



POCKET DIGEST

**NCR**

# Products and Systems

Creating value



# NCR PRODUCTS AND SYSTEMS

## POCKET DIGEST

---

NCR Corporation improves products as new technology, software, components and firmware become available. NCR reserves the right to change specifications without prior notice. In some instances, photographs are of equipment prototypes.

All features, functions and operations described in this digest may not be marketed by NCR in all parts of the world. Consult your NCR representative or NCR office for the latest information.

*Publisher:*  
Michael A. Athmer

*Editors:*  
Chris Stellwag  
Nancy Walker

*Cover Design:*  
Jim Rohal Design

The NCR Products and Systems Pocket Digest is updated annually for NCR Stakeholders worldwide, by:

Strategic Promotions Department, USG-2  
1334 So. Patterson Blvd.  
Dayton, Ohio 45479

© January 1991 NCR Corporation  
Printed in U.S.A.

# CONTENTS

---

<b>I. SYSTEM 3000 FAMILY</b>	<b>Page</b>
NCR 3320	1
NCR 3340	3
NCR 3345	5
NCR 3445	7
NCR 3450	9
NCR 3550	10
<b>II. COOPERATIVE COMPUTING SOFTWARE</b>	
NCR Cooperation	11
<b>III. NETWORKING</b>	
NCR 5480 Network Processors	15
NCR 5600 Communications Processors	16
NCR 5660	18
NCRNet Manager	19
NCR Open Network System	21
NCR WaveLAN	22
<b>IV. NCR GENERAL PURPOSE PROCESSORS</b>	
NCR Tower 32 Family	25
NCR Tower 32/300	26
NCR Tower 32/450	27
NCR Tower 32/500	28
NCR Tower 32/650	29
NCR Tower 32/700	30
NCR Tower 32/750	31
NCR Tower 32/825 and 32/850	32
NCR Tower Family Matrix	34

---

## **V. NCR GENERAL PURPOSE**

### **WORKSTATIONS AND SOFTWARE**

	<b>Page</b>
2900 Video Display Terminal	37
2920 Video Display Terminal	38
2970 Video Display Terminal	39
PC286	40
ELPC386sx	41
PC386sx	43
PC386sx <sub>20</sub>	45
PC Software	47
The OS/2 Workgroup Platform	49

## **VI. NCR GENERAL PURPOSE SYSTEMS**

System 10000 Family	51
System 10000 Model 35 and Model 55	52
System 10000 Model 65, Model 75, and Model 85	53
System 10000 Family Matrix	54
9800 Series	56

## **VII. NCR DATA COLLECTION SYSTEMS**

2725 Transaction Terminal	59
2735 Data Collection Terminal Family	60
2735-0300 Bar Code/Magnetic/ Keyboard/Display Terminal	61
2735-1000 Multifunction Fixed/ Portable Terminal	62

## **VIII. NCR FINANCIAL SYSTEMS**

NCR Financial Tower System—TMX	63
NCR Financial Tower System—UNIX	64
5037 Laser Printer	65
5267 Financial Workstation	66
5367 Financial Workstation	67
5070 Interior ATM	68
5070 SST	70
5084 Cash Dispense Terminal	71
5085 ATM	72

# CONTENTS

---

	<b>Page</b>
5088 Firstline ATM	73
5088 Slimline ATM	74
5285 Business Depository	75
5682 Automated Platform Machine	76
5663 Account Services Terminal	77
6760 NCR Tower-Check System	78
6790 Reader/Sorter	79
7720-3000 System	80
7731 Personal Image Processor	81
7766 Clustered Proof System	82
7770-7000 Item Processing Product Family	83
<b>IX. NCR RETAIL SYSTEMS</b>	
2113 ECR	85
2123 System	86
2126-5000 Terminal	87
2127 Retail System	88
2160 Food Service System	89
2750 Hand-Held Terminal	90
2760 Food Services System	91
5682 Interactive Self-Service Video System	92
7000CP System	93
7052 POS Workstation System	94
7052D POS Workstation System	95
7058 Retail Workshop	96
7820 Scanner	97
7824 Scanner/Scale	98
7852 Scanner	99
Distributed Store System	100

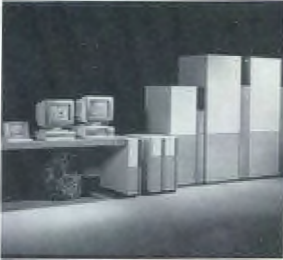
---

<b>X. NCR PERIPHERALS</b>	<b>Page</b>
4430 Reader	101
3892/3699/6098 Disk Subsystems	102
6091 Magnetic Tape Unit	103
6092/5496/6099 Disk Subsystem	106
6320 Tape Drive	107
6323 Tape Drive	108
6373 Tape Drive	109
6417 Dot Matrix Printer	110
6421 Dot Matrix Printer	111
6424 Letter-Quality Matrix Printer	112
6430 Band Printer	113
6435 Laser Printer	114
6436 Laser Printer	115
6437 Ion Deposition Printer	116
6438 Ion Deposition Printer	117
6444 Matrix Printer	118
6450 Matrix Printer	119
6451 Matrix Printer	120
6470 Band Printer	121
NCR Systems Peripheral Support Matrix	122
<b>X. NCR MEDIA PRODUCT DIVISION MEDIA REQUIREMENTS</b>	<b>125</b>
<b>XI. NCR PHOTOGRAPHY ORDER NUMBERS</b>	<b>131</b>
<b>XII. NCR ALPHA MAGAZINE REPLY</b>	<b>135</b>

# SYSTEM 3000 FAMILY

## NCR 3320

---



**NCR 3000 Family**



**NCR 3320**

The NCR 3320 is an outstanding, feature-rich 20 MHz Micro Channel™ system. This market-leading product is ideal for the small workgroup or departmental server environment. This high performance system is an excellent tool for users standardizing on Micro Channel architecture and DOS, Windows, OS/2, or UNIX® operating environments. It also offers an easy upgrade path for users with long-term strategic requirements for i486 technology.

**Some basic features:**

- Micro Channel architecture
- 16/32-bit Intel 80386sx microprocessor (20 MHz)
- 2 MB RAM standard on main processor board (high-speed 70ns)
- Super VGA video interface (800 x 600 maximum resolution)
- Four available full-size 16-bit Micro Channel compatible expansion slots
- 3.5" 1.44 MB internal flex disk drive and three internal half-height disk or tape drive positions
- SCSI controller with external connector
- One serial port, one parallel port, and one auxiliary/mouse port

*(continued)*

---

**Some optional features:**

- 2 MB high-speed 70ns RAM expansion SIMM module (up to 3 can be installed; system supports maximum of 16 MB RAM depending on the operating system)
- 100 MB SCSI fixed disk drive (25ms average access time)
- 200 MB SCSI fixed disk drive (15ms average access time)
- 120 MB streaming tape
- Advanced Graphics Coprocessor adapter (1024 x 768 resolution) and Graphics Coprocessor 512 KB video memory expansion
- Optional video displays:
  - 12" analog monochrome VGA
  - 14" analog color VGA
  - 14" analog color Super VGA
  - 16" Advanced VGA analog color



# NCR 3340

---



The NCR 3340 is a high performance workstation product incorporating such features as a 25 MHz i486 processor with 128 KB cache, SCSI, and a 16-bit Super VGA video interface. It is designed as a "power workstation" for users in selected environments such as complex productivity; financial modeling; design automation; imaging; animation and simulation; and graphics, computation, and network application requirements.

### **Some basic features:**

- Micro Channel architecture
- 32-bit Intel i486 microprocessor (25 MHz)
- 2 MB or 8 MB of 80ns 32-bit high performance standard RAM
- Super VGA video interface (800 x 600 maximum resolution)
- Four available full-size Micro Channel expansion slots (two 32-bit and two 16-bit)
- Three 3.5" internal half-height disk or tape positions
- 3.5" 1.44 MB flex drive
- One serial port, one parallel port, and one auxiliary/mouse port

*(continued)*

---

**Some optional features:**

- 2 MB or 8 MB system memory expansion SIMM modules (system supports maximum of 16 MB RAM)
- 100 MB SCSI fixed disk drive (25ms average access time)
- 200 MB SCSI fixed disk drive (15ms average access time)
- 120 MB streaming tape
- Optional video displays:
  - 12" analog monochrome VGA
  - 14" analog color VGA
  - 14" analog color Super VGA
  - 16" Advanced VGA analog color

## NCR 3345

---



The NCR 3345 is a high performance desktop workstation using Intel's fastest i486 microprocessor and NCR's advanced memory architecture. This provides a powerful workstation for environments such as economic and financial modeling, CAD, statistical analysis, simulation, animation, imaging, and network applications.

### **Some basic features:**

- Micro Channel architecture
- 32-bit Intel i486 microprocessor (33 MHz)
- 4 MB or 16 MB of 80ns 32-bit dual ported EDAC RAM
- Super VGA video interface (800 x 600 resolution)
- Four available Micro Channel expansion slots (three 32-bit and one 16-bit with video extension)
- Four memory slots for expansion up to 64 MB RAM
- One intelligent SCSI host adapter slot
- Three 3.5" internal half-height disk or tape positions and one 3.5" 1.44 MB internal flex drive
- High performance SCSI II, implemented as a closely coupled intelligent I/O processor
- Two serial ports, one parallel port, and one auxiliary/mouse port

*(continued)*

---

**Some optional features:**

- 4 MB or 16 MB high-speed memory upgrade boards (up to four boards can be installed to bring total system RAM to 16 MB or 64 MB)
- 100 MB SCSI fixed disk drive (17ms average access time)
- 200 MB SCSI fixed disk drive (15ms average access time)
- 340 MB SCSI fixed disk drive (15ms average access time)
- 200 MB SCSI tape drive
- Weitek coprocessor
- 120 MB streaming tape
- Optional video displays:
  - 12" analog monochrome VGA
  - 14" analog color VGA
  - 14" analog color Super VGA
  - 16" Advanced VGA analog color

## NCR 3445

---



The NCR 3445 is a high performance desktide product designed for the departmental server and multi-user system environments. It is an ideal "power server" for both OS/2 and UNIX multi-user environments running complex applications such as intensive database management, economic and financial modeling, computer-aided design, graphics, statistical analysis, simulation, animation, imaging, and network applications.

### **Some basic features:**

- Micro Channel architecture
- 32-bit Intel i486 microprocessor (33 MHz)
- 4 MB or 16 MB of 80ns 32-bit dual ported EDAC RAM
- Super VGA video interface (800 x 600 resolution)
- Seven available Micro Channel expansion slots for expansion up to 64 MB RAM
- One intelligent SCSI host adapter slot
- Six 5.25" internal half-height disk or tape positions and three 5.25" full height disk positions
- High performance SCSI II, implemented as a tightly coupled intelligent I/O processor
- Two serial ports, one parallel port, and one auxiliary/mouse port

*(continued)*

---

**Some optional features:**

- 4 MB or 16 MB high-speed memory upgrade boards (up to four boards can be installed to bring total system RAM to 16 MB or 64 MB)
- 327 MB SCSI fixed disk drive (17.5ms average access time)
- 670 MB SCSI fixed disk drive (12ms average access time)
- Workstation keyboard (101 keys)
- 200 MB SCSI tape drive
- 600 MB SCSI CD-ROM
- 525 MB SCSI tape
- 120 MB streaming tape
- Optional video displays:
  - 12" analog monochrome VGA
  - 14" analog color VGA
  - 14" analog color Super VGA
  - 16" Advanced VGA analog color

## NCR 3450

---



The NCR 3450 is a powerful multiprocessor desk-side system that takes full advantage of a multiple bus architecture. The 3450 is powered by up to four 50 MHz i486 processors in a tightly-coupled multiprocessing architecture. This member of the System 3000 family performs particularly well in a multi-user/multi-tasking environment. It is ideal as a departmental or enterprise processing system. In addition, the NCR 3450 includes Super VGA support and intelligent Small Computer Systems Interface (SCSI).

### **Some basic features:**

- Enhanced Micro Channel architecture
- 32-bit Intel i486 (up to 4) microprocessors (50 MHz)
- 4 MB to 256 MB RAM
- Eight Micro Channel slots available
- Nine available drive bays (full and half height)
- High performance SCSI II
- Two serial ports and one parallel port

# NCR 3550

---

The NCR 3550 is a highly reliable, symmetric multiprocessing system developed as a high performance general purpose computing platform for enterprise applications. The 3550 sets new standards for price/performance and power. This model integrates up to eight 50 MHz i486 Intel processors in a tightly-coupled multiprocessing architecture. Each processor has 8 KB of internal cache and 256 KB of secondary cache. The system also includes dual 64-bit system buses. With general capabilities to serve as either a departmental or enterprise server, the NCR 3550 acts as a bridge between the workgroup/departmental servers available today and the high-end, massively parallel enterprise servers that will become part of the System 3000 family.

**Some basic features:**

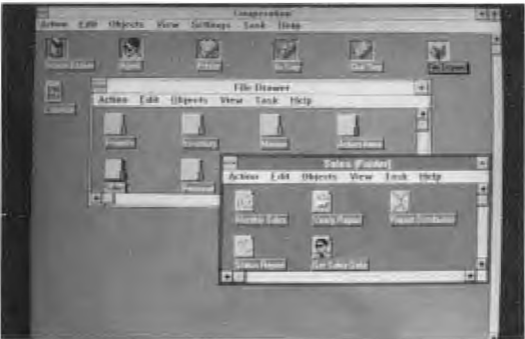
- Enhanced Micro Channel architecture
- 32-bit Intel i486 (up to eight) microprocessors (50 MHz)
- 16 MB to 256 MB dual ported, 4-way interleaved RAM
- Up to 16 available Micro Channel slots
- 12 full height disk positions
- Four full height removable media drive bays
- High performance SCSI II
- Two serial interfaces and one parallel interface



# COOPERATIVE COMPUTING SOFTWARE

## NCR COOPERATION

---



Cooperation™ is an integrated suite of cooperative software that provides the foundation for enterprise-wide cooperative computing. It includes a comprehensive set of applications, services, and tools that combine diverse computing elements into a single, cohesive system. Cooperation also helps integrate existing systems and applications, thus producing one logical system. In addition, Cooperation helps establish a more efficient and effective flow of work throughout the enterprise and helps simplify the use of information systems, enabling more people get more out of their current information resources.

The benefits of Cooperation reach throughout an organization. The unique suite of software addresses the diverse needs of various individuals, including: executives, MIS personnel, software developers, and end-users.

- **Executives**—Cooperation's ability to provide access to critical information throughout the enterprise facilitates more knowledgeable and timely decisions.
- **MIS**—Cooperation's system and network management tools help MIS integrate and manage disparate, multi-vendor environments.

*(continued)*

- 
- **Software Developers**—Cooperation provides an environment that facilitates the rapid prototyping and development of cooperative applications utilizing advanced object-oriented programming techniques.
  - **End-Users**—Cooperation enables users to access and manage information in a way that is natural and intuitive. It contributes to users' overall productivity by enabling them to concentrate on their jobs, not the mechanics of computing.

Cooperation delivers numerous benefits to these people and others in an organization through the many software tools, applications, and services. For example, Cooperation's Business Information Monitor enables management at all levels of an enterprise to monitor, maintain, manage, and report on the status of their critical success factors. These critical success factors can range from sales or inventory turns to returns on assets. This information monitoring system can automatically retrieve information from various sources in the enterprise, process that information, and consolidate the information to reveal the "big picture." Another unique feature of Cooperation is Workflow Automation. With Workflow Automation, time-consuming manual processes are replaced with streamlined electronic processes, thus resulting in dramatic productivity improvements.

Because Cooperation is based on open, industry-standard, high performance microprocessor technology and software, a Cooperation system offers a flexible alternative to conventional mainframe-based systems. Cooperation, which is based on the client/server computing model, enhances and extends the current computing environment by allowing applications and data to be distributed across the enterprise. Using the client/server model means low-cost microprocessor technology can be applied to enterprise computing needs. Cooperation, however, protects existing investments

*(continued)*

---

in conventional mainframes, minicomputers, and applications and allows an organization to build truly open, enterprise computing without sacrificing substantial investments. Cooperation helps manage change by providing the capabilities to extend and enhance current information systems to meet changing business needs. Some of the benefits offered by Cooperation include:

- superior ease of use
- reduced cost of computing
- investment protection
- flexibility and improved data/application accessibility
- superior development environment
- object-oriented technology

Cooperation's use of object-oriented technology, which is especially suited for distributed computing, means programmers now work with objects and methods instead of code and data. An object can be defined as a software module in which information is combined with any operation that can be performed on that information. Objects can be code, data, or compositions of both. Methods are operations that can be performed on objects. Using object-oriented technology, developers can encapsulate existing applications and bring them into an object-oriented framework. This gives Cooperation the ability to interoperate with existing applications. All this is shielded from the end-user, who now finds sharing information and data a simple task.

Cooperation is the beginning of a new era in enterprise computing and integration. It combines disparate systems and multi-vendor environments to give users access to the entire enterprise. Cooperation helps create a powerful and flexible information system strategy that can serve as a competitive weapon in the 1990s and beyond.

