these directions:

1. Open and extend Tray 1 and the Face-up Output Tray (A).
2. Load material into Tray 1 **with the side-to-be-printed facing up (B)**.
3. Configure the paper source, type, and size within your software application (C).
4. Print to the Face-up Output Tray (D).



CHAPTER 6

PRINTER TASKS

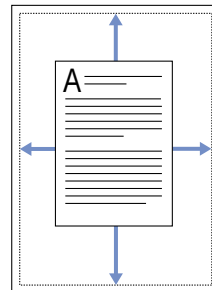
Take advantage of the SuperScript 1400 Series useful printer task features...

OVERVIEW

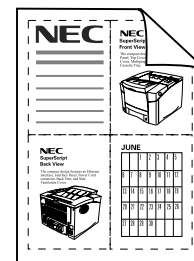
Learn to use the SuperScript 1400 Series printer to its full potential. This chapter shows you how to accomplish such tasks as:

- Basic document printing
- How to save toner
- Manual duplex printing
- N-up printing
- Booklet printing
- First page printing
- Fit to page printing
- Poster printing
- How to use watermarks
- How to use page overlays

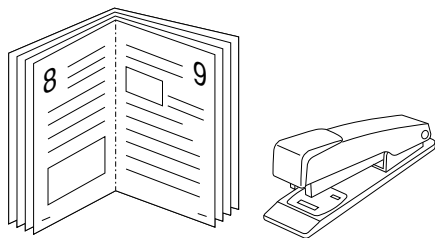
Fit to Page



N-up Printing



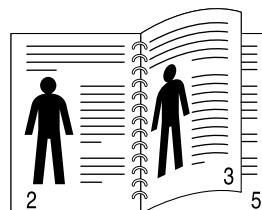
Booklet Printing



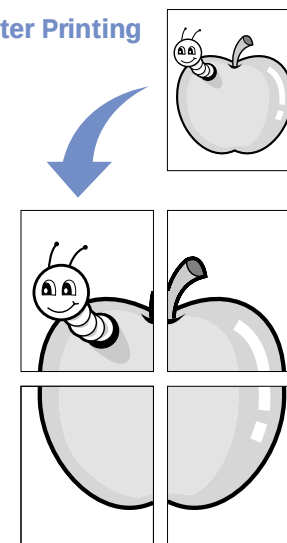
Watermark



Manual Duplexing



Poster Printing



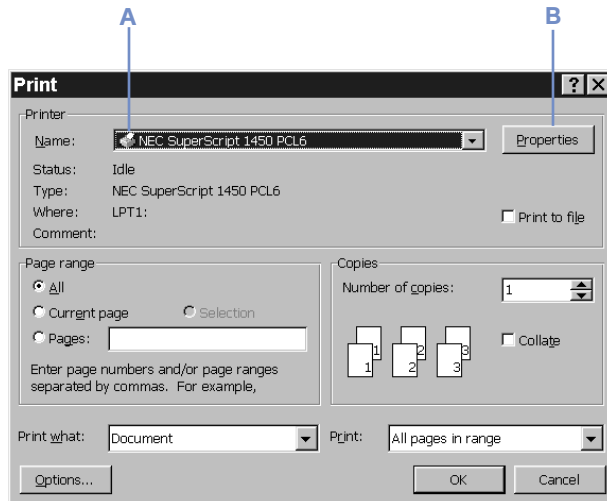
BASIC WINDOWS DOCUMENT PRINTING

The following directions show general steps for printing from various Windows applications (Macintosh users see page 44). The exact steps for printing a document may vary depending on the program you are using. Refer to your software applications's documentation for the exact printing procedure.

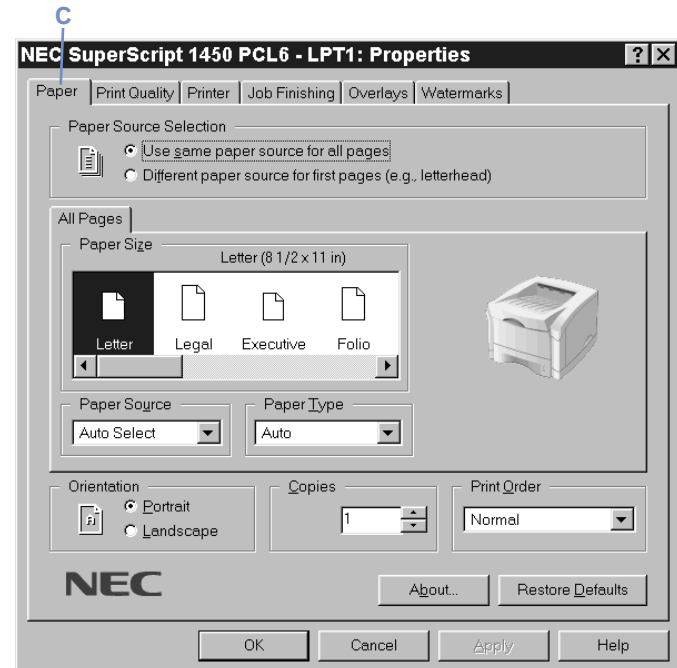
1. Open the document you want to print.
2. Select Print from the **File** menu. The **Print** dialog box for your application appears showing basic print settings. Make sure your printer's name appears in the **Name** field (A).

note: If you do not see a Properties button, click on the **Setup**, **Printer**, or **Options** button. Then click **Properties** in the next screen.

3. Click on the **Properties** button (B).

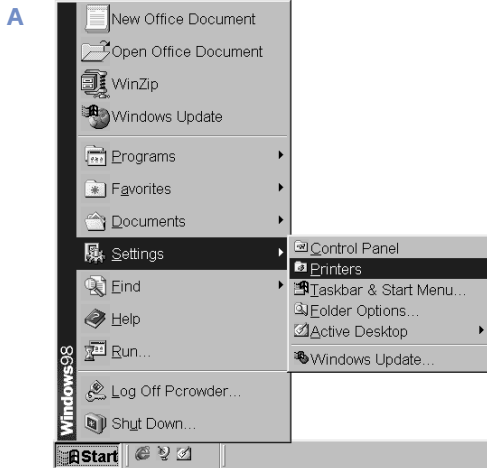


4. The **Properties** window appears containing the various tabs for your default SuperScript printer driver.
5. If necessary, select the **Paper** tab to display the settings shown below. This tab contains options for setting basic paper handling (C).
6. Set up your basic print job parameters on the **Paper** tab. Most of the choices are self-explanatory. Here are a few points to keep in mind:
 - Tray 1 refers to the front Multipurpose Tray
 - Tray 2 refers to the standard paper cassette
 - Tray 3 refers to an added optional tray
 - Examples of **Landscape** and **Portrait** orientation.



- In **Windows 4.0**, if media is loaded in Tray 1 the printer may use it, even if Tray 2 or Tray 3 is specified in the driver.
- 7. Click on the other tabs to access other features. When you change a setting, click **OK** until you see the **Print** dialog box again.
- 8. Click **OK** in the **Print** dialog box to start printing. Most Windows applications will override settings specified in the printer driver.

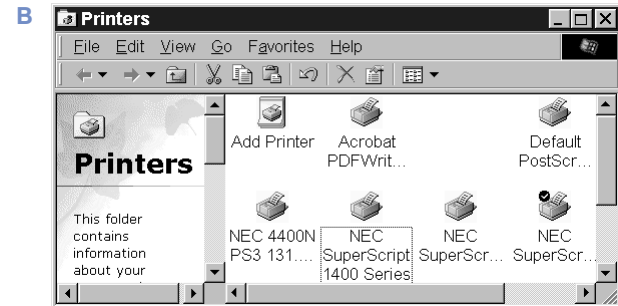
note: Change all print settings that are available in the software application first. Then change any remaining settings in the printer driver accessed from the **Printers** folder.



WINDOWS PRINTER PROPERTIES

The settings you change from your application remain in effect while you are using the current application. To make permanent changes set them through the **Printers** folder. Use the following instructions:

1. Click the Windows **Start** button.
2. Select **Settings**, then **Printers** to open the **Printers** window (**A**).
3. Select the **SuperScript 1400 Series (B)**.
4. Right-click the mouse button and select **Properties (C)**.



MACINTOSH PRINTER PROPERTIES

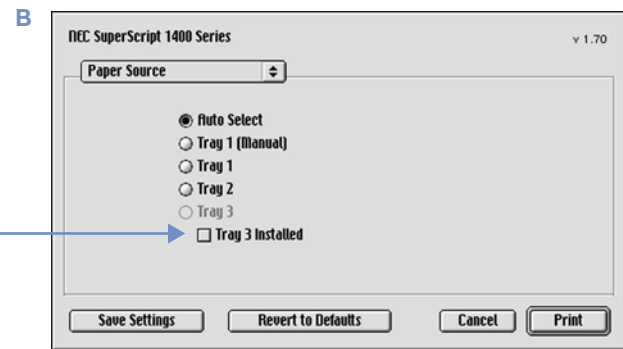
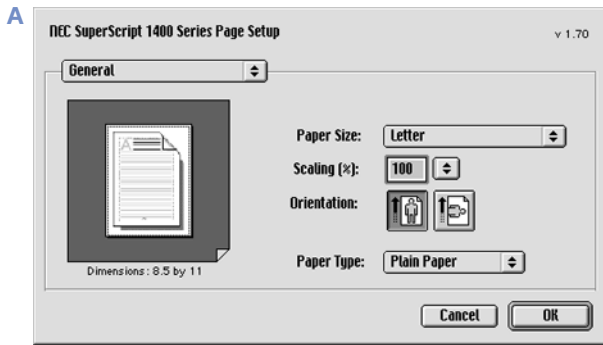
Follow these steps to set up printer properties from your software application.

1. Choose **Page Setup** from your applications **File** menu.
2. Set up basic print job parameters such as paper size, orientation, or scaling from the **General** menu that comes up first **(A)**.
3. Select **Paper Source** from the drop-down menu under **General**. You can also access these choices from the **Print** dialog box **(B)**.
4. If you want to use the N-up printing feature select **Layout** from the drop-down menu. Then select a number

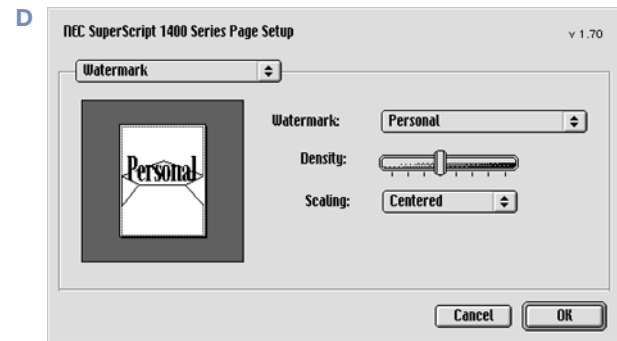
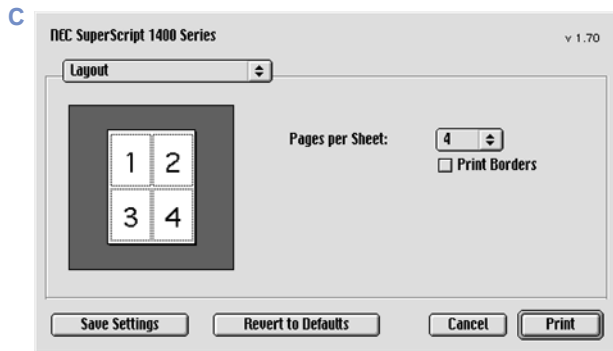
under **Pages per Sheet (C)**.

5. With the SuperScript 1400 Series PCL driver you can use the watermark feature. Select **Watermark** from the drop-down menu of **Page Setup (D)**.

note: The Macintosh PostScript printer driver cannot support the watermark feature.



When you add the 550-sheet 2nd Cassette (Tray 3), check this box so that it is selectable.



CANCELING A PRINT JOB

There are two ways to stop a SuperScript 1400 Series print job, either from the Operator Panel or from the **Printer** folder.

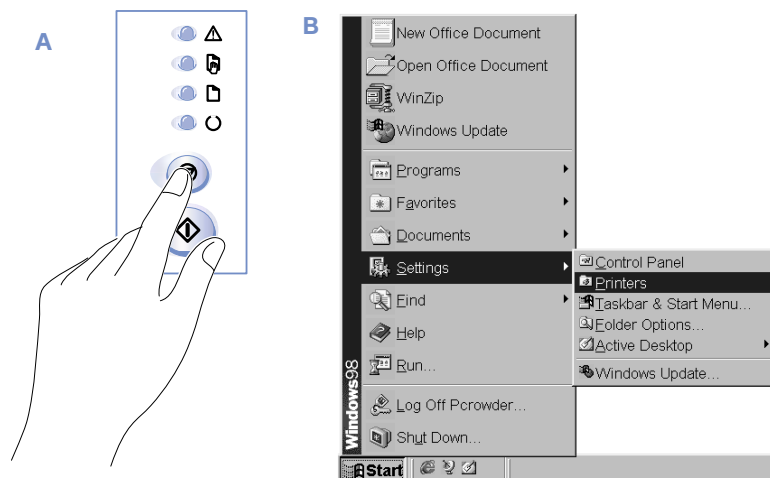
Canceling a Job From the Operator Panel

1. Press the **Cancel** button (A).
2. The printer will finish printing any pages already in the print path and delete the remainder of the print job.

note: Pressing the **Cancel** button only cancels the current print job. If more than one print job is in printer memory, **Cancel** must be pressed once for each job.

Canceling a Job from the Printer Window

1. From the Windows **Start** button, select **Settings**, then **Printers (B)**.
2. The Printer window opens. Double-click **SuperScript 1400 Series**.



note: To cancel a print job on the **Macintosh**, press the command and period key at the same time.

3. From the **Document** menu, select **Cancel Printing (C)**. In Windows NT 4.0, select **Cancel**.

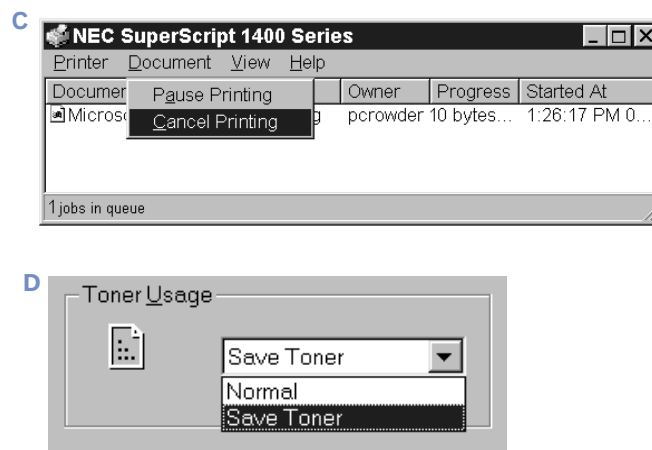
SAVING TONER

You can choose to use less toner by adjusting **Toner Usage** from the printer driver. This feature is especially useful for printing drafts.

note: Print-outs will be of poorer quality but not necessarily lighter.

To enable this feature:

1. Access the printer **Properties** window from your software application.
2. Select the **Print Quality** tab.
3. In the **Toner Usage** area, select **Save Toner** from the drop down menu (D).
4. Click **OK**.

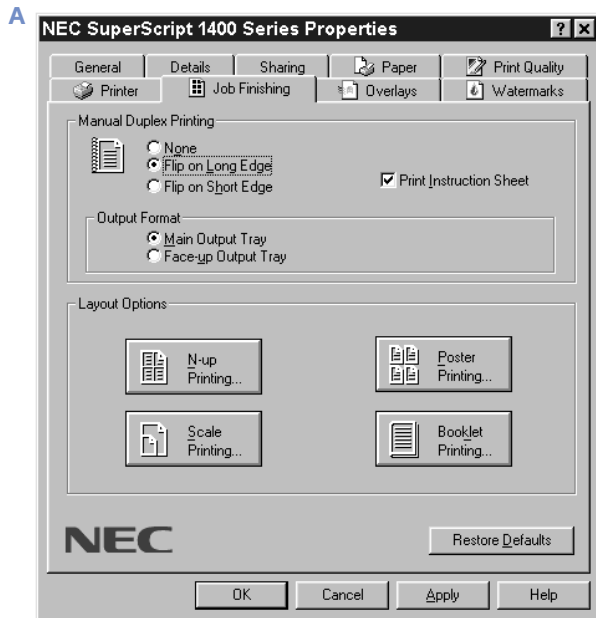


MANUAL DUPLEXING

You can print on both sides of the paper from the Multipurpose Tray (Tray 1). The paper must go through the printer twice. You can either print to the Main Output Tray or the Face-up Output Tray (for heavier stock).

Follow these steps to set up manual duplexing:

1. From the **Properties** window choose the **Paper** tab and set up your basic print parameters, see page 42. Choose **Tray 1** for your source.
2. Then choose the **Job Finishing** tab (A).
3. In the **Manual Duplex Printing** area select Long or Short edge. Choose **Flip on Long Edge** if you want the binding orientation along the left edge of the paper as in a



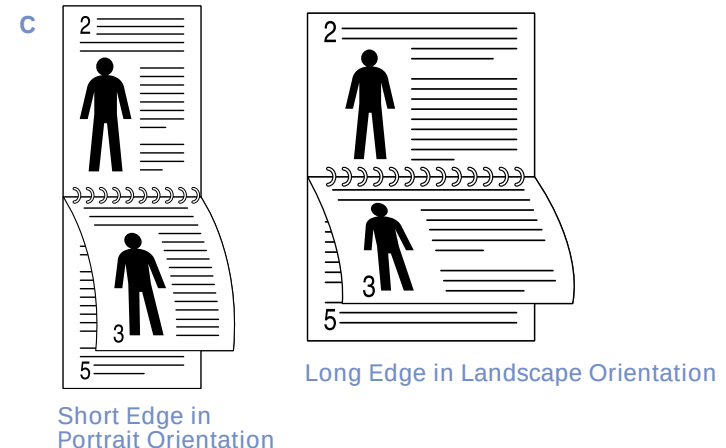
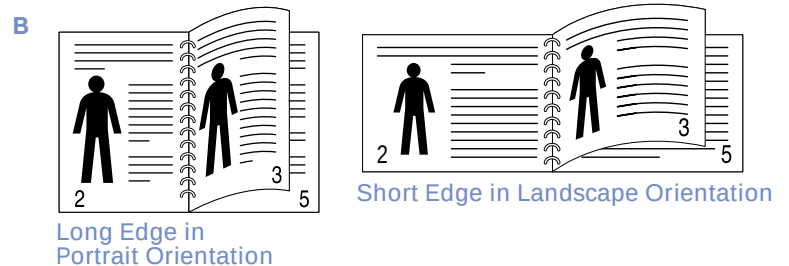
note: Manual duplexing can cause the printer to get dirty more quickly and reduce print quality. See page 59 for internal cleaning instructions.

magazine (B). Choose **Flip on Short Edge** if you want the binding orientation along the top edge of the paper as in a calendar (C).

4. Select the **Print Instruction Sheet** box.
5. Click on the **OK** button
6. Start printing. The printer automatically prints only the odd numbered pages.

note: Once you get used to using manual duplexing you probably will not need to print out the Print Instruction Sheet.

Instructions continued on next page.

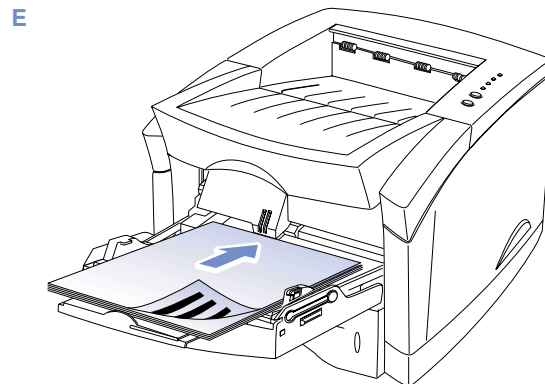
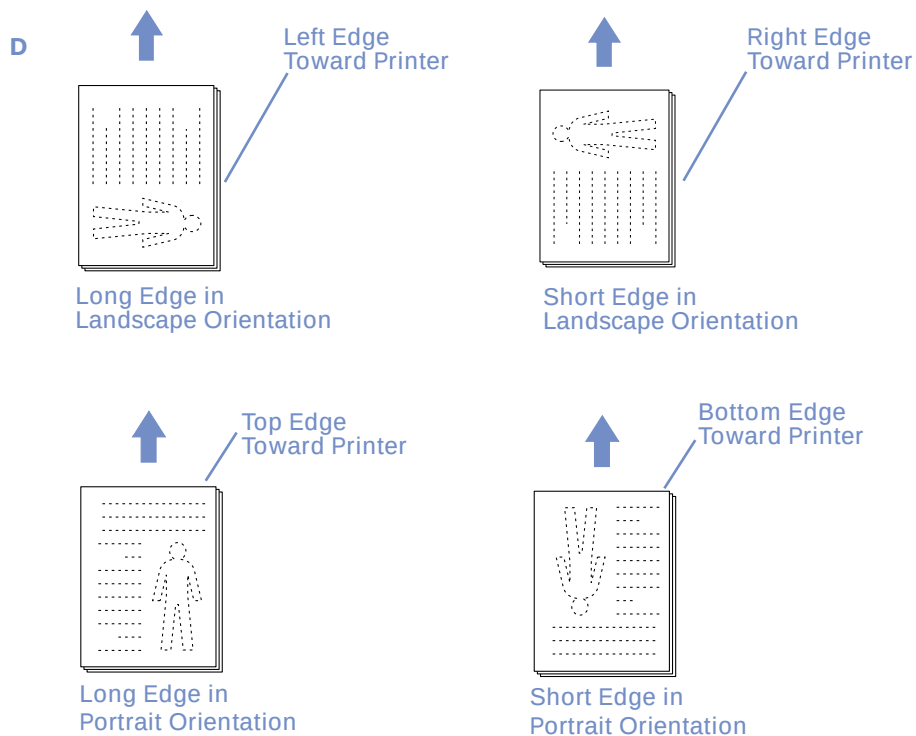


Manual Duplexing (Continued)

7. Collect the printed pages and straighten the stack.
8. Consult the Instruction Sheet that printed or use the directions below on how to reload Tray 1 **(D)**.
9. You are prompted to re-insert the paper into Tray 1 **(E)**.

note: If you are printing to the Face-up OutputTray, the last page will be on top of the stack. Do not rearrange the pages. The printer knows the stacking order and will print the corresponding side for each page.

