

Exidy Sorcerer



Two of the most novel design aspects of the Sorcerer are illustrated here. A 32KB system is shown with a modified 8-track tape cartridge container housing a ROM Pac inserted in its normal position at the right side of the keyboard chassis. The Composite Video/Disk unit at the rear has a 12-inch B/W screen and contains two 5 1/4-inch floppy disk drives capable of storing more than 600KB of programs and/or data.

BACKGROUND INFORMATION

Manufacturer: Exidy, Inc., Data Systems Division, 390 Java Drive, Sunnyvale, CA 94086. Telephone (408) 734-9410.

Exidy, Inc., a major manufacturer of coin-operated video games, was founded in 1973. The Sorcerer computer was the first product from what is now Exidy's Data Systems Division, originally formed in November 1977. The Sorcerer was first shown to the public in Summer 1978, and volume shipments of the systems began in July 1979.

Some 10,000 units have been shipped to date. About 85% of these shipments have been to Europe, with a concentration of sales in the Netherlands. Most of the systems sold in the U.S. have been delivered to California, where approximately one-third of the U.S. dealers handling Sorcerer systems are located.

About 15% of the installed Sorcerer systems are in use for home applications, with the rest employed for word processing and accounts payable/receivable applications in small businesses. There were about a half-dozen Sorcerer user groups in the U.S. at the end of 1979.

SYSTEM CHARACTERISTICS

The Sorcerer is a self-contained system designed around the S-100 bus line structure. BASIC language programs written for the Altair computer are compatible with the Sorcerer. The use of the popular S-100 bus design and the ability to run Altair BASIC programs opens a wide horizon of growth opportunity and flexibility for Sorcerer

Current model: Sorcerer.

Memory: 16KB-48KB RAM: 616 KB diskette.

Base list price: \$1,295-\$1,495 (processor memory).

Typical list prices: about \$2,500 (student)—16KB RAM, B/W video, cassette, CP/M development ROM PAC; about \$6,300 (business)—48KB RAM, B/W video, two disks, printer, "Microbiz" software.

Primary uses: education, small business, home/hobby.

Popular options: from Exidy—BASIC graphics capability, printer, EPROM development PAC; independent sources—music synthesizer, color graphics, home controller.

Principal programming languages: BASIC, FORTRAN-80, COBOL-80.

Principal application software: Microbiz business system, Word Processor ROM PAC.

First shipment: 1979.

Number installed to date: about 10,000.

Available through: about 15 distributors and 30 dealers.

users. Numerous software programs and peripheral devices or subsystems from independent vendors can be used with the Sorcerer in addition to those supplied directly by Exidy. (Please refer to Section 3 for a listing of these firms.)

One important design aspect of the Sorcerer System is the extensive use of plug-in ROM modules. These modules contain ROM chips in an 8-track cartridge housing, and represent a convenient and cost-effective way to augment the internal memory of the Sorcerer, and load programs at the same time.

In addition to the applications provided by Exidy on ROM, an electronically programmable ROM development PAC is available to permit the user to write his own applications programs and to store them on ROM.

The Sorcerer is based on the popular Zilog Z-80 microprocessor, and the basic system includes integrated adapters for two cassette I/O units, one floppy disk drive or a composite video/disk, and a B/W video monitor. List prices for 16KB, 32KB or 48KB RAM systems are \$1,295, \$1,395 and \$1,495, respectively. Dealer discounts vary, but are generally available at up to 15% off list.

A modest range of peripherals are provided for the Sorcerer systems by Exidy. One important unit—the printer—must be supplied by the user, although Exidy does provide interfaces for popular units. Any of a variety of printers may be plugged into the Sorcerer through the S-100 bus interface, or the parallel port. Using the S-100, numerous other industry-available products can also be attached, including music synthesizers, voice recognition/output devices, color graphics, home controllers, etc. ➤

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HARDWARE/PACKAGING

PROCESSOR/MEMORY

Model: Zilog Z-80 microprocessor; 8 bits
RAM: 16KB to 48KB in 16KB (\$160) increments
ROM: 4KB; additional 8KB available
System prices: 16KB (\$1,295); 32KB (\$1,395); 48KB (\$1,495)