# **NETWORKING**

## **NCR 5480**

### **NETWORK PROCESSORS**

---



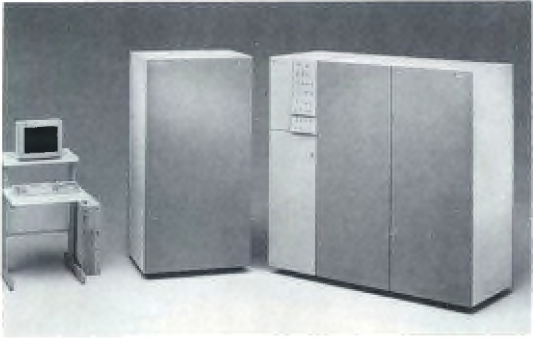
The NCR 5480 Network Processors are high performance data communications systems that provide the intelligent wide area network capabilities of an NCR standards-based networking system solution. The 5480 family consists of the Series 200, Series 600, Series 4000, and Series 5000 processor models. These processors allow you to link independent networks from a variety of vendors into a single, standards-based network. The 5480 processors provide a wide range of performance levels and line connectivity, programmability, and a variety of hardware expansion possibilities to meet many networking requirements. Because open standards provide multi-vendor connectivity, existing network investments are protected while at the same time improved flexibility and adaptability are added.

#### **Some basic features:**

- High data throughput
- Standard hardware architecture and expandable modular design
- Support up to 480 communications channels
- Automatic and on-line system configuration
- Software determines specific networking functions in each network processor
- Network compatible with all NCR 548X processors
- Supports remote loading and control

# **NCR 5600 COMMUNICATIONS PROCESSORS**

---



NCR's 5600 family of communications processors provide flexible solutions for network performance, availability, and managed growth. The 5600 communications processors offer cost-effective flexibility, a choice of performance levels, easy upgradeability, compatibility with SNA architectures, and access to multi-vendor equipment. Four different processors, each with different performance levels, meet a wide range of networking requirements and all use the same software products. The 5600 family includes the 5645-B for small nodes; the 5655-B for medium nodes; the 5665-B for large nodes; and the 5675-B for especially large volume sites. The 5675 is the highest performing SNA-compatible processor in the industry and is designed for high data traffic sites needing up to 16 hosts, 24 T1 links, 1,024 communications lines, or 64 Token Ring LANs. NCR's 5600 family of communications processors preserves existing investments in equipment and applications while positioning an organization to take advantage of new technologies as they emerge.

*(continued)*

---

**Some key advantages:**

- Flexible configurations for redundancy and back-up
- Network availability features for improved reliability and serviceability
- Performance options that range from entry level to the highest performance SNA-compatible processor in the industry
- Connectivity options for direct termination of up to 24 T1 lines and up to 64 Token Ring LANs
- Modular design for meeting today's needs and managing network growth through on-site upgradeability and on-site system expansion
- Preservation of users' investments through hardware and software compatibility

## **NCR 5660**

---

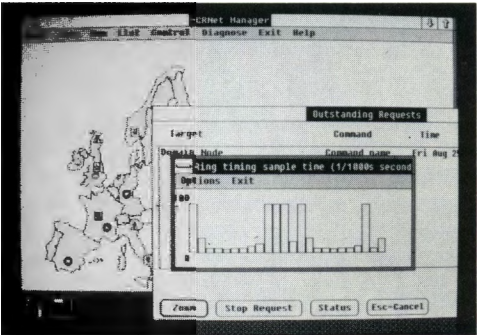


The NCR 5660 communications processor facilitates and controls the communication of information between one or more host computers and other devices in a geographically dispersed communications network. The NCR 5660 supports application switching, routing, polling, automated dialing, error recovery and multiplexing. The NCR 5660 is one of the most powerful communication processors offered by NCR and features VLSI packaging, pipelined processing and cache memory.

The NCR 5660 concurrently supports up to eight NCR, IBM or IBM-compatible mainframes and up to 1,024 communications lines. The NCR 5660 provides support for NCR, SNA and X.25 networking architectures and SNA, bisynchronous, asynchronous, multi-point asynchronous and NCR DLC terminals.

# NCRNET MANAGER

---



NCRNet Manager helps maximize the benefits of open computing with a standards-based network management solution. Based on the Open Systems Interconnect (OSI) standards, NCRNet Manager provides a highly flexible, adaptable solution for managing heterogeneous networks. Because NCRNet Manager offers flexible support of many standards, it can control NCR networks as well as multi-vendor networks. NCRNet Manager coexists with SNA; therefore, migrating to open computing without disrupting network management is simple and cost-effective. NCRNet Manager provides the capability to monitor and analyze networks and systems from a single focal point and its features are designed to provide centralized, comprehensive management and control.

*(continued)*



---

**Some basic benefits and features:**

- Minimized networking downtime and delays, resulting in improved reliability and availability
- Outstanding end-to-end network management
- Control of network operation costs
- Minimized knowledge and training requirements for local network personnel
- Support for network growth and expansion
- Compliance with OSI standards for network and systems management
- Operation in SNA as well as OSI-based environments
- Centralized and decentralized management of local, metropolitan, and wide area networks
- Support for NetBIOS, TCP/IP, OSI, and SNA protocols

# NCR OPEN NETWORK SYSTEM

---

As part of the Open Networking Environment,<sup>™</sup> ONS provides the intelligent networking that allows the transparent enterprise-wide interconnection of NCR and multi-vendor systems. ONS is based on Open Systems Interconnection (OSI) standards. It implements all seven layers of the OSI reference model to provide network application services and extensive local and wide area internetworking capabilities. The Open Networking Environment allows you to build your network around ONS with the knowledge that you can add OSI systems from multiple vendors at any time.

## **Some basic benefits:**

- **Flexible configurations**—ONS supports tailoring each system to specific needs and allows for easy configuration changes as needs change
- **Leverage**—ONS helps leverage existing systems investment while implementing new programs and integrating multiple systems with minimal disruptions
- **Incremental growth**—The openness and scalability of ONS provides a broad range of networking options
- **Productivity**—ONS is designed to maximize organizational and end-user productivity through centralized management and enhanced interfaces
- **Solutions Platform**—ONS is designed as a network processor which eliminates users' compromising business objectives due to limitations of their network architecture

## NCR WaveLAN

---



NCR WaveLAN uses advanced radio-frequency communications to provide a Local Area Network (LAN) for personal computers with one important advantage over other LANs—no wires. WaveLAN creates a wireless LAN in office, educational, and retail settings using industry standard hardware and networking software. All this adds up to the flexibility and freedom to put people and PCs wherever they need to be, without the time and cost required to install or move wired LANs.

### **Some basic features:**

- Fully compatible with industry standard architectures
- 2 Mbps data rate
- Novell NetWare “tested and approved”
- Working range up to 800 feet
- Omnidirectional antenna (line of sight NOT required)
- Spread spectrum radio transmission ensures security from interference and eavesdropping
- Easily connected to a wired backbone
- Eight NCR patents pending

*(continued)*

---

**Some key benefits:**

- Greater flexibility to locate or move networked PCs
- No cabling costs
- Quick and simple installation—no site license required
- Low maintenance costs

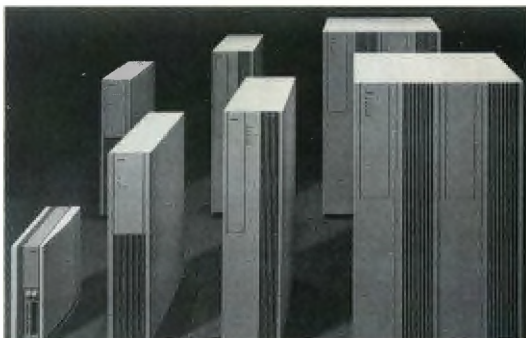
**Some optional features:**

- DES encryption chip socket
- Boot ROM socket
- 5-mile line of site antenna



## **NCR GENERAL PURPOSE PROCESSORS NCR TOWER 32 FAMILY**

---



NCR's open systems architecture strategy affords NCR Tower 32 Family users outstanding performance and flexibility. Designed to accommodate a wide selection of peripherals and software, the NCR Tower 32 Family makes use of widely recognized standards and protocols including 32-bit Motorola 68020, 68030 and 68040 microprocessors, Multibus<sup>®</sup>, SCSI peripheral interfaces, and an NCR-enhanced operating system based on UNIX System V. Additionally, the systems support a wide array of industry-standard communications, software languages, productivity tools and applications.

Object code compatibility among the NCR Tower 32 Family members is a standard feature. Additionally, power failure recovery is standard on all systems, with the exception of the NCR Tower 825 and 850 models.

## NCR TOWER 32/300

---



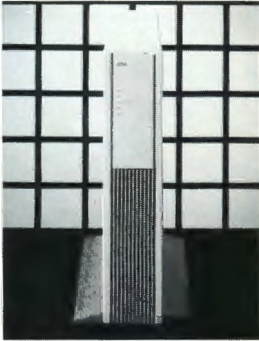
The NCR Tower 32/300 offers a powerful 20 MHz 68030 microprocessor in its slimline cabinet. It offers you an outstanding price/performance combination applicable for your particular business environment.

**Some basic features:**

- 20 MHz MC68030 CPU with 16 KB copy-back cache and battery backup
- 4 MB-32 MB memory
- 126, 380, or 760 MB integrated Winchester disk
- 150 MB cartridge tape drive
- 8 RS-232-C ports and 1 parallel printer port
- Connects up to 16 users

# NCR TOWER 32/450

---



The NCR Tower 32/450 is designed for the 2 to 32-user system marketplace. The NCR Tower 32/450 combines hardware and software technology for product leadership. In its slimline cabinet, the 32/450 includes industry-standard components such as the UNIX-based operating system, Multibus, integrated Winchester disk, SCSI and Ethernet.

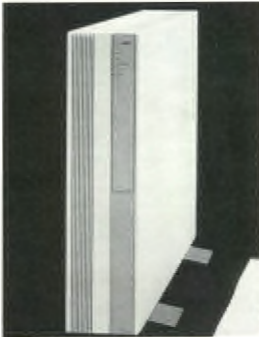
**Some basic features:**

- 25 MHz MC68020 CPU with 32 KB cache and battery backup
- 2-8 MB ECC memory
- 170-380 MB integrated Winchester disk
- 150 MB cartridge tape drive
- 16 RS-232-C ports and 2 parallel printer ports
- Connects up to 32 users
- Optional math coprocessor



## NCR TOWER 32/500

---



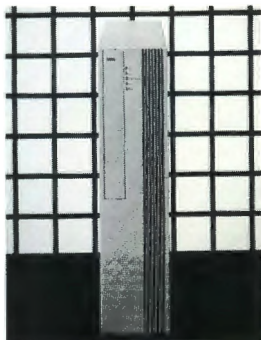
The NCR Tower 32/500 is designed using a powerful 20 MHz 68030 32-bit microprocessor. The NCR Tower 32/500 supports up to 32 users and puts the future of information processing within reach today.

### **Some basic features:**

- Uses Motorola 68030 microprocessor (20 MHz)
- Dual bus storage with Multibus I and Processor Memory Bus
- Up to 64 MB Burst-Fill physical memory
- Power fail memory support system
- 7 Multibus I slots for I/O controllers
- Up to (2) 5.25 in. half-height cartridge tape drives
- Up to (3) 5.25 in. fixed disk drives
- Optional 3.5 in. or 5.25 in. flex disk drive

## NCR TOWER 32/650

---



The NCR Tower 32/650 is the midrange member of the NCR Tower 32 Family. The NCR Tower 32/650 offers power fail recovery with battery backup, a memory management unit and memory error check and correction. It is designed to fit behind a desk, out of the way in any office environment.

### **Some basic features:**

- 25 MHz MC68030 CPU with 32 KB copy-back cache and battery backup
- 4-16 MB ECC memory
- 170, 380 MB integrated Winchester disk
- 150 MB cartridge tape drive
- 32 RS-232-C ports and 4 parallel printer ports
- Connects up to 64 users

## NCR TOWER 32/700

---



The powerful NCR Tower 32/700 puts the future of information processing within reach today. Designed using a powerful 30 MHz 68030 32-bit microprocessor, the NCR Tower 32/700 supports up to 96 users, offering you an outstanding price/performance combination.

### **Some basic features:**

- Uses Motorola 68030 microprocessor (30 MHz)
- Dual bus structure with Multibus I and Processor Memory Bus
- Up to 64 MB Burst-Fill physical memory
- Power fail memory support system
- 7 Multibus I slots for I/O controllers
- Up to (2) 5.25 in. half-height cartridge tape drives
- Up to (3) 5.25 in. fixed disk drives
- Optional 3.5 in. or 5.25 in. flex disk drive

## NCR TOWER 32/750

---



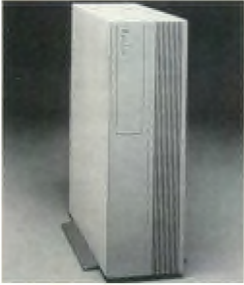
The powerful NCR Tower 32/750 puts the future of information processing within reach today. Designed using a powerful 25 MHz 68040 32-bit microprocessor, the NCR Tower 32/750 supports up to 128 users, offering you an outstanding price/performance combination.

### **Some basic features:**

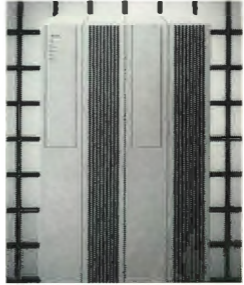
- Uses Motorola 68040 microprocessor (25 MHz)
- Dual bus structure with Multibus I and Processor Memory Bus
- Up to 64 MB Burst-Fill physical memory
- Power fail memory support system
- 7 Multibus I slots for I/O controllers
- Up to (2) 5.25 in. half-height cartridge tape drives
- Up to (3) 5.25 in. fixed disk drives
- Optional 3.5 in. or 5.25 in. flex disk drives

# NCR TOWER 32/825 AND NCR TOWER 32/850

---



**NCR Tower 32/825**



**NCR Tower 32/850**

The NCR Tower 32/825 and the NCR Tower 32/850, the high-end members of the NCR Tower Family of business computers, significantly extend the performance and connectivity of the NCR Tower 32 Family.

Both systems differ in respect to configurability, integrated storage and connectivity.

The NCR Tower 32/825 and NCR Tower 32/850 are based on incremental architecture for maximum processing power and investment protection.

### **Some 32/825 basic features:**

- Uses Motorola 68020 Application Processor (30MHz) with 40 KB of cache and Math Coprocessor
- Supports up to 128 MB of memory
- Provides 10 expansion slots
- Supports up to 760 MB of integrated disk storage
- Connects up to 256 users

*(continued)*

---

**Some 32/850 basic features:**

- Uses Motorola 68020 Application Processor (30MHz) with 40 KB of cache and Math Coprocessor
- Supports up to 256 MB of memory
- Provides 20 expansion slots
- Supports up to 1.9 GB of integrated disk storage
- Connects up to 512 users

# NCR TOWER FAMILY SUPPORT MATRIX

	NCR Tower 32/300	NCR Tower 32/450	NCR Tower 32/500	NCR Tower 32/550	NCR Tower 32/700	NCR Tower 32/750	NCR Tower 32/825	NCR Tower 32/850
Packaging	5" x 13" x 17"	5" x 24" x 25"	7" x 29" x 27"	7" x 29" x 27"	7" x 29" x 27"	7" x 29" x 27"	10" x 23" x 27"	20" x 32" x 29"
Processor	MC68030	MC68020	MC68030	MC68020	MC68030	MC68040	MC68020	MC68020
Clock Speed	20 MHz	25 MHz	20 MHz	25 MHz	30 MHz	25 MHz	30 MHz	30 MHz
Work Length	32/32	32/32	32/32	32/32	32/32	32/32	32/32	32/32
Cache Memory	16 KB (opt.) Copy-back	32 KB	16 KB Copy-back	32 KB	32 KB Copy-back	8 KB Copy-back	40 KB Per Application Processor	40 KB Per Application Processor
Math Coprocessor	MC68882	MC68882	MC68882	MC68882	MC68882	Included	MC68882 with each Application Processor	MC68882 with each Application Processor
System Bus	Multibus I	Multibus I	Multibus I	Multibus I	Multibus I	Multibus I	Multibus II	Multibus II
Transfer Rate	5 MB/Sec	5 MB/Sec	5 MB/Sec	5 MB/Sec	5 MB/Sec	5 MB/Sec	40 MB/Sec	40 MB/Sec
Bus Slots	3	3	7	7	7	7	10	10
Bus Width (bits)	16	16	16	16	16	16	32	32
Memory	4MB-32MB Standard	2MB-8MB Standard	4MB-64MB Standard	4MB-16MB Standard	4MB-64MB Standard	4MB-64MB Standard	8MB-128MB Optional Power Backup Unit	8MB-364MB Optional Power Backup Unit
Power Fail Recovery								

Mass Storage	126MB-760MB 1MB (opt.)	51MB-380MB 1MB (opt.)	170MB-2.2GB 1MB (opt.)	51MB-760MB 1MB (opt.)	170MB-2.2GB 1MB (opt.)	170MB-2.2GB 1MB (opt.)	380MB-1.5GB 1MB (opt.)	170MB-3.8GB 1MB (opt.)
Integrated Fixed Disk	Up to 3.6GB	Up to 3.0GB	Up to 3.6GB	Up to 3.0GB	Up to 3.6GB	Up to 3.6GB	Up to 19GB	Up to 19GB
Integrated Flex Disk	Up to	Up to	Up to	Up to	Up to	Up to	Up to 150MB	Up to 150MB
External Disk (optional)	2 150MB	2 150MB	2 150MB	2 150MB	2 150MB	2 150MB	Up to 3	Up to 3
Integrated Tape	Up to 3	Up to 3	Up to 3	Up to 3	Up to 3	Up to 3	Up to 3	Up to 3
External Tape (optional)	1600/6250 bpi Tape Drives 16	1600/6250 bpi Tape Drives 32	1600/6250 bpi Tape Drives 32	1600/6250 bpi Tape Drives 64	1600/6250 bpi Tape Drives 96	1600/6250 bpi Tape Drives 128	1600/6250 bpi Tape Drives 256	1600/6250 bpi Tape Drives 512



# **GENERAL PURPOSE WORKSTATIONS AND SOFTWARE**

## **NCR 2900 Video Display Terminal**

---



The NCR 2900 Video Display Terminal has an ergonomically designed enclosure and offers multiple emulations for operation where ASCII, ANSI, or PC Term emulations are desired. These emulations offer compatibility in most UNIX, XENIX, and "multi-user DOS" environments. The 2900 also provides a dual session capability allowing the terminal to communicate with two hosts or applications simultaneously.