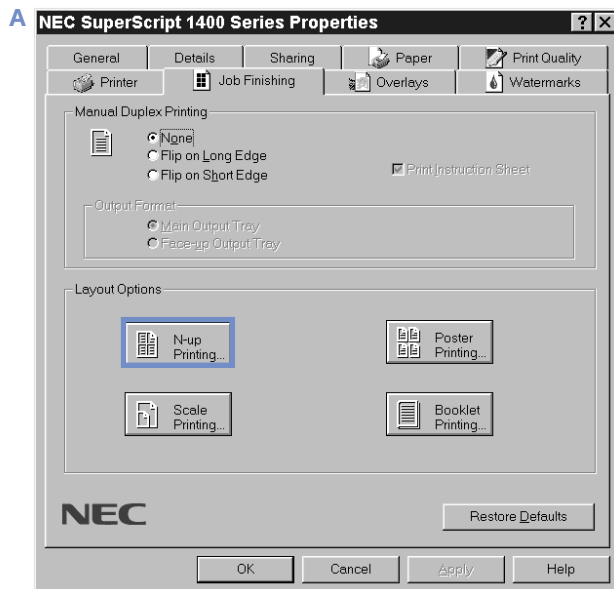
10. Click **OK** on the screen to start printing the second side. The printer automatically prints only the even-numbered pages.



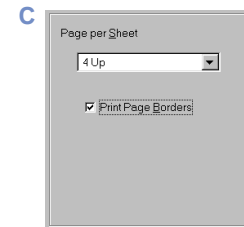
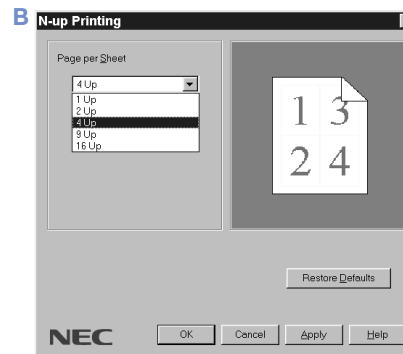
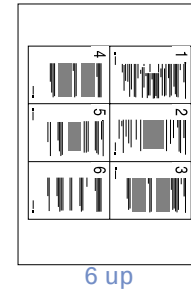
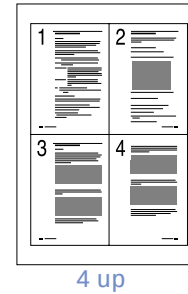
N-UP PRINTING

The N-up printing feature allows you to print multiple reduced-size pages on one sheet of paper. You can choose to print 2, 4, 6, 9, or 16 pages “up” (the number of reduced pages that will print on each sheet of paper). N-up printing is useful for drafts and presentation handout. It lets you quickly scan multiple pages at a glance. You can also specify whether you want to print page borders around the reduced pages. There will be a preview area on the tab to show the effect of the settings you select.

1. Set up basic paper handling parameters such as paper orientation, source, and size from the **Paper** tab in the **Properties** window.
2. Click the **Job Finishing** tab and choose **N-up Printing...** in the **Layout Options** area (A).



3. Select the number of pages you want to print per sheet in the **Pages per Sheet** drop-down menu (B).
4. Click **Print Page Borders** if you want to print a border around each page on the sheet (C).
5. Click **OK** then start printing.



note: To use the N-up printing feature with **Macintosh**, select **Pages per Sheet** from the **Layout** menu, see page 44.

BOOKLET PRINTING

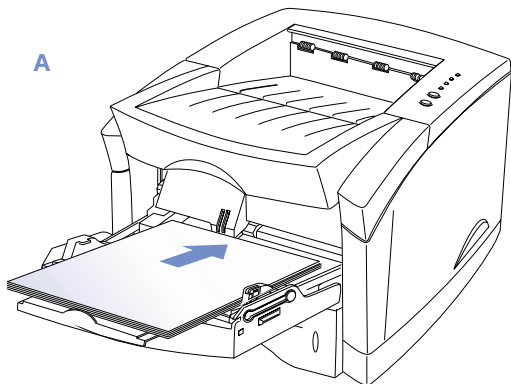
Booklet printing allows you to print a double-sided document and arrange the pages into a booklet. You can use Letter, Legal, A4, or Executive size paper. You can produce booklets in book or tablet form. Booklets have two reduced-sized pages on each side of the sheet. You fold these sheets to complete the booklet. When you use booklet printing, the SuperScript printer driver prints the pages in the correct order so that all you need to do is fold the printed pages in half and staple.

The printer driver will print the first side of the booklet pages, then pause for you to re-insert the pages into the printer. If specified, the driver will print an instruction sheet

to help you reinsert the pages correctly. When you pick one of the booklet sizes in your Windows program, the driver will do what is needed to print a booklet, including reducing the page size and activating 2-sided printing.

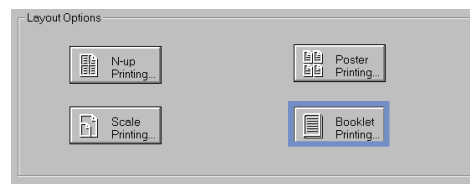
1. Load paper into any input tray (A).
2. Click on the **Paper** tab from the **Properties** window and select paper orientation, source, size, and type.
3. Click on the **Job Finishing** tab and select **Booklet Printing...** from **Layout Options** (B).
4. Select the paper size you want to use from the **Booklet Type** menu (C).
5. For ease of use, select **Print Instruction Page**.

A

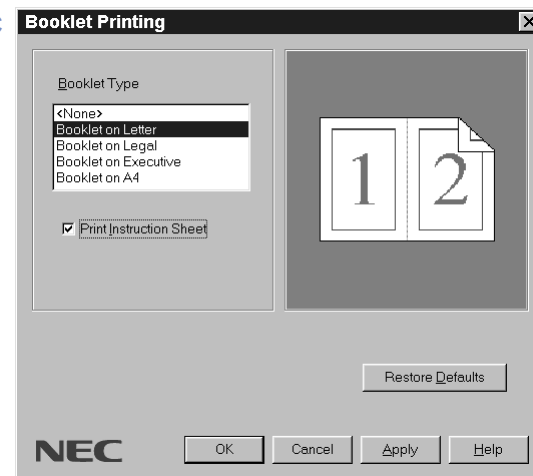


note: In some programs such as Microsoft PowerPoint, you cannot set paper size to booklet. Therefore, you cannot use these programs successfully with this booklet printing feature.

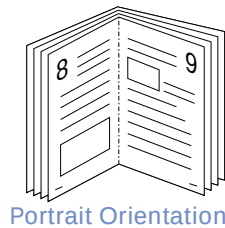
B



C

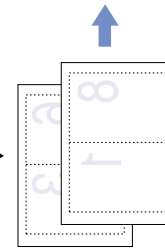


6. When your booklet printing setup is complete, click **OK**.
note: Although you can print a booklet simply by selecting a booklet paper size in your application, it is recommended that you select a booklet paper size in both the driver and the application.
7. Make any adjustments to your fonts and margins from your Windows application to print your document. The order of pages will depend on whether you are printing to the Main Output Tray or the Face-up Output Tray.
8. After the first pages have printed, set aside any remaining blank paper in the input tray. The printed pages will look similar to the drawing below **(D)**.
9. Flip, but do not rearrange, the stack of printed pages. Straighten the pages before loading them into the Multipurpose Tray (Tray 1). The drawings below **(E)** show how to put the pages back into the printer.
10. You will be prompted to re-insert the pages into the Multipurpose Tray **(F)**.
11. Fold and staple the booklet **(G)**.

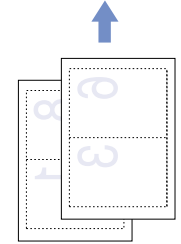


In portrait orientation, insert the reverse sides of the printed pages into Tray 1 with the **left edge** toward the printer.

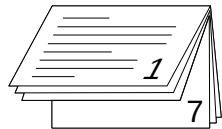
When Printing to Face-up Output Tray



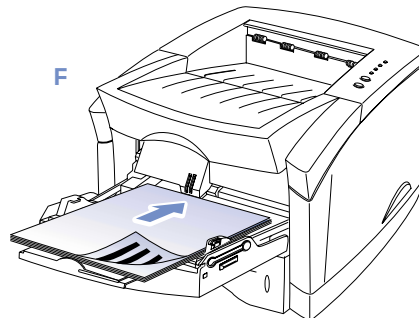
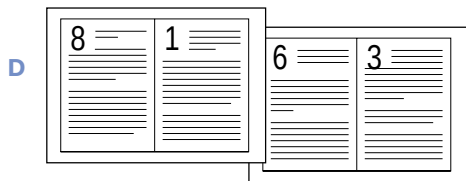
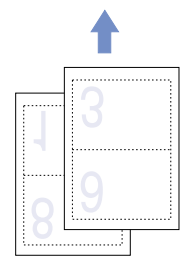
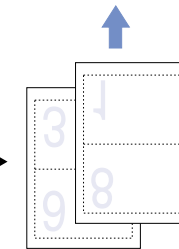
E



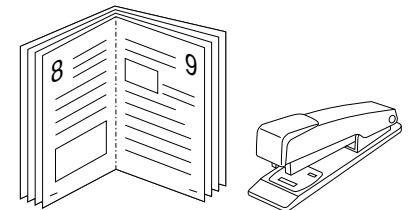
to Main Output Tray



In landscape orientation, insert the reverse sides of the printed pages into Tray 1 with the **bottom edge** toward the printer.



G



FIRST PAGE PRINTING

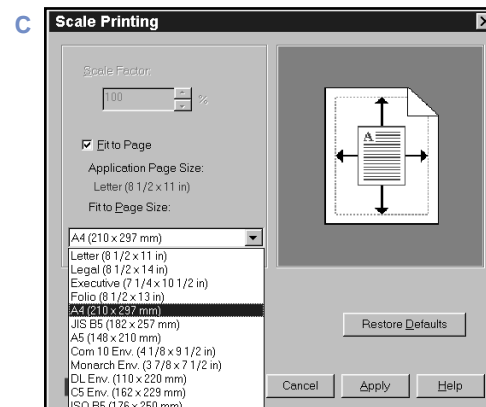
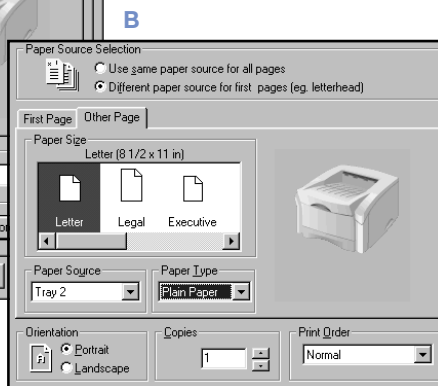
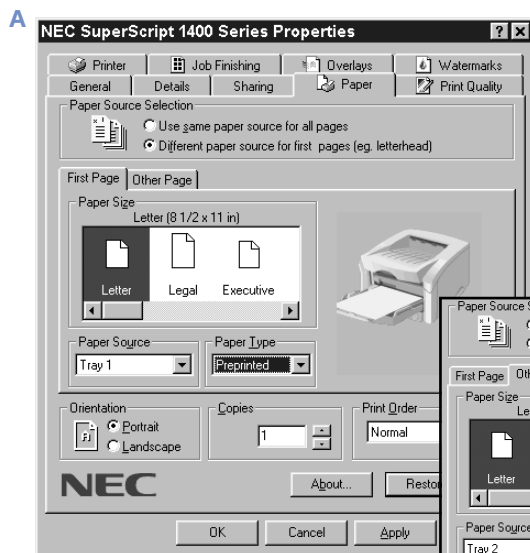
There will be times when you may want to use a different paper, such as a company letterhead, as the first page of your document. When this is the case, follow these directions:

1. Open the **Properties** window and click on the **Paper** tab.
2. In the **Paper Source Selection** area select **Different paper source for first pages (A)**.
3. On the **First Page** tab set up paper size, paper source, and paper type.
4. On the **Other Page** tab set up paper size, paper source, and paper type for all of the other pages (B).
5. Setup other parameters of the job such as orientation and then click **OK**.

SCALE PRINTING

This feature allows you to scale your print job to any selected paper size regardless of the digital document size. This is especially useful when you want to check the detail in a small document. To enable this feature:

1. From your software application, access the printer **Properties** window.
2. Click the **Job Finishing** tab and then **Scale Print...** in the **Layout Options** area.
3. In the **Scale Printing** dialog box, select the **Fit to Page**.
4. Select the paper size from the **Fit to Page Size** drop down menu (C).
5. Click **OK**.



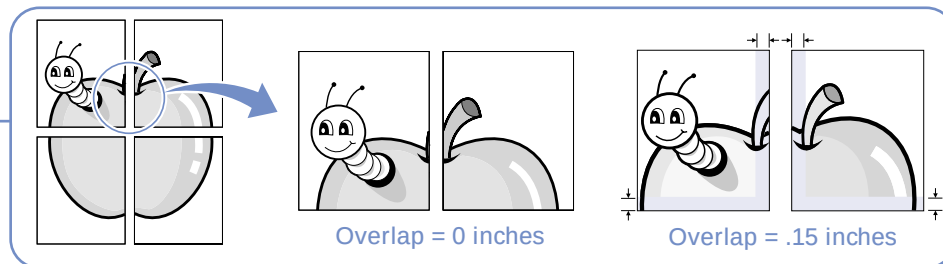
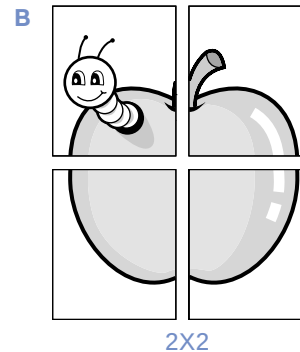
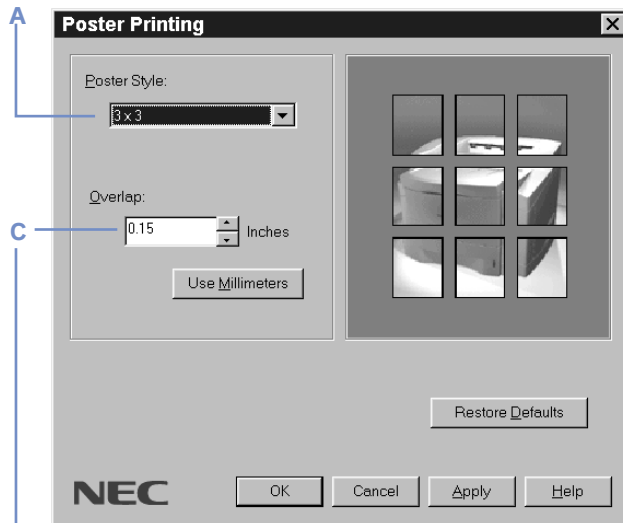
note: Clicking on the **OK** button saves all changes before leaving the tab. Clicking the **Apply** button saves changes without leaving the tab.

POSTER PRINTING

Poster printing allows you to print a single-page document onto 4, 9, or 16 sheets of paper, which can be taped together to form a poster-size document.

1. From the **Properties** window select the **Paper** tab and set up your basic document parameters such as paper source and orientation.
2. From the **Job Finishing** tab, select **Poster Printing...** in the **Layout Options** area.
3. In the **Poster Printing** dialog box select your poster style and the desired overlap **(A)**.

4. To determine the scaling factor **(B)**, select 2X2, 3X3, 4X4, or Custom.
For example, if you select 2X2, the output will be automatically stretched to cover four physical pages.
If you select Custom, you can adjust the scaling factor manually. For example, if you specify 150%, the image will be printed across four pages with 150% scaled.
5. You can specify an overlap in pixels to make it easier to reconstruct the final poster **(C)**.
6. Click **OK**, then print the poster pieces.



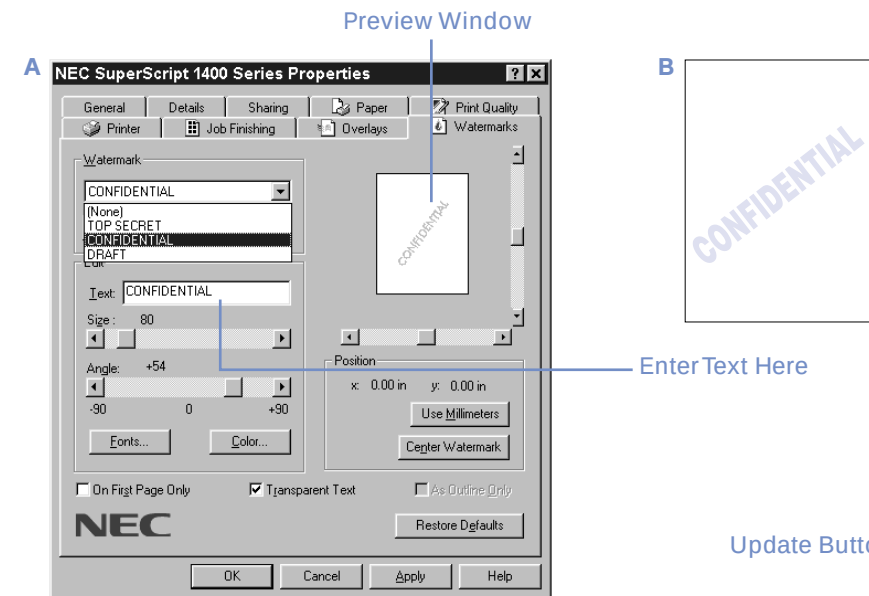
PRINTING WATERMARKS

The watermark feature allows you to print text “underneath” or in the background of a document. Examples of watermark text could be Draft or Confidential printed diagonally across the pages of a document. A few predefined watermarks came with the printer. You can either modify or create more of your own.

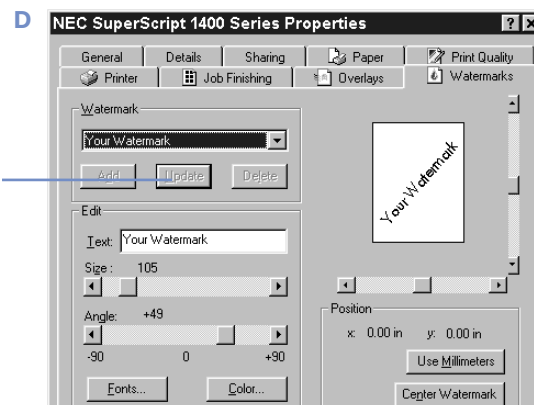
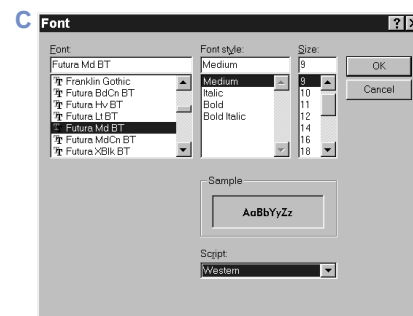
note: Not all applications or printer drivers support the watermark feature.

You cannot use the watermark feature with the Windows NT 4.0 operating system.

1. From the **Properties** window click on the **Watermarks** tab and select the desired watermark in the Message drop-down menu. The selected watermark will show in the preview window (A).



2. Click **OK** and print your document.
- note:** To stop printing a watermark, choose **None** in the drop-down menu.
3. To create new watermark text, enter it in the **Text** field of the **Edit** section of the **Watermark** tab (B). Choose the font attributes by clicking the **Fonts...** button (C). The new watermark text will show in the preview window.
4. Select the desired watermark options such as transparency and angle.
5. Click the **Add** button.
6. Click **OK**, then print with the watermark.
7. To edit an existing watermark, select the watermark from the list (D). Edit and then click the **Update** button.
8. Click **OK**, then print with the new watermark.



