

The Core Memory Project



Criterion V-8560



8500



Memory and I/O

Base V-8560 memory is 192K bytes, expandable to a maximum of 1.5 million bytes. Memory is MOS (metal-oxide semiconductor) with built-in safeguards against data loss and single-bit error correction/double-bit error detection.

Three types of common trunks are available with the system for interfacing peripherals, a low-speed trunk (75KB transfer rate), a medium-speed trunk (225KB), and a very high speed trunk (1.1 MB). A base V-8560 system has one trunk of each type. Two additional trunks may be added to meet individual processing requirements.

For maximum file processing throughput, the system can incorporate an optional integrated disk control module that communicates directly with memory during data transfer operations. The control unit can drive one or two strings of eight disk spindles each. Disk units can also interface with the system through the common trunk.



Terminals and Peripherals

An extensive complement of terminal and peripheral units allows maximum configuration flexibility to meet individual user requirements.

Terminals provide two-way communications with the system, and include general-purpose units like CRT displays and remote printers, as well as terminals designed specifically for financial, retail, medical, and commercial applications.

Paper media peripherals process industry-standard punched cards, punched tape, and MICR documents:

- Card Readers — up to 900 CPM
- Card Punches — up to 450 CPM
- Tape Readers — up to 1500 CPS
- Tape Punches — up to 200 CPS
- MICR Reader/Sorters — up to 1200 DPM
- Matrix Printers — up to 173 CPS

Line printers provide all types of printed output on single-, multi-part, and preprinted continuous forms at speeds up to 3000 lines per minute.

Magnetic file peripherals offer fast sequential or random data access and high-speed data transfer:

- Magnetic Tape Units — 200 to 1600 BPI densities
(Including 40 to 320KB transfer rates
Cassette Drives) 7 and 9 channel
Phase or NRZ mode
- Disk Units (Including — up to 200 million bytes
Freestanding Flexible per unit
Disk Drives) up to 806KB transfer rates
- Data Module — up to 140 million bytes
per dual-spindle unit
up to 885KB transfer rates

Telecommunications

Like other members of the Criterion family, the V-8560 is ideally suited to telecommunications processing in either a dedicated, transaction-driven mode or in a multiprogramming environment that can include one or more batch applications with the online system.

An optional integrated communications subsystem, built into the processor mainframe, can handle from one to 20 communication lines. Completely flexible, the subsystem allows both synchronous and asynchronous transmission at various character levels (5-, 6-, 7-, and 8-bit) and at transfer rates ranging from 110 bps to 9600 bps.

Communications lines can also interface with the system through one or more multiplexors connected to a common trunk. General- and special-purpose terminals can be intermixed and operated over dial-up lines for economy in low-activity systems or over private lines in systems that transmit large volumes of data or require constant terminal/processor communication.



System Support

The NCR Criterion V-8560 is supported by a full range of products and services to ensure that the user gets the most from his investment initially and throughout the life of the system.

... Hardware is supported by a comprehensive set of software products that include:

- Batch, online, multiprogramming, and virtual resource executive operating systems
- Compilers for most commonly used high-level languages
- Preprogrammed utility routines
- An extensive library of preprogrammed, tested applications for virtually every type of processing environment.

... All systems are delivered with complete, thorough documentation that simplifies transition and implementation.

... Strategically placed NCR educational centers and convenient self-study courses can provide whatever training customer personnel may require.

... Teams of highly skilled systems specialists for various lines of business will work closely with customers from initial investigation through final implementation to make certain that each system meets specifications and is used to its maximum potential.

... Thoroughly trained field engineers are available around the world and as close as the nearest telephone to ensure that systems continue to deliver the benefits for which they were installed.

In Summary . . .

The NCR Criterion V-8560 incorporates the most advanced electronic technology available today. It offers the cost-conscious user a more flexible approach to system design and embodies NCR's commitment to compatibility, reliability, and unlimited expansion potential.

... Extensive use of emitter-coupled logic circuitry means greater system reliability.

... Direct memory access by high-speed peripherals increases overall throughput and productivity.

... Separation of the processor into functionally independent units increases system efficiency.

... Sophisticated software for batch, multiprogramming, transaction processing, and virtual storage environments extends system life and protects the user's initial investment.

... Virtual machine philosophy means that systems can be tailored to operate most efficiently for a given environment.

... Compatibility with other NCR systems eases conversion and provides an inherent migration path.

To find out more about the powerful, flexible NCR Criterion V-8560, and about ways it can help solve your particular data processing problems, have your local NCR representative arrange a demonstration of its full capabilities.



NCR Criterion V-8560 General Specifications

STANDARD

Processor Cycle Time	84 ns
Main Memory	192K
—Type	MOS
—Read/Write Cycle Time	475 ns
Common Trunks	3

OPTIONS

Memory Increments	64K (up to 512K) or 128K (above 512K)
Maximum Main Memory	1.5 megabyte
Common Trunks (additional)	2
Integrated Disk Controller (IDC)	1
—Strings on IDC	2 (max.)
—Spindles per String	8 (max.)
Integrated Communications	20 lines (max.)
Fast Floating Point Option	

Statements contained herein are subject to change without prior notice. Your NCR representative can provide the latest information. Photographs are of prototypes.





NCR Criterion V-8560

The NCR Criterion V-8560 is a medium-scale, general-purpose computer system that exploits latest state-of-the-art technologies to set a new standard for data processing productivity. It offers the user:

Modularity . . . Criterion system architecture employs multi-position, plug-in modules for ease of expansion and configuration flexibility.

Power . . . Extensive use of microcircuitry and advanced packaging technology mean more power in less physical space than ever before.

Flexibility . . . A complete complement of mainframe features, peripherals and terminals, and comprehensive software allow total flexibility in hardware and operating environment selection.

Efficiency . . . Criterion system design is based on a concept of modular, distributed intelligence that allows the overall workload to be divided among internal modules, each with its own set of tasks. These modules, operating concurrently, contribute to a smooth flow of information through the system and eliminate many of the bottlenecks inherent in more conventional system architecture.

Reliability . . . Features like start-of-day confidence level checking, automatic internal memory error detection and correction, and specialized diagnostics mean greater reliability, serviceability, and — ultimately — productivity, by reducing the incidence of "down-time."

AND, Plenty of Room for Growth . . . Like all NCR systems, the V-8560 offers full upward compatibility with larger Criterion models. The user can move from the most basic application to the most complex, transaction-driven environment in easy steps, with minimum disruption and conversion costs. If necessary, he can incorporate virtual storage, which opens potentials for growth that are virtually limitless, insuring his initial investment.





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Worldwide sales and service through 1,200 offices located in 120 countries.

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