### **Some basic features:**

- Embedded and non-embedded attributes on screen at the same time
- 14" flat screen, reduced glare, choice of high resolution green, amber, or page white
- 70Hz refresh rate
- 80 or 132 columns
- 26 or 44 lines with top and bottom status lines
- Double wide and double high/wide characters
- Two pages of display, split screen
- 16/32 shiftable programmable function keys and 26/52 programmable editing keys
- Hot key switching from host to host

# **NCR 2920 Video Display Terminal**

---



The NCR 2920 “multiple emulations” have been designed for use with applications which are compatible with NCR 796-101, 7900-M1, 7900-M1+, 7901, 7930, or 4920 terminals. These emulations offer compatibility in many UNIX, I and V environments. The 2920 also supports a special “desk accessory” capability allowing the user to perform local functions, in window, while the user’s application is on-line.

## **Some basic features:**

- 14” flat screen, reduced glare, choice of green, amber or page white
- 70 Hz refresh rate
- 26 lines with top status and bottom label line
- 80 or 132 columns
- IBM PC character set includes standard ASCII, line drawing, national symbols, special graphical symbols
- Three ports/three connections including Serial Main Host, Serial Auxiliary Port, and Parallel.
- 100 key ASCII standard; US/UK layout
- 16/32 programmable function keys

## NCR 2970 Video Display Terminal



The NCR 2970 Video Display Terminal (VDT) has been specifically designed to be DEC VT-320 compatible and is an ANSI conversational terminal. The DEC emulations within the 2970 are selectable by the user during setup. As with other members of the 2900 family, this unit fits well into UNIX and XENIX environments.

### **Some basic features:**

- Emulations: VT320, VT200, VT100, and VT52 based upon the ANXI X3.64 standards.
- 14" flat screen, reduced glare
- Choice of high resolution green, amber or page white
- 70Hz refresh rate
- 80 or 132 columns
- 24 lines with 25th status line
- Double wide and double high/wide characters
- Split screen capability
- Scroll-jump or smooth
- ANSI keyboard (VT320/220 style)
- Communications—Three ports/three connections, 2 Serial and 1 parallel

## NCR PC286

---



The NCR PC286 is a high-performance, small footprint computer that offers advanced 286 system performance at an entry level price. The PC286 comes equipped with standard features that are anything but standard. In fact, they're sold only as enhancements on most other Intel 286-based systems.

The cabinet stands just 3.3 in. tall and 15 in. wide enabling it to fit easily where most computers can't.

### **Some basic features:**

- Industry-standard architecture
- 20 MB or 40 MB disk drives
- 8 or 12 MHz processing speeds
- 1 MB RAM (page mode) on processor board
- 2 available full-size, 16-bit PC/AT-compatible expansion slots
- 2 internal half-height disk drive positions
- 3.5 in. 1.44 MB flex disk drive
- Optional video displays:
  - 14 in. color analog Super VGA
  - 14 in. color analog VGA
  - 12 in. monochrome analog VGA
- External flex interface

## NCR ELPC386sx

---



The NCR ELPC386sx is an entry-level personal computer offering the high performance of an Intel 80386sx microprocessor at a price comparable to most 286-based PCs. The ELPC386sx combines its 16 MHz processing speed with a host of flexible and powerful standard features. And don't let the incredibly small footprint desktop design fool you. The ELPC386sx can operate as a stand-alone system or as a powerful network workstation gateway/bridge in a Local Area Network (LAN). This high-quality, high-performance personal computer helps give your business a competitive edge so you stay ahead now and in the future.

### **Some basic features:**

- Industry standard architecture
- Small footprint, low profile desktop cabinet
- 1 MB RAM on the processor board (page mode), 100ns
- Super VGA video interface
- EMS/LIM 4.0 support
- Two internal 3.5" disk drive positions
- External flex interface

*(continued)*

---

**Some optional features:**

- 2 MB SIMM upgrades, expands system memory to 5 MB on the processor board
- Additional 256 KB of video RAM (supports up to 256 colors)
- 40 MB or 100 MB fixed disk drive with embedded AT controller, disk cache memory, and 1:1 interleave (25ms access time)
- 3.5" 1.44 MB flex disk drive
- Optional video displays:
  - 14 in. color analog Super VGA
  - 14 in. color analog VGA
  - 12 in. monochrome analog VGA

## NCR PC386sx

---



The NCR PC386sx is a compact desktop computer that combines 16 MHz processing speed and industry-standard architecture. The PC386sx maintains compatibility with most existing 8 and 16-bit software for computers running under MS-DOS, OS/2 and UNIX. What's more, the PC386sx is remarkably cost-effective, providing 50 percent higher performance than 10 MHz Intel 286-based PCs with only a marginal difference in price. The PC386sx is proof that big things often come in small packages.

### **Some basic features:**

- Industry-standard architecture
- EMS/LIM 4.0 support
- 32-bit Intel 80386sx microprocessor
- 8 MHz or 16 MHz processing speeds
- 1 MB of high-speed 80 ns RAM
- 2 serial and 1 parallel interface
- Super VGA video adapter
- 4 available full-size PC/AT-compatible expansion slots

*(continued)*

---

**Some optional features:**

- Integrated with a 3.5 in. 1.44 MB or 5.25 in. 1.2 MB flex disk drive and choice of a 40 MB, 100 MB, or no fixed disk drive
- 3 internal half-height and 1 external disk or tape drive positions
- Upgradeable to 15 MB of RAM on planar board
- Optional video displays:
  - 14 in. color analog Super VGA
  - 12 in. monochrome analog VGA
  - 14 in. color analog VGA



## NCR PC386sx<sub>20</sub>

---



The NCR PC386sx<sub>20</sub> is a high-powered desktop computer that combines 20 MHz processing speed with 32-bit performance. This powerful PC is ideal for computer intensive applications such as large spreadsheets, extensive database management, and CAD/CAM/CAE. The Intel 80386SX architecture offers the flexibility to support large single task, multi-task, and multi-user applications. The NCR PC386sx<sub>20</sub> provides state-of-the-art technology and hardware compatibility in a remarkably cost-effective package that protects your computer investment.

### **Some basic features:**

- Industry standard architecture
- 20 MHz processing speed
- 2 MB of high-speed 80ns RAM on the processor board
- EMS/LIM 4.0 support
- 4 available full-size PC/AT-compatible expansion slots
- Advanced VGA video adapter (1024 x 768 resolution)
- Super VGA video adapter
- 2 serial and 1 parallel interfaces

*(continued)*

---

**Some optional features:**

- Integrated with a 3.5 in. 1.44 MB or 5.25 in. 1.2 MB flex disk drive and choice of a 40 MB, 100 MB, or no fixed disk drive
- 3 internal half-height and 1 external disk or tape drive positions
- Upgradeable to 15 MB of RAM on planar board
- Optional video displays:
  - 14 in. color analog Super VGA
  - 12 in. monochrome analog VGA
  - 14 in. color analog VGA

# **NCR PC SOFTWARE**

---

## **NCR MS-DOS 4.01**

NCR MS-DOS 4.01 is NCR's industry-compatible release of Microsoft DOS 4.01. NCR MS-DOS 4.01 is an upward-compatible enhancement of previous versions of NCR-DOS. The major new features include:

- File size support beyond 32 MB
- MS-DOS User Shell
- LIM 4.0 support
- Improved installation procedures
- Improved video/graphics support

## **MS OS/2 1.21**

The optional MS OS/2 Operating System offers processing in two modes: DOS (or real) mode and OS/2 (or protected) mode. Because of this downward compatibility, the user can run applications and programs that presently exist for the DOS 3.XX environment. The OS/2 mode offers multitasking capabilities supporting inter-application communications, and local and wide network exploitation.

## **MS Windows/386**

MS Windows/386 enables an NCR 80386-based processor to become a multitasking virtual system. The Windows user interface is consistent with MS OS/2 Presentation Manager, including overlapping windows and enhanced keyboard and mouse controls. Multitasking allows multiple Microsoft Windows applications or multiple existing MS-DOS applications to run concurrently.

*(continued)*

---

**Some optional features:**

- 1 MB, 2 MB, or 8 MB of high-speed 80ns SIMM upgrade on processor board (up to 16 MB)
- Integrated 3.5" 1.44 MB and 5.25" 1.2 MB flex disk drives
- Integrated 40 MB and 100 MB fixed disk drives
- Optional video displays:
  - 12" analog monochrome VGA
  - 14" analog color VGA
  - 14" analog color Super VGA
  - 16" Advanced VGA analog color
- 120 MB streaming tape

# THE OS/2 WORKGROUP PLATFORM

---

Based on the Open, Cooperative Computing strategy, NCR's OS/2 Workgroup Platform consists of OS/2, LAN Manager, SQL Server, and the Communications Server. Starting with installed PCs and an OS/2 server, you can add LAN Manager, SQL Server, and Communications Server to connect workstations, data bases, and networks. The OS/2 Workgroup is based on open systems standards and a client/server architecture, which offers the power, performance and functionality you need to build a platform you can count on today and in the future.

## **Some basic features:**

- Microsoft's OS/2 provides a multitasking operating system featuring the industry-acclaimed graphical user interface—Presentation Manager
- NCR's LAN Manager links your individual PCs into logical workgroups and provides the path to distributed client/server processing
- NCR's SQL Server expands your data sharing potential with mainframe-class data base management
- NCR's Communications Server extends the reach of each PC with communications gateways beyond LANs to mainframes and WANs.

---

## **NCR PC Token-Ring System**

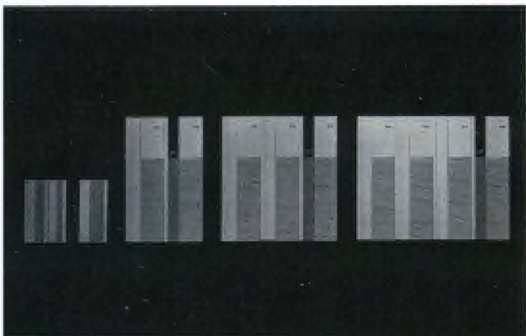
The NCR PC Token-Ring System expands the functionality and value of local area networking for PC users. In addition to offering a high level of interoperability with the IBM Token-Ring Network, NCR's system provides high-performance software that is easy to use, and the flexibility that makes it the obvious choice for office networking. The system even provides support for diskless models, and its modular design allows easy installation, modification and growth.

### **Some basic features:**

- Interoperability with IBM: PC Token-Ring Network using NCR PC LAN software
- Diskless personal computer boot ROM supported
- Operates in either 8 or 16-bit bus'
- Supports 2 to 260 PCs on 1 LAN ring
- Connects up to 8 nodes per MAU
- Multiple MAUs per ring
- Star wired ring topology
- 4 million bits per second transfer rate
- Token passing protocol
- User diagnostics
- Finished MAU cabinet

## **NCR GENERAL PURPOSE SYSTEMS SYSTEM 10000 FAMILY**

---



NCR System 10000 is a highly expandable family of technically advanced hardware and integrated software products supported by NCR. NCR has designed this system with the goal of helping to make the end-user, a data processing or business professional, more productive.

The NCR System 10000 is designed for today but with the future in mind. NCR System 10000 is designed with open system architecture, incremental processing, VLSI circuitry, Cooperative Processing and Surface Mount Technology. For networking, the NCR System 10000 supports many features of the major communications protocols such as SNA, OSI, Token Ring, and TCP/IP over Ethernet.

NCR System 10000 is designed to provide an integrated solution to your processing needs whether it be a single stand-alone system or a large network.

Look to the NCR System 10000 for today's solution that can grow and change while your organization grows and changes.

# SYSTEM 10000

## MODEL 35 AND MODEL 55

---



**Model 35**



**Model 55**

NCR System 10000 Model 35 is designed as a satellite system for departmental and distributed processing or for system development. This compact system, with an extremely small footprint, can be placed on a desk or table. With the Model 35, computer power can be placed within each department where its needed. Departmental processing can be enhanced by the wide range of application software and productivity tools that are available for NCR System 10000.

NCR System 10000 Model 55 is designed as the entry-level system in the NCR System 10000 line of processors, and as an effective communications network component. Incremental processing permits upgrading the Model 55 to the Model 65 and on the Model 75 and Model 85 for flexible in-box growth.

The wide range of application software and productivity tools available for NCR System 10000 and the compatibility within the NCR System 10000 line make the Model 55 an excellent choice for use as a base system. The Model 55 is also ideal for use as a building block within a network of systems.



# SYSTEM 10000 MODEL 65, MODEL 75 AND MODEL 85

---



**Model 65**



**Model 75**

NCR System 10000 Model 65 is designed as a midsize system with large system configurability. Incremental processing architecture permits upgrading the Model 65 to a Model 75 and permits the addition of communications and I/O processors.

The wide range of application software and productivity tools available for the NCR System 10000 and the compatibility of the NCR System 10000 line make the Model 65 an excellent choice for use as a base system or as a building block within a network of systems.

NCR System 10000 Model 75 is designed to be a high-end processor. It is designed for a large central system environment and provides high-end migration from other I-Series systems. Model 75 can effectively serve as a major node in a large network and can be upgraded to a Model 85.

NCR System 10000 Model 85 is designed to be the high end processor. It is designed for a large central system environment and provides high availability over other I-series systems.

The wide range of application software and productivity tools available and the compatibility within the NCR System 10000 line make it an excellent choice as a base system for building a network of systems.

# SYSTEM 10000 FAMILY MATRIX

Processor	Model 35	Model 55	Model 65	Model 75	Model 85
Packing	13.5"Hx15.5"Dx17.5"W	29"Hx26"Dx16"W	29"Hx26"Dx24"W	29"Hx26"Dx24"W	29"Hx26"Dx64"W
Standard Configurations	4 Cabinets — Processor Cabinet — Multibus — 4 MB Memory — Peripheral Cabinet — Cartridge Tape — 135 MB Disk Tape — Power Supply Cabinet — Performance Monitor Cabinet	2 Cabinets — Processor Cabinet — Multibus — 4 MB Memory — Power Supply — Performance Monitor — Communication/ Peripheral Cabinet — Cartridge Tape — 135 MB Disk Drive	3 Cabinets — Processor Cabinet — Multibus — 8 MB Memory — Power Supply — Performance Monitor — Peripheral Cabinet — Cartridge Tape — (2) 314MB Disk Drives — Communication Cabinet	3 Cabinets — Processor Cabinet — Multibus — 8 MB Memory — Power Supply — Performance Monitor — Peripheral Cabinet — Cartridge Tape — (4) 314MB Disk Drives — Communication Cabinet	8 Cabinets — Processor Cabinet — Multibus — 48 MB Memory — Power Supply — Performance Monitor — 2 Base Peripheral Cabinets — Cartridge Tape — (2) 314MB Disk Drives — Expansion Peripheral Cabinet — (4) 314MB Disk Drives — 3 Communication Cabinets
Box Upgrade	N/A	Model 55 to 65 to 75	Model 65 to Model 75	Model 75 to Model 85	N/A
32-bit VLSI Technology	ATC,CPC,EAC,MPC,VAC	ATC,CPC,EAC,MPC,VAC	ATC,CPC,EAC,MPC,VAC +	ATC,CPC,EAC,MPC,VAC + ATC,CPC,EAC,MPC,VAC +	Four ATC,CPC,EAC,MPC, VAC+ Sets
Cycle Time	150 ns	150 ns	110 ns	110 ns	110 ns
Memory — Minimum — Maximum	4 MB 4 MB	4 MB 16 MB	8 MB 32 MB	8 MB 32 MB	48 MB 128 MB

Incremental Processing Architecture	N/A	—Application Processor —Communication Processor —I/O Processor	—Application Processor —Communication Processor —I/O Processor	—Application Processor —Communication Processor —I/O Processor	—Communication Processor —I/O Processor
Peripheral Interface	Multibus I —CHAMP —SCSI —RS-232-C	Multibus I —CHAMP —SCSI —RS-232-C	Multibus I —ISM/IOP —SCSI —RS-232-C	Multibus I —ISM/IOP —SCSI —RS-232-C	Multibus I —ISM/IOP —SCSI —RS-232-C
Line Modules	Quad TTY Dual TTY BMC-Polled Asynchronous —TTY Reverse Channel BMC-Bisync 3270 Tributary —Bisync 2780/3780 DLC In-House Primary DLC Common Carrier Primary DLC Common Carrier Second DLC Async Balanced Mode Autodial	Dual TTY BMC-Polled Asynchronous —TTY Reverse Channel BMC-Bisync 3270 Tributary —Bisync 2780/3780 DLC In-House Primary DLC Common Carrier Primary DLC Common Carrier Second DLC Async Balanced Mode Autodial	Dual TTY BMC-Polled Asynchronous —TTY Reverse Channel BMC-Bisync 3270 Tributary —Bisync 2780/3780 DLC In-House Primary DLC Common Carrier Primary DLC Common Carrier Second DLC Async Balanced Mode Autodial	Dual TTY BMC-Polled Asynchronous —TTY Reverse Channel BMC-Bisync 3270 Tributary —Bisync 2780/3780 DLC In-House Primary DLC Common Carrier Primary DLC Common Carrier Second DLC Async Balanced Mode Autodial	Dual TTY BMC-Polled Asynchronous —TTY Reverse Channel BMC-Bisync 3270 Tributary —Bisync 2780/3780 DLC In-House Primary DLC Common Carrier Primary DLC Common Carrier Second DLC Async Balanced Mode Autodial
Communication Connectivity	Up to 16 TTY	Up to 198 TTY	Up to 760 TTY	Over 1000 TTY	Over 1000 TTY
Disk —Minimum —Maximum	135 MB 675 MB	135 MB 20 GB	628 MB 150 GB	1,256 MB 150 GB	2.5 GB 150 GB
Relative Performance	1.0	1.0	1.8	3.6	6.5
Operating Software Release When model Became Available	ITX 6.0	ITX 6.0	ITX 6.0	ITX 6.0	ITX 7.0
Software Distribution Media	6343 Cartridge Tape	6343 Cartridge Tape	6343 Cartridge Tape	6343 Cartridge Tape	6343 Cartridge Tape

# NCR 9800 SERIES

---



The NCR 9800 series of mainframe computers has been specifically designed to meet reliability and performance demands of On-Line Transaction Processing environments as well as provide general-purpose computer functionality.