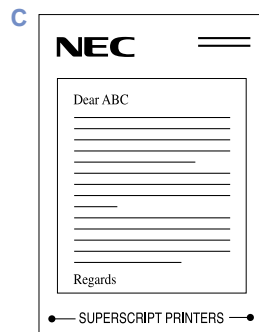
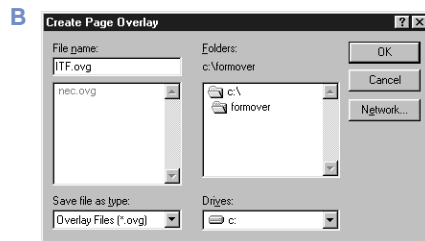
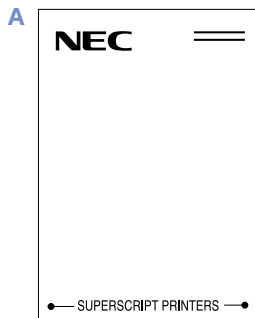
note: For **Macintosh** PCL users, you can find the watermark feature by going to the **Page Setup** dialog box, see page 44.

USING PAGE OVERLAYS

An overlay is text or graphics stored in your computer as a special file format that can be printed on any given document. Overlays are often used to take the place of preprinted or letterhead paper. When you want to print a letter, for example, you do not need to load the preprinted letterhead in the paper tray. You just tell the printer to print the letterhead overlay on your document.

Creating a New Overlay

1. Create or open a document containing the text and graphics you want on your page overlay **(A)**.
2. Select **Print** from the **File** menu. Open the **Properties** window and click on the **Overlays** tab and click on **Create Overlay**.

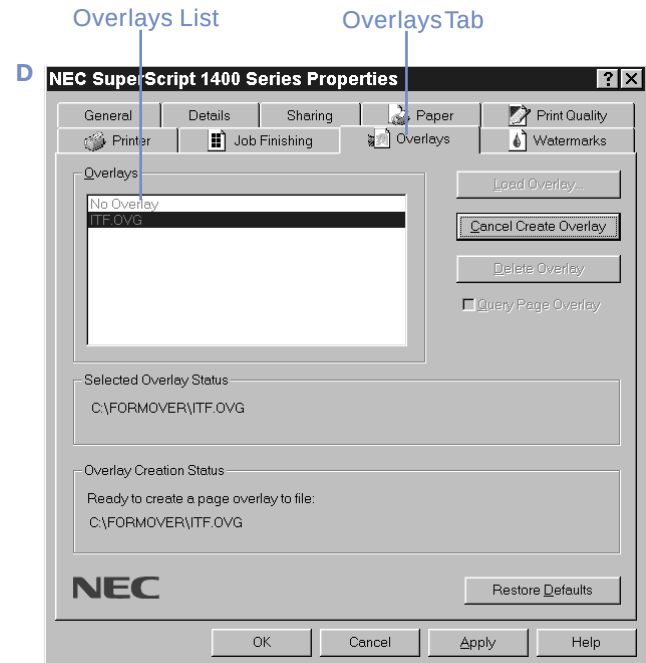


3. In the **Create Overlay** dialog box, type a name of up to eight letters in the file name box. Select the destination path if necessary (the default is C:\FORMOVER) **(B)**.
4. Click **OK** and you will see the name in the **Overlays** list (it will have an extension like .ovg or .ovl).
5. Click **OK** or **Yes** until you complete the creation. The file is not printed out. It is stored on your computer's hard disk.

Using an Overlay

1. Create or open the document you want to print **(C)**.
2. Access the **Properties** window and click on the **Overlays** tab.
3. Select the desired overlay from the **Overlays** list **(D)**.

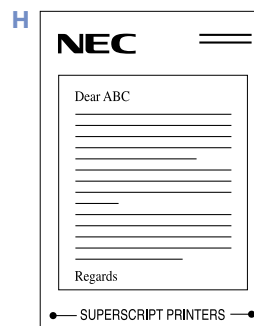
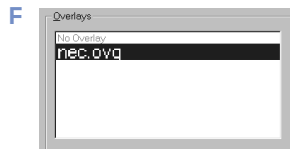
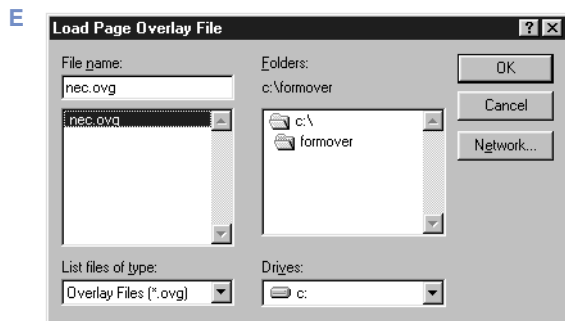
Instructions continued on next page.



4. If the desired overlay file does not appear, click the **Load Overlay** button and select the overlay file (E).
If you have stored the overlay file you want to use into an external source, you can also load the file when you access this **Load Overlay** window.
- note:** To stop printing an overlay, highlight **No Overlay** in the **Overlays** box.
5. After you select the file, click **OK**. The file is now shown in the **Overlay List** box and is available for printing. Select the overlay from the **Overlay List** box (F).
6. If necessary, click the **Query Page Overlay** (G). If this box is checked, a message box will appear 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 message box means that the selected overlay will be printed with your document. Answering **No** to the message box cancels overlay printing.

7. Click **OK** or **Yes** until the printing starts.
The selected overlay will be downloaded with your print job and printed underneath your document (H).



SETTING GRAPHIC PROPERTIES

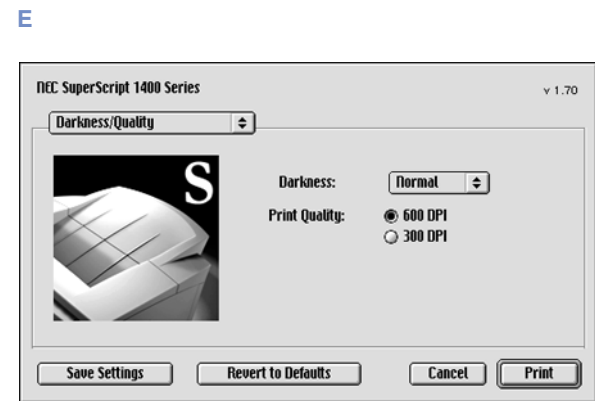
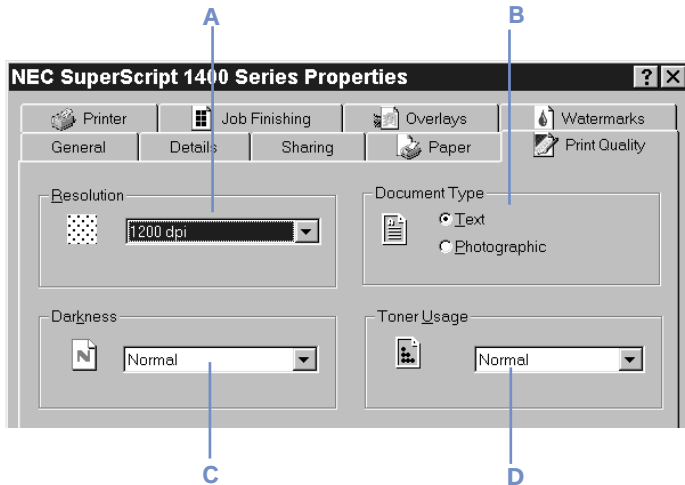
Use the following options to adjust the print quality for your specific printing projects in **Windows**.

1. From the **Properties** window, click on the **Print Quality** tab.
2. In the **Resolution** area of the tab (A), you can select the dpi (dots per inch) of your graphic output. You can use either 300 dpi, 600 dpi, 1200 dpi (Fast Printing), and in some drivers, 1200 dpi (Best Quality). The higher dpi number will result in a sharper graphic image, but may increase your print time slightly. The default setting is 1200 dpi (Fast Printing).
3. In the **Document Type** area (B), you can further enhance your 1200 dpi printouts. Select **Photographic** if your

print job contains photo or bitmap images. The default selection is **Text**. This feature is grayed out when values other than 1200 dpi (fast printing) are selected.

4. In the **Darkness** area (C), you can adjust the toner density to maximize print quality.
5. In the **Toner Usage** area (D), you can conserve toner by selecting **Save Toner**—a good choice for printing out preliminary drafts.
6. Click **OK** and you will see the name in the **Overlays** list.

To adjust print quality in the **Macintosh** printer driver, select **Darkness/Quality** from the drop-down menu under **Page Setup (E)**.



CHAPTER 7

MAINTAINING YOUR PRINTER

OVERVIEW

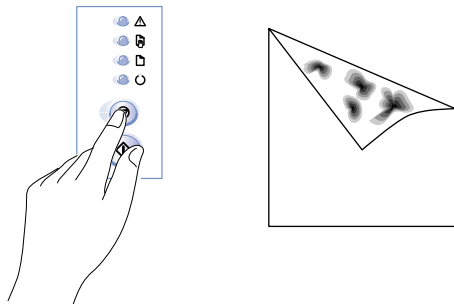
The SuperScript 1450 and 1450N printers are designed for easy use and maintenance. This chapter explains basic maintenance and cleaning procedures that must be followed in order to maintain high print quality and efficient operation. Included are instructions for the following maintenance tasks:

- Internal maintenance
- Redistributing and replacing the Toner Cartridge
- Cleaning the printer
- Moving the printer

note: See page 88, for information about ordering a new Toner Cartridge. Use only NEC SuperScript 1400 Series Toner Cartridges in this printer. Other cartridges will not work!

Print a Internal Cleaning Page by pressing down and holding both buttons on the Operator Panel. Do this...

- Once a month
- If the backs of printouts show toner marks



PRECAUTIONS

Please take the following precautions when performing maintenance tasks

- Do not work inside the Top or Back Covers of the printer until it has cooled.
- Do not use ammonia-based cleaners. They may react with the toner in the cartridge.
- Do not use alcohol-based cleaners on the printer exterior. They may damage the plastic case.
- Do not expose the Toner Cartridge to direct sunlight or bright room light.
- Do not spill any liquid inside the printer or in the power cord connector.
- Turn off and unplug the printer while working inside the covers.
- Follow all directions carefully. Save this user's guide for future reference.
- Do not attempt to service the printer yourself since opening some internal parts may expose you to high voltage or other hazards. Refer all servicing not explained in this user's guide to qualified technicians. Call NEC Technical Support at 800-632-4650 for help.

INTERNAL MAINTENANCE

It is recommended that you print an Internal Cleaning Page every month. Also do this any time toner marks appear on the backs of your printouts.

Press and hold down the **Go/Continue** and **Cancel** buttons simultaneously. All four lights will blink and the Internal Cleaning Page will print.

REPLACING THE TONER CARTRIDGE

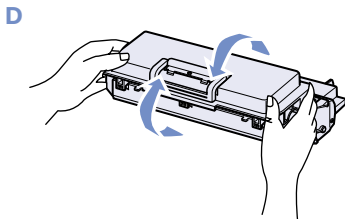
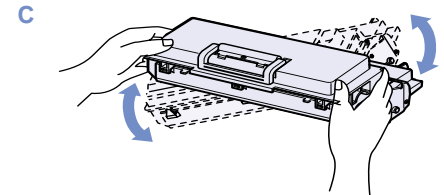
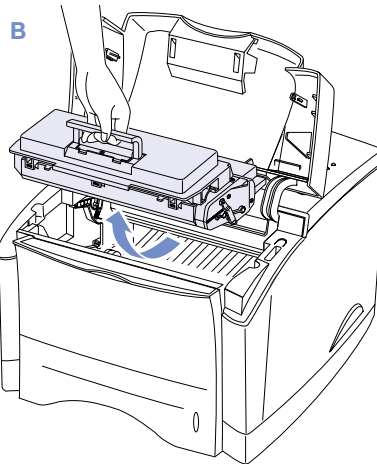
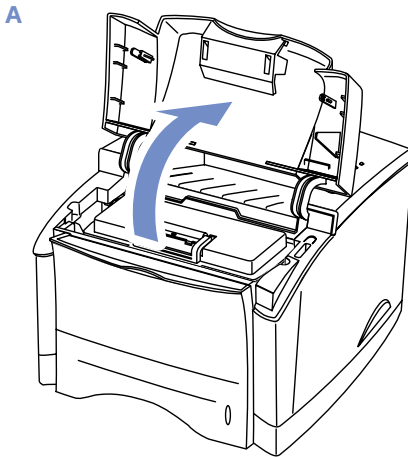
Order #20-152

Replace the Toner Cartridge when you start seeing print quality problems such as light images or white streaks across the page. You can redistribute the Toner Cartridge to temporarily restore print quality.

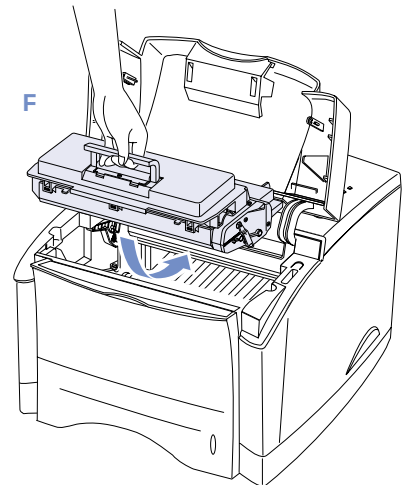
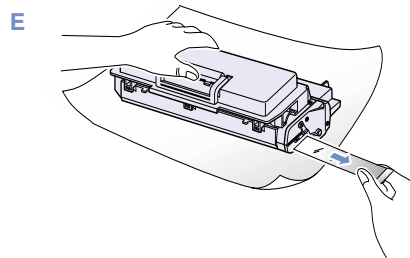
The SuperScript 1450(N) Toner Cartridge that came with your printer will print approximately 3,000 pages before it needs to be replaced. The high capacity replacement Toner Cartridge will print approximately 6,000 pages. To order the high capacity Toner Cartridge contact your NEC printer dealer or call 800-632-2326.

Follow these directions to replace the Toner Cartridge

1. Open the Top Cover (A).
2. Pull out and discard the used Toner Cartridge (B).
3. Remove the new Toner Cartridge from its bag.
4. Shake the Toner Cartridge thoroughly, as shown (C), then rock the Toner Cartridge forward and back several times (D).
5. Pull the tape tab straight out (E).
6. Insert the new Toner Cartridge (F).
7. Close the Top Cover.
8. To **redistribute** toner between replacements, shake as directed above.



note: Please shake the Toner Cartridge thoroughly to loosen and distribute the toner inside, which may have settled during storage.



CLEANING THE PRINTER

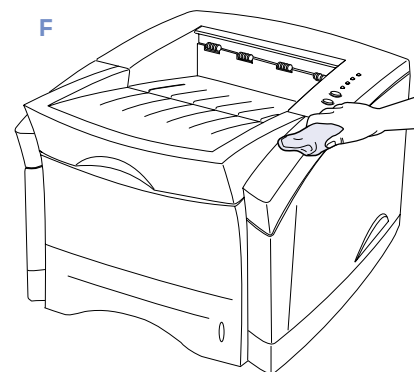
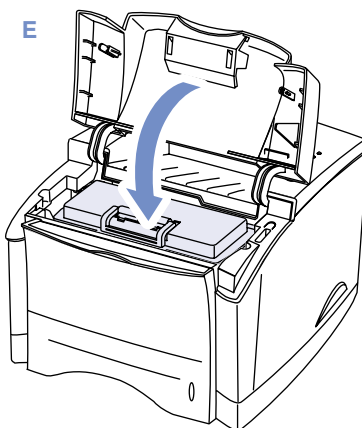
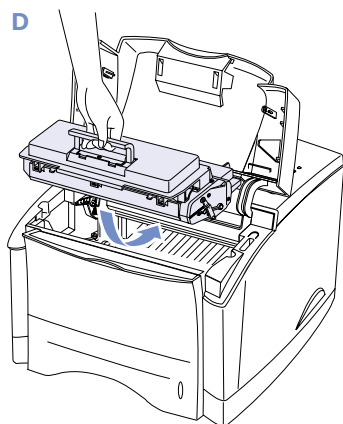
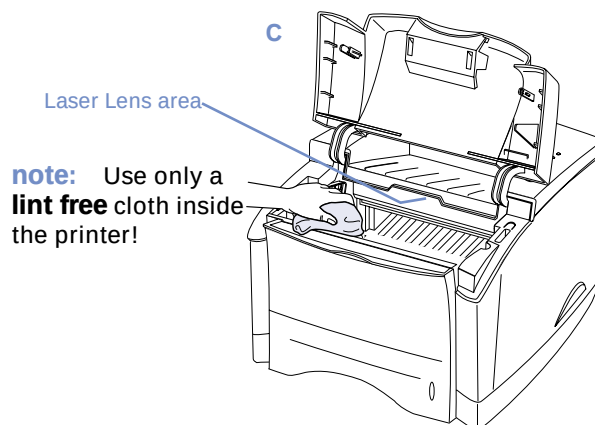
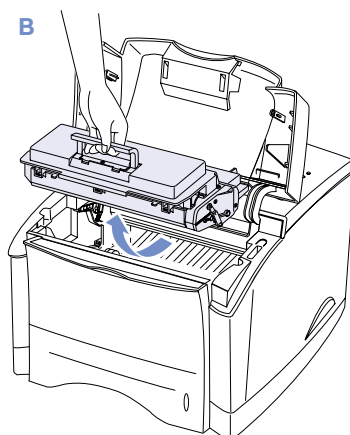
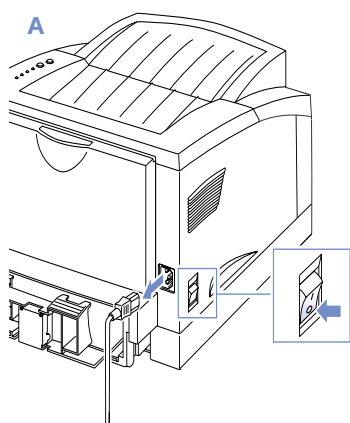
Clean the printer about every month.

Follow these directions.

1. Turn off and unplug the printer (A).
2. Open the Top Cover and remove the Toner Cartridge (B).
Do not expose the Toner Cartridge to light for more than a few minutes. Cover with a dark cloth if it will be out of the printer for any length of time!
3. Using a soft lint-free cloth, gently wipe the internal toner cartridge area. Reach underneath and wipe off the Laser

lens as well, especially if vertical streaks have been appearing on your printouts (C).

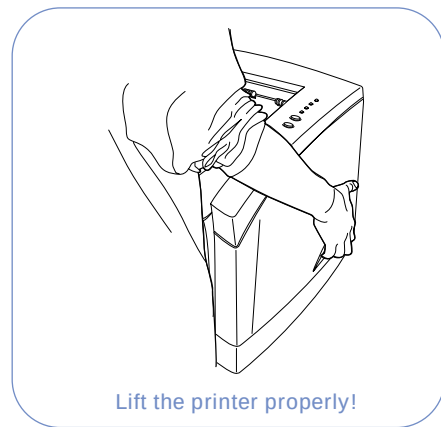
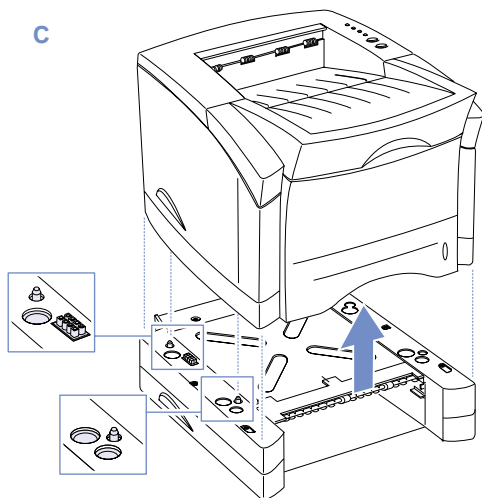
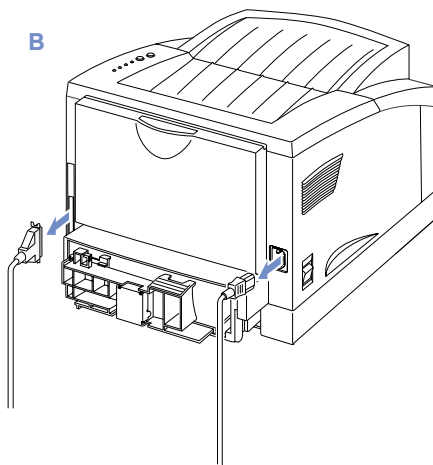
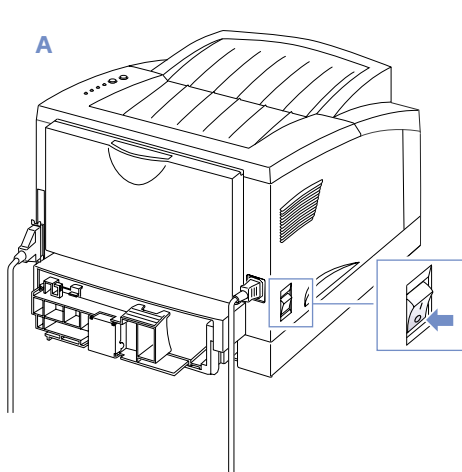
4. Re-insert the Toner Cartridge (D).
 5. Close the Top Cover (E).
 6. Using a clean soft cloth, wipe off any stains or dust from the printer's exterior (F).
- note:** Do not use strong solvents or abrasive cleansers on plastic parts of the printer.
7. If toner marks have been appearing on the back of your printouts you should also print an Internal Cleaning Page (see page 57).



