Commodore PET

The 32KB PET, shown here with its integrated 9-inch B/W display screen, has a typewriter-style, tactile keyboard with a built-in numeric keypad. The system can be configured with a variety of peripherals to support professional office applications for lawyers, doctors, etc.

> **Current model: PET 2001.**
> **Memory: 8KB-32KB RAM; 360KB-1.1MB diskette.**
> **Base list price: $795-$1,295 (processor/memory).**
> **Typical list prices: about $900 (student)—8KB RAM with cassette and integral B/W screen; about $1,900 (home)—16KB RAM, cassette, integral B/W screen, printer, WordPro software.**
> **Primary uses: home/hobby, education, professional.**
> **Popular options: from Commmodore—printer, floppy disk; independent sources—color graphics, wireless home controller.**
> **Principal programming language: BASIC.**
> **Principal applications software: games, WordPro.**
> **First shipment: 1977.**
> **Number installed to date: about 107,000.**
> **Available through: about 400 dealers nationwide.**

BACKGROUND INFORMATION

Manufacturer: Commodore Business Machines, Inc., a Commodore International Limited Company, 3330 Scott Boulevard, Santa Clara, CA 95051. Telephone (408) 727-1130.

Commodore Business Machines, Inc. was formed in 1976 following acquisition by Commodore of MOS Technology, Inc.—the maker of the microprocessor that is the heart of the PET systems. CBM's first product was a 4KB version of the PET. The present PET product lineup consists of 8KB, 16KB, and 32KB systems selling for $795, $995, and $1,295, respectively. These PET's are self-contained units with an integral B/W screen mounted atop the keyboard unit. Weighing less than 50 lbs., an entire PET system is readily transportable. Each of these systems has a built-in 10-key numeric key pad in addition to the basic typewriter-style keyboard. Upper case alphabetic characters only are supported by the PET keyboard.

Until the end of 1979, all of CBM's computers were referred to by the firm as PETs; since then, 16KB and 32KB versions of these systems with an optional 11-key numeric key pad and both upper and lower case alphabetic characters supported on the keyboard have been targeted at the business system market and are designated as CBM systems. The PET's remain targeted at home, hobby, professional, and educational markets.

With about 107,000 Commodore systems of all types sold to date through more than 400 dealers nationwide, and a shipment rate of over 8,000 per month, the Commodore computer users base is second in size only to the Radio Shack TRS-80. Over 30 PET users' groups have been formed, and a substantial number of independent peripherals and software packages can be used with the PET. (Please refer to Section 3 for a listing of these firms.)

SYSTEM CHARACTERISTICS

For the first two years after its introduction, the PET was supplied by Commodore in a bare-bones fashion, consisting of two units: a non-typewriter-style keyboard with a built-in cassette, and a B/W screen. No peripherals and little software was available. In spite of these handicaps, the PET's were enthusiastically received in the marketplace.

By the end of 1979, Commodore filled in some of the biggest gaps in the PET product line by adding two printers, a dual diskette unit, numerous manuals, and a large selection of software—offered in some cases by agreement with independent software firms. Also, Commodore introduced the CBM business series with optional built-in numeric keypad, and upgraded the PET's to include a high-quality typewriter-style keyboard that no longer contained a built-in cassette unit.

Four plug connections are provided on the PET keyboard chassis, allowing the attachment of two Commodore digital cassette units, an 8-bit parallel I/O device, and an IEEE-488 compatible I/O device. Through the use of the IEEE plug, up to 10 I/O devices or subsystems can be connected to the PET in daisy-chain fashion. An integral memory expansion connector is also provided for user-furnished memory add-on.