Based on 32-bit VLSI technology, the NCR 9800 architecture incorporates multiple function-specific processors communicating through common system buses to offer high-aggregate computing capacity.

The NCR 9800 appears to the programmer and computer operator to have the simplicity of a single CPU environment with the added benefit of high availability. The 9800 family ranges from a system offering up to 39 transactions per second (tps) to a system offering up to 76 tps. These systems provide a significant cost/performance break-through in mainframe computing.

## **Some basic features:**

- Incremental/open-ended architecture
- Modular to fit a wide range of power requirements
- Expandable in economical “slices of power” to meet users’ processing requirements
- Designed to take advantage of future technology

*(continued)*

- 
- Unique modular expandability protects users' initial investments
  - NCR V-8000 processors can be included in a 9800 configuration through the System Bus Adapter option
  - Certain UNIX-based NCR Towers can be included in a 9800 configuration through the 9800 UNION Tower Interface

### **High Availability**

- Service is not disrupted following a single-point hardware or software failure
- All duplicated components fully contribute to processing
- Continued system availability even during service/expansion
- Data base integrity and consistency following system failure and recovery

### **32-bit VLSI Technology**

- Superior price/performance
- Smaller footprint than equivalent V-8000 processors
- Low power/environment requirements
- High reliability

### **Comprehensive Software Set**

- MULTI-TRAN
- DBSR
- DBSR SQL\*Report
- DBSR SQL Server
- UNION

### **Communications**

- Industry-standard interfaces
  - X.25
  - SNA 3270
- NCR Proprietary
  - ISO Async
  - In-House and Common Carrier DLC
- Other
  - 2780/3780
  - BSC 3270
  - TTY

*(continued)*

---

## **VRX User Base Migration**

- The new Application Processor 4 is able to replace most older V-8000 processors with equivalent or greater performance at substantial cost savings in firmware and maintenance.
- Most V-8000 peripherals and VRX application software will migrate to the 9800
- Most VRX-based programs can be run under VRX/E
- The 9800 provides a logical and gradual migration path to the System 3000

# **NCR DATA COLLECTION SYSTEMS**

## **NCR 2725**

### **TRANSACTION TERMINAL**

---



**Swipe Badge**



**Stripe Reader**

The NCR 2725 Transaction Terminal has been designed to meet the increasing demand for low-cost, intelligent data collection devices. The NCR 2725 offers a variety of data input features including keyboard, bar code and magnetic badge readers, wand reader, and an RS-232-C communications port.

Four models of the terminal are available. Each contains 32 KB of ROM and 32 KB of RAM and a powerful operating system which supports transaction processing.

#### **Some basic features:**

- 16-character vacuum fluorescent display
- 16-key alphanumeric keyboard
- Bar code badge slot reader
- Magnetic badge slot reader
- Bar code wand support
- RS-232-C serial port
- 2 RJ-11C modular phone jacks
- Battery backed real-time clock/calendar
- 64 KB battery protected memory
- Built-in modem for 1,200 baud Bell 212A communications
- Power module and 7ft. telephone connector cable

# NCR 2735 DATA COLLECTION TERMINAL FAMILY

---



The NCR 2735 Data Collection Terminal Family has been designed to provide an efficient and cost-effective data collection subsystem for the factory data collection marketplace.

The 2735 terminals are connected to a PC controller on an RS-422 local area network and controlled through NCR-LOG and the 2734-5000 Controller Board. Up to 128 terminals are connected in any combination to either of the controller's two ports.

The terminals support input from a variety of devices. All 2735 terminals are intelligent and programmable through the download capability of NCR-LOG.

All models contain memory for storing programs, prompts and data storage. They are capable of continued operation if the controller or network is unavailable. File validation can be accomplished at the terminal and controller levels.

## **The 2735 Family includes:**

- 2735-0100 Auxiliary Device Interface
- 2735-0200 Bar Code Terminal
- 2735-0250 Bar Code/Magnetic/Display Terminal
- 2735-0300 Bar Code/Magnetic/Keyboard/Display Terminal
- 2735-0900 Multi-function Fixed Station Terminal
- 2735-1000 Multi-function Fixed/Portable Terminal



# NCR 2735-0300 Bar Code/Magnetic/Keyboard/ Display Terminal

---



The NCR 2735-0300 Data Collection Terminal is a multifunction data input terminal. This terminal is fully compatible with the NCR 2735 terminal network and is designed for use in a variety of data collection environments.

The 2735-0300 has a 20-key keyboard and can be configured with a bar code wand, bar code swipe reader or magnetic swipe reader for additional input media. A standard feature of the NCR 2735-0300 terminal is a bidirectional RS-232-C low order port for the integration of a printer or other standard RS-232-C device.

### **Some basic functions:**

- 128 KB RAM
- Real-time clock in terminal
- Rugged injection-molded ABS plastic cabinet
- Secure wall-mount bracket
- 80-character LCD display
- Audio feedback with programmable tone and volume
- RS-422 communications interface
- 1 relay output port
- 2 switch input ports
- 1 RS-232-C port

# NCR 2735-1000 Multifunction Fixed/ Portable Terminal

---



The NCR 2735-1000 Portable Data Collection Terminal is a multifunction input/output data terminal designed to meet most manufacturing data collection requirements, today and tomorrow. The terminal is fully compatible with the NCR 2735 terminal network. Typical system applications include work-in-process, inventory control, time-and-attendance, and shipping and receiving.

### **Some basic features:**

- Molded polycarbonate cabinet
- 128 KB memory
- Full alphanumeric keyboard
- 2-line, 40-character per line LCD display with adjustable viewing angle
- 8 function keys
- Audio feedback with programmable tone and volume
- Battery backup

# NCR FINANCIAL SYSTEMS

## NCR FINANCIAL TOWER

### SYSTEM-TMX

---



The NCR Financial Tower System-TMX combines the success of the NCR Tower Family with the PC-based financial workstations or general purpose PCs to provide a complete branch automation system for financial institutions. The system brings together teller and platform automation using NCR proprietary products, as well as industry-standard products. This provides a highly-featured, very cost-effective solution.

#### **Some basic features:**

- Network of intelligent devices
- High-speed local area network
- Financial-specific software
- Distributed processing architecture
- Network management services
- TMX operating system
- Local Branch Network
- DOS-compatible workstations
- Software distribution
- TellerDOS

# NCR FINANCIAL TOWER SYSTEM-UNIX

---



The NCR Financial Tower System-UNIX combines the success of the NCR Tower Family and general purpose PCs with the workstations to provide a complete branch automation system for financial institutions. The system brings together teller and platform automation with an open systems architecture which integrates industry-standard operating software, hardware and interconnections into an advanced product.

**Some basic features:**

- Network of intelligent devices
- High-speed local area network (LAN)
- Financial-specific software
- Distributed processing architecture
- Network management services
- UNIX operating system (server)
- Token-Ring LAN
- DOS-compatible workstations

# **NCR 5037 LASER PRINTER**

---



The 5037 is a non-impact, cut-sheet, desktop, general purpose laser printer. The 5037, used in conjunction with the NCR Financial Tower System Electronic Forms Software, provides financial institutions with the capability of converting their preprinted forms to electronic forms.

**Some basic features:**

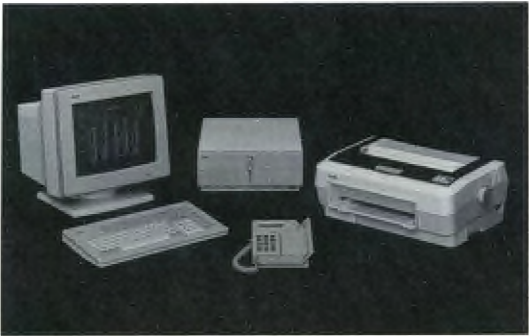
- 10 pages per minute
- 2 MB memory
- Downloading memory capability
- 300 x 300 dpi
- 2 input trays (250 sheets each)
- 2 output trays (250 sheets each)
- Envelope and transparency printing
- 9 resident fonts
- 5,000 to 10,000 pages per month work load

**Some optional features:**

- Legal size paper cassette tray
- Font cartridges
- RS-232 sharing device
- LAN sharing capabilities

# NCR 5267 FINANCIAL WORKSTATION

---



The 5267 will provide automated solutions for the teller, platform and back office work areas of commercial banks and thrifts. The 5267 is a state-of-the-art, 80286-based workstation which provides excellent throughput. This is particularly valuable when running in a platform environment.

## **Some basic features:**

- 80286 processor
- Monochrome or EGA adapters
- 3.5 in. flex disk drive
- Access security
- Battery-supported CMOS RAM
- Date and time clock

## **Some optional features:**

- Upgradable to 80386 processor
- NCR TellerDOS
- Extended memory
- NBS-DES encryption
- 3.5 in., 20 MB hard disk drive
- 3.5 in., 44 MB hard disk drive

# NCR 5367 FINANCIAL WORKSTATION

---



The 5367 will provide automated solutions for the teller, platform and back office work areas of commercial banks and thrifts. The 5367 is a state-of-the-art, 80386-based workstation which provides excellent throughput. This is particularly valuable when running in a platform environment.

**Some basic features:**

- 80386 processor
- Monochrome or EGA adapters
- 3.5 in. flex disk drive
- Access security
- Battery-supported CMOS RAM
- Date and time clock

**Some optional features:**

- NCR TellerDOS
- Extended memory
- NBS-DES encryption
- 3.5 in., 20 MB hard disk drive
- 3.5 in., 44 MB hard disk drive

## **NCR 5070 INTERIOR ATM**

---



The NCR 5070 interior Automated Teller Machine (ATM) enables financial institutions to increase employee productivity, improve customer service, and control costs. The 5070 design flexibility allows placement in financial institutions or in off-premise locations such as office complexes, hospitals, retail stores and shopping centers.

### **Some basic features:**

- Semi-secure or UL-291 safe secure
- Front or rear access
- 9 in. CRT/graphics/8-functions keys
- Card reader—Track 2
- 2-denomination currency dispenser
- Receipt printer
- Customer keyboard
- Flex disk
- Enhanced diagnostics

*(continued)*



---

**Some optional features:**

- Card reader—Tracks 1, 2, 3
- 4-denomination currency dispenser
- Journal printer
- Depository—serial or programmable printing
- Night depository interface
- Voice Responder
- Validation printer
- Tamper-indicating canisters
- Network-compatible application software
- EGA color monitor

## NCR 5070 SST

---



The 5070 Single Solution Terminal (SST) is an entry-level version of the highly-successful 5070 automated teller machine (ATM) and is designed to more economically accommodate ATM installations with low to moderate transaction volume. The modular design allows the unit to be upgraded to full functions.

### **Some basic features:**

- Semi-secure or UL-291 safe secure
- Front or rear access
- 9 in. CRT/graphics/8-function keys
- Dip card reader
- 1-denomination currency dispenser
- Receipt printer
- Stainless steel customer keyboard
- Flex disk
- Enhanced diagnostics

### **Some optional features:**

- 2- or 4-denomination currency dispenser
- Journal printer
- Electronic journal
- Depository-serial or programmable printing
- Night depository interface
- Voice Responder™
- Tamper-indicating canisters
- Network-compatible applications software

## NCR 5084 CASH DISPENSE TERMINAL

---



Quick, convenient cash access without frequent replenishment of service is offered by the high-volume, low-maintenance design of the NCR 5084 through-the-wall cash dispense terminal.

### **Some basic features:**

- 9 in. CRT/graphics/8-function keys
- Card reader—Track 2
- 2-denomination currency dispenser
- Receipt printer
- Customer keyboard
- Flex disk
- Enhanced diagnostics
- UL-291/TL-15 security enclosure

### **Some optional features:**

- Card reader—Tracks 1, 2, 3
- 4-denomination currency dispenser
- Journal printer
- Night depository interface
- Voice Responder™
- Tamper-indicating canisters
- Network-compatible application software
- EGA color monitor
- Compatible with NCR 5285 Business Depository

## NCR 5085 ATM

---



The most versatile of NCR's Self-Service Family, the NCR 5085 through-the-wall, extra function Automated Teller Machine (ATM) performs a variety of transactions and offers a wide menu of options.

### **Some basic features:**

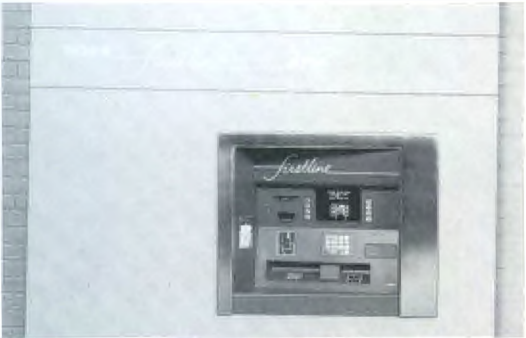
- 9 in. CRT/graphics/8-function keys
- Card reader—Track 2
- 2-denomination currency dispenser
- Receipt printer
- Customer keyboard
- Flex disk
- Enhanced diagnostics
- UL-291/TL-15 security enclosure

### **Some optional features:**

- Card reader—Tracks 1, 2, 3
- 4-denomination currency dispenser
- Journal printer
- Depository—serial or programmable printing
- Night depository interface
- Voice Responder™
- Tamper-indicating canisters
- Network-compatible application software
- Document/statement printer
- EGA color monitor
- Compatible with NCR 5285 Business Depository

## NCR 5088 FIRSTLINE ATM

---



The NCR 5088 Firstline Automated Teller Machine (ATM) has been specifically designed for the drive-up customer. The NCR 5088 Firstline ATM is designed for through-the-wall placement without interfering with the teller line if installed in the branch.

### **Some basic features:**

- 9 in. CRT/graphics/8-function keys
- Card reader—Track 2
- 2-denomination currency dispenser
- Receipt printer
- Customer keyboard
- Flex disk
- Enhanced diagnostics
- UL-291/TL-15 security enclosure

### **Some optional features:**

- Card reader—Tracks 1, 2, 3
- 3-denomination currency dispenser
- Journal printer
- Depository—serial or programmable printing
- Night depository interface
- Voice Responder™
- Tamper indicating canisters
- Network-compatible application software

## **NCR 5088 SLIMLINE ATM**

---



The NCR 5088 Slimline Automated Teller Machine (ATM) has been specifically designed for the drive-up customer. Superslim construction and side access allow the NCR 5088 Slimline ATM to retrofit existing pneumatic tube systems, fitting comfortably on a 36 in. or larger drive-in island.

### **Some basic features:**

- 9 in. CRT/graphics/8-function keys
- Card reader—Track 2
- 2-denomination currency dispenser
- Receipt printer
- Customer keyboard
- Flex disk
- Enhanced diagnostics
- UL-291/TL-15 security enclosure

### **Some optional features:**

- Card reader—Tracks 1, 2, 3
- 3-denomination currency dispenser
- Journal printer
- Depository—serial or programmable printing
- Night depository interface
- Voice Responder™
- Tamper indicating canisters
- Network-compatible application software

# NCR 5285 BUSINESS DEPOSITORY

---



The NCR 5285 Business Depository provides a means of attracting and serving commercial business accounts through the self-service network. The NCR 5285, used in combination with an NCR Automated Teller Machine (ATM) such as the 5084 or 5085 (shown above), provides customers with convenient and efficient deposit transactions.

**Some basic features:**

- UL-687 and UL-771 rated security enclosure
- Dial/key lock
- Deposit conveyor
- Either key or card activated

**Some optional features:**

- Silent sentinel alarm
- Seismic detector
- Vibration sensor
- Second combination lock

# NCR 5682 AUTOMATED PLATFORM MACHINE

---



The NCR 5682 Automated Platform Machine (APM) is the natural extension of self-service techniques to the platform. The 5682 APM provides customer information and is capable of generating and transacting sales and information services. This extension of self-service technology to the platform area frees up platform personnel and allows for more effective selling time.

Customers can present their services and project an image consistently and powerfully at all branches and off-site locations, 24 hours a day. New services can be introduced everywhere simultaneously without the need for significant staff retraining.