MOVING THE PRINTER

Follow the procedure below when moving the printer.

1. Turn off the printer (A).
2. Unplug the Power Cord and any connecting cables from the printer (B).
3. If applicable, remove the printer from the 550-sheet 2nd Cassette and place it on a sturdy surface or cart (C). Refer to page 62 and reverse directions.
4. If you are shipping your printer, repack it in its original packaging and box.



CHAPTER 8

PRINTER OPTIONS

OVERVIEW

There are four installable options for your SuperScript 1450 or 1450N printer:

- The 550-sheet 2nd Cassette
- The PostScript Compatibility Upgrade Kit with 8 MB SIMM, (available for the 1450 Model—already included with the 1450N)
- The Network Interface Upgrade Kit for the PC (available for the 1450 Model—already included with the 1450N)
- The Network Interface Upgrade Kit for the Macintosh includes a PostScript® SIMM (available for the 1450 Model—already included with the 1450N)
- Industry standard memory SIMMs (available at your local computer retailer)
Use 72 pin standard EDO type DRAM SIMM with 60ns or faster access time.

Except for the optional 550-sheet 2nd Cassette, you must remove the printer’s Side Cover to install these options. This simple procedure is described later in this chapter.

For installation of the Network Interface Upgrade Kits, see the *SuperScript 1450 Network Guide*.

For information about ordering SuperScript printer options, see page 88.

PRECAUTIONS

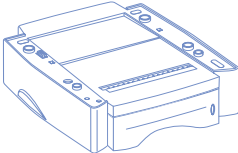
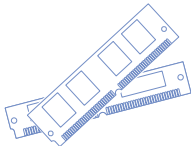
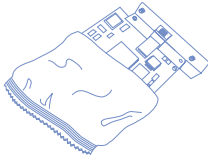
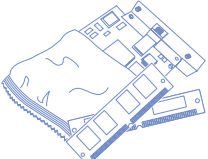
Disconnecting the Power Cord

To avoid the possibility of electrical shock, disconnect all cables when installing or removing **any** internal or external printer option.

Discharging Static Electricity

The Controller Board and internal printer options are sensitive to static electricity.

- Before installing or removing an internal option, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source.
- If you walk around before finishing the installation, discharge any static electricity again.

Printer Options	
550-sheet 2nd Cassette <i>Order Number: 1401</i>	
PostScript Compatibility Upgrade Kit <i>Order Number: 1402</i> <i>Kit contains a PostScript SIMM and an 8MB SIMM</i>	
Network Interface Upgrade Kit for the PC <i>Order Number: 1403</i>	
Network Interface Upgrade Kit for the Macintosh <i>Order Number: 1404</i> <i>Kit contains Network Interface Card, a PostScript SIMM, and an 8MB SIMM</i>	
Printer Memory Upgrade <i>(Order from your local computer retailer)</i>	

INSTALLING THE 550-SHEET 2ND CASSETTE (TRAY 3)

(Order No.1401)

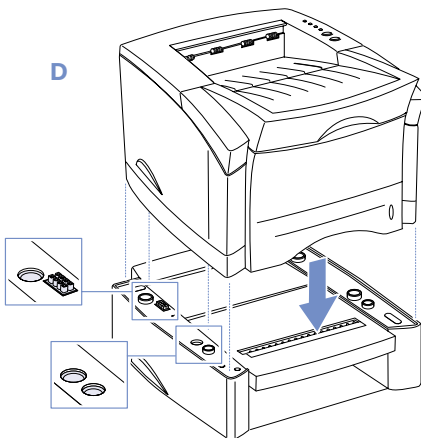
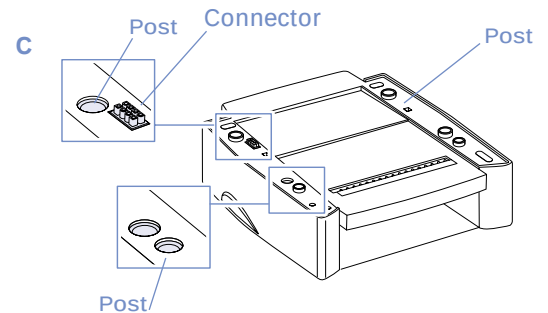
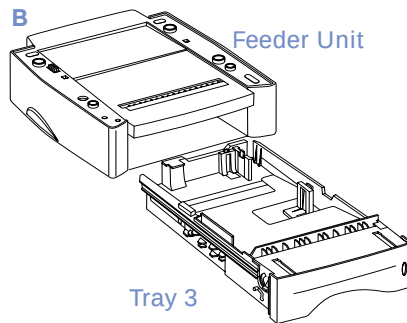
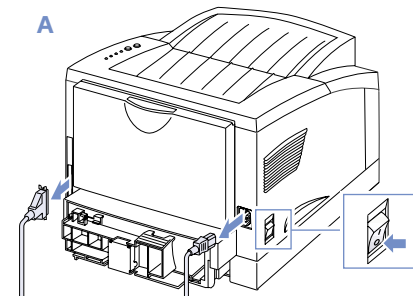
The 550-sheet 2nd Cassette or Tray 3 accommodates 550 sheets of medium weight paper or 40 envelopes. See page 95 for paper types and sizes. Follow these directions for installing the optional 550-sheet 2nd Cassette:

1. Turn the printer off and unplug all cables from the printer (A).
2. Make sure there is plenty of room around and above the printer to work. Remove the 550-sheet 2nd Cassette from

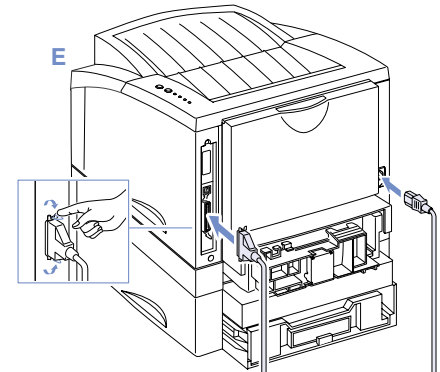
its packaging and remove Tray 3 from the Feeder Unit (B).

3. Put the 550-sheet 2nd Cassette next to the printer and observe the location of the Feeder Unit's connector and tabs (C).
4. Lift the printer up and align it over the Feeder Unit. Keeping it level, lower it into place on the posts and connector (D).
5. Reconnect all cables, then turn the printer ON (E).

Installing the 550-sheet 2nd Cassette



note: The Remote Control Panel, Status Monitor, and Properties Window for each printer driver refers to the 550-sheet 2nd Cassette as Tray 3.

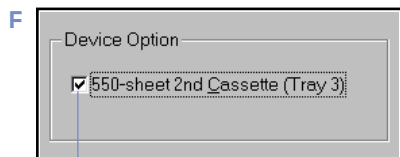


- Open the **Properties** window for the driver. In the **Device Options** field on the **Printer** tab, select 550-sheet 2nd Cassette (Tray 3).

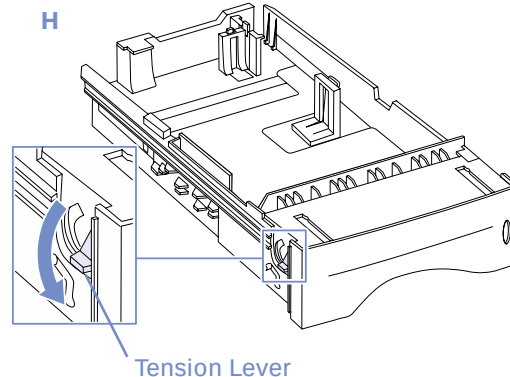
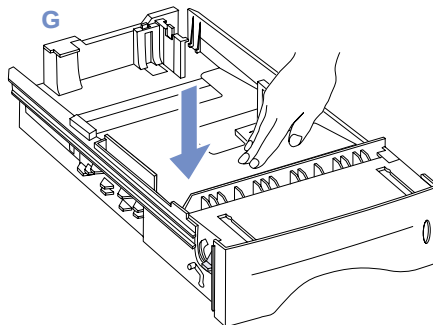
If you are using the Windows PCL6 or PostScript printer driver, open the **Properties** window for the driver, view the **Device Options** (if using Windows 95 or 98) or **Device Settings** (if using Windows NT 4.0), and make sure that the Optional Cassette or Tray 3 is selected (**F**).

note: Macintosh user's, see page 44.

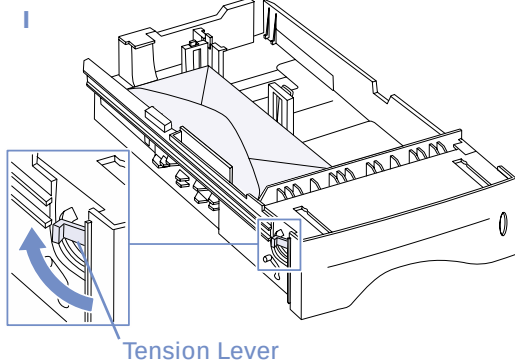
- Push down the metal plate in the bottom of Tray 3 (**G**).



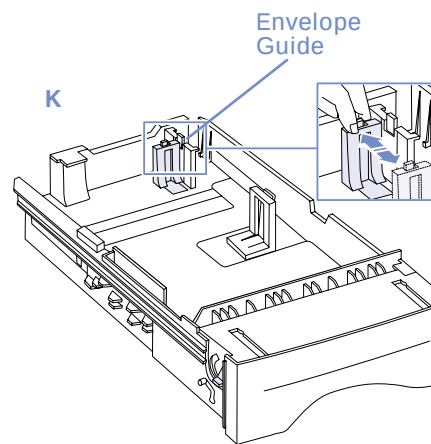
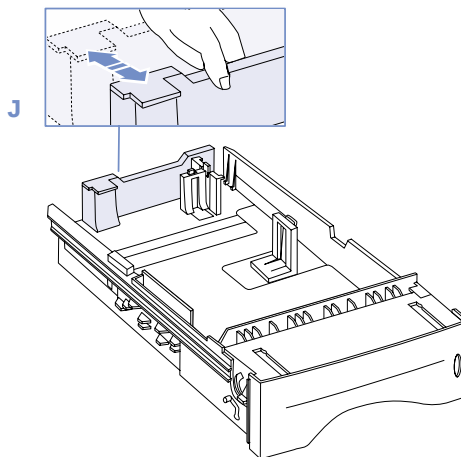
Check this box in your driver so that Tray 3 is selectable from the Paper Source drop-down list.



Tension Lever



Tension Lever

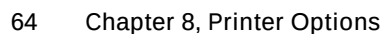
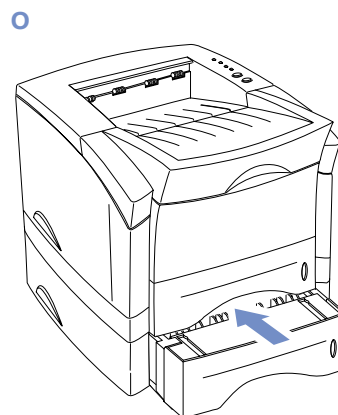
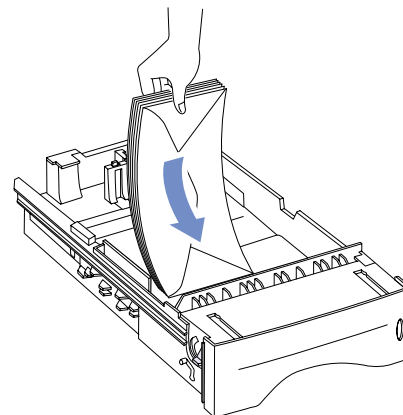


Envelope Guide

- If loading **paper** make sure the **Tension Lever** on the left front of the cassette tray is released into the hole under the slot (**H**).
- If loading **envelopes** release the lever into the slot (**I**).
- Squeeze and adjust the **Back Paper Guide** to the desired paper length embossed on the inside tray bottom (**J**).
- If you are loading paper adjust the **Envelope Guide** to its back position (**K**).

Directions continued on next page.

13. Move **Side Guide 2** to fit against the paper stack **(N)**.
14. Reinsert the tray into the 500-sheet 2nd Cassette unit **(O)**.
15. Confirm the installation by printing a Configuration Sheet. From the **Ready** state, press and hold the **Go/Continue** button for 4 seconds **(P)**.



ACCESSING THE CONTROLLER BOARD

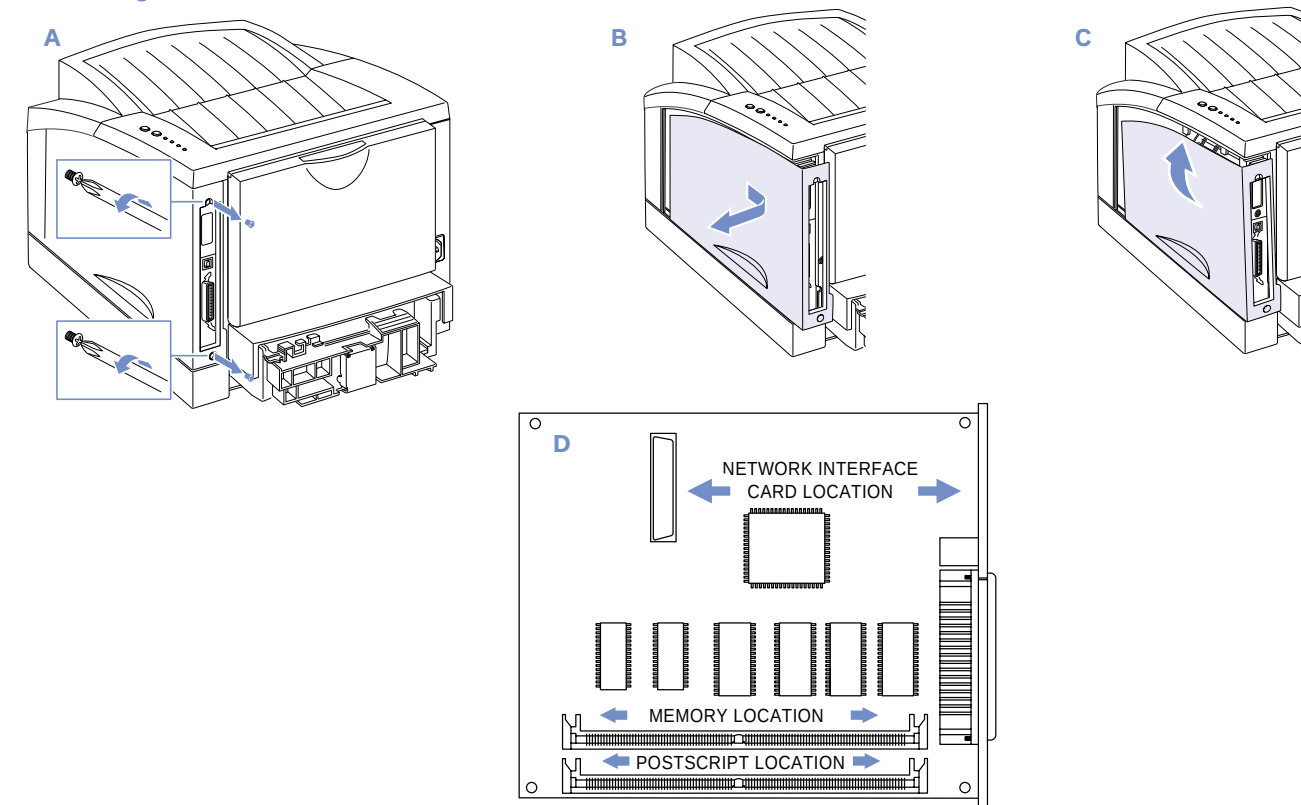
The printer Controller Board manages and controls all printer functions. Use the procedure below to gain access to the Controller Board when installing these upgrades.

- Printer Memory Upgrade
- PostScript Compatibility Upgrade
- Network Interface Upgrade

To access the Controller Board:

1. Turn off the printer and unplug all cables from the printer.

Accessing the Controller Board



2. Remove the two screws from the Side Cover as shown (A).
3. Slide the cover slightly (3/4 inch) towards the back of the printer (B).
4. Rotate the cover away from printer (make sure wire-snaps on the parallel port are not in the way), then lift the cover away (C).
5. Controller Board areas for each upgrade option are shown below (D).

PRINTER MEMORY UPGRADE

Printer memory is used for temporarily storing a print job until it is processed. The more memory installed in the printer, the more efficiently it can process print jobs.

The **SuperScript 1450 model** printer comes with 4MB of memory, and can be upgraded to 68MB using 60ns, or faster, 72-pin standard EDO type DRAM SIMMs.

The **SuperScript 1450N model** printer comes with 16MB of memory, and can be upgraded to 80MB using 60ns, or faster, 72-pin standard EDO type DRAM SIMMs.

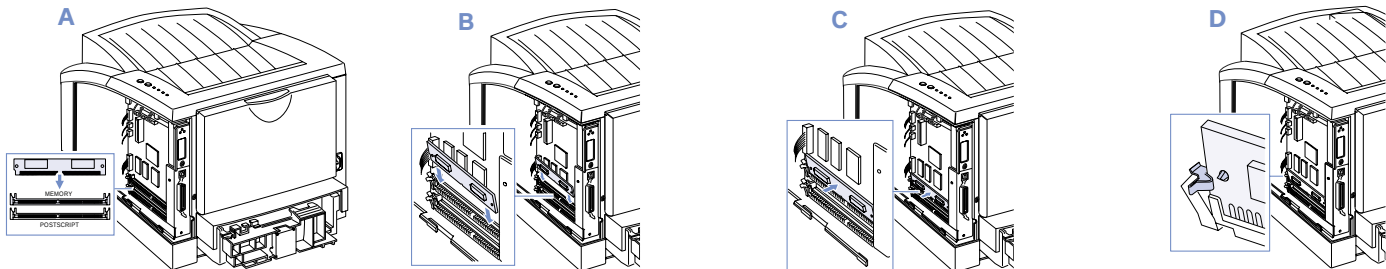
In either model printer you can use a 64MB SIMM in the printer's expansion slot **(A)**.

The 12MB of memory that comes with your printer is in the form of 16MB built into the Controller Board and 8MB installed in the SIMM slots.

To install a SIMM:

1. Remove the Controller Board Cover and access the printer controller board as described on Page 65.
2. Position the printer so you have access to the controller board.
3. Figure **(A)** shows the Controller Board and the location of expansion slot used for printer memory.
4. Align the SDRAM SIMM over the upper slot so that the notch is at the bottom and insert at a 45 degree angle **(B)**.
5. Rotate the SIMM upward until it snaps into position **(C)**.
6. Make sure that the SIMM is secured in place by the metal clips and pins on both sides of the connectors **(D)**.
7. Replace the Controller Board Cover as described on page 65.
8. If your computer is running Windows 95, 98, or NT 4.0, adjust the *printer driver properties* so the new printer memory size is recognized. Typically, the adjustment is made in the **Device Options** tab.
9. Confirm the installation by printing a printer Configuration Sheet. From the **Ready** state, press and hold the **Go/Continue** button for 4 seconds.

Installing Printer Memory



POSTSCRIPT COMPATIBILITY UPGRADE

(Order No. 1402)

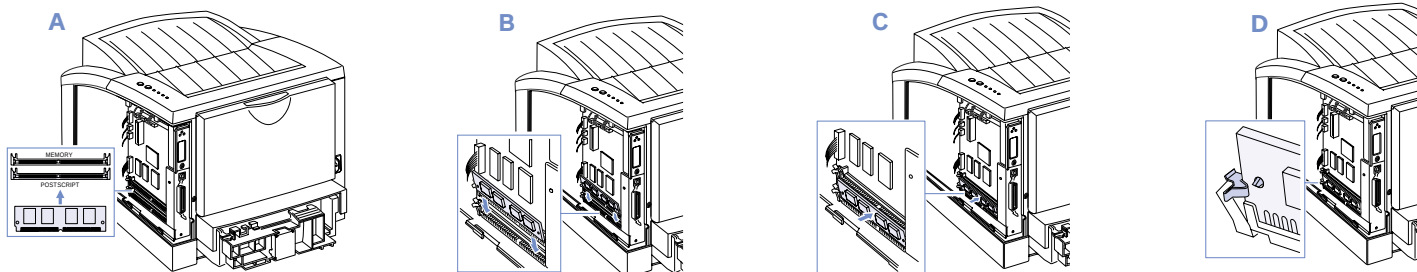
Install the PostScript Compatibility Upgrade for computers that must send their print jobs as PostScript files. Macintosh computers send their print jobs as PostScript files. Windows computers send print jobs as PostScript files if they are using the Windows PostScript printer driver.