DISPLAY

Type: Sorcerer Video Monitor (\$499), B/W
Number: none provided; maximum of one available
Screen size: 12-inch
Chars./screen: 1920; 64 chars./line, 30 lines
Char. type: upper/lower case, 8 x 8 matrix
Features: P31 phosphor/20MHz high detail resolution; swivel base; may be configured as Composite Display/Disk (see below) containing two 5 1/4" floppy disks in same enclosure
Graphics (high resolution): 122,880-point array (240 x 512)
Interface: integral connection

KEYBOARD

Type: typewriter style, tactile, moveable
No. of keys: 63, ASCII character set with graphics chars., plus integral 16-key numeric pad; user may define 128 additional chars.
Interface: integral connection

DIRECT ACCESS STORAGE

	Composite Display/Disk	Floppy Disk Subsystem
Type:	5 1/4" diskette	5 1/4" diskette
Capacity/drive:	308KB	120KB
Drives/system:	2; 2/controller	1-4; 4/controller
Interface:	integral	integral plug
Price:	\$2,995; includes display and keyboard	\$1,150 with controller; \$795 add-on drive

PRINTERS

	DP 6110	DP 6120
Type:	matrix, impact	daisy wheel, impact
Paper:	fan-fold, 10"	fan-fold, 8.5"
Char. set:	96	96
Chars./line:	80 or 132	80 or 132
Speed:	110 lpm	25 cps
Interface:	1 slot	1 slot
Price:	\$1,125	\$2,610

DATA COMMUNICATIONS

Model/price: Serial I/O Interface Card (RS232); \$98
Trans. mode: half/full duplex
Protocol: asynchronous
Lines: 1
Speed, bps: 300 or 1200
Interface: integral plug

OTHER I/O

Magnetic tape: cassette recorder optional, integral connection
Game controls: none
Standard interfaces: Serial Printer (\$98); Parallel Printer (\$35)

I/O ELECTRONICS

Structure: 50-pin connector for S-100 Bus Expansion Unit (\$419) provides 6 slots for user furnished I/O devices; I/O Expansion Kit allows control of S-100 bus on another computer
Standard interfaces: built-in RS-232 serial ports

SOFTWARE

LANGUAGES

BASIC: Microsoft BASIC; ROM (\$99), tape (\$49), disk (\$300)
FORTRAN: FORTRAN compiler on disk (\$750)
COBOL: COBOL compiler on disk (\$1,000)
Assembler: Z-80 relocating/linking version in ROM

OPERATING SYSTEM

Name: CP/M Disk Operating System (\$145); available in ROM (\$445) with assembler, text editor, BASIC
Type: single thread execution with priority I/O interrupt structure
Functions: I/O device handling; keyboard and screen editing; printer driver

UTILITIES

General: disk interface aids
Development Pac: ROM chip (\$99) for program development
EPROM Pac: ROM chip (\$49) for ROM development
Sort: none

DATA BASE MANAGEMENT SYSTEMS

None

COMMUNICATIONS SUPPORT

None

APPLICATIONS PROGRAMS

Business: Microbiz general business system (\$695), including accounts receivable, accounts payable, inventory control, personnel management
Word processing: Word Processor Pac (\$199)
Home: MicroHome (\$30)
Education: none
Entertainment: none

SUPPORT SERVICES

DOCUMENTATION

Range: about 6 manuals available, for between \$10 and \$25 apiece, such as Sorcerer Technical Manual (\$12), Display/Disk Manual (\$12), Video Monitor Manual (\$10), Z-80 Software Development Manual (\$12), Sorcerer Software Manual (\$25), Word Processor Manual (\$12)

SUPPORT

Training: none from Exidy; available at discretion of dealer
Maintenance: available directly from Exidy; all service fee based

TERMS AND CONDITIONS

Warranties: 90-day parts and labor
Discounts: none officially available at retail level; some dealers and mail order houses will offer up to 15% off list ■