## **Some basic features:**

- 80286 processor-based platform
- VGA graphics
  - 14 in. high-brightness, flat screen monitor
  - Infrared touchscreen
- Composer authoring system

## **Some optional features:**

- Customization: freestanding, through-the-wall (vestibule) or kiosk
- DIP or motorized card readers
- Videodisc
- Security
- 40 or 80-column printers
- Communications interfaces



## NCR 5663 ACCOUNT SERVICES TERMINAL

---

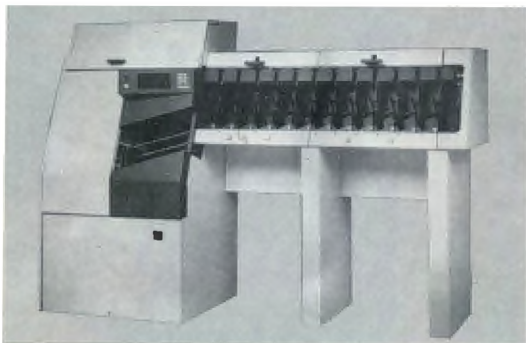


The 5663 is designed as an account services terminal for automating routine non-cash account transactions that are usually performed at the teller window. The 5663 offers a range of personal account inquiries and transactions including account balance, interest rates, passbook updating, and account transfers. In addition, the 5663 Account Services Terminal supports automated information services, such as stock market prices and foreign exchange rates. The new 5663 helps improve customer service and reduces the workload on bank staff.

### **Some basic features:**

- Display monitor (color or monochrome) with function display keys
- Document printer
- Magnetic card reader and/or writer
- Control electronics
- 3.5" microdiskette drive
- 20 MB fixed disk drive
- Electronic logging

## **NCR 6760 TOWER-CHECK SYSTEM**



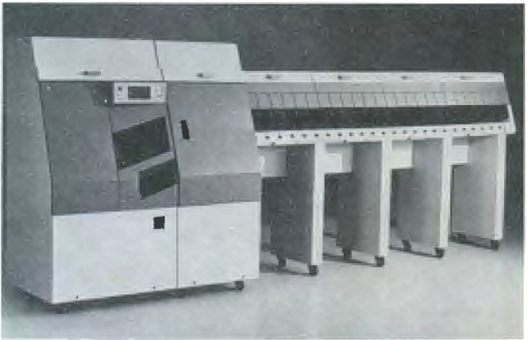
NCR 6760 NCR Tower-Check System combines a UNIX-based NCR Tower processor and intelligent 6760 reader/sorter and software to perform the complete range of sorter system functions. NCR 6760 Tower-Check reader/sorter, processing at the rate of 1,000 documents per minute, can expand from its basic 6-pocket configuration to a maximum of 36 pockets. The reader/sorter can be enhanced by one or more optional hardware features for additional handling and control of processed documents.

### **Some optional features:**

- OCR/MICR Compare Reader
- Positional roll-on endorser
- Ink jet printers that print from one to three alphanumeric lines of user-defined information on the back and/or front of each document
- Microfilmer unit integrated in-line to the reader/sorter
- Auxiliary plasma display panel on last pocket module

## NCR 6790 READER/SORTER

---



The NCR 6790 Reader/Sorter is a document processor designed for improved performance, reliability, maintainability, and flexibility. It processes up to 1700 documents per minute (DPM) and operates in a standard 12-pocket configuration with up to 42 pockets. The many features available with the 6790 make this document processor one of the most compatible and flexible in the industry. Its modular design and self-contained intelligence helps advance document processing at financial institutions. In addition, the 6790 includes a migration path to take advantage of an "imaging camera" when available.

### **Some basic features:**

- Dual MICR/OCR reader providing optimal accuracy when capturing the MICR line
- Merge Feeder Hopper offering a variety of document insert capabilities
- Pocket grouping capabilities providing higher throughput when sorting documents
- Cinemode Microfilmer allowing serial view of front and back of the document, thus saving film and search time

## **NCR 7720-3000 SYSTEM**

---



The 7720-3000 intelligent multipocket counter-top system provides cost-effective, on-line item processing for financial sites processing up to 5,000 document passes per day.

Using an NCR industry-standard PC controller, this system has the capability to encode, endorse read and capture data, sort documents, and receive and print information from a host.

Software packages are also available for on-line fine sort, exception item pull/cycle sort, and statement sort. Third-party software can be utilized to process remittance documents and automate return item processing.

### **Some basic features:**

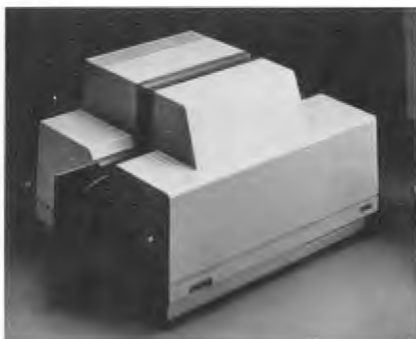
- MICR reader
- MICR encoder
- Item processing keyboard
- NCR PC with display screen and full alphanumeric keyboard

### **Some optional features:**

- Endorser module
- Up to 12 pockets
- Communications capability
- Line printer
- OCR reader
- Auto feed hopper

# NCR 7731 PERSONAL IMAGE PROCESSOR

---



The 7731 Personal Image Processor is an image-based document processing product for use with an industry-standard personal computer. An application program resides on the PC and uses the features of the 7731 to lift images, read and recognize MICR and OCR fonts, print text and graphics, encode documents, read magnetic cards, and transmit encrypted data. The 7731 can scan and print an area up to 105 mm high and 254 mm long. The 7731 Personal Image Processor is based on open, industry standards, has a small footprint, and combines advanced technologies to provide versatile and multifunctional capabilities.

## **Some basic features:**

- Front and/or back image lift
- Image-based multifont, multiline codeline recognition
- Ink-jet text and graphics printing on front/back of document
- Multifont Thermal Encoder
- Magnetic-stripe card reader
- Data encryption and message authentication code generation
- Bidirectional document transport

# NCR 7766 CLUSTERED PROOF SYSTEM

---



The NCR 7766 Clustered Proof System is composed of the NCR 7766 Single Pocket Proof Encoder, Ethernet communications network, and PC XT/AT compatible server. The proof encoders operate completely independent of the PC except for end-of-day or shift transmission. Up to 50 NCR 7766 proof units can be connected to a single PC.

## **Some basic features:**

- Thermal encoder
- Endorser
- Pocket overflow tray with non-bank stamp option
- Real time clock
- Operator training cartridge option

## **Advanced software features:**

- Built-in balancing tools
- Activity monitoring function
- Keyboard macros, three macros keys

## **NCR 7770-7000 ITEM PROCESSING PRODUCT FAMILY**

---



The NCR 7770-7000 Item Processing Product Family, based on NCR's 7000-3000 series of reader-based, multiple pocket item processing stations, has an improved ergonomic design. The NCR 7770-7000 is designed for high-volume document processing applications such as proof and encode, inclearing, sort, remittance processing, returns, and reject repair.

The advanced features of the 7770-7000 include dual processors, code line display, optional dual-line program endorsement, cine-mode microfilming, thermal journal and lister printing, enhanced technology and superior reliability.

### **Some basic features:**

- Larger 9 in. display screen
- 80286 PC processing technology
- Industry-standard high-density 3.5 in. diskette or optional 5.25 in. diskette
- 20 MB or optional 44 MB fixed disk
- High-speed capture software
- Token-Ring networking capabilities

### **Four versions of the 7770-7000 Item Processing Product Family are available:**

- NCR 7770-2200 MICR System (Off-line)
- NCR 7770-7101 MICR System (On-line)
- NCR 7770-7701 Remittance Processing System
- NCR 7770-7801 Remittance Processing System

# NCR RETAIL SYSTEMS

## NCR 2113 ECR

---



The 2113 general purpose electronic cash register (ECR) offers small retailers a low-cost, highly-reliable ECR to manage their daily business. The 2113 features a high degree of programmability and an NCR unique alphanumeric dot-matrix receipt and journal printer.

### **Some basic features:**

- 180 NLUs with linking capability
- Period-to-date totals and counters with 5-year memory protection
- Ability to track up to 30 departments with 8-character alpha print for departments and NLUs
- 41-key programmable keyboard; 6 tender keys
- Split-package pricing
- Tax calculations, percentage analysis on reports
- Operator and supervisor security
- Tracking of up to 6 clerks by name
- Operator and customer displays
- Multilane validation

### **Some optional features:**

- Wet-proof keyboard overlay
- Remote cash drawer
- Post customer display
- Battery operation
- PC interface
- 2113 point-of-sale software
- Additional NLUs (1560)



# NCR 2123 SYSTEM

---



The NCR 2123 System is a powerful point-of-sale terminal which offers a variety of features that enable automatic front-end transaction processing. The NCR 2123 System can be installed as a freestanding terminal or as part of a cluster configuration of master and satellite terminals.

The system can include UPC/EAN/JAN bar code scanning, in-store and high-order communications, flexible disk data collection and extensive management reports. In addition, the NCR 2123 System includes many time-saving features designed to expand throughput, security, control and accuracy of information.

## **Some basic features:**

- Communications include PCIF, CCC, ISP
- Automatic PLU (up to 45,000)
- Data capture (PC-compatible)
- Programmable error messages
- Floating checker control
- Electronic funds transfer

## **Some optional features:**

- Slot or hand-held scanners
- Scales
- Customer display
- Slip printer
- Coin dispenser
- Magnetic stripe reader

## NCR 2126 - 5000 SYSTEM

---



The NCR 2126-5000 Bar/Restaurant System improves efficiency and control by increasing employee productivity, monitoring media accountability and verifying food and beverage inventory. The system can be installed as either a freestanding terminal or a cluster, consisting of a master terminal and up to five satellite terminals. A master terminal can be substituted for one of the satellite terminals providing maximum system availability.

### **Some basic features:**

- 5 levels of present menus
- Spill-resistant micromotion keyboard
- Alphanumeric cashier/server display
- Over 1,000 departments (30 major)
- Menu item and condiment sales analysis
- Print and price modifier control; special application for controlling voids

### **Some optional features:**

- In-house and high-order data communications
- Hotel charge post, coin dispensers and PC interface
- AFNR guest-check printer
- Employee timekeeping
- Kitchen and bar order preparation printers
- Cassette data collect capability
- On-hand inventory ingredient variance reporting

# NCR 2127 RETAIL SYSTEM

---



The NCR 2127 System is a point-of-sale, transaction processing system for food, drug and general retail businesses. The 2127 is a distributed system, with a variety of features enabling transaction processing and back office applications at the store level.

The NCR/ULTRA-2127 software is available to further enhance the 2127 terminal system. NCR/ULTRA-2127 provides a relational data base management system running on NCR Tower in-store processors. This enables the user to integrate applications into the relational data base providing an in-store application platform.

## **Some basic features:**

- Dual consolidation terminals, automatic switchover
- Memory protection
- Dual Mass Memory Modules
- Mirror files
- On-line return to services
- Auto diagnostic at power-up
- Check verification
- Coupon validation
- Programmable report capability

# NCR 2160 FOOD SERVICE SYSTEM

---



The NCR 2160 Food Service System consists of multiple electronic point-of-sale terminals linked to a compact, powerful in-store microprocessor. Modularity permits remote locations for kitchen order printers. Modularity also permits a choice of receipt, sales journal or slip validation printer; customer display; cash drawer; and automatic change dispenser.

The NCR 2160 Bar/Restaurant System provides printed information in a series of detailed management reports. These reports relate to sales and inventory, guest check control, employee productivity and food and labor costs.

**Some basic features:**

- Automatic price lookup
- Financial accountability
- Full reporting capability
- Waterproof micromotion keyboard

**Some optional features:**

- Up to 4 remote printers
- Automatic form number reader

## NCR 2750 HAND-HELD TERMINAL



The 2750 Hand-Held Order Entry System consists of an FM (Frequency Modulation) radio transmitter/receiver base station and portable, hand-held, battery operated terminals and is available in conjunction with the 2760 Food Service System. The terminals are carried by restaurant personnel for remote entry of customer orders at the table or other customer order point. Orders entered at the hand-held terminal are transmitted to the 2760 system and printed or displayed at various food preparation stations.

### **Basic features:**

- 80-key programmable keyboard
- Entry of up to 1023 food and beverage items
- Two line by 20 character backlit LCD display
- Transmission range—100 yards, indoors or 300 yards outdoors
- Battery charger available for recharging the hand-held terminal detachable batteries

## **2760 FOOD SERVICE SYSTEM**

---



The 2760 Food Service System is a new-generation system targeted to meet the information and control requirements of all food service market segments. The 2760 Food Service System blends programmable terminals with an industry-standard PC which serves as a Manager's Workstation (MWS) and provides valuable backoffice capabilities.

### **Some basic features:**

- Data redundancy features designed to protect information in the event of a non-working terminal
- Battery backup for terminal memory
- Open system architecture designed to support a variety of off-the-shelf applications
- Security features aimed at improving control

### **Some optional features:**

- Data capture to the hard disk of MWS
- Assembly and item preparation displays
- Computer-based training modules designed to simplify training

# **NCR 5682 INTERACTIVE SELF-SERVICE VIDEO SYSTEM**

---



The NCR 5682 Interactive Self-Service Video System combines touchscreen technology with transaction processing to provide a powerful, self-service delivery system. The 5682 allows retailers to reduce inventory, display more products in less space, and offer customers the convenience of one-stop shopping. The 5682 utilizes a high-resolution color monitor with infrared touchscreen. It delivers attractiveness to the user through its superior video, graphics and digitized audio system.

## **Some basic features:**

- 80286 processor-based platform
- Composer authoring system
- VGA graphics
- 14 in., high-brightness, flat screen monitor
- Open systems architecture
- Intelligent peripherals
- Over 20 communications protocols supported

## **Some optional features:**

- Flexibility in design functionality
- Customized cabinetry
- Receipt/delivery system (choice of printers)
- Choice of 5 magnetic stripe card readers
- Choice of keyboards

## NCR 7000CP SYSTEM

---



The NCR 7000CP (Continuous Processing) System offers retailers high performance and high systems availability for transaction processing. The 7000CP System serves as the platform for the 7000/Advanced Checkout System (7000/ACS).

### **Some basic features:**

- Advanced architecture based on the Motorola 680X0 family of micro-processors
- MIRLAN local area networking of system processors and terminals
- Continuous processing for high system availability with item-level backup
- On-line help facility to minimize training costs
- Comprehensive price lookup subsystem
- Programmability including user exits

### **Some optional features:**

- 3780/3271 bisynchronous communications
- 3790/3650 SNA communications
- NCR Tower or PC MIRLAN interface
- Electronic journal and documentation
- Delayed balance
- Consumer panelist
- Tender authorization
- Check writing
- Electronic Funds Transfer



# **NCR 7052 POS WORKSTATION**

---



The NCR 7052 POS Workstation, a highly intelligent, easily programmable, user-friendly system, is designed to address the ever-increasing demands in the competitive retail environment. It's powerful advantage is its use of the Intel 80286 processor. This internal computing power allows fast flexible applications to be defined. Use of the 80286 also helps assure upgradeability to the future PC hardware and system software.

## **Some basic features:**

- Uses 80286 microprocessor/electronic module
- 1 or 5 PC-compatible card slots
- 128 KB BIOS/diagnostics ROM
- RAM battery backup
- NCR-DOS operating system
- Power supply and on-off switch
- 4 position keylock
- Optional 9" operator CRT
- Optional 2 x 20 operator display
- Optional 2 x 20 with 16 descriptor customer display
- Optional 6N/6D customer display
- Optional integrated magnetic stripe reader

# NCR 7052D POS WORKSTATION SYSTEM

---



The NCR 7052D POS Workstation is the second of a new generation of NCR retail systems designed to provide the improved functionality and level of performance required for the competitive retail environment. This new product offering combines industry-standard PC-based technology with NCR's widely accepted software application into a total systems solution for your operations.

## **Some basic features:**

- Uses 80286 microprocessor/electronics module
- 4 PC-compatible card slots
- 10 MHz
- 3.4 in. 1.44 MB flex
- Disk controller board
- 1 OCIA port
- 1 RS-232-C port
- 1 parallel port
- 128 KB BIOS/diagnostics ROM
- 8 KB CMOS RAM
- RAM battery backup
- NCR DOS operating system
- Power supply and on-off switch
- 4 position keylock
- Optional 2 x 20 with 16 descriptor customer display
- Optional 6N/6D customer display
- Optional integrated magnetic stripe reader
- Optional 20 MB or 40 MB hard disk

# NCR 7058 RETAIL WORKSTATION



The NCR 7058 Retail Workstation, based on the NCR Open, Cooperative Computing Architecture, combines the flexibility of standard PC technology with the efficiency of dedicated POS terminal hardware. The 7058 gives retailers the processing power and configuration flexibility to address current and future information requirements.

As a DOS-based workstation, it offers the retailer a cost effective, flexible platform for application software development, which can be freely generated by the user or acquired from a third party.

## **Basic features:**

- PC-based 80286 processor
- Cash drawer
- 512 KB D-RAM
- Terminal Application Platform Services (TAPS) I/O functions

## **Options:**

- Up to 1.5 KB S-RAM
- Additional 512 K D-RAM
- 1/2 PC AT Slot
- Various communication options
- NCR Retail peripherals

## **NCR 7820 UPC/EAN SCANNER**

---



**Configurable Top Deck (CTD)**



**Flat Deck**

The NCR 7820 UPC/EAN Scanner operates as a data entry peripheral to NCR or non-NCR retail terminals. Located at the checkout counter, it can read either UPC (Universal Product Code) or EAN (international article number) codes printed on the manufacturer's product packaging or affixed to products at the store level.