Installing the kit involves gaining access to the printer Controller Board and installing a single PostScript SIMM and an 8MB SIMM.

To install the PostScript SIMM:

1. Remove the Side Cover and access the Controller Board as described on page 65.
2. Position the printer so you have access to the printer Controller Board.
3. Figure (A) shows the Controller Board and the location of the expansion slot used for printer memory.

Installing the PostScript SIMM



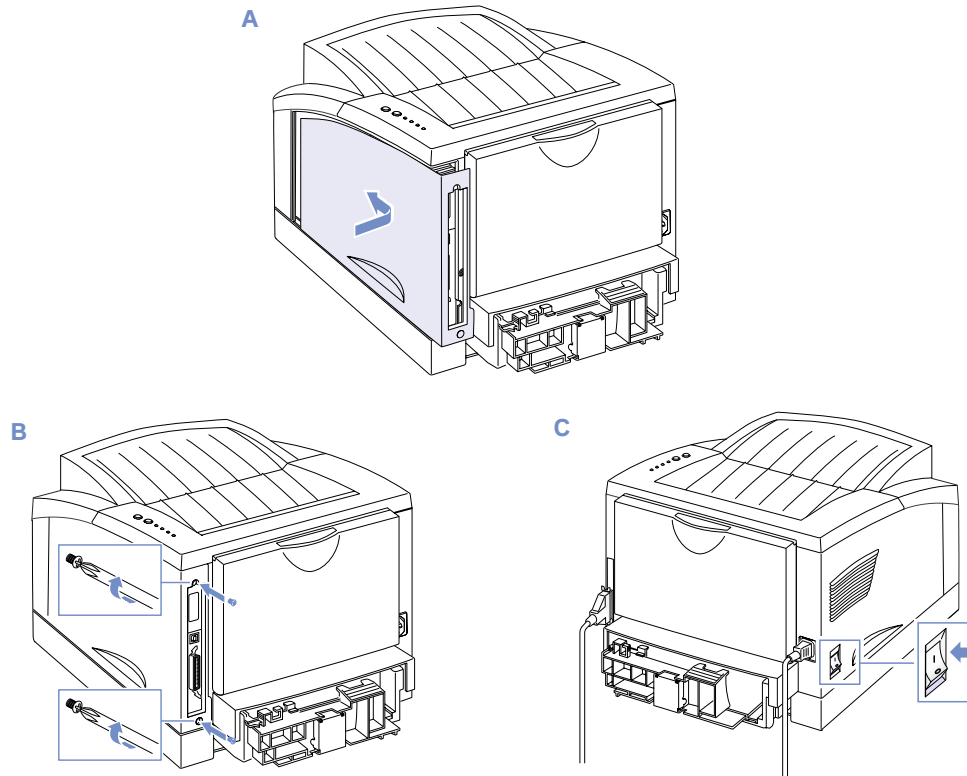
4. Align the SIMM over the upper slot so that the notch is at the bottom and insert at a 45 degree angle (B).
5. Rotate the SIMM upward until it snaps into position (C).
6. Make sure that the SIMM is secured in place by the metal clips and pins on both sides of the connectors (D).
7. Install the 8MB SIMM. See page 66.
8. Replace the Side Cover as described on page 68.
9. If not done previously, perform the following tasks:
 - For computers running Windows, install a Windows PostScript printer driver as described in Chapter 3, "Installing the Software."
 - For Macintosh computers, configure your Macintosh as described in Chapter 3, "Installing the Software."
10. Confirm the installation by printing a Configuration Sheet. From the **Ready** state, press and hold the **Go/Continue** button for 4 seconds.

REPLACING THE SIDE COVER

To replace the Side Cover:

1. Place the Side Cover in the bottom groove, approximately 3/4 inch from the left side and slide into position. Be sure the top part of the cover is secured by the tab (A).
2. Fasten the two screws on the back of the cover (B).
3. Plug in the power cord and computer cable (parallel or USB) and turn the printer on (C).

Replacing the Side Cover



CHAPTER 9

TROUBLESHOOTING

OVERVIEW

This chapter tells you how to solve common problems with your printer's operation. The following subjects are explained:

- General printing problems
- Operator Panel error messages
- Print quality problems
- Paper jams
- Common Windows problems
- Common Macintosh problems
- Common PostScript problems

GENERAL PRINTING PROBLEMS

If you have any problems with the operation of your printer, refer to the following table for suggested solutions.

If the printer does not print	
Possible Cause	Solution
The printer is not receiving power. The LEDs are not lit.	Check the power cord and cable connections. Check the power switch and the power source.
The printer is not selected as the default printer.	Select the appropriate NEC SuperScript icon as your default printer, see page 21.
Check to see if any of the conditions on the right are present:	• If a cover is open, close it. • If paper is jammed, remove it. • If an input tray is empty, fill it. • If the Toner Cartridge is not installed, install it. • If there is a printer system error indicated on the Operator Panel, contact a service representative.

If the printer does not print	
Possible Cause	Solution
The printer may be in manual feed mode and out of paper. (The amber Manual Feed and the Paper LEDs are blinking.)	Add paper to the Multipurpose Tray. Wait for the Manual Feed LED to light before feeding each subsequent sheet.
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 not connected properly.	If possible, attach the cable to another computer and print a job you know works. You may also try using a different printer cable.
The port setting is incorrect.	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 the printer is attached to the correct one.
The printer may be configured incorrectly.	Check the printer properties to make sure that all print settings are correct.
The printer driver may be incorrectly installed.	Uninstall the printer driver, then reinstall the printer driver. Try printing a Configuration Sheet.
The printer is malfunctioning.	Check the Operator Panel LED messages for errors, see page 28.

If the printer selects from the wrong paper source	
Possible Cause	Solution
The paper source selection in the printer properties may be incorrect.	In most software applications the paper source selection is found under the Paper tab inside the printer properties. Select the correct paper source.

If paper is not feeding into the printer correctly	
Possible Cause	Solution
Media has been incorrectly loaded.	Remove paper from the paper tray. Fan and straighten the stack before reloading. Do not fan transparencies
There is too much paper in the paper tray.	Remove excess paper from the tray.
The paper was too thick.	Use only paper that meets proper specifications, see page 93.

If the print job is running slow	
Possible Cause	Solution
The job may be very complex. The maximum speed of 12 pages per minute cannot be exceeded even when more memory is added.	Reduce the complexity of the page or try adjusting the print quality settings. If this problem occurs frequently, add more memory to the printer.
If using Windows 95/98, the Spooling Setting may be set incorrectly.	- From the Start menu, select Settings, and then Printers. - Right-click the SuperScript 1450 printer icon - Choose Properties and click on the Details tab. - Choose the Spool Settings button. - Select the desired spool setting from the available choices.
The computer may have insufficient random-access memory (RAM).	Install more Random-access memory (RAM) in your computer. See Page 66.

If half the page is blank	
Possible Cause	Solution
The page layout is too complex.	Simplify the page layout and remove any unnecessary graphics from the document, if possible. Install more memory. See Page 66.
The page orientation setting may be incorrect.	Change the page orientation in your application.
The paper size and the paper size settings do not match.	Make sure that the paper size in the print settings matches the paper in the paper tray.

If the paper keeps jamming	
Possible Cause	Solution
There is too much paper in the paper tray.	Remove excess paper from the tray. If printing special media, use the Multipurpose Tray.
An incorrect type of paper is being used.	Use only paper that meets the specifications required by the printer, see page 93.
An incorrect output tray is being used.	Media such as thick paper should not be printed using the Main Output Tray. Use the Face-up Output Tray instead.
There may be stray objects or small bits of paper inside the printer.	Open the Top Cover and remove any stray objects or leftover bits of torn paper.

If the text is garbled or incomplete	
Possible Cause	Solution
The printer cable is loose or defective.	- Disconnect the printer cable and then reconnect it. - Try a print job you know works. - If possible, attach the cable and printer 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 make sure that your printer is selected.
The software application is malfunctioning.	Try printing a job from another application.

If the text is garbled or incomplete

Possible Cause	Solution
Your computer's operating system is malfunctioning.	If printing from Windows (any version), exit to a DOS prompt and verify functionality with the following command: - At a C:\ prompt, type Dir LPT1, then press Enter. (This assumes you are connected to LPT1.) - Exit Windows and reboot the computer. - Turn the printer off and then back on again.

Pages print, but are totally blank

Possible Cause	Solution
The Toner Cartridge is defective or out of toner.	Replace with a new SuperScript 1400 Series Toner Cartridge.
The sealing tape may still be in the Toner Cartridge.	- Remove the Toner Cartridge and pull out the sealing tape. - Re-install the Toner Cartridge, and check the printer by printing a Configuration Sheet.
The file may have specified blank pages.	Check the file to make sure that it does not contain blank pages. For example, it is possible in some programs to make a file end with an even number of pages.
Some parts, such as the Controller Board, may be defective.	Contact a service representative.

ERROR MESSAGES

Operator Panel Error Messages

When the printer experiences an error, the Operator Panel will indicate the error messages by the LEDs. Find the light pattern below that matches the printer light pattern and follow the solutions to clear the error.

Light Status Legend

 Light off

 Light On

 Light blinking

Mode	Message
       	Power Off Check the following if all of the Operator Panel LEDs are not lit: - Make sure the power cord is plugged in. - Make sure the power switch is turned on. - Make sure the printer is powered with the specified AC voltage.
       	Paper Out If the amber Paper LED is blinking: - The paper tray is empty and must be refilled with paper. The Paper LED blinks until paper is added. - Loading paper into the tray will cancel this message and allow you to continue with the print job.

Mode	Message
	Paper Out-Manual Feed The amber Manual Feed LED is blinking. Load the correct paper into Tray 1 and press the Go/Continue button to print each page.
	Paper Jam The Error LED is blinking and the Paper LED is lit. There is a paper jam somewhere in the printer. Clear the paper jam and open and close the Top Cover. Refer to the paper jam section later in this chapter.
	Paper Size Error The Error and Paper LED are both blinking. The engine detects a paper size mismatch between the paper loaded and the size specified in the driver or application. - Make sure the paper size and type are specified in the printer driver. - Make sure the specified paper is loaded in the tray.
	Memory Overflow Error The Error LED is blinking. The document is too complex, and the printer does not have enough memory to print the job. - Try to free some printer memory by removing any unnecessary fonts, macros, or any data currently in printer memory. - Add more printer memory. See page 66. - For a temporary solution, simplify the image or print at a lower resolution.

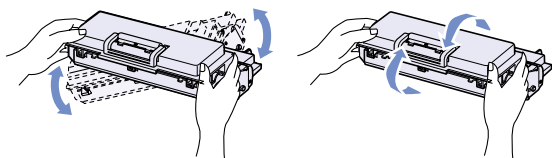
Mode	Message
	Cover Open/No Toner Cartridge The Error LED is on. The printer has a cover open, or there is no Toner Cartridge. - Check that the printer Top Cover is closed. - Make sure that the Toner Cartridge is correctly installed in the printer.
	Internal Error All four LEDs blink rapidly and sequentially. The printer detects an internal error. - Reset the printer by turning the printer off and on. - If the message persists, contact a service representative.
	Engine Error All four LEDs blink at the same time. The printer detects an engine error (LSU or Fuser). - Reset the printer by turning the printer off and on. - If the message persists, contact the service representative.

PRINT QUALITY PROBLEMS

This section discusses print quality problems, what causes them, and how to resolve them.

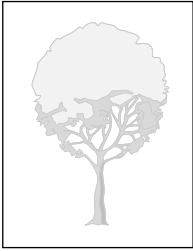
Here are some suggestions for maintaining the highest print quality from your NEC SuperScript 1450 and 1450N laser printer.

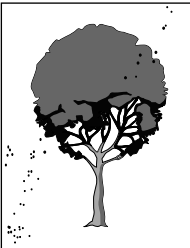
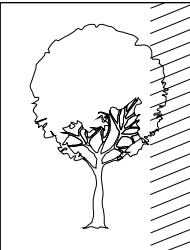
- Follow the cleaning procedures described in Chapter 7, “Maintaining Your Printer,” see page 59.
- When the print output becomes light, redistribute the toner. If the light printouts persist, replace the Toner Cartridge.

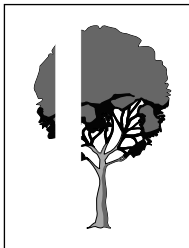
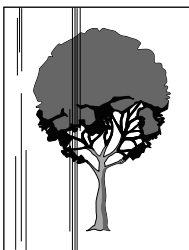


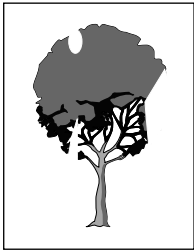
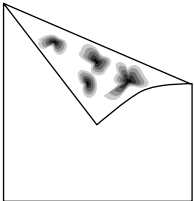
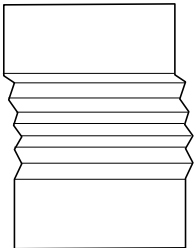
- Check to make sure **Save Toner** is not specified in the Print Quality tab of the printer driver. For best print quality, **Normal** toner usage should be selected.
- Try different adjustments on the Print Quality tab to see which selections work the best for your particular file. For example, if your file contains photos, select Photographic in the Document Type area of the Print Quality tab.
- Use only high-quality paper or transparencies.

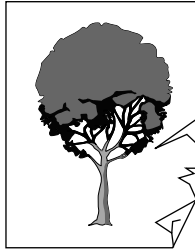
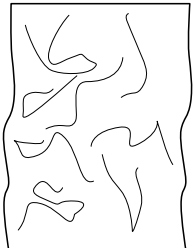
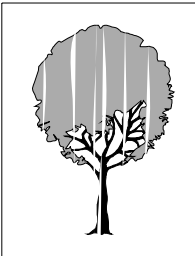
Solving Print Quality Problems

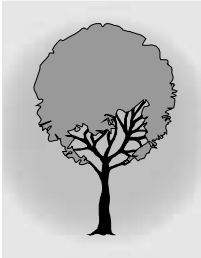
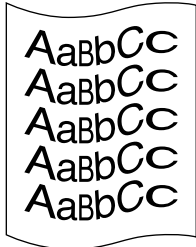
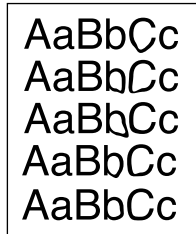
Problem	Solution
Solid White 	If the whole page is blank: • The Toner Cartridge may be out of toner. Replace the Toner Cartridge if necessary. • The Toner Cartridge may be defective. Remove the Toner Cartridge and check for damage. Replace if necessary.
Solid Black 	If the whole page is black: • The Toner Cartridge may not be installed properly. Remove the cartridge and reinsert it. • The Toner Cartridge may be defective. Remove the Toner Cartridge and check it for damage. Replace the Toner Cartridge if necessary.
Light Printout 	If the whole page is faded or light: • Check printer driver settings. The print resolution setting may be set too low. Toner Usage, on the Print Quality tab may be set to Save Toner. • Clean the inside of the printer (See page 59.) • Redistribute the toner in the Toner Cartridge. • The Toner Cartridge may need replacing.

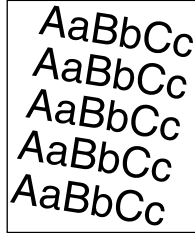
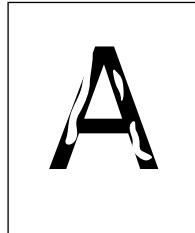
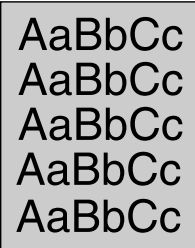
Problem	Solution
Blurred Image 	If the print appears blurred: • Make sure only recommended paper is used. • Make sure only fresh, dry paper is being used. • Make sure the printer was not bumped during printing and the surface it is placed on is not wobbly. • There may be a problem with the paper feeding mechanism. Call a qualified service technician
Toner Spots 	If toner spots appear on the page: • Make sure the paper meets required specifications. • A recent paper jam may have contaminated the paper path. Print several sheets of paper through the printer to help clean the paper path. • The Toner Cartridge may be damaged and need replacing.
Repeating Marks 	If marks repeatedly appear on the printed side of the page at even intervals: • The paper path may be contaminated. Open the Top Cover and remove the Toner Cartridge. Wipe inside with a soft, lint free cloth. • Check for loose pieces of paper jammed in the paper path. • Print several blank sheets of paper to help clear out the contamination.

Problem	Solution
Smeared Image 	If the page is easily smeared: • Clean the inside of the printer. • Check the paper type and quality. • The toner may be unevenly distributed inside the Toner Cartridge. Remove the Toner Cartridge and redistribute the toner. • Check the Toner Cartridge for damage and replace if necessary.
White Streak 	If a vertical white streak appears on the page: • The toner supply may be low. You may be able to temporarily extend the Toner Cartridge life by redistributing the toner. • Clean the Laser Lens, see page 59. • The Toner Cartridge may be defective. Remove the cartridge and check for damage. • Replace the Toner Cartridge if it is worn or has reached the end of its expected life.
Black Lines 	If black or white vertical streaks appear on the page: • Try wiping inside the Toner Cartridge area and cleaning the laser scanner unit lens, see page 59. • The green photosensitive drum inside the Toner Cartridge may have been scratched. Install a new Toner Cartridge. • The Toner Cartridge may be defective. Remove the it and check it for damage. • Replace the Toner Cartridge if it is worn or has reached the end of its expected life.

Problem	Solution
Blank Areas 	If blank or faded areas appear randomly on the page: • The Toner Cartridge may be defective. Remove the cartridge and check for damage. • Replace the Toner Cartridge if it is worn or has reached the end of its expected life.
Smeared Back 	If the back of the page is smeared with toner: • Run an Internal Cleaning Page. See page 57. • If the problem persists, call a service representative.
Corrugated Paper 	If the page is corrugated: • Check the paper type and quality. • Make sure you are using only new undamaged paper. • Check for contamination along the paper path. • Make sure the paper is not damp. • Make sure the paper is properly loaded. • Use the other output tray. • Turn over the stack of paper in the tray.

Problem	Solution
Damaged Print 	If the page is torn: • Check the paper type and quality. • Make sure you are using only new undamaged paper. • Check for contamination along the paper path. • Make sure the paper is not damp. • Make sure the paper is properly loaded. • Open the Face-Up Output Tray in back of the printer and print to this tray. • Turn over the stack of paper in the paper tray.
Wrinkled Paper 	If the page is wrinkled: • Check the paper type and quality. • Make sure you are using only new undamaged paper. • Check for contamination along the paper path. • Make sure the paper is not damp. • Make sure the paper is properly loaded. • Open the Face-Up Output Tray in back of the printer and print to this tray. • Turn over the stack of paper in the paper tray.
Scratched Transparency 	If scratches occur on transparencies: • Try printing to the Face-up Output Tray in the back of the printer instead of to the Main Output Tray.

Problem	Solution
Fogged Transparency 	If fogging occurs on transparencies: • Select transparency in the printer driver, see page 37.
Curl or Wave 	If the print and the paper have waves or curls: • Check the paper type and quality. Both high temperature and humidity will cause paper curl. • Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the paper tray. • Open the Face-up Output Tray in back of the printer and try printing to this tray.
Misformed Characters 	If the text characters are improperly formed and produce: • A hollow image, the paper stock may be too slick. Try a different paper. • A wavy effect, the scanner unit may need service. Verify that it occurs by printing a Configuration Sheet.

Problem	Solution
Page Skew 	If the page prints at an unplanned angle: • Check the paper type and quality. • Make sure that the paper or other media is loaded correctly and the guides are not too tight or too loose against the paper stack.
Character Voids 	Character voids are white area within the parts of characters that should be solid black: • If you are using transparencies when you experience this problem, try another type of transparency. • Because of the composition of transparency media, some character voids are normal. • The paper may not meet paper specifications.
Gray Background 	If the amount of background toner shading becomes unacceptable, the procedures below may help to clear the condition: • Change the paper to a lighter weight. See page 93 for acceptable papers. • Check the printer's environment, very low or high humidity conditions can increase the amount of background shading. • Install a new Toner Cartridge.

PAPER JAM PROBLEMS

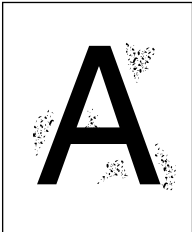
This section explains how to prevent and remove paper jams. There are several things you can do to prevent paper jams.

Tips for Avoiding Paper Jams

By carefully selecting paper types and loading them properly, you should be able to avoid most paper jams. Make sure you are following these tips to avoid jams.

Follow the procedures in Chapter 2 to load the paper properly. Make sure the adjustable guides are positioned correctly.

- Do not overload the paper tray. Make sure the paper is under the paper capacity mark on the inside of the paper tray.
- Do not remove the paper tray while print jobs are in process.
- Flex, fan, and straighten the paper before loading it.
- Do not load stacks of labels or transparencies in the 550-sheet Cassette Tray. Labels or transparencies must be fed from the Multipurpose Tray (Tray 1).
- Do not load wrinkled, creased, damp, or highly curled paper.
- Do not mix paper types in any of the paper tray.
- Use only recommended print media. See Appendix A, “Printer Specifications.”
- Make sure you load the paper print side down into Tray 2 or optional Tray 3. Load paper print side up into the Multipurpose Tray (Tray 1).
- Keep print media stored in an acceptable environment.

