CHAPTER 1
FEATURES

OVERVIEW

The fully-featured NEC SuperScript™ 1800 laser printer offers the best value today for fast monochrome duplex printing. The 1800 delivers high resolution, laser output for business presentations and reports. The Multipurpose Tray, 500-sheet Cassette, and optional 500-sheet 2nd Cassette combine to hold 1,100 sheets of letter size paper.

The SuperScript 1800 has been designed to support all major personal computer operating systems, including: DOS, Windows® 3.1x, Windows® 95/98, and Windows NT® 4.0. Macintosh System 7.x and 8.x are supported with the 1800N model, the optional 10/100 Base-TX network interface card (NIC), or the Apple® LocalTalk and serial interface upgrade kit. 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 1800 capabilities.

SuperScript 1800 Highlights

- Prints up to 17 pages per minute
- Internal duplexer allows printing on both sides of the page
- PCL5e/6 printer language
- 1,200 dpi quality with NEC Sharp Edge Technology (SET)
- A 100MHz 64-bit PowerPC RISC processor
- 12 MB of RAM standard, expandable to 132 MB
- Year-2000 compliant

Printer Options

You can add these features to increase productivity and performance.

- 500-sheet 2nd Cassette
- Industry standard 72-pin SIMM's
- Adobe® PostScript® level 2 Upgrade Kit
- Apple® LocalTalk Serial Upgrade Kit
- IrDA Interface Upgrade Kit
- 10/100Base-TX internal Network Interface Card

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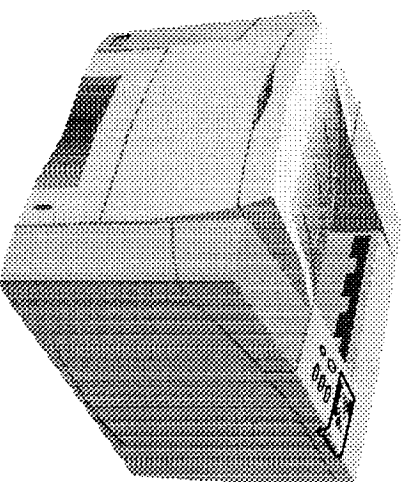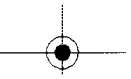

The SuperScript 1800 Laser Printer

System Requirements

Your SuperScript 1800 printer and software can operate using the following minimum system configurations.
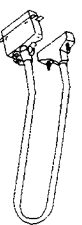
Windows Operating System

- Microsoft Windows 3.x, Windows 95/98, 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

Mac OS

- Mac OS 7.1 or higher
- CD-ROM drive

Hardware Requirements

You need to provide the following additional hardware to setup and connect your printer:

- For standard connection, a IEEE 1284 compliant parallel cable.

- If you are connecting a SuperScript 1800N printer or if you have installed the optional 1800 NIC, you will need a Category 5 twisted pair cable with RJ-45 connectors for 10/100Base-TX Ethernet.
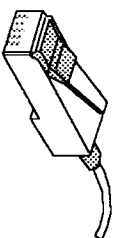
note: The SuperScript 1800N or network interface card (NIC) automatically detects whether you have a 10 Mbps or 100 Mbps Ethernet connection. For better performance, NEC recommends that you use shielded cable and connectors when connecting to 100 Mbps Ethernet.
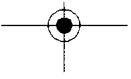
Energy Saving

The SuperScript 1800 printer meets 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.)

EPA POLLUTION PREVENTER

SuperScript 1800 printer settings give you many ways to customize your print jobs. There is often more than one place to change the same printer setting. These include

- PCL 5e/6 printer drivers and the optional SuperScript PostScript 2 driver

- The printer Operator Panel

Using the Printer Driver

Duplex Printing

Duplex printing or "duplexing" allows you to print on both sides of the paper. This can speed up your print time and help you conserve paper. You can use 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 or from the Operator Panel.

Proof Sheets

This finishing feature 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 your Window's driver.
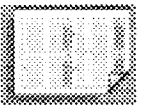
Watermarks

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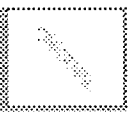
Scale to Paper Size

This feature allows you to scale your output 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 file.

Using the Printer Operator Panel

You can use the Operator Panel to quickly cancel a print job or change settings. If you do not have an on screen printer driver because you are using DOS or UNIX operating systems, use the Operator Panel to set up your print jobs.