The 7820 flat-deck model has a flat scanning surface which provides the following advantages:

- Large and bulky items can be scanned
- Scanning is permitted from any direction—right-to-left, left-to-right or even back-to-front

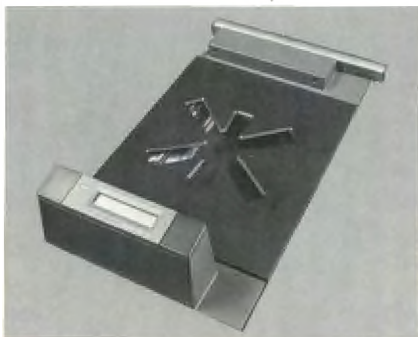
The CTD 7820 model provides housing with large red and green status indicators for good and bad scan reads. This 7820 model may optionally contain item gates which require scanned merchandise to enter and exit the scan area in a continuous single pass. This provides greater discipline in checker operations.

NCR PACESETTER electronics can be selected as an option on the 7820. PACESETTER analyzes label information with more powerful electronics which include an additional high performance co-processor and improved decode algorithm. PACESETTER allows symbols to be processed accurately, even when variance to the UPC/EAN standard exist.

The NCR 7820 Scanner is a class IIa laser product—avoid long term viewing of direct laser light.

## **NCR 7824 UPC/EAN SCANNER/SCALE**

---



The 7824 UPC/EAN Scanner/Scale is a single point-of-sale peripheral unit which incorporates a UPC scanner, and a front-end scale with a capacity of 30 pounds. A digital price/weight numeric display can be integrated into the unit or price/weight and can be displayed on a separate host display. Designed for installation in a checkout environment, the 7824 Scanner/Scale operates as a peripheral for NCR and non-NCR retail terminals.

The 7824 Scanner/Scale has the same dimensional packing as previous NCR scanners. The top plate or working surface of the scanner serves as the front-end scale. The scale includes a loadplate, four load cells, and a scale electronics board. A flush mount slotted faceplate covers the load plate, allowing item scanning or weighing.

NCR PACESETTER electronics can be selected as an option on the 7824. PACESETTER analyzes label information with more powerful electronics which include an additional high performance co-processor and improved decode algorithm. PACESETTER allows symbols to be processed accurately, even when variance to the UPC/EAN standard exist.

The NCR 7824 Scanner is a Class IIa laser product—avoid long term viewing of direct laser light.

## **NCR 7852 UPC/EAN SCANNER**

---



The 7852 UPC/EAN Scanner is designed to meet the special needs of retailers with low-volume transaction activity and limited point-of-sale counter space.

This small, sturdy scanning unit is capable of reading various versions of UPC/EAN/and JAN, code 39 or code 128 symbols.

The 7852 operates as a data entry peripheral in NCR and non-NCR retail terminals and provides the following advantages:

- The scanner can be mounted in a traditional scanner horizontal position in a checkout counter, or in a vertical position to save counter space.
- An automatic power-down feature turns off the unit when there has been no scan activity for 8 or 16 minutes. Elapsed time is selected at installation.

### **Specifications**

Weight: 10 lbs. (4.5 kg)
Width: 9.5 in. (24.1 cm)
Length: 11.3 in. (28.7 cm)
Height: 5.0 in. (12.7 cm)

### **Scan window dimensions:**

Width: 3.0 in. (7.6 cm)
Length: 5.0 in. (12.7 cm)

# **DISTRIBUTED STORE SYSTEM**

---

The Distributed Store System (DSS) is an in-store automation platform upon which a retailer can build their competitive advantage. The DSS platform, which utilizes open product sets, can work in conjunction with a retailer's enterprise-wide computing architecture:

DSS offers:

- A superior architecture based on Open System Architecture and Industry Standards
- A fully functional DSS Application Service Library
- A complete set of development tools for system architecting and tailoring of in-store applications
- Migration for previous generation workstations
- Expanded DSS software feature set for 7052 workstation

The POS applications provided include:

- Data Collect
- Price Management
- Downstream Workstation Load and Maintenance
- Totals Management
- Credit Management

DSS provides the flexibility to quickly respond to changes and competitive opportunities, the ability to incorporate new processing technologies while continuing to utilize current investments, and the capability to integrate the POS system into an enterprise-wide processing environment.

# **NCR PERIPHERALS**

## **NCR 4430 MAGNETIC STRIPE READER**

---



The NCR Magnetic Stripe Reader (MSR) with optional Personal Identification Number Pad adds system features such as direct debit, check verification, electronic checking, and credit authorization to transaction processing terminals.

Advanced electronic technology makes the 4430 MSR extremely reliable. The integrity of the encryption is monitored through a system of encryption key management.

### **Some basic features:**

- Manual swipe card reader
  - Reads ISO Track 2 or Tracks 1 and 2
- Display alternatives
  - LED lead-through indicators
  - LCD with two rows of 16 alphanumeric characters
- Keyboard alternatives
  - Cable-connected (shown above)
  - Integrated (retail checkout application)



# NCR 3892/3699/6098 DISK SUBSYSTEMS



**3892**

**3699**

**6098**

**(Tower 32/200) (Tower 32/800) (Tower 32/400)**

The SCSI family of disks is available across most of NCR's Tower data processing systems. Offering from 139.1 MB of fixed storage up to a total of 4.0 billion bytes of formatted capacity in one cabinet, the four cabinets pictured above are used not only for the specific disk, but have the necessary SCSI controller.

The 3892 supports one 144.5 MB disk with a cartridge tape option.

The mix of disk peripherals within a cabinet and their usability on specific processors is determined by the associated operating systems.

The 3699 supports the 6546 and 6570 disk models. The 6098 supports two disk types (380 MB or 760 MB) with up to four cache controllers and a combination of up to eight disks. The 6098 is supported on the Tower 32/300, 32/4X0, 32/500, 32/6X0, 32/700 systems.

## DISK PERFORMANCE

Subsystems	3892	---3699---		---6098---	
Characteristics	NCR 3892	380 MB	760 MB	NCR 6546	NCR 6570
Transfer Rate	9.67 MBs	16.2 MBs	16.2 MBs	14.52 MBs	14.52 MBs
Rotational Speed	3600 RPM	3600 RPM	3600 RPM	3600 RPM	3600 RPM
Tracks Per Surface	823	903	1632	1217	1023
User Data Capacity	144.6 MB	315 MB	630 MB	442.3 MB	1009.1 MB
Number of Surfaces	10	14	15	10	27
Heads Per Surface	1	1	1	1	1
Sectors Per Track	32	50	52	66	36
Max. # of Usable Sectors (After initialization)	282,422	632,100	1,243,889	789,599	994,356
Data Bytes Per Sector	512	512	512	512	512
Average Seek Time	25 MS	16.5 MS	16.5 MS	15 MS	15 MS
Maximum Seek Time	50 MS	40.0 MS	33 MS	35 MS	27 MS
Avg. Latency Time	8.3 MS	8.3 MS	8.3 MS	8.3 MS	8.3 MS
Max. Latency Time	16.7 MS	16.8 MS	16.8 MS	16.8 MS	16.8 MS
Avg. Access Time	33.3 MS	24.8 MS	24.8 MS	26.3 MS	23.7 MS
Max. Access Time	66.7 MS	56.8 MS	49.8 MS	51.83 MS	43.8 MS

# NCR 6091 SUBSYSTEMS

---



The NCR 6091 family of subsystems offers compact, versatile storage solutions for today's open systems. The 6091 family is based on the industry-standard SCSI (Small Computer System Interface) technology, making it possible to link the 6091 to a variety of systems. The 6091 subsystems are available for use with the NCR System 3000 and in a variety of disk and tape storage devices designed to meet the diverse environment and application needs. You may choose from hard disk, cartridge tape or optical disk devices. All of the 6091 subsystems have the capability to stand-alone or be stacked with other 6091 units.

## **NCR 6091 Hard Disk SCSI Subsystems**

This subsystem is available with storage capacities of either 380 MB or 760 MB, providing reliable 5¼-inch technology designed to enhance the performance of today's open systems. It will also help users realize the benefits of client/server computing. The subsystem is ideal for applications such as CAD/CAM, desktop publishing, multi-tasking and imaging.

*(continued)*

---

### **6091-5100-ARRAY Disk Array Subsystem and 6091-5300-ARRAY Disk Subsystem**

The NCR 6091 Disk Array Subsystems are a low cost highly-flexible solution for providing high data availability and data integrity. The array subsystems are a combination of hardware and software which allows users to customize an array to include from three to six 6091 disk subsystems. Disk selection can be either the 323 MB or the 675 MB models; however, the two models cannot be mixed in the same array.

The software portion of the array is called Safestor and is a required item with each 6091 disk array. The Safestor disk array requires only one extra disk for the purpose of providing data protection against failure for a group array of disks.

### **NCR 6091 Quarter-Inch Cartridge Tape SCSI Subsystem**

The 6091 Half-height cartridge tapes will help you protect important data through backup and archiving. Half-height cartridge tape subsystems are available in two versions: 150 MB and 525 MB. Users may upgrade 6091 half-height tape subsystems with an additional 380 MB of disk capacity, giving a powerful disk/tape solution in one 6091 cabinet.

### **NCR 6091 8mm Tape SCSI Subsystem**

The 6091 8mm tape subsystem stores data using compact cartridges the size of an audio cassette. A variety of tape lengths are available, ranging in capacity from 256 MB to 2.5 gigabytes. The helical-scan technology of this subsystems designed to provide advanced read-after-write capability with a full-width erase head.

*(continued)*

---

### **NCR 6091 CD-ROM SCSI Subsystem**

The NCR 6091 Compact Disk/Read-Only Memory offers a space-saving, economical way to access large quantities of pre-recorded information. The compact disk is industry standard and offers up to 553 MB of data storage per compact disk; it is also designed to stand-alone or be stacked with other 6091 units. The 6091 CD-ROM SCSI subsystem allows users in a variety of environments to access and read directories, government regulations, catalogs, sales records, and market surveys.

### **NCR 6091 WORM**

The NCR 6091 Optical Disk Subsystem offers up to 653 MB of data storage on a removable data cartridge. The storage process employs the WORM (Write Once Read Many) technology that uses a low power laser beam focused on a light sensitive disk platter. The data, once stored, cannot be erased. The features inherent in WORM technology can provide effective solutions for applications such as image processing, document handling, microfilm replacement and more. The features inherent in WORM technology can provide effective solutions for applications such as image processing, document handling, microfilm replacement and more.

# NCR 6092/5496/6099 DISK SUBSYSTEM



6092



5496



6099

The SCSI family of disks is available across most of NCR's ITX and VRX data processing systems. This family offers from 134 MB of fixed storage up to a total 3.7 billion bytes of formatted capacity in one cabinet. The three cabinets pictured above are used not only for the specific disk, but include the necessary SCSI controller.

The mix of disk units within a cabinet and their useability on specific processors is determined by the associated operating systems.

The 6092 Disk Subsystem supports 134 MB to 264 MB of data storage. The 5496 disk subsystem supports two disk types (314 MB and 640 MB), with up to two cache controllers and a combination of four disks. The VRX and VRX/E 6099 Disk Subsystems support either the 6546, 6547 or 6570 disk with up to 3.7 billion bytes of data storage in a single cabinet.

## DISK PERFORMANCE

Subsystems	---NCR 5496---		---6099---		
	314 MB	628 MB	NCR 6546	NCR 6547	NCR 6570
Characteristics	314 MB	628 MB	NCR 6546	NCR 6547	NCR 6570
Transfer Rate	14.52	12.048	14.52 MB/s	19.72 MB/s	19.66 MB/s
Rotational Speed	3600 RPM	3600 RPM	3600 RPM	3600 RPM	3600 RPM
Tracks Per Surface	903	1632	1217	1380	1023
User Data Capacity	314 MB	640 MB	408.9 MB	696.5 MB	927.9 MB
Number of Surfaces	14	15	10	15	27
Heads Per Surface	1	1	1	1	1
Sectors Per Track	50	52	66	66	66
Max. # of Usable Sectors (After initialization)	623,700	1,243,889	798,634	1,360,351	798,599
Data Bytes Per Sector	512	512	512	512	512
Average Seek Time	16.5 MS	16.5 MS	18 MS	16 MS	15 MS
Maximum Seek Time	40 MS	33 MS	35 MS	30 MS	27 MS
Avg. Latency Time	8.3 MS	8.3 MS	8.3 MS	8.3 MS	8.3 MS
Max. Latency Time	16.7 MS	16.7 MS	16.8 MS	16.7 MS	16.8 MS
Avg. Access Time	24.8 MS	24.8 MS	26.33 MS	24.3 MS	23.3 MS
Max. Access Time	48.3 MS	41.3 MS	51.83 MS	46.7 MS	43.8 MS

## NCR 6320 TAPE DRIVE

---



The NCR 6320 Tape Drive provides a convenient and reliable-inch reel-to-reel tape media. The NCR 6320 Streaming Tape Drive provides convenient features such as automatic loading, multiple speeds and industry compatibility.

### **Some basic features:**

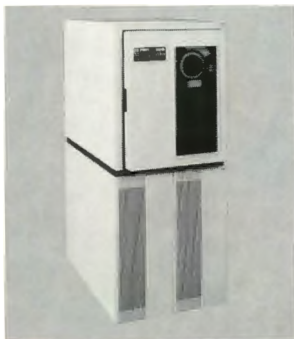
- **Multi-speed Operation:** 15 and 100 inches per second (ips) speed at a recording density of 1,600 bits per inch (bpi) or 50 inches per second at 3,200 bpi. The drive will automatically slow to 25 inches per second if the data rate from the host processor is not sufficient to keep the drive running at 100 ips.
- **Automatic Loading:** once the reel is inserted, this drive's unique automatic loading feature threads the tape for you.
- **ANSI and IBM Compatibility:** This drive can read and write ANSI compatible tapes recorded at 1,200 bpi or IBM-compatible tapes recorded at 3,200 bpi.

### **Specifications**

Height: 10.5 inches
Width: 20 inches
Depth: 27 inches
Weight: 45 lbs

## NCR 6323 TAPE DRIVE

---



The NCR 6323 Magnetic Tape Drive is an SCSI-inch tape drive that can be used in performance-oriented applications. The 6323 runs at 25 or 75 inches per second (ips) during streaming operation and 25 ips during stop/start operation.

The 6323 can record data in either Group Coded Recording Mode at 6,250 bits per inch (bpi) or Phase Encoding Mode at 1,600 bpi. The 6323 tape drive contains a 64 KB buffer to improve streaming operation and an Adaptive Velocity Control feature to control the speed of the drive.

### Specifications

<b>Recording Mode</b>	<b>Phase Encoded</b>	<b>Group Recording</b>
Recording Density	1,600 bpi	6,250 bpi
Unformatted Capacity	46 MB	180 MB
Tape Speed	25 or 75 ips	25 or 75 ips
Data Transfer Rate	120 KB/s at 75 ips 40 KB/s at 25 ips	469 KB/s at 75 ips 156 KB/s at 25 ips

### Dimensions

Height: 56 inches  
Width: 22 inches  
Depth: 35 inches  
Weight: 340 lbs.

# NCR 6373 TAPE DRIVE

---



The NCR 6373 Magnetic Tape Drive is a 1/2-inch tape drive, utilizing an IOSS system interface, that can be used in performance-oriented applications. The 6373 runs at 25 or 75 inches per second (ips) during streaming operation and 25 ips during stop/start operation. The 6373 can record data in either Group Coded Recording Mode at 6,250 bits per inch (bpi) or Phase Encoding Mode at 1,600 bpi. The 6373 tape drive contains a 128 KB buffer to improve streaming operation and an Adaptive Velocity Control (AVC) feature to control the speed of the drive. The AVC automatically lowers the tape speed to 25 ips if the data transfer rate from the host processor is not sufficient to maintain 75 ips.

## Specifications

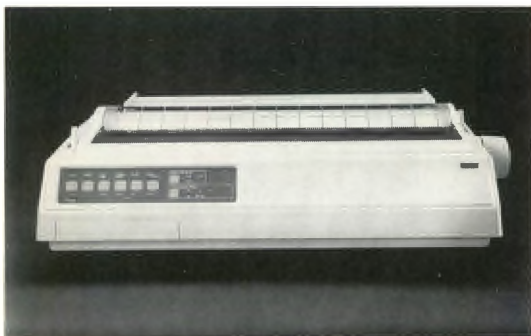
<b>Recording Mode</b>	<b>Phase Encoded</b>	<b>Group Recording</b>
Recording Density	1,600 bpi	6,250 bpi
Unformatted Capacity	46 MB	180 MB
Tape Speed	25 or 75 ips	25 or 75 ips
Data Transfer Rate	120 KB/s at 75 ips 40 KB/s at 25 ips	469 KB/s at 75 ips 156 KB/s at 25 ips

**Dimensions**  
Height: 56 inches  
Width: 22 inches  
Depth: 35 inches  
Weight: 340 lbs.



## **NCR 6417 DOT MATRIX PRINTER**

---



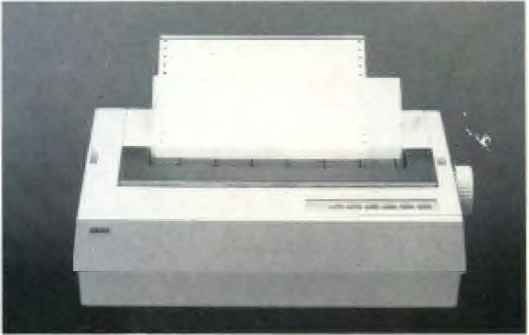
The NCR 6417 is a compact, desktop matrix printer designed for general purpose use in a variety of applications. The 6417 supports the most popular industry-standard applications for word processing, business graphics and spreadsheets. The NCR 6417 prints up to 300 characters per second and up to 240 per 72 dots per inch-resolution for graphics.