Problem	Solution
Background Scatter 	Background scatter results from bits of toner distributed on the printed page: • The paper may be too damp. Try printing on a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture from the air. • If background scatter occurs on an envelope, change your printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause this problem. • If background scatter covers the entire surface of a printed page, adjust the print resolution through your software application or the printer properties.

Understanding the Paper Path

The following illustration shows the printer's various paper paths. Understanding this path will help you locate paper jams. The paper is picked up from the Multipurpose Tray (Tray 1), the 550-sheet Cassette Tray (Tray 2), or the optional 550-sheet 2nd Cassette Tray (Tray 3), and passed under the Transfer Drum. It then passes through the Fuser Unit and is delivered to either the Main Output Tray, on the top of the printer, or to the Face-up Output Tray at the back of the printer.

Paper jams occur in the following three areas:

1. The Input Area.
2. The Engine Area.
3. The Output Area.

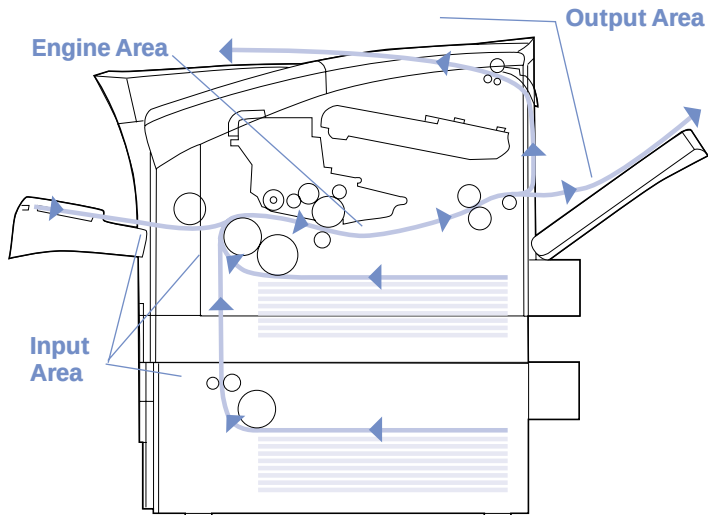
note: Frequent jams occurring in a specific area indicate that the area should be checked, repaired, or cleaned.

Clearing Paper Jams

Follow these suggestions when attempting to clear paper jams.

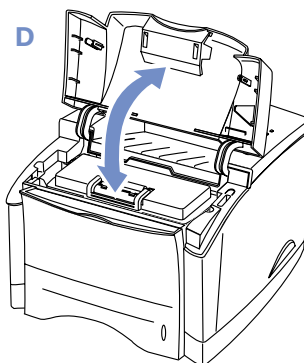
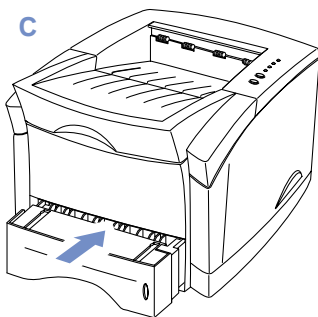
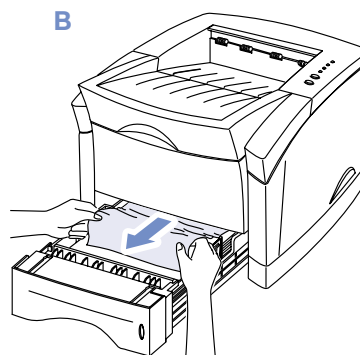
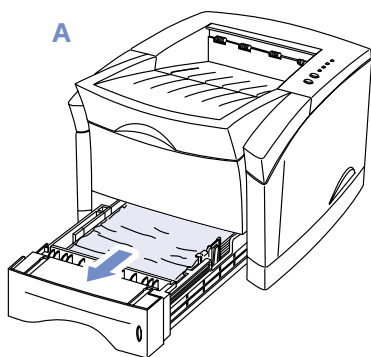
- To avoid damage to rollers, always remove jammed paper gently.
- Try to remove jammed paper without tearing it. Any pieces of paper left in the printer, whether large or small, can obstruct the paper path and cause further jams.
- Open and close the Top Cover after you have cleared any paper jam. This clears the error message from the Operator Panel.

SuperScript 1450/1450N Paper Path



Paper Jams in the Input Area

1. Slide out the paper tray to expose the jammed paper (A).
2. Remove the jammed paper from the tray (B). If the paper is jammed in the paper feed area and cannot be easily removed, remove the paper tray from the printer and carefully pull the jammed paper from the printer.
3. Make sure that the rest of the paper is stacked neatly in the tray and slide the tray back into the printer (C).
4. Open the Top Cover and then close it again to resume printing (D).



note: Opening and closing the Top Cover after a paper jam is necessary because it clears the error message from the Operator Panel.

5. If the **Paper** and the **Error** lights do not go out, there is still jammed paper inside the printer. Turn the printer OFF and then ON again. This will move the rollers slightly and should loosen any small pieces of paper still left inside the printer.

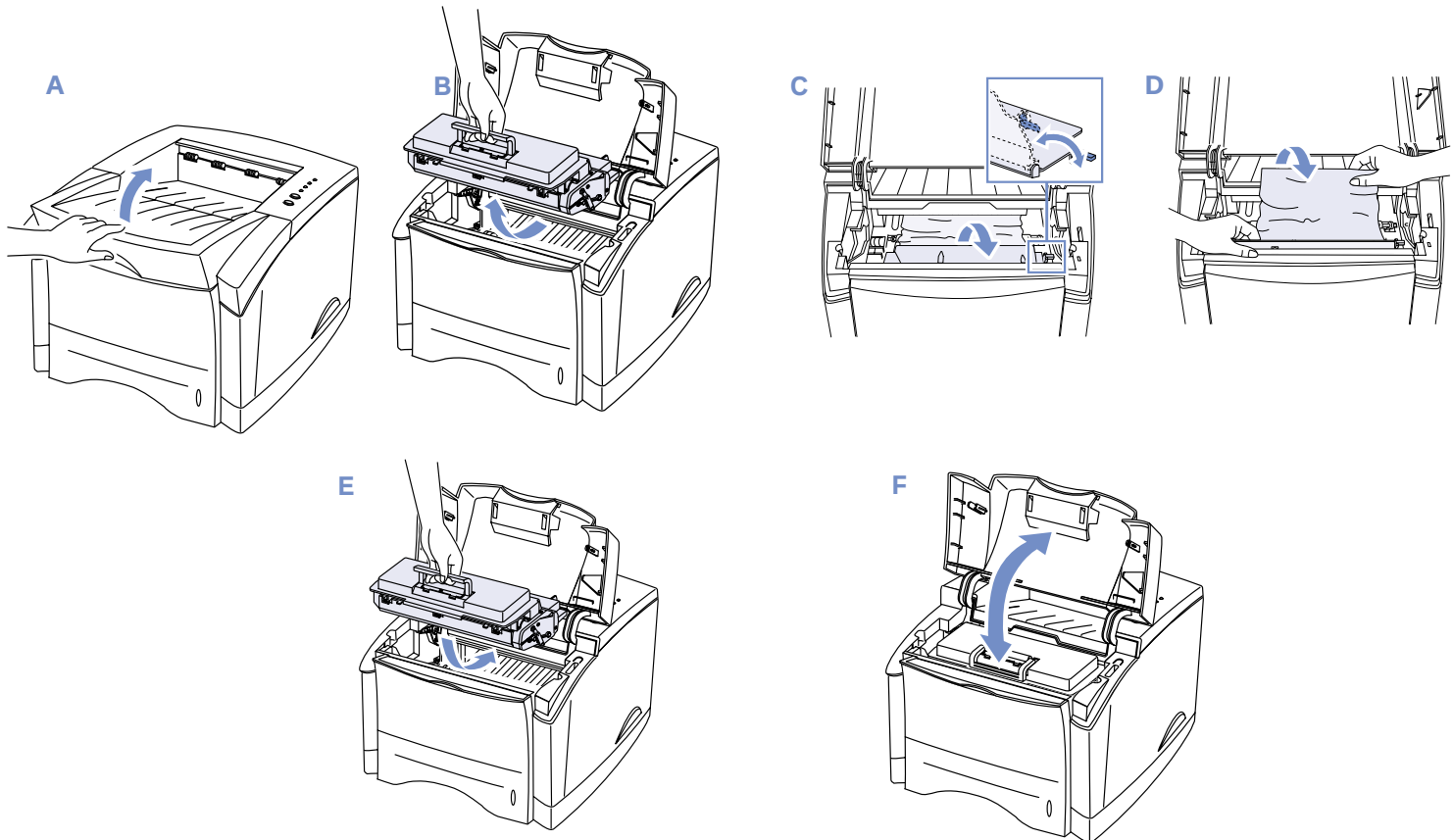
Paper Jams in the Engine Area

1. Open the Top Cover (A).
2. Remove the Toner Cartridge (B). If you need to leave the Toner Cartridge out for longer than a few minutes, cover it with a dark cloth.
3. Lift up the Feed Guide with one hand and gently pull the paper toward you (C, D).
4. If a small piece of paper gets lodged on the side, turn the printer off and then on. The rollers will turn slightly and this should release the paper.
5. Re-install the Toner Cartridge (E).

note: If the Toner Cartridge is difficult to re-install, make sure the Feed Guide has been flipped back down into position.

6. Close the Top Cover to resume printing (F).

note: If the **Paper** and the **Error** lights do not go out, there is still jammed paper inside the printer. Check the input area and the inside of the printer.

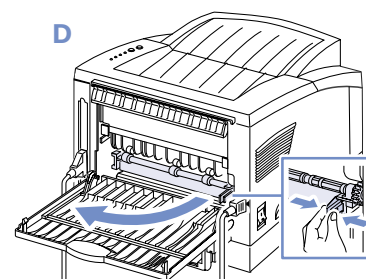
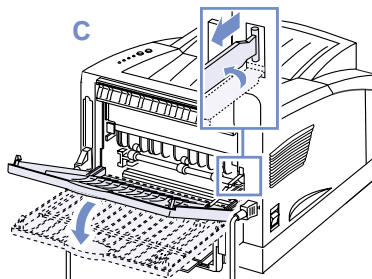
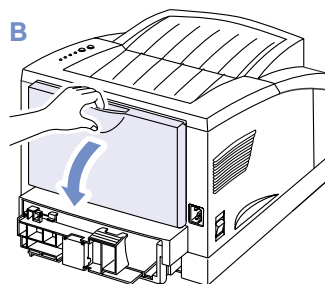
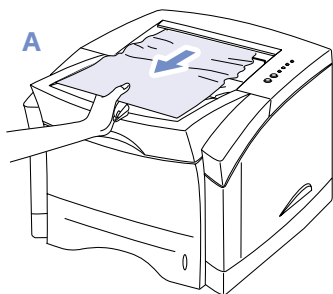


Paper Jams in the Output Area.

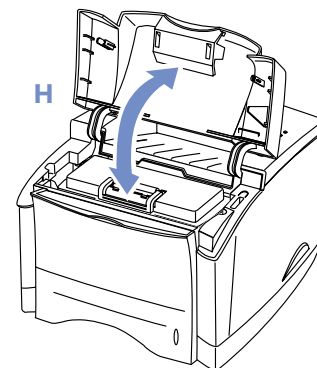
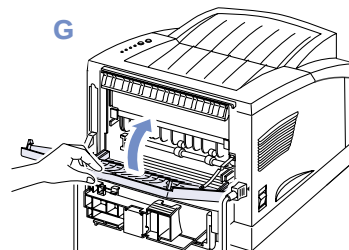
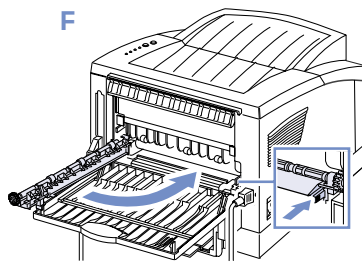
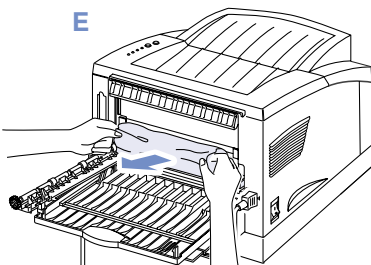
1. If the paper is visible from the Main Output Tray, carefully pull it out (A).
2. If the jammed paper is not visible or there is resistance when you pull the paper, open the Face-up Output Tray (B).
3. Push the tray down so that it is completely open at a 90 degree angle (C).
4. If there is resistance when you pull the paper, squeeze the handle on the right end of the exit roller, and then pull

the roller in the direction of the arrow (D).

5. Remove the jammed paper (E).
6. Replace the exit roller (F). Make sure the right end of the roller clicks in place. If the handle is not closed completely, the printer will indicate a cover open or fuser error with the red **Error** light on the Operator Panel.
7. Close the Face-up Output Tray (G).
8. Open and close the Top Cover to resume printing (H).



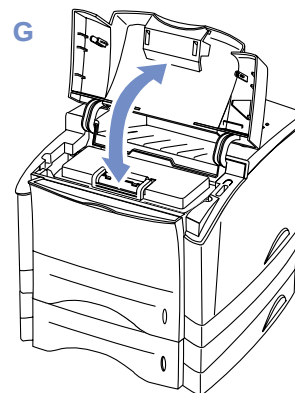
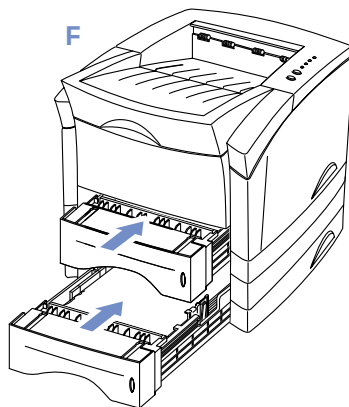
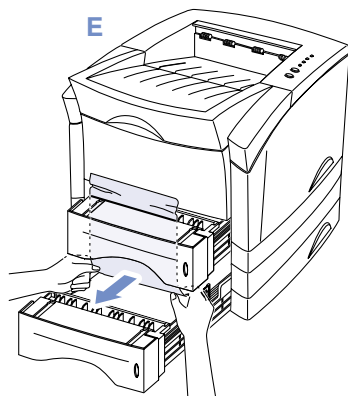
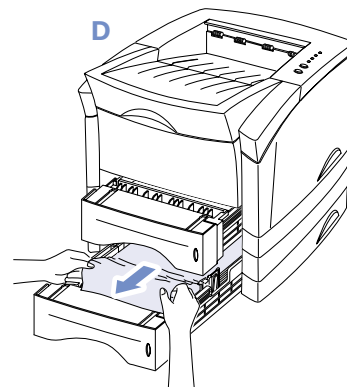
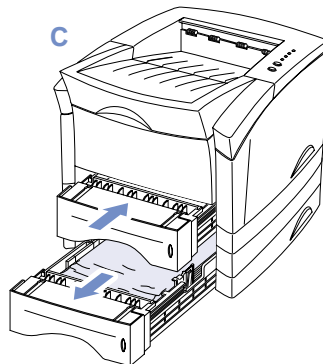
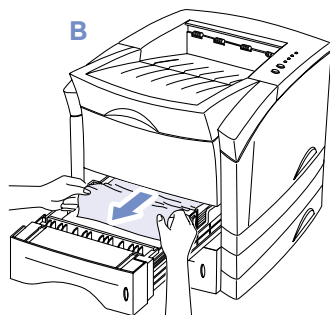
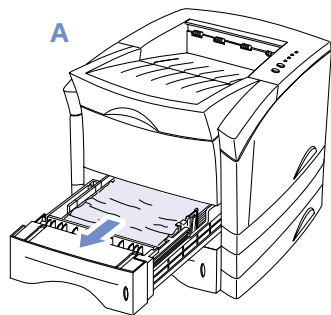
note: If the **Paper** and the **Error** lights do not go out, there is still jammed paper inside the printer. Check the input area and the inside of the printer.



Paper Jams in Tray 3

For paper jams occurring in Tray 3, the 550-sheet 2nd Cassette, follow these steps:

1. Carefully pull Tray 2 half way out of the printer (A).
2. If you see the jammed paper, gently remove it from the tray (B).
3. Slide Tray 2 partly back into the printer and pull Tray 3 out of the printer (C).
4. If you see the jammed paper in Tray 3, gently pull the paper out (D).
5. Gently remove any jammed paper from the front of Tray 3 (E).
6. Slide the trays back into the printer (F).
7. Open and close the Top Cover to resume printing (G).



COMMON WINDOWS PROBLEMS

note: Refer to the Microsoft Windows documentation that came with your PC for further information on Windows error messages.

Problem	Possible Cause and Solution
"File in Use." message appears during installation.	- Quit all software applications. - Remove all software from the Startup Group, then restart Windows. - Reinstall the printer driver.
"Error Writing to LPT1" message appears.	Make sure the cables are connected correctly, the printer is on, and the Ready light on the Operator Panel is on. If bi-directional communication is not turned on in the driver, it will also cause this message. - From the Start menu, select Settings, and Printers. - Right-click on the SuperScript 1450 printer icon and select Properties. - From the Details tab, click on Port Settings. - Remove check from Port State before Printing box and click OK. - From Spool Settings, select Print Directly to Printer and click OK. - Try printing again.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows, and try printing again. Delete all temp files from the Temp sub-directory. You can determine the name of the directory by editing the AUTOEXEC.BAT file and looking for the statement Set Temp =. The name after this statement is the temp directory. It is usually C:\temp by default, but can be redefined.

COMMON MACINTOSH PROBLEMS

This section explains some of the more common problems that might be encountered

Problems in the Chooser	
Problem	Possible Cause and Solution
The printer driver icon does not appear in the Chooser .	The software was not installed correctly. - The driver should be present as a part of the Mac OS. Make sure the driver is in the Extensions folder within the System Folder. - If not, install the SuperScript 1450 driver component from the installation CD.
The printer name does not appear in the Select a PostScript Printer box in the Chooser .	- Make sure that the cables are connected correctly, the printer is on, and the Ready LED is on. - Make sure that the correct printer driver has been selected in the Chooser. - If the printer resides on a network with multiple zones, make sure that the correct zone is selected in the AppleTalk Zones box in the Chooser. - Make sure AppleTalk is on. (The button next to Active is selected in the Chooser.) You may need to restart the computer to activate the change.
The printer driver does not automatically set up your selected printer even though you clicked Auto Setup in the Chooser .	- Re-install the printer software. See Chapter 3, page 22. - Try selecting an alternate PPD.

Printing Errors	
Problem	Possible Cause and Solution
You cannot use the computer while the printer is printing.	Background Printing has not been selected. - For LaserWriter 8.3, turn Background Printing on in the Chooser. Status messages will now be redirected to the Print Monitor allowing you to continue working while the computer is processing data to be sent to the printer. - For LaserWriter 8.4 or higher, turn Background Printing on by selecting File, Print Desktop, and Background Printing.
An encapsulated PostScript (EPS) file does not print with the correct fonts.	This problem occurs with some software applications. Try downloading the fonts contained in the EPS file to the printer before printing.

Selecting an Alternate PPD	
Problem	Solution
The PPD does not appear in the Chooser .	note: If you manually select a PPD, an icon might not appear next to the selected printer in the Select a PostScript Printer box. In the Chooser, click Setup, and Printer Info, then click Update Info to bring up the icon. - Open the Chooser from the Apple menu. - Click the LaserWriter icon. - If you are on a network with multiple zones, select the zone in the AppleTalk Zones box where the printer is located. - Click the printer name you want to use in the Select a PostScript Printer box. (Double-clicking will immediately generate the next few steps.) - Click on Setup... (This button may read Create for first-time setup.) - Click on Select PPD..., locate the desired PPD in the list, and click Select. - In the Setup dialog box, click Select, and then click OK to return to the Chooser. - Close the Chooser.

COMMON POSTSCRIPT PROBLEMS

The following situations are PostScript 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** dialog box and click the desired selection next to the **PostScript errors** section.

Problem	Possible Cause	Solution
PostScript file cannot be printed.	The PostScript option may not be installed, or the installed memory may be insufficient.	- Print a Configuration Sheet and verify that the PS version is available for printing, and that total system memory is at least 12MB. - If PostScript is not available, install the PostScript option.
“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 button. The pure binary data option is not supported. Choose another.
The job prints in Courier instead of the typeface you used.	The typeface is not downloaded.	- Download the desired font and send the print job again. - Verify the type and location of the font. - Download to the printer if applicable. - Check with the software documentation.
A legal page prints with clipped margins.	Print job is too complex.	Simplify the page or print at a lower resolution. Add more printer memory.
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. - Turn the printer off and then on again.