Commodore does not support memory upgrades for installed systems, although entire 8KB or 16KB processor/memory boards can be replaced and upgraded by Commodore boards with larger memories by the user. In these cases, local dealers may grant the user a trade-in allowance for the old board, but this is not an official Commodore policy. ▷

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HARDWARE/PACKAGING

PROCESSOR/MEMORY
Model: MOS Technology 6502 microprocessor; 8 bits
RAM: 8KB to 32KB
ROM: 14KB; additional 8KB available
System prices: 8KB ($795); 16KB ($995); 32KB ($1,295)

DISPLAY
Type: B/W built-in Video Display Unit
Number: one provided; maximum of one available
Screen size: 9-inch
Chars./screen: 1000; 40 chars./line, 25 lines
Char. type: upper/lower case, 8 x 8 matrix
Features: normal, inverse, or flashing characters; automatic
vertical scrolling, accessible by BASIC Peek/Poke commands
Graphics: 128 full-screen character graphics
Interface: integral connection

KEYBOARD
Type: typewriter style, tactile, moveable
No. of keys: 64, ASCII character set with graphics chars., plus
integral 20-key numeric pad
Interface: integral connection

DIRECT ACCESS STORAGE

	CBM 2040 Dual Drive Mini-Diskette	CBM 8050 Dual Drive Mini-Diskette
Type:	5¼"	5¼"
Capacity/drive:	170KB	512KB
Drives/system:	0-16; 2/controller	0-16; 2/controller
Interface:	IEEE-488	IEEE-488
Price:	$1,295 with controller	$1,695 with controller

PRINTERS

	CBM 2022 Printer	CBM 2023 Printer
Type:	matrix, impact	matrix, impact
Paper:	fan-fold, tractor, 10"	roll, 10"
Char. set:	256	256
Chars./line:	80	80
Speed:	65 cps	65 cps
Interface:	IEEE-488	IEEE-488
Price:	$795	$695

DATA COMMUNICATIONS
Model/price: CBM Modem; $395
Trans. mode: half/full duplex
Protocols: asynchronous
Lines: 1
Speed, bps: 300
Interface: IEEE-488 daisy-chain connetion

OTHER I/O
Magnetic tape: cassette recorder optional ($95), integral plug connection
Game controls: none
Voice: CBM Voice Synthesizer ($395)

I/O ELECTRONICS
Structure: 4 integral peripheral plug connectors; IEEE-488 Bus
daisy-chain connects up to 10 devices; 8-bit parallel I/O port

SOFTWARE

LANGUAGES
BASIC: Microsoft Floating Point BASIC; standard in ROM
Assembler: Assembler Development System ($100); requires disk,
printer, 16KB RAM

OPERATING SYSTEM
Name: 4K Operating System in ROM
Type: single thread program execution with priority interrupt
structure
Functions: I/O device handling; keyboard and screen editing;
file manager

UTILITIES
General: true/pseudo random number generation; disassembler;
BASIC learning aids
Machine Language Monitor: permits development of machine
language programs; 8KB system only
Sort: none

DATA BASE MANAGEMENT SYSTEMS
Name/price: Data Base Utility; no charge
Function: design aid for data handling (8KB system only)

COMMUNICATIONS SUPPORT
None

APPLICATIONS PROGRAMS
Business: Client Accounting with 13 programs ($350); Business
Enhancement Compuservice CBM-MIS with 7 programs ($795);
CMS Software Business System with 4 programs ($295);
Compumax Associates Business Software with 5 programs ($700);
Sawyer Software Business System with 2 programs ($195)
Word processing: WordPro in 3 versions for 8KB ($25), 16KB
($100), and 32KB ($200) systems; Versions II and III require
disk, printer for full-scale word processor support
Scientific/engineering: 5 programs from statistics to basic math
Home: about 10 programs including telephone answering, call
logging/dialling, diet planner, budget, personal record; nominal
prices
Stock market: The Source, including UPI News, Washington
hotline, stock quotation, all via telephone line links with The
Source
Education: more than 20 programs including Classroom Adminis-
tration ($100), Education Budget ($100), Class List ($100), ENI
Computer-Managed Instructional System ($1,560), Sheridan
College Micromath tape ($2,500) or diskette ($500) course
Entertainment: about 12 game programs from Blackjack to
Spacetrek; nominal prices

SUPPORT SERVICES

DOCUMENTATION
Range: a monthly PET users club newsletter ($15/yr.); about
12 manuals available for between $1.00 and $15.00 apiece, such
as Introduction To Your New PET ($2.50), 8K Users Manual
($9.95), MOS Programming Manual ($6.95), PET Guide ($15.00)

SUPPORT
Training: none from Commodore; available at discretion of
dealer
Maintenance: most repairs done by dealers; major repairs at
factory; 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 ■