### **Some basic features:**

- 9-pin printhead
- IBM Proprinter II/XL and Epson FX86e/286e emulations
- 3 million character, self-inking ribbon cartridge
- 23 K standard memory
- Optional cut sheet feeder
- Optional RS-232-C serial interface
- 3 print modes: NLQ, utility and draft
- Handles variety of media
  - cut-sheet
  - continuous forms
  - multi-part forms
  - envelopes
  - labels
- Designed for up to 3,000 pages per month work load

# **NCR 6421 DOT MATRIX PRINTER**

---



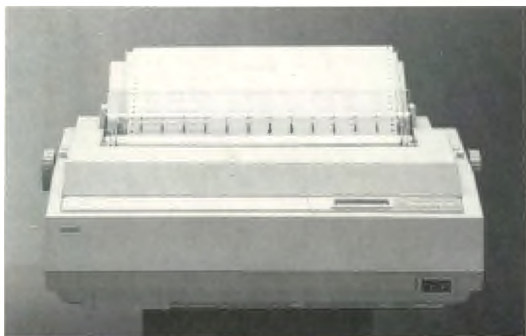
The 6421 family of printers are designed for general purpose use in a variety of systems and applications. The 6421 printers offer higher speed, better paper handling, better reliability, better resolution, more functions and more user options.

## **Some basic features:**

- Office-quiet operation at 55 dBA
- Letter Quality print speed of 40 cps
- Letter Quality character resolution (27 by 27)
- Optional 8 K additional RAM (10 K total)
- Standard push and pull tractors
- Handles variety of media
  - cut-sheet
  - continuous forms
  - multi-part forms
  - envelopes
  - labels
- 3 print modes: LQ, NLQ, draft
- Designed for up to 10,000 pages per month work load

# NCR 6424 LETTER-QUALITY MATRIX PRINTER

---



The 6424 is a 24-pin dot-matrix printer designed for word processing and a wide range of general purpose applications. The 6424 emulates the Diablo 630, IBM Graphic printer, and the Epson FX-80 and FX-100 printers.

## **Some basic features:**

- Office-quiet operation at 55 dBA
- 8-bit and 24-bit image graphics
- Optional sheet feeders for use on word processing applications
- Variety of media
  - cut sheet
  - continuous forms
  - multi-part forms
  - envelopes
  - labels
- Easy to use operator control panel
- High-resolution graphics
- 3 print modes: LQ, NLQ, draft
- Up to 240 cps (63 cps letter quality)

# NCR 6430 BAND PRINTER

---



The NCR 6430 printers provide high-speed, reliable printing at either 360 lines per minute (lpm) or 720 lpm (with a 48 character set). The 6430-1101 (360 lpm) can be used as a remote printer using an RS-232-C interface. In addition to the RS-232-C interface, the 6430-1201 (720 lpm) can be used as a systems printer on NCR systems.

## Some basic features:

- Operator changeable print band
  - 48 characters
  - 64 characters
  - 64 characters 15 cpi (model 1101 only)
  - 96 characters
- 4-digit alphanumeric display panel
- Operator alphanumeric display panel
- Convenient cassette ribbon system
  - “Clean hands”
- Small footprint
- Manual form length selection
- Early end-of-print detection
- Audible alarm for ribbon or paper faults

## Specifications

Print Rate (lpm)	6430-1101	6430-1201
48 character set	360	720
64 character set	300	600
96 character set	220	440

## **NCR 6435 LASER PRINTER**

---



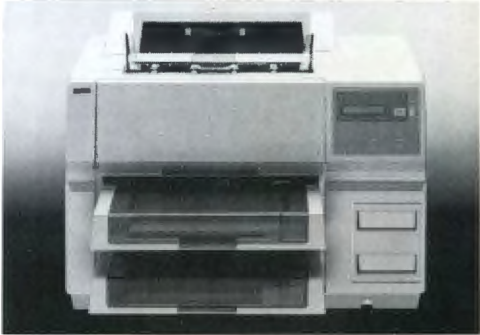
The 6435 is a six ppm, desktop laser printer designed for letter quality document and high-resolution graphics output. The 6435 produces up to 300 dpi resolution at a quiet 52 dBA suitable for office environments. The 6435 is suited for application work loads up to 5,000 pages per month with an expected life of 300,000 pages. The 6435 can be used with the NCR Financial Tower System and the Electronic Forms Software.

### **Some basic features:**

- 512 KB memory standard
- Up to 4 MB memory optional
- HP LaserJet II and Diablo 630 emulation standard
- IBM Proprinter XL, Epson FX-86e and HPGL Plotter emulation optional
- Optional HP-compatible font cartridges
- Parallel, RS-232 and RS-422 serial interface standard
- 150-sheet input and output bins

# **NCR 6436 LASER PRINTER**

---



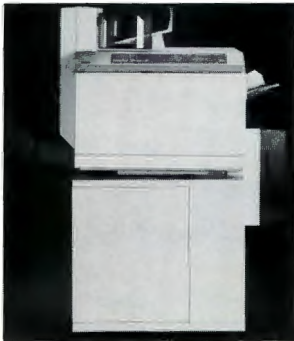
The NCR 6436 is a desktop, non-impact, general purpose page printer capable of delivering letter quality text and high-resolution graphics at speeds of up to 15 pages per minute. The 6436 is designed for use in applications which require large volumes of letter-quality documents as well as in multi-user environments. All of the printer's consumables are customer replaceable to help provide low cost-per-page operations, even in high-production installations.

## **Some basic features:**

- Office-quiet operation at less than 55 dBA
- High-resolution full page graphics standard
- RS-232-C serial or Centronics parallel interface
- (2) 250-sheet input trays
- 500 sheet output tray
- Landscape and portrait printing
- 1.5 MB memory standard
- HP LaserJet Plus, HP LaserJet 500 Plus emulations standard
- Optional emulation and font cartridges
- SCSI interface model available
- NCR PDL model available

# NCR 6437 ION DEPOSITION PRINTER

---



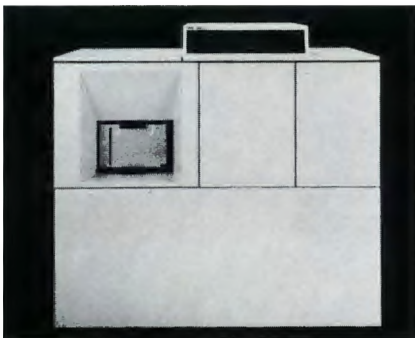
The NCR 6437 Ion Deposition Printer is a 30 page per minute, compact, medium speed printer. It offers high-volume output electronic forms capabilities, document storage, and letter-quality printing. It features a raster image processor that prints graphics, logos, forms, and text in either portrait or landscape orientation, at 300 dots per inch (dpi), with a typeset look. It also meets the speed and volume requirements of offices and data centers up to 150,000 pages per month.

## **Some basic features:**

- 4 MB memory standard
- Prints 30 pages per minute
- Accepts letter and legal paper sizes
- High-resolution 300 dpi
- Optional 2000-sheet elevator feeder
- Ion deposition technology
- Versatile font capabilities
- Graphics capabilities and forms design
- Operational forms overlay capability
- Diablo emulation resident

# NCR 6438 ION DEPOSITION PRINTER

---



NCR's 6438 is a 75 page per minute ion deposition printer designed for volume applications up to 1.5 million pages per month. It delivers the volume and consistency of a line printer with the versatility of a laser printer. It is a truly practical high-speed solution to high-volume printing needs.

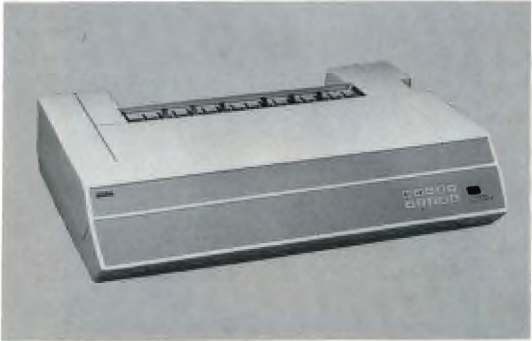
## **Some basic features:**

- Prints 75 pages per minute
- Monthly print volume up to 1.5 million pages
- High-resolution 240 dots per inch
- 1500-sheet powered output tray
- Low-cost consumables easily replaceable by operator
- Variety of resident typefaces
- Prints on economical letter-size paper
- Optional forms overlay capability



## **NCR 6444 MATRIX PRINTER**

---



The NCR 6444 is a 132 column, 18 wire, dot matrix impact printer designed for a variety of NCR computer systems. A tabletop printer, the 6444 provides draft, data processing, word processing and graphics modes of operation. In the draft mode the 6444 prints at 400 cps.

### **Some basic features:**

- 18-wire print head
- Serial interface
- 400 cps draft print speed
- 120 cps NLQ print speed
- 15 inches/second paper slew
- Pin-addressable (bit-mapped) graphics
- Office-quiet operations at 55dBA
- Superior paper handling
- Up to 6-part forms
- No duty cycle restrictions
- Optional large character, OCR print capability
- Optional parallel interface
- Optional barcodes

# NCR 6450 MATRIX PRINTER

---



The NCR 6450 Line Matrix Printers offer medium speed, high-quality and reliable printing at up to 400 or 800 lines per minute (lpm) depending upon the model and print mode used. These printers operate in four print modes—high-speed draft, data processing, near letter quality and enhanced.

### Some basic features:

- Graphic capabilities
- Electronic font changes
- Character set flexibility
- Horizontal and vertical character expansion
- 5 character pitches
- Superscript/Subscript, auto-underline, bold
- Quiet operation—55 dBA
- Forward and reverse paper movement
- ANSI and Printronix emulation
- Optional barcodes
- Optional OCR A/B fonts
- Optional download font capability

### Printer Speed Mode    6450-X101    6450-X201

High-Speed Draft	400 lpm	800 lpm
Data Processing		
Upper case only	300 lpm	600 lpm
Upper/lower case	240 lpm	400 lpm

# NCR 6451 MATRIX PRINTER

---



The NCR 6451 Matrix Printer offers high-quality, reliable printing for volume print applications with speeds up to 1,200 lines per minute (lpm). The 6451 printer operates in four print modes: high-speed draft, data processing, correspondence and compressed.

## Some basic features:

- Graphic print speeds up to 129 inches per second
- Electronic font changes
- Character set flexibility
- Horizontal and vertical character expansion up to 125 times
- Multiple character pitches
- Superscript/Subscript, auto-underline, bold
- Excellent forms handling/print quality
- Resident barcodes and OCR A/B fonts
- Resident download font capability

## Printer Speeds

High-speed draft	1,200 lpm
Data processing	900 lpm
Correspondence	450 lpm
Compressed	338 lpm
OCR-A	720 lpm
OCR-B	415 lpm
Line drawing	810 lpm

## NCR 6470 BAND PRINTER

---



The NCR 6470 Band Printer is a high-speed impact printer that provides excellent print quality and very high reliability. The 6470 prints up to 2,000 lines per minute (lpm). The 6470 is designed for high-volume continuous or peak period printing.

### **Some basic features:**

- Power stacker for reliable stacking
- Attention light on top to alert operator
- Full time vacuum cleaning system to remove dust and lint
- Operator changeable print bands—48, 64, or 96 characters
- Operator selectable forms length
- Office-quiet operations at 55 dBA
- Optional OCR A/B bands
- Optional hour meter

# NCR SYSTEMS PERIPHERAL

	32/200	32/300	32/450	32/500	32/650	32/700	32/825	32/850	V-88110	9800	35	55	65	75/85
<b>Disk Products</b>														
3699/6546							•	•						
3699/6570							•	•						
3892/6516	•													
5496												•	•	•
6091/Disk		•	•	•	•	•								
6092/6517											•			
6098/380		•	•	•	•	•								
6098/760		•		•		•								
6099/6546									•	•				
6099-6547										•				
6099/6570										•				
6091/WORM		•	•	•	•	•					•	•	•	•
<b>Tape Products</b>														
3699/6323							•	•						
6091/8mm		•	•	•	•	•	•	•				•	•	•



# Media Requirements

The following pages contain  
Media Requirements  
for use on  
NCR Systems.

For more information please  
contact your local Media  
Products Division Salesperson or  
call: 1-800-824-0510  
1-800-824-0490 (In Ohio)

## Media Requirements

NCR Class/ Model Number	Description	Stock #	Description
<b>I. NCR General Purpose Processors</b>			
Tower 32/300	Processor	279857	Data Cartridge ¼" x 450' 45 MB
		280833	5¼" DS/DD Flex Disk 96 TPI
Tower 32/450	Processor	★	See Tower 32/300
Tower 32/500	Processor	★	See Tower 32/300
Tower 32/650	Processor	★	See Tower 32/300
Tower 32/700	Processor	★	See Tower 32/300
Tower 32/825	Processor	★	See Tower 32/300
Tower 32/850	Processor	★	See Tower 32/300
<b>II. NCR General Purpose Workstations</b>			
2902	Video Display Terminal	N/A	
2920	Video Display Terminal	N/A	
2940	Video Display Terminal	N/A	
2970	Video Display Terminal	N/A	
PC 286	Personal Computer	280697	3.5" DS/DD Flexible Disk 135 TPI, 720 KB Capacity
		Optional: 280684	3.5" DS/HD Flexible Disk 135 TPI, 1.44 MB Capacity
PC 386/20	Personal Computer	★	See PC 386SX
PC 386sx	Personal Computer	280697	3.5" DS/DD Flexible Disk 135 TPI, 720 KB Capacity
		Optional: 280684	3.5" DS/HD Flexible Disk 135 TPI, 1.44 MB Capacity
		279925	¼" x 205' Mini Data Cartridge, 80 MB Tape Drive
ELPC 386sx	Personal Computer	★	See PC 386SX
PC 386/20	Personal Computer	★	See PC 386SX
<b>III. NCR General Purpose Systems</b>			
System 10,000 (Models 35, 55 65 & 75)	General Purpose System	★	★ Refer to the appropriate tape drives, printers, etc., configured for these systems.
9800, 9800-4	General Purpose System	★	See System 10,000
3695	Data Collection System	N/A	
6091-5100/5300	Disk Subsystem	N/A	
6091-5100 Aray	Disk Subsystem	N/A	
6091-6100	Disk/Tape Subsystem	279938	¼" x 600'—150 MB Data Cartridge
6091-6300	Disk/Tape Subsystem	279996	¼" x 1000'—525 MB Data Cartridge
6091-2100	8mm Tape	279721	8mm Data Grade Data Cartridge—177'-1.024Gb
		279718	8mm Data Grade Data Cartridge—367'-2.3 Gb



## Media Requirements

NCR Class/ Model Number	Description	Stock #	Description
6091-3500	CD-ROM	N/A	
6091-3000	WORM	N/A	
<b>IV. NCR Data Collection Systems</b>			
2725	Transaction Terminal	N/A	
2735	Data Collection Terminal	N/A	
2735-0300	Bar Code/ Magnetic Key- board/Display Terminal	N/A	
2735-1000	Multifunction Fixed/Portable Terminal	N/A	
<b>V. NCR Financial Systems</b>			
Tower	Financial System TMX & UNIX	279857	1/4" x 140' Data Cartridge, 45 MB
		279938	1/4" x 600' Data Cartridge, 150 MB
Tower	Financial System UNIX	279857	1/4" x 450' Data Cartridge, 45 MB
		279938	1/4" x 600' Data Cartridge, 150 MB
5037	Laser Printer	111038	Toner Set
		111070	OPC Drum
		111054	Transfer Unit
		111041	Developer Unit
		111067	Fuser Assembly
5267	Financial Workstation	802004	177J Journal 1 Ply Answer Cassette (Purple)
		198213	
		280697	3.5" DS/DD Flexible Disk,
		<b>Optional:</b> 802114	177J2 Journal 2 Ply
	198226	Answer Cassette (Black)	
5367		★	See 5267 Media Requirements
5070	Interior ATM	822712	5070 ZP Receipt
		822725	5070D Detail
		198475	Cassette Ribbon (Receipt & Journal)
5070SST	ATM	★	See 5070 Media Requirements
5084	Cash Dispense	822712	5070 ZP Receipt
		822725	5070D Detail
		198475	Cassette Ribbon (Receipt & Journal)
		280833	5 1/4" DS/DD Flexible Disk, 96 TPI
5085	ATM	★	See 5084 Media Requirements
5088	ATM	★	See 5084 Media Requirements
5285	Depository	N/A	
5663	Account Services Terminal	198679	Ribbon Cassette
5682	Interactive Self Service	822754	5682 ZP Receipt
		822725	5070D Journal