You can view messages on the Operator Panel to help diagnose printing problems. In addition, the Operator Panel allows you to print out informational pages. These pages include font lists and test pages that show you the total page count. If you have a networked printer you can also set the printer's TCP/IP address or reconfigure network settings. Chapter 5, "The Operator Panel," provides instructions for using the printer's Operator Panel.

NEC
SuperScript 1800

Menu
Item
Value
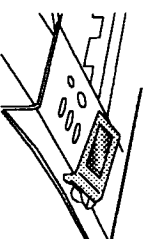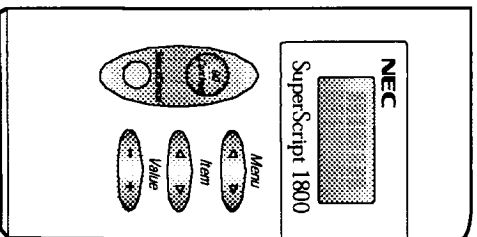
NOTE: The LCD message display tilts up for easy viewing.

CHAPTER 10
TECHNICAL SUPPORT

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 1800 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
- Page count (shown on the Printer Settings page)
- 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.nec.com**

For customer service and technical support use:

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 1800 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 parts and part numbers. The print media listed have been tested to produce high quality color output on the SuperScript 1800.

Table 10-1: Printer Options

Part	Order #
500-sheet 2nd Cassette	1801
PostScript Level 2 Upgrade Kit	1802
IrDA Interface Upgrade kit	1803
Apple LocalTalk and Serial Interface Upgrade Kit	1804
10/100 Base-TX Internal Network Interface Upgrade Kit	1805

Table 10-2: Printer Supplies

Part	Order #
SuperScript 1800 Toner Cartridge	20-140
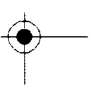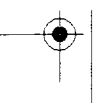
NEC WARRANTY AND SERVICE

Your SuperScript 18000 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) brochure. 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 1800 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 in this Product. 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 one (1) 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.

Limitation of Damages and Implied Warranties

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 NEC 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: 17 sheets/minute

Print method

Electrophotographic

Warming-up Time

less than 60 seconds (at ambient temperature of 20°C/ 115VAC)

First Printout Time

Single-face Printing: Less than 15 sec.

note: The printing speed listed above is the value when the papers are fed from the standard 500-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

5,000 pages per month maximum

Processor

100MHz 64-bit PowerPC RISC

Random Access Memory (RAM)

12 MB standard (expandable to 132 MB maximum)

Resolution

600 x 600 dpi

Printer Language Emulations

- PCL 5e/6 Standard
- PostScript Level 2 optional

Automatic Jam Recovery

Automatically reprints jammed pages when enabled

Interface Ports

- IEEE 1284-compliant parallel
- IrDA option
- Apple LocalTalk option.
- Serial (RS-232C) option
- 10/100Base-TX Ethernet (with SuperScript 1800 Network Interface Upgrade Kit)

Power Requirements

115VAC ± 10%, 60Hz ± 1Hz

Power Consumption

Operating average: 340 watts (W) average during operation

In Power-save mode: Less than 34 watts (W)

Temperature

Operating: 50°F to 90°F (10°C to 32°C)

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

Humidity

Operating: 2 0-80% RH (non-condensing)

Non-operating: 10-95% RH (non-condensing)

Dimensions (without options)

Width: 16.8" (426.7 mm)

Depth: 17.4" (442 mm)

Height: 11.8" (299.7 mm)

Weight

Without Consumables : 37.4 lb (17 kg)

EP Cartridge (12K): about 3.83 lb / 1.74 kg

500-sheet 2nd Cassette: 18.23 lb (8.30 kg)

Administrative Compliance

- UL 1950D3
- CSA C22.2 950D3

APPENDIX C
SAFETY INFORMATION

This chapter provides safety information and product specifications for the SuperScript 1800 printer. 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 printer's rear panel indicates compliance with the CDRH regulations and 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 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 agencies' 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.
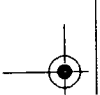
FCC Statement

(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.

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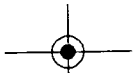
Use a shielded and properly grounded I/O cable to ensure compliance of this unit to the specified limits of the rules.

If your printer is the NEC SuperScript 1800 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 numerique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B présentes dans le règlement sur le brouillage radioélectrique édicaté par le Ministère des Communications du Canada.