Problem	Possible Cause	Solution
If you are printing from Tray 3, the optional 500-sheet 2nd Cassette (Tray 3) may not be selected in the driver.	The printer driver has not been configured to recognize Tray 3.	Open the PostScript driver properties and set the Option Tray item of Device option to Installed .

CHAPTER 10

CUSTOMER SERVICE

OVERVIEW

This chapter provides information about different resources for information and technical support, including

- How to reach NEC Technical Support for assistance
- How to order supplies and printer options
- How to obtain NEC service contracts
- SuperScript 1400 Series Printer limited warranty

ASSISTANCE NEARBY

Often, the best source for assistance is closer than you think. Before calling NEC, check out the options below.

Help From Within Your Company

If your organization is large and has purchased many NEC printers, the best source of assistance may be within your own company. Your company may have designated central support personnel that you can go to when you have any problems or when you need supplies such as paper or toner cartridges. These central support personnel can then contact the appropriate dealer or NEC support staff.

Help From Your Dealer

The dealer from whom you purchased your printer is backed by complete support resources and programs within NEC. Your dealer can provide you with details on all available support options.

NEC TECHNICAL SUPPORT

NEC Technical Support is available to answer your questions, Monday through Friday, 8:30 a.m. to 8:00 p.m., Eastern Standard Time.

Please have the following printer information ready when you contact NEC:

- Model number
- Serial number (found under the printer's Top Cover)

- Page count (shown on the printer's Configuration Sheet)
- Date and place of purchase
- NEC Maintenance agreement number (if printer is already under agreement)

NEC Technical Support can help you with the initial installation of this product. Please contact your operating system or network software vendor if you require assistance in optimizing or customizing your system.

How to Contact NEC

There are a number of ways to contact NEC or receive information about technical issues, products, and services.

Contacting NEC Technical Support or Customer Service by Telephone

In North America, call 800-632-4650 to speak to a representative about technical support, extended warranties, repairs, or customer service.

Reaching NEC on the World Wide Web

NEC's web site provides up-to-date product information and includes links to NEC's FTP site and e-mail address. Using your Web browser, open this URL:

<http://www.nectech.com>

This URL is available 24 hours-a-day.

- Search the Knowledge Base for compatibility charts, specifications, white papers, technical drawings, and various other helpful documents.
- Explore the FAQ pages for common problems and solutions.
- Visit the Message Board to post your technical questions or to search a vast library of previous technical support solutions.
- Browse Service Programs to learn about ways to extend or enhance your existing warranty.
- Use the Dealer Locator to find a NEC Technologies' sales or service center near you.

Sending Internet Electronic Mail

You can e-mail your questions to NEC. NEC will respond within three business days. Send e-mail messages to: tech-support@nectech.com

Sending a Facsimile Transmission

You can fax questions or comments to NEC at 978-742-7049

Be sure to indicate the number where NEC can telephone or fax a response.

Using FastFacts—NEC's Information Retrieval System

NEC's technical support staff have created technical notes and tips for using NEC products. You can order these documents by touchtone menu and have these automatically sent to your fax machine.

To use NEC FastFacts in the US, call 800-366-0476

To use NEC FastFacts in Canada, call 630-775-7999

Follow instructions for ordering documents and include your return fax number.

Reaching the NEC Bulletin Board System

You can use the NEC Bulletin Board System (BBS) to send messages and transfer files. The BBS number is 978-742-8706

Writing NEC

You can mail your questions and comments to NEC Technical Support at the following address:

Printer Technical Support, Dept. #3390
NEC Technologies, Inc.
305 Foster Street
Littleton, MA 01460-2004

ORDERING SUPPLIES

To order printing supplies, contact your SuperScript 1400 Series dealer. You can also call 800-632-2326 to locate the NEC supplies dealer nearest you or purchase supplies directly from NEC. The tables below list available options and order numbers.

Table 10-1: Printer Options

Part	Order #
550-sheet 2 nd Cassette	1401
PostScript Compatibility Upgrade Kit	1402
Network Interface Upgrade Kit for the PC	1403
Network Interface Upgrade Kit for the Macintosh	1404

Table 10-2: Printer Supplies

Part	Order #
SuperScript 1400 Series Toner Cartridge (average capacity 3,000 prints)	20-150
SuperScript 1400 Series High Capacity Toner Cartridge (average capacity 6,000 prints)	20-152



To order supplies or options call 1-800-632-2326 or point your browser to www.nectech.com and click on Shop Now BuyNow.

NEC WARRANTY AND SERVICE

Your SuperScript 1400 Series printer comes with a one-year exchange warranty. The complete warranty is provided below. All repair requests must be prequalified by calling NEC Product Support at 800-632-4650.

NEC Service Contracts

The initial one-year warranty period comes with two options. The first one is where you must return your product for repair or replacement. The second one, is where NEC will ship a replacement product without receiving the original one first, if you guarantee return of your original product with a major credit card. Warranty extension and warranty upgrade up to 3 years is available through NEC's Service Xpress (SM) included in your QuickStart. NEC Customer Service and its dealers offer a complete range of services, including onsite repairs and maintenance. Several maintenance agreement programs are available to meet your needs and budget, including:

- Onsite agreements on a yearly or multi-yearly basis which ensure priority response from NEC Customer Service and Support
- Per-incident repair services for scheduled maintenance.
- Extended exchange warranties with pre-paid shipping.

To discuss an extended warranty or a service contract, contact NEC Customer Service at 800-632-4650.

note: This product requires specific computer hardware and software configurations to operate as specified by NEC. It is the owner's responsibility to supply these supporting items, and where necessary, to reconfigure and/or furnish additional hardware and/or software as required or specified by NEC to assure normal product operation. NEC incurs no obligation to furnish or install said items. NEC reserves the right to modify or update SuperScript software as it deems necessary and to determine distribution policies for such changes to existing owners.

SUPERSCRIPT 1400 SERIES PRINTER LIMITED WARRANTY

NEC TECHNOLOGIES, INC. (hereinafter NECTECH) warrants this Product to be free from defects in material and workmanship and agrees to repair or replace any part of the enclosed unit which proves defective under these terms and conditions.

Warranty Period

Labor is warranted for one (1) year from the date of the first consumer purchase. Parts are warranted for one (1) year from the date of the first consumer purchase. The Toner Cartridge is warranted until it runs out of toner or until its usable life expires, whichever occurs first.

Warranty Coverage

This warranty may be enforced only by the first consumer purchaser and it is not transferable.

Except as specified below, this warranty covers all defects in material or workmanship and agrees to repair or replace (at Nectechs option) any part of the enclosed unit. The following are not covered by this warranty:

1. Any Product which is not distributed in the U.S.A. or Canada by NECTECH or which is not purchased in the U.S.A. or Canada by the first consumer purchaser.
2. Any Product on which the serial number has been defaced, modified, or removed.
3. Damage, deterioration, or malfunction resulting from:
 - a. Accident, misuse, abuse, neglect, fire, water, lightning, or other acts of nature, improper storage, unauthorized product modification, or failure to follow instructions supplied with the Product.
 - b. Alteration, repair, or attempted repair by anyone not authorized by NECTECH.
 - c. Any shipment of the Product (claims must be presented to the carrier).
 - d. Removal or installation of the Product.
 - e. Any other cause which does not relate to a Product defect.

4. Cartons, carrying cases, batteries, external cabinets, magnetic tapes, or any accessories used in connection with the Product.
5. This warranty covers only NECTECH-supplied components. Service required as a result of third party components is not covered under this warranty.

Warranty Support

NECTECH will pay labor and material expenses for covered items, but we will not pay for the following:

1. Removal or installation charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls.
3. Payment of shipping and related charges incurred in returning the Product for warranty repair or exchange.

Obtaining Warranty Service

All service calls must be qualified by a NECTECH technical support specialist. A service request can be made by calling 800-632-4650.

NECTECH may send a replacement printer which will be, at NECTECH's option, new or like new, and will meet all of the specifications of the replaced printer. The replacement printer will be shipped for delivery within 3 business days at NECTECH's expense within the United States or Canada upon receipt of your defective printer, or upon receipt of a major credit card number to guarantee receipt of the defective printer. The warranty period on any replacement printer shall be either 1) the remaining balance of the original two (2) year term, or 2) ninety (90) days, whichever is longer. With the exception of the duration, the terms and conditions of this warranty shall apply to any replacement printer. No service will be provided outside of the United States or Canada.

NECTECH requires that you provide the original bill of sale or receipt as proof of purchase in order to obtain warranty service. Please retain such proof of purchase with your records.

You can contact Customer Service and Technical Support by dialing 800-632-4650.

Warranty Limitations

NECTECH's sole liability for any defective product is limited to the repair or replacement of the product at our option. NECTECH shall not be liable for:

1. Damage to other property caused by any defects in this product, damages based upon inconvenience, loss of use of the product, loss of time or data, commercial loss; or
2. Any other damages, whether incidental, consequential, or otherwise.

This warranty is exclusive and is in lieu of all other warranties, express or implied, including but not limited to, the implied warranties of merchantability or fitness for a particular purpose. Some states do not allow the exclusion of implied warranties or the limitation or exclusion of liability for incidental or consequential damages. Therefore, the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For information, telephone 800-632-4650

note: All Products returned to NECTECH for service **MUST** have prior approval; this may be obtained by calling the above number. Any unit shipped to NECTECH without authorization may be returned freight collect.

This Product is warranted in accordance with the terms of this limited warranty. Consumers are cautioned that Product performance is affected by system configuration, software, the application, customer data, and operator control of the system, among other factors. While NECTECH TECHNOLOGIES, INC. Products are considered to be compatible with many systems, the specific functional implementation by the customers of the Product may vary. Therefore, the suitability of a Product for a specific purpose or application must be determined by the customer and is not warranted by NECTECH.

APPENDIX A

PRINTER SPECIFICATIONS

OPERATING SPECIFICATIONS

Print speed

Letter: 12 sheets / minute

Print method

Electrophotographic

Warming-up Time

30 seconds (at ambient temperature of 23°C / 115VAC)

First Printout Time

Less than 15 sec.

note: The printing speed listed above is the value when the paper is fed from the standard 550-sheet Cassette. The time is measured from when the print signal is received at standby state to the time when the paper is ejected.

Recommended Duty Cycle

15,000 pages per month maximum

Processor

66MHz PowerPC RISC

Random Access Memory (RAM)

1450N Model: 16 MB standard (expandable to 80 MB)

1450 Model: 4 MB standard (expandable to 68 MB)

Resolution

True 600 X 600 dpi; Addressable 1200 dpi

Printer Language Emulations

- PCL 6 Standard both models

1450N Model: • PostScript Level 3 standard

1450 Model: • PostScript Level 3 optional

Automatic Jam Recovery

Automatically reprints jammed pages when enabled

Interface Ports

- IEEE 1284-compliant parallel
- USB
- 10/100Base-TX Ethernet (for the SuperScript 1450N model or the SuperScript 1450 with the Network Interface Upgrade Kit)

Power Requirements

100 - 127VAC, 50/60Hz $\pm$ 3Hz

Power Consumption

Operating average: 250 watts (W) average during operation

1450 in Power-save mode: 12 watts (W)

1450N in Power-save mode: 17 watts (W)

Temperature

Operating: 50°F to 86°F (10°C to 30°C)

Non-operating in packed condition: -4°F to -104°F (-20°C to 40°C)

Humidity

Operating: 20-80% RH (non-condensing)

Non-operating in packed condition: 10-90% RH (non-condensing)

Dimensions (without options)

Width: 15.1" (383.4 mm)

Depth: 17.8" (453.3 mm)

Height: 12.2" (309.0 mm)

Weight

With Toner Cartridge (no packing): 24.2 lb (11.0 kg)

Toner Cartridge: about 3.1 lb. (1.4 kg)

550-sheet 2nd Cassette (no packing): 12.6 lb (5.7 kg)

Administrative Compliance

- UL 1950D3
- CSA C22.2 950D3
- FCC part 15, subpart B, Class B
- Laser Safety CDRH Class 1
- ENERGY STAR Compliant

Toner Cartridge Life Expectancy

Life expectancy of the Toner Cartridge that shipped with your printer is 3,000 pages (at 5% coverage, letter size).

Life expectancy of the high capacity replacement SuperScript 1400 Series Toner Cartridge is 6,000 pages (at 5% coverage, letter size).

Printable Area

Paper: Inside a 4 mm border around the edge of the paper

Envelope: Inside a 10 mm border around the edge of the envelope

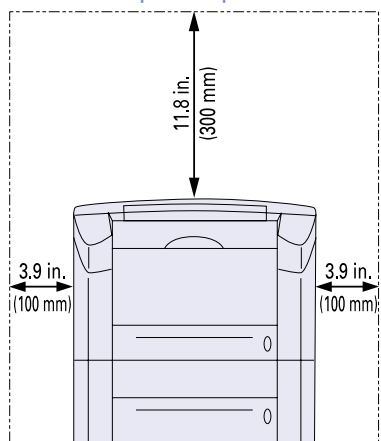
Noise Level

Operating: 48 dBA or less

Standby: 35 dBA or less

Sleep: Background noise

Clearance Space Top and Sides



Clearance Space

Front: 19" (482.6 mm—enough space so that trays can be removed)

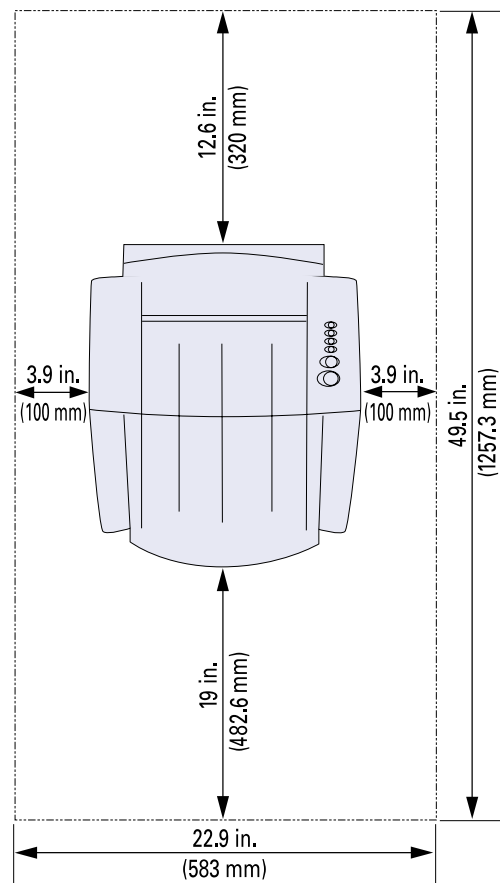
Back: 12.6" (320 mm—enough space to allow opening of the Back Cover)

Right: 3.9" (100 mm)

Left: 3.9" (200 mm—enough space for ventilation)

Top: 11.8" (300 mm—enough space for opening the Top Cover and replacing the Toner Cartridge)

Clearance Space Front, Back, and Sides



MEDIA SPECIFICATIONS

Guidelines

Use the following general guidelines for purchasing paper and other media for your NEC SuperScript 1400 Series printer. Your printer supports a wide variety of print media, including

- Plain paper
- Transparencies
- Glossy papers
- Laser-quality labels
- Heavy or thick paper stock
- Envelopes

Recommended Paper Weights

Plain Paper: 16 to 24 lb. bond (60 to 90 g / m² bond)

Thick Paper: Up to 47 lb. bond (176 g / m² bond) 65 lb. cover, 97 lb. index

note: Only specify **Thin Paper** if you want to print on 16 lb paper and your working environment is over 90.5° F (32.5° C) or 80% humidity.

The correct paper thickness should be specified in the printer driver. For a more thorough discussion on how the Operator Panel works see Chapter 4 starting on page 25.

Paper Handling Considerations

Transparency Film: When you are printing on transparency film, only load a maximum of 20 transparencies to the Multipurpose Tray (Tray 1). Be sure to designate **Transparency** as the paper type in your printer driver, see page 37. Use transparencies that are recommended for use only in laser printers and can withstand temperatures of up to 400°F (205°C), the printers maximum temperature.

Envelopes: You can print envelopes from the Multipurpose Tray (Tray 1) or the optional 550-sheet 2nd Cassette (Tray 3). Load no more than 10 envelopes in the Multipurpose Tray or 40 envelopes in the 550-sheet 2nd Cassette at a time. The leading edge of an envelope that feeds into the printer must be straight. The fold must be

firmly creased and be no thicker than two paper thicknesses. As a rule, the larger the envelope is, the more difficult it is to feed properly. The way you load envelopes in Tray 1 and Tray 3 are different (see Chapter 6 for instructions.)

Designate Thick paper in the printer driver when printing envelopes made from paper heavier than 24 lb.

Adhesive Labels: Only use adhesive labels that are recommended for use in laser printers. You can print 20 labels at a time and use letter or A4 sizes. You can print label sheets only from the Multipurpose Tray (Tray 1).

Heavy Print Stock: Excessive use of heavy stocks may cause premature wear in addition to causing excessive wear of print mechanisms.

Preprinted Forms: During the print operation, heat applied to preprinted forms can remove ink from the form and leave residue (called offset) inside the printer. In addition to offset residue problems, ink residues may generate harmful gases and emissions. Tell the commercial printer who will be printing your forms that you will be using them in a laser printer. Forms should be printed with heat-resistant inks that do not vaporize or generate harmful emissions at temperatures greater than 400°F (205°C) for 0.1 second. Do not use paper printed with low-temperature inks, flammable inks, or inks that are affected by the resin components found in toner.

You may need to offset the printer's printable area slightly so that the items on the form that need to be filled out will line up properly. You can do this from the Remote Control Panel. See page xx for directions on how to offset the printer's printable area by adjusting the top and left margins.

Care must be taken to avoid changing the moisture content of paper being preprinted or using materials that change the electrical or handling properties of the paper. Forms should be sealed in moisture-proof wrapping after pre-printing to prevent moisture changes during storage.

Paper Sizes and Capacity

The standard 550-Sheet Cassette (Tray 2) holds 550 sheets of 16 to 28-pound (105 g / m²) paper. The Multipurpose Tray (Tray 1) can hold up to 100 sheets of standard U.S. letter paper, and other paper sizes shown below. You can load up to 10 envelopes at a time in the Multipurpose Tray.

note: The exact number of envelopes or other media supported in the trays depends upon the thickness of the paper. Not all paper sizes listed are supported by all printer languages.

Table A -1: Multipurpose Tray (Tray 1)

Paper Type	Size
U.S. Letter	8 1/2" x 11" (215.9 mm x 279.4 mm)
Executive	7.25" x 10.5" (184 mm x 267 mm)
Folio	8.5" x 13" (215.9 mm x 330 mm)
U.S. Legal	8.5" x 14" (215.9 mm x 355 mm)
Statement	5.5" x 8.5" (140 mm x 216 mm)
A4	8.27" x 11.69" (210 mm x 297 mm)
A5	5.84" x 8.26" (148 mm x 210 mm)
ISO B5	6.93" x 9.84" (176 mm x 250 mm)
JIS B5	7.17" x 10.12" (182 mm x 257 mm)
COM10	4.125" x 9.5" (104.8 mm x 241.3 mm)
Monarch	3.875" x 7.5" (98.4 mm x 190.5 mm)
DL	4.33" x 8.66" (110 mm x 220mm)
C5	6.38" x 9.02" (162 mm x 229 mm)
Japanese Post Card	4.33" x 5.83" (110mm x 148mm)

Table A -2: Standard 550-sheet Cassette (Tray 2)

Paper Type	Size
U.S. Letter	8 1/2" x 11" (215.9 mm x 279.4 mm)
U.S. Legal	8.5" x 14" (215.9 mm x 355.6 mm)
Executive	10.5" x 7.25" (266.7 mm x 184.2 mm)
Folio	8.5" x 13" (215.9 mm x 330 mm)
A4	8.27" x 11.69" (210 mm x 297 mm)
ISO B5	6.93" x 9.84"(176 mm x 250 mm)
JIS B5	7.17" x 10.12"(182 mm x 257 mm)

Table A -3: Optional 550-sheet 2nd Cassette (Tray 3)

Paper Type	Size
U.S. Letter	8 1/2" x 11" (215.9 mm x 279.4 mm)
U.S. Legal	8.5" x 14" (215.9 mm x 355.6 mm)
Executive	10.5" x 7.25" (266.7 mm x 184.2 mm)
Folio	8.5" x 13" (215.9 mm x 330 mm)
A4	8.27" x 11.69" (210 mm x 297 mm)
ISO B5	6.93" x 9.84"(176 mm x 250 mm)
JIS B5	7.17" x 10.12"(182 mm x 257 mm)
COM10	4.125" x 9.5"(104.8 mm x 241.3 mm)
Monarch	3.875" x 7.5" (98.4 mm x 190.5 mm)
DL	4.33" x 8.66" (110 mm x 220mm)
C5	6.38"x 9.02"(162 mm x 229 mm)

Table A -4: Envelopes to Use in the Multipurpose Tray (Tray 1) and 550-sheet 2nd Cassette (Tray 3) Only

Envelope	Weight	Size
COM 10	20—28 lb	4 1/8" x 9 1/2" (104.8 mm x 241.3 mm)
Monarch	20—28 lb	3 7/8" x 7 1/2" (98.4 mm x 190.5 mm)
DL	80 g/m ²	110 mm x 220 mm
C5	90 g/m ²	162 mm x 229 mm

note: The exact number of envelopes or other media supported in the trays depends upon the thickness of the paper.