## Media Requirements

NCR Class/ Model Number	Description	Stock #	Description
5682 (Cont'd.)		198682	Cassette Ribbon
		<b>Optional:</b> 280684	3.5" Flexible Disk, 1.44 MB
		198679	Cassette (Document Printer)
6760	Tower Check System	196370	Endorser Ink Roll
		950532	Electro
		195326	Ink Jet Cartridge
		195339	Cleaning Card
		<b>Optional:</b> 904834	16mm Microfilm (50')
		904902	16mm Microfilm (100')
		904915	16mm Microfilm (215')
6790	Reader/Sorter	196370	Endorser Ink Roll (Black Ink)
		195326	Ink Jet Cartridge (Black Ink)
		195339	Ink Jet Cleaning Card
7720-3000	Desktop System	856678	1 Ply Journal
		182313	MICR Ribbon
		950613	Electro
		199759	Endorser Ink Roll
		<b>Optional:</b> 182355	Endorser Cassette
7731	Personal Image Processor	182436	MTTR Encode Ribbon
7766	Clustered Proof	857130	FanFold Paper, 2 Ply w/c
		182423	MTTR Encode Ribbon
		198310	Cassette
		199157	Ink Ribbon
		199160	Ink Roll
		950435	Electro
		<b>Optional:</b> 137559	Fanfold Paper, 1 Ply
		857114	Fanfold Paper, 2 Ply E.L. w/c
857127	Fanfold Paper, 2 Ply w/w		
7770-7000	Item Processor	856571	Thermal FanFold, 1 Ply
		856539	Thermal Lister, 1 Ply
		182054	MICR Ribbon
		198491	Endorser Cassette (Black)
		950613	Electro
		166232	Replenishment Ink
		<b>Optional:</b> 856940	Thermal Journal, 2 Ply
		856953	Thermal Lister, 2 Ply
198501	Endorser Cassette (Purple)		
<b>VI. NCR Retail Systems</b>			
2113	ECR	820044	113Z Receipt
		839750	214D Detail
		199791	Ink Roll
2123	System	*	See 2113 Requirements
2126-5000	Terminal	820086	214Z 20-Col. Receipt
		839750	214D 20-Col. Detail
		820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail

## Media Requirements

NCR Class/ Model Number	Description	Stock #	Description
2126-5000 (Cont'd.)		198213	ANSWER Cassette
		279802	Digital Data Cassette 282' (Data Capture)
		<b>Optional:</b> 280956	8" DS/DD Flexible Disk
		280781	5 1/4" DS/DD Flexible Disk
2127	Retail System	820086	214Z 20-Col. Receipt
		839750	214D 20-Col. Detail
		820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail
		198381	ANSWER Cassette (Purple)
		280684	3.5" Flexible Disk, 1.44 MB
2160	Food Service System	820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail
		198381	ANSWER Cassette (Purple)
		279802	Digital Data Cassette 282' (Data Capture)
		175058	Keyboard Insert
2750	HandHeld Terminal	N/A	
2760	Food Service System	820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail
		198381	ANSWER Cassette (Purple)
		175074	Keyboard Overlay (Printed)
		<b>Optional:</b> 845922	177Z 2 Ply w/c
		198226	ANSWER Cassette (Black)
		175061	Keyboard Overlay (Clear)
5682	Interactive Self- Service Video	822794	5682ZP Receipt
		822725	5070D Journal
		198682	Cassette Receipt & Journal
		<b>Optional:</b> 280684	3.5" Flexible Disk, 1.44 MB
		198679	Cassette Document Printer
7000	Continuous Processing System	820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail
		198213	ANSWER Printer Cassette
		280833	5 1/4" DS/DD Flexible Disk, 96 TPI
		279857	Data Cartridge, 1/4" x 450', 45 MB
		<b>Optional:</b> 198750	7150 Receipt, Journal Slip, Printer Cassette Ink Ribbon (Black)
		198255	6411 Printer Ribbon (Black)
		198352	6442 Printer Ribbon (Black)
		198530	6444 Printer Ribbon (Black)
7052	POS Workstation System	820060	177Z 40-Col. Receipt
		841010	177D 40-Col. Detail
		198750	7150 Printer Cassette Ink Ribbon (Black)
		280684	3.5" Flexible Disk, 1.44 MB

## Media Requirements

NCR Class/ Model Number	Description	Stock #	Description
7052 (Cont'd.)		279925	Mini Data Cartridge, 40 MB
7052D	POS Workstation System	★	See 7052 Media Requirements
7058	POS Terminal	820086	214Z 20-Col. Receipt
		839750	214D 20-Col. Detail
		199791	Ink Roll
		280684	3.5" DS/DD Diskette
		198213	Cassette Slip Printer
7820	UPC/EAN Scanner	N/A	
7824	Scanner/Scale	N/A	
7852	Scanner	N/A	

### VII. NCR Peripherals

4430	Reader	N/A	
3892/6399/6099	Disk Subsystems	N/A	
6091	Magnetic Tape Unit	279653	8mm Cartridge .271 GB
		Optional: 279640	8mm Cartridge 1.086
		279637	8mm Cartridge 1.90 GB
6091/5496/6099	Disk Subsystems	N/A	
6320	Tape Drive	242826	Magnetic Computer Tape (2400')
		Optional: 242868	Magnetic Computer Tape (1200')
		242923	Magnetic Computer Tape (600')
6323	Tape Drive	★	See 6320 Media Requirements
6373	Tape Drive	★	See 6320 Media Requirements
6417	Dot Matrix Printer	198336	Cassette Ribbon (Black)
6421	Dot Matrix Printer	198255	Cassette Ink Ribbon (Black)
6424	Letter-Quality	198844	Cassette Ribbon (Black)
6430	Band Printer	198271	Cassette Ribbon (Black)
6435	Laser Printer	111151	Toner Kit
		111164	OPC Kit
6436	Laser Printer	111119	Toner Kit
		111135	OPC Kit
6437	Ion Deposition Printer	N/A	
6438	Ion Deposition Printer	N/A	
6444	Matrix Printer	198530	Cassette Ribbon (Black)
6450	Matrix Printer	198747	Cassette Ribbon (Black)
6451	Matrix Printer	198857	Cassette Ribbon (Black)
6470	Band Printer	198543	High-Speed Printer Ribbon
		Optional: 198556	OCR Ribbon (Black)

# NCR PHOTOGRAPHY ORDER NUMBERS

---

The following is a list of photographs appearing in the Product and Systems Pocket Digest. All photographs are orderable through NCR AVR Photography. To order or make inquiries, call (513)445-1320 or Internet 8-622-1320. You may also place orders using Form #1338. Send forms to the address below and please include your charge number and internal mailing address:

NCR AVR Photography Department, SDC-1  
ATTN: NCR Products and Systems Pocket Digest.

NCR Product or System	Order Numbers	
	B/W print	Color print
<b>I. NCR SYSTEM 3000</b>		
System 3000 Family	90-456-1	90-456-1-C
NCR 3320	90-253	90-253-C
NCR 3340	89-439-2	89-439-2-C
NCR 3345	90-206-2	90-206-2-C
NCR 3445	90-213-2	90-213-2-C
NCR 3450	90-330-1-C	90-330-1-C
NCR 3550	N/A	N/A
<b>II. COOPERATIVE COMPUTING SOFTWARE</b>		
NCR Cooperation	90-477-1	N/A
<b>III. NETWORKING</b>		
NCR 5660	89-76	89-76-C
NCR 5600		
Communications Processors	89-241-2	89-241-2-C
NCR 5480 Network Processor	N/A	N/A
NCRNet Manager	90-269-1	90-269-1-C
NCR Open Network System	N/A	N/A
NCR Wavelan	90-461	N/A
<b>IV. NCR GENERAL PURPOSE PROCESSORS</b>		
NCR Tower 32/Family	88-111-5	88-111-5-C
NCR Tower 32/300	88-111-1	88-111-1-C
NCR Tower 32/450	88-111-2	88-111-2-C
NCR Tower 32/500	89-361-2	89-361-2-C
NCR Tower 32/650	88-111-3	88-111-3-C
NCR Tower 32/700	89-282-1	N/A
NCR Tower 32/750	89-282	89-282-C
NCR Tower 32/825	89-34	89-34-C
NCR Tower 32/850	88-111-4	88-111-4-C

NCR Product or System	Order Numbers	
	B/W print	Color print

### V. NCR GENERAL PURPOSE WORKSTATIONS AND SOFTWARE

2900 Video Display Terminal	88-486-2	88-486-2-C
2920 Video Display Terminal	88-209-50	88-209-50-C
2970 Video Display Terminal	88-209-35	88-209-35-C
PC286	89-287-2	89-287-2-C
ELPC386sx	90-124-1	90-124-1-C
PC386sx	89-285-2	89-285-2-C
PC836sx20	90-124-2	90-124-2-C
PC Software	N/A	N/A
OS/2 Workgroup Platform	N/A	N/A

### VI. NCR GENERAL PURPOSE SYSTEMS

System 10000 Family	88-275	88-275-C
System 10000 Model 35	88-209-28	88-209-57-C
System 10000 Model 55	88-209-19	88-209-29-C
System 10000 Model 65	88-209-17	88-209-27-C
System 10000 Model 75	88-209-18	88-209-28-C
System 10000 Model 85	N/A	N/A
9800 Series	89-65-1	89-65-1-C

### VII. NCR DATA COLLECTION SYSTEMS

2725 Transaction Terminal Swipe Badge	89-325-1	89-325-1-C
2725 Transaction Terminal Stripe Reader	89-325-2	89-325-2-C
2735 Data Collection Terminal Family	89-325-3	89-325-3-C
2735-0300 Display Terminal	89-325-8	89-325-8-C
2735-1000 Display Terminal	89-325-10	89-325-10-C

### VIII. NCR FINANCIAL SYSTEMS

NCR Financial Tower System—TMX	88-267-5	88-267-5-C
NCR Financial Tower System—UNIX	88-267-5	88-267-5-C
5037 Laser Printer	89-224-1	89-224-1-C
5267 Financial Workstation	89-350-6	89-350-6-C
5367 Financial Workstation	89-350-6	89-350-6-C
5070 Interior ATM	84-241	84-241-4-C
5070 SST	87-188-1	87-188-1-C
5084 Cash Dispense Terminal	86-210-1	86-210-1-C

NCR Product or System	Order Numbers	
	B/W print	Color print
<b>VIII. NCR FINANCIAL SYSTEMS (Cont'd.)</b>		
5085 ATM	87-190-1	87-190-1-C
5088 Firstline ATM	88-272-1	88-272-1-C
5088 Slimline ATM	87-189-1	87-189-1-C
5285 Business Depository	87-192-1	87-192-1-C
5571 Self-Service Information/Statement Terminal	87-191-1	87-191-1-C
5682 Automated Platform Machine	89-35-3	89-35-3-C
5663 Account Services	89-464-3	89-464-3-C
6760 NCR Tower-Check System	86-271-1	86-271-1-C
6790 Tower Check II	90-71	90-71-C
7720-3000 System	89-75	89-75-C
7731 Account Services	90-150	90-150-C
7766 Clustered Proof System	89-98-1	89-98-1-C
7770-7000 Item Processing Product Family	89-211-1	89-211-1-C
<b>IX. NCR RETAIL SYSTEMS</b>		
2113 ECR	89-31	89-31-C
2123 System	87-179-1	87-179-1-C
2126-5000 Terminal	86-268-2	86-268-2-C
2127 Retail System	88-370-1	88-370-1-C
2160 Food Service System	83-758-1	83-758-1-C
2750 Hand-Held Terminal	89-395	89-395-C
2760 Food Service System	89-57-1	89-57-1-C
5682 Interactive Self- Service Video System	89-35-2	89-35-2-C
7000CP System	87-31-5	87-31-5-C
7052 POS Workstation System	87-31-3	87-31-3-C
7052D POS Workstation System	89-337-1	89-337-1-C
7058 Retail Workstation	91-7	91-C
7820 Scanner (A&B) Flat deck	85-334	85-334-C
Enhanced	83-161-1	83-161-1-C
7824 Scanner/Scale	86-301	86-301-C
7852 Scanner	89-198-RL-1	89-198-RL-1-C

NCR Product or System	Order Numbers	
	B/W print	Color print
<b>X. NCR PERIPHERALS</b>		
4430 Reader	85-631-1	85-631-1-C
3892 Disk Subsystem	90-20	N/A
3699 Disk Subsystem	90-19	N/A
6098 Disk Subsystem	90-21	N/A
6091 Magnetic Tape Unit	90-18	N/A
6092 Disk Subsystem	89-126	N/A
5496 Disk Subsystem	90-22	N/A
6099 Disk Subsystem	88-209-46	88-209-46-C
6320 Tape Drive	89-209-23	89-209-46-C
6323 Tape Drive	89-209-55	89-209-55-C
6373 Tape Drive	88-209-61	89-209-61-C
6417 Dot Matrix Printer	90-13	N/A
6421 Dot Matrix Printer	88-209-16	88-209-43-C
6424 Letter-Quality Matrix Printer	88-209-41	88-209-14-C
6430 Band Printer	84-1-10	84-1-10-C
6435 Laser Printer	89-363-5	89-363-5-C
6436 Laser Printer	88-209-15	88-209-11-C
6437 Ion Deposition Printer	90-14	N/A
6438 Ion Deposition Printer	90-15	N/A
6444 Matrix Printer	88-209-2	88-209-21-C
6450 Matrix Printer	88-209-24	88-209-24-C
6451 Matrix Printer	90-16	N/A
6470 Band Printer	88-209-29	88-209-32-C

\*N/A = At the time of publication, photography was not available.



# NCR ALPHA MAGAZINE REPLY CARD

NCR Alpha's primary objectives are to promote the success NCR customers are enjoying by using NCR systems, and to provide readers with information on NCR's latest product and program introductions.

Please complete and mail the reply card to receive the next issue of NCR *Alpha* magazine.

Please complete and mail the reply card and we'll be sure you receive the next issue of NCR *Alpha* magazine.

Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Line of business \_\_\_\_\_

NCR models used \_\_\_\_\_

NCR is the name and mark of NCR Corporation.  
NCR Tower is a registered trademark of NCR Corporation.  
ADDS is a registered trademark of Applied Digital Data Systems, Inc.  
DEC is the name and mark of Digital Equipment Corporation.  
HP is the name and mark of Hewlett-Packard Company.  
IBM, IX and AT are trademarks of International Business Machines Corp.  
MS-DOS and XENIX are trademarks of Microsoft Corporation.  
Multibus is a registered trademark of Intel Corporation.  
RM/COS and RM/COBOL are registered trademarks of Ryan McFarland Corp.  
UNIX is a registered trademark of AT&T Bell Laboratories.  
Micro Channel is a trademark of IBM Corporation.  
Cooperation is a trademark of NCR Corporation.  
Open Networking Environment is a trademark of NCR Corporation.  
Voice Responder is a trademark of NCR Corporation.



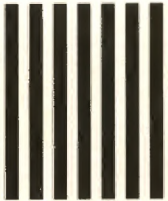
# BUSINESS REPLY MAIL

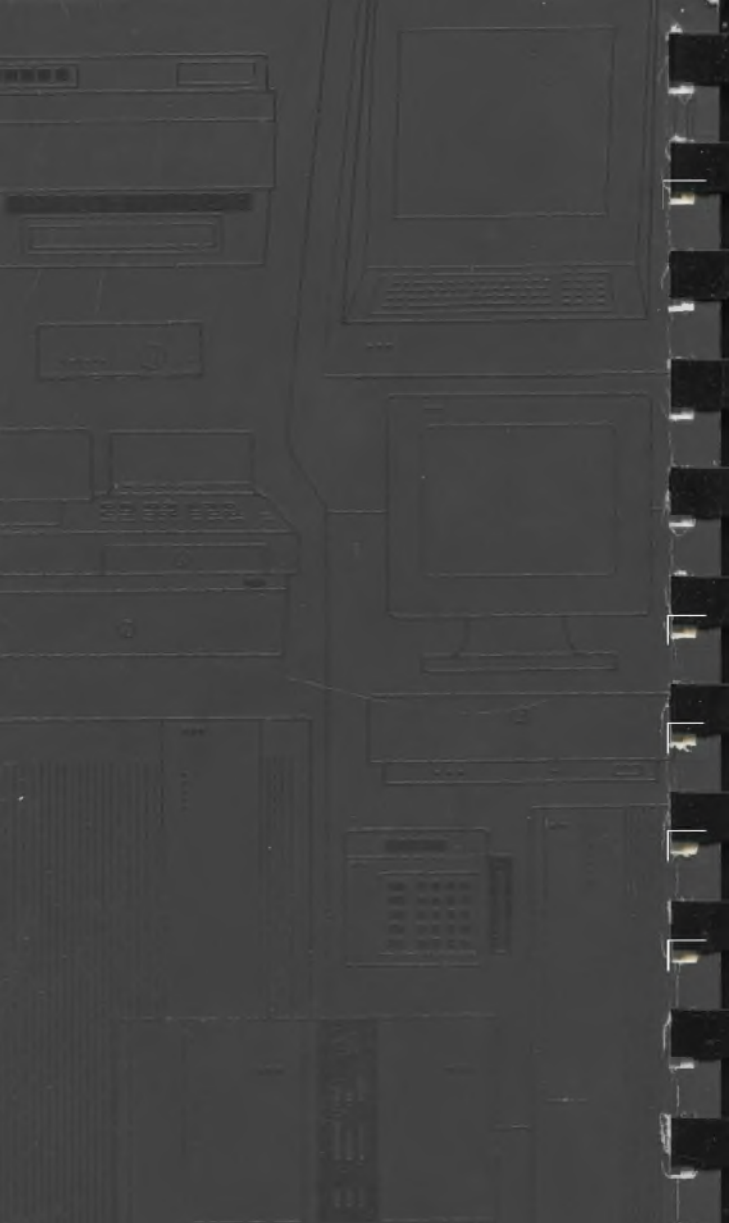
FIRST CLASS MAIL      PERMIT NO. 3      DAYTON, OH

POSTAGE WILL BE PAID BY ADDRESSEE

NCR Corporation  
NCR Alpha Magazine  
Attn: Nancy Walker, Assistant Editor  
Strategic Promotions, USG-2  
1700 So. Patterson Blvd.  
Dayton, Ohio 45409-9935

NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES





NCR is the  
name and mark of  
NCR Corporation  
©1991 NCR Corporation  
Printed in U.S.A.