APPENDIX B

THE REMOTE CONTROL PANEL

Computers running Windows 95, 98, NT, or 2000 can use the SuperScript 1450/1450N Remote Control Panel or RCP for changing printer settings. The tables in this appendix explain the options available in each of the following Remote Control Panel tabs

- Information Tab
- Paper Tab
- Print Quality Tab
- Configuration Tab
- PCL Tab
- Advanced Tab

For information about installing the Remote Control Panel through a Custom Install, see page 20.

INFORMATION TAB

The Information Tab allows the user to print the printer's special pages to see all the settings and options available and set in the printer.

Item	Description
Configuration Page	The user can print the Configuration Page to see the current printer settings, as well as view the configuration of the printer (e.g., memory installed, options.)
PCL Font List	The user can print the PCL Font List to see the available fonts for PCL5e.
PS Font List	The user can print the PS Font List to see the available PostScript fonts. The PS Font List button is grayed out if the PS SIMM is not installed in the printer

PAPER TAB

The Paper Tab allows the user to select paper size, paper type, orientation, paper source, and number of copies.

Item	Description
Paper Size	The Paper Size selection specifies the type of paper to be printed on. The user can specify the paper loaded for each tray. the default selection for each tray is <i>Letter</i> . The paper size selections available depend on the Paper Source.
Custom Paper Size	When the user selects to use a custom paper size, the Custom Paper Size dialog appears, and the user can create user defined paper sizes. The user can specify a paper size from 3.15" x 5.80" to 8.50" x 14.00". If the user presses the Use Millimeters button, the unit of measure will change to millimeters and the allowable paper size will be from 80.0 mm x 147.3 mm to 215.9 mm x 355.6 mm. The saved paper size will then display on the Paper Tab.
Paper Source	When Auto Select is selected, the printer automatically selects the right tray based with the correct paper type. • <i>Auto Select</i> • <i>Tray 1</i> (Multipurpose Tray) • <i>Tray 1 (Manual)</i> (Multipurpose Tray) • <i>Tray 2</i> (Standard Tray) • <i>Tray 3</i> (Optional Tray) The default selection is <i>Auto Select</i> . Note that the Tray 3 option will only display if Tray 3 is installed on the printer.

Item	Description
Paper Tray	Use the Paper Type drop-down list for selecting the type of paper loaded in the tray you want to print from. The default value is <i>Auto</i>. The available media types depend on the tray selected for the job. • Select <i>Auto</i> to rely on the printer's paper detection mechanism to sense the paper type. • Select <i>Plain Paper</i> for 16–28 lb. paper. • Select <i>Bond</i> for paper greater than 28 lb. but less than or equal to 47 lb. • Select <i>Card Stock</i> to print on Card stock media. • Select <i>Transparency</i> for clear plastic media used for overhead projectors. • Select <i>Labels</i> to print on a sheet of labels. • Select <i>Preprinted</i> to print on pre-printed paper such as letterhead. • Select <i>Colored</i> paper to print on color paper. • Select <i>Envelopes</i> to print on envelopes.
Orientation	The Orientation selection specifies which edge of the paper to orient the printout. • <i>Portrait</i> (along the long edge of the paper) • <i>Landscape</i> (the short edge of the page) The default selection is <i>Portrait</i>.
Copies	The Copies parameter specifies the number of copies to be printed. The maximum number of copies that can be printed is 999. The default number of copies is <i>1</i>.
Restore Defaults	The Restore Defaults button replaces all selections in the Paper Tab with factory default settings.

PRINT QUALITY TAB

The Print Quality Tab defines the quality and toner usage of the printout.

Item	Description
Resolution	Resolution defines the quality of the print output in simplest form: the number of dots per inch. The following selections are available: • <i>1200 dpi (Best Printing)</i> • <i>1200 dpi (Fast Quality)</i> • <i>600 dpi</i> • <i>300 dpi</i> The default value is 1200 dpi (Fast Printing).
Document Type	Sharp Edge Technology allows the user to enhance 1200 dpi (Fast Printing) printouts. The available options are • <i>Text</i> • <i>Photographic</i> The default value is <i>Text</i>. The Document Type option is grayed out if the resolution is not 1200 dpi (Fast Printing).
Toner Usage	The Toner Usage parameter allows the user to save printer toner when printing a draft version of a document. • Select <i>Normal</i> to print as it normally would be printed. • Select <i>Save Toner</i> to print with less toner applied to the page. The default value is <i>Normal</i>.
Darkness	The Darkness parameter adjusts the toner density on printouts. The values are • <i>Normal</i> • <i>Light</i> • <i>Dark</i> The default value is <i>Normal</i>.
Restore Defaults	The Restore Defaults button replaces all selections in the Print Quality Tab with factory default settings.

CONFIGURATION TAB

The Configuration Tab allows the user to configure the printer's error recovery, power save mode, and printer language personality.

Item	Description
Energy Saving	The Energy Saving parameter specifies the period of time the printer waits before shutting down the high voltage power. The energy save intervals available are • <i>Off</i> • <i>10 minutes</i> • <i>15 minutes</i> • <i>30 minutes</i> • <i>45 minutes</i> • <i>60 minutes</i> The default value is <i>15 minutes</i>.
Personality	The Personality parameter specifies the default printer language emulator, also known as personality, to be used. The available options are • <i>Auto</i> • <i>PCL</i> • <i>PostScript</i> The default value is <i>Auto</i>, which will auto-detect printer language and use the appropriate printer language emulator. The PostScript option is available only if there is a PS SIMM installed on the printer.
Auto Continue	The Auto Continue parameter selects whether to continue printing after a paper mismatch or interface timeout error occurs. The Auto Continue values available are <i>On</i> and <i>Off</i>. The default value is <i>On</i>.
Jam Recovery	The Jam Recovery parameter enables the printer to keep the current page being printed in memory until the page passes through the exit path. In case of a jam, the printer reprints the page after the jam is cleared. The available values for Jam Recovery are <i>Off</i> and <i>On</i>. The default value is <i>Off</i>.

Item	Description
I/O Timeout	The I/O Timeout parameter displays how long the printer will wait for data from the I/O ports before a timeout error occurs, and the remaining data is flushed. The available values are • <i>None</i> • <i>15 seconds</i> • <i>30 seconds</i> • <i>60 seconds</i> • <i>90 seconds</i> • <i>120 seconds</i> • <i>180 seconds</i> • <i>240 seconds</i> • <i>300 seconds</i> The default value is <i>15 seconds</i>.
Device Option	Under the Device Option, the user can check whether Tray 3 (Optional Tray) is installed. Checking this value enables the Tray 3 entry in the Paper Size list of the Paper Tab.
Restore Defaults	The Restore Defaults button replaces all selections in the Configuration Tab with factory default settings.

PCL TAB

The PCL Tab allows the user to specify the default PCL font parameters.

Item	Description
Font Number	This option selects the default PCL font number. The default is <i>1 (Courier Lt SWC)</i> .
Symbol Set	This option selects the default PCL symbol set to be used. The default is <i>#33 PC-8</i> .
Font Pitch	This selection allows the user to change the font size for monospaced PCL fonts. The Font Pitch option is grayed out if the default font is a proportional font. There is no selection possibility for bitmap fonts. The values for Font Pitch range from 0.44 to 99.99 in units of 0.01. the default value is <i>10.00</i> .
Font Height	This selection allows the user to change the font height for proportional fonts. The Font Height is grayed out if the default font is a monospaced (fixed) PCL font. There is no selection possibility for bitmap fonts. The values for Font Height range from 4.00 to 99.75 in units of 0.25. The default value is <i>12.00</i> .
Lines per Form	The Lines per Form parameter selects the maximum number of lines that can be printed on a page using PCL. The available values range from 5 to 128. The default value is <i>60</i> .
Courier	The Courier parameter selects the version of Courier to be used. The available values are <i>Regular</i> and <i>Dark</i> . The default value is <i>Regular</i> .
Append CR to LF	The Append CR to LF parameter determines whether a Carriage Return will be appended to each line feed encountered in backward compatible PCL jobs (pure text, no job control.) The available values are <i>No</i> and <i>Yes</i> . The default value is <i>No</i> .
Restore Defaults	The Restore Defaults button replaces all selections in the PCL Tab with factory default settings.

ADVANCED TAB

The Advanced Tab allows the user to change the margins of the printer and to print an Internal Cleaning Sheet.

Item	Description
Margin	This option allows the user to increase the print margins. The top and left margins will be increased by the amount selected. The Left Margin values range from 0.0" to 3.0" and the Top Margin values range from 0.0" to 5.0" using 0.1" increments. The default values are 0.0". The user may select to change the values to use millimeters. The default values are 0 mm. For more information see "Changing Printable Area" below.
Internal Cleaning Sheet	This selection allows the user to print the Internal Cleaning Sheet. Press this button whenever print quality diminishes.
Restore Defaults	The Restore Defaults button replaces all selections in the Advanced Tab with factory default settings.

Shifting the Printable Area

There may be times when you need to offset the printer's printable area slightly. For example, when you need text entries to line up exactly with the boxes on a form. You can do this by adjusting the margin values on the Advanced Tab of the RCP. Adjusting the margins does not affect the maximum printable area. Instead it shifts where the printable area begins and ends. The left and top margins of the paper in each tray can be set separately.

APPENDIX C

SAFETY INFORMATION

This chapter provides safety information and product specifications for the SuperScript 1450 and 1450N printers. As you operate your printer, please be aware of the following safety considerations.

Laser Safety

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.

Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.

CDRH Regulations

The Center of Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured after August 1, 1976. Compliance is mandatory for products marketed in the United States. The area under the printer's Top Cover indicates compliance with the CDRH regulations that must be attached to laser products marketed in the United States.

Caution! Use of controls, adjustments, or performance of procedures other than those specified in this user's guide may result in hazardous radiation exposure.

Ozone Emission

The corona assemblies found in laser printers and photocopiers generate ozone gas (O₃) as a by-product of the electrophotographic process. Ozone is only generated while the printer is printing (while the coronas are energized).

UL Standards for Ozone

The only existing standard for ozone emissions has been established by Underwriters Laboratory (UL). All SuperScript family printers meet this standard when shipped from the factory to our customers.

Employer Responsibilities

Because ozone can be an irritant, various regulatory agencies have established limits to the amount of ozone to which employees may be exposed. The employer is responsible for providing a safe work environment that meets the agency's standards.

Recommendations for Minimizing Ozone Exposure

Almost all ozone concerns arise from abnormal site or operating conditions. The following conditions may generate an ozone complaint:

- Installation of multiple laser printers in a confined area
- Extremely low relative humidity
- Poor room ventilation
- The exhaust port of the printer is directed towards the face of personnel
- Long, continuous printing combined with any of the above

Inspect your work environment for the operating conditions listed above if you believe ozone emissions are a problem in your area. Some people may be ultra-sensitive to ozone odor. If these situations are encountered, it is advisable to position the printer away from the sensitive user.

FCC Statement

(For United States Use Only)

Federal Communications Commission Radio Frequency Interference Statement.

WARNING! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from the one to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Use a shielded and properly grounded I/O cable to ensure compliance of this unit to the specified limits of the rules.

If your printer is the NEC SuperScript 1450N model or if you have installed the optional Network Interface Card (NIC), the printer meets the requirements of FCC Class A when connected to an Ethernet cable.

(For Canadian Use Only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B présentes dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Declaration of Conformity

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

U.S. Responsible Party: NEC Technologies, Inc. Address: 1250 N. Arlington Heights Road, Itasca, Illinois 60143 Telephone Number: 630-467-5000
--

Type of product: Laser Printer

Equipment Classification: Class B Peripheral

Model: SuperScript 1450, SuperScript 1450N



We hereby declare that the equipment specified above conforms to the technical standards as specified in the FCC rules.

APPENDIX D

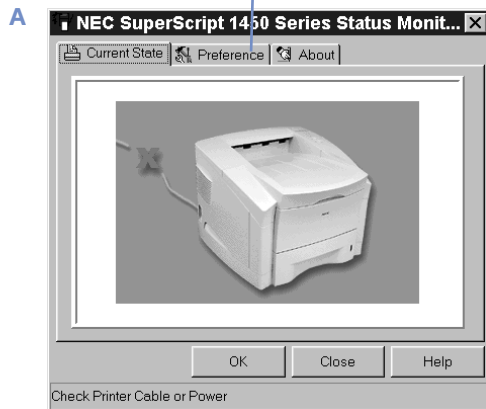
THE STATUS MONITOR

Computers running Windows 95, 98, or Windows 2000 can receive printer status on their screen with the SuperScript 1450 Status Monitor. The Status Monitor is automatically loaded to your computer when you select Easy Install during your initial installation. But it can be loaded anytime from the *SuperScript 1400 Series Solutions CD*.

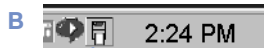
note: The Status Monitor cannot be used to monitor printers connected through a network or serial connection.

You can choose to have the SuperScript Status Monitor displayed in maximized view **(A)** or have a minimized icon appear on the taskbar. The icon does not reflect status **(B)**.

Use the Preferences tab to choose between startup Status Monitor views.



Maximized Status Monitor View



Minimized Status Monitor Icon on Windows Taskbar

The Status Monitor first comes up in minimized view. To maximize the view, left-click on the Status Monitor icon (found on the Windows task bar). For options, right-click on the icon.

The table below explains messages that can appear in the maximized Status Monitor.

Displayed Image	Status Message	Corrective Action
	Ready	None
	Warming Up	Wait until the Ready message appears. The printer will process print jobs after reaching operating temperature.
	Energy Saving	None
	Printing	None
	Requesting Manual Feed	The Printer is in Manual Feed mode and waiting for the selected paper to be loaded in Tray 1. Press the Go/Continue button to resume printing.

Displayed Image	Status Message	Corrective Action
	Paper Needed in Tray 1	Fill Tray 1 (Multipurpose Tray) with paper.
	Paper Needed in Tray 2	Fill Tray 2 (standard 270-sheet Cassette) with paper.
	Paper Needed in Tray 3	Fill Tray 3 (550-sheet 2nd Cassette).
	Paper Jam - Clear the Paper Path	Open the input tray and remove any jammed paper. If necessary, open the Top Cover and clear any jammed paper. After clearing the jam, open and close the Top Cover to remove the error message.
	Paper Size Error in Tray 1	Feed the specified paper size into Tray 1 (Manual Feed Tray).

Displayed Image	Status Message	Corrective Action
	Paper Size Error in Tray 2	Refill Tray 2 (550-sheet Cassette) with the specified paper.
	Paper Size Error in Tray 3	Refill Tray 3 (550-sheet 2nd Cassette) with the specified paper.
	Page Too Complex	Simplify your document or lower the resolution of the document.
	Cover Open or No Toner Cartridge	Make sure the Top Cover is completely closed and that the Toner Cartridge is properly installed.
	Printing Error (printer is shaded red)	Visually inspect the printer for anything unusual and/or re-send the print job.
	Hardware Error (printer is shaded red)	There is a problem with the printer's electronics. Have a qualified technician inspect the printer.

Displayed Image	Status Message	Corrective Action
	Check Printer Cable or Power	There is miscommunication between the computer and the printer. Possible causes: • Printer is not powered on • Incorrect cabling • Printer's parallel cable does not support bi-directional communication

INDEX

Numerics

- 10/100Base-TX 1, 2
- 550-sheet 2nd cassette 62
- 550-sheet cassette 6, 8
 - loading paper 12

A

- Add Printer 21
- auto continue 99

B

- back cover 31
- back feed roller 8
- basic printing 42
- booklet printing 49
- box contents 7

C

- cancel button 25
- canceling a print job 45
- card stock 40
- CDRH regulations 101
- cleaning the printer 59
- clearance space 5, 92
- configuration sheet 17, 64, 97
- connecting printer
 - locally 15
 - USB 16
- controller board 65
- custom install 39
- custom sized paper 40

D

- default printer, selecting a 21
- Device Options tab 66
- device options, Windows 63
- device settings, Windows NT 63
- direct connection 2
- dpi 1

- duplex printing 3
 - how to do 46
- duty cycle 91

E

- energy saving 4, 27
- ENERGY STAR 4
- envelopes 35, 63, 93
- errors 28
- Ethernet 2, 7

F

- face-up output tray 8, 30, 31, 37, 40
- FCC 102
- first page printing 51
- forms 39
- fuser unit 8, 28

G

- go/continue button 17, 25, 34
- graphic properties 56

H

- hardware requirements 2
- heavy paper 40, 93
- humidity 91

I

- IEEE 1284 bidirectional parallel
 - cable 15
- installer 19
- installing
 - software for Macintosh 22
 - software for Windows 3.1x 22
 - software for Windows 95 & 98 19
- interface panel 8
- interface ports 91
- internal cleaning page 57
- internal cleaning sheet 100

J

- jam recovery 99
- Job Finishing tab 49

L

- labels 36, 93
- LEDs 26
- letterhead 38
- lifting the printer 6
- light messages 27

M

- Macintosh
 - options 22
 - printer properties 44
 - system requirements 2
- Macintosh printer software 22
- main output tray 8
- manual duplex printing 3
- manual feed 27
- manual printing 34, 46, 47
- margins 39
- media
 - adhesive labels 93
 - envelopes 93
 - preprinted forms 93
 - transparencies 93
- media specifications 93
- memory 28, 66
 - upgrading 66
- model number 8
- moving the printer 60
- multipurpose tray 8, 27, 32, 34, 36

N

- Network Interface Upgrade Kit 1, 61
- NIC 1, 61
- noise level 92
- N-up printing 3, 44, 48

O

- offset 39
- operator panel 8, 17, 25
- operator panel buttons 25
- options
 - 550-sheet 2nd cassette 62

- NIC 61
- PostScript compatibility
 - upgrade 67
- output trays 30
- overlays 54
- ozone 101
- P**
 - page orientation 3, 42
 - page overlay 54
 - Page Setup, Macintosh 44, 56
 - paper
 - choosing 29
 - printable area 92
 - paper characteristics 29
 - paper jams 28
 - paper level indicator 8, 13
 - paper limit 13, 64
 - paper path 30
 - paper size mismatch 28
 - paper sizes and capacity 31, 32, 94
 - envelope sizes and weights 96
 - multipurpose tray 94
 - optional 500-sheet 2nd cassette 95
 - standard 500-sheet cassette 94
 - paper sizes, changing 14
 - Paper tab 42
 - paper tray 1, loading 12
 - paper trays, names of 42
 - paper weights 29, 93
 - parallel printer cable 2, 15
 - PCL font parameters 100
 - PCL6 1
 - ports 16, 19
 - poster printing 52
 - PostScript 85
 - PostScript compatibility upgrade 67
 - power consumption 91
 - power requirements 91
 - power switch 8
 - preprinted forms 93

- preprinted media 38
- print speed 1, 91
- printable area 39, 92, 100
- printer
 - capacity 1
 - cleaning 59
 - clearance space 5
 - dimensions 91
 - errors 28
 - location 5
 - moving 60
 - operating specifications 91
 - paper limit 13
 - repair 89
 - safety 5
 - settings 17
 - software 42
 - software features 3
 - status 3
 - system requirements 2
 - unpacking 6
- printer dimensions 91
- printer options 1, 61, 88
- printer parts 8
- printer processor 91
- printer supplies 88
- Printer tab 63
- Printers folder 43
- printing
 - envelopes 35
 - labels 36
 - problems 69
- proof sheets 48
- Properties 34, 42, 43, 63
- properties, Macintosh 44
- Q**
 - QuickStart 7
- R**
 - RAM 1, 91
 - RCP 4, 39, 97

- relocating the printer 60
- remote control panel 4, 39, 97
- removing printer software 21
- resolution 56
- S**
 - safety information 5, 57, 61, 101
 - laser safety 101
 - ozone emission 101
 - saving toner 45
 - scale printing 3, 51
 - SCSI 91
 - serial number 8
 - service contracts 89
 - shipping the printer 60
 - side cover 65, 68
 - SIMM 1, 66
 - software 19
 - specifications 91
 - static electricity 61
 - status monitor 3, 103
 - SuperScript 1400 Series Solutions
 - CD 19
 - SuperScript 1450
 - highlights 1
 - supplies
 - ordering 88
 - system requirements 2
- T**
 - technical support 87
 - service contracts 89
 - toner cartridge 7
 - distributing the toner 58
 - installing 10
 - replacing 58
 - toner usage 45
 - top cover 8
 - transparencies 37
 - tray 1 8, 32, 36, 37
 - tray 2 8

U

UL 101

Universal Serial Bus 16

unpacking 6

USB 2, 16

USB connection

Windows 2000 21

Windows 98 21

USB port monitor 16

V

video clips 19

W

warranty 89

watermark 3, 44, 53

weight 6, 91

Windows

basic document printing 42

printer properties 43

system requirements 2

Windows 2000 2

Windows NT 3