

# PET™

4000 SERIES  
COMPUTERS



**COMMODORE BUSINESS SYSTEMS.**  
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## BASIC COMMANDS

Command	Description
APPEND	Writes additional data to the end of a sequential disk file on the CBM Dual Disk Drive with DOS 2.0 or later versions.
BACKUP	Duplicates the entire contents of a disk on another diskette on the CBM Dual Disk Drive with DOS 2.0 or later versions.
CLOSE	Concludes I/O to a channel.
CLR	Sets all numeric variables to zero, sets all string variables to null, resets the end of memory and the amount of stack space, and frees all array space.
CMD	Addresses an IEEE bus device and leaves it addressed and listening.
COLLECT	Frees up space allotted to improperly closed files on disk and deletes their references from the directory.
CONCAT	Concatenates one sequential file to another sequential file with DOS 2.0 or later versions.
CONT	Continues program execution after the stop key has been typed, or a STOP or END statement has been executed.
COPY DATA	Makes a copy of a file within a disk unit. Stores the numeric and string constants that are accessed by the program's READ statement(s).
DCLOSE	Closes disk files.
DEF FN	Defines and names a function written by the user.
DIM	Specifies the maximum values for array variable subscripts and allocates storage accordingly.
DIRECTORY	Displays the disk directory to the screen.
DLOAD	Loads the BASIC text file from the disk.
DOPEN	Declares a sequential or random access file for read or write.
DSAVE	Saves a BASIC text file to the disk.
END	Terminates program execution, closes all files, and returns to command level.
FOR NEXT	Allows a series of instructions to be performed in a loop a given number of times.
GET	Reads a character from a file into a variable.
GOSUB... RETURN	Branches to and returns from a subroutine.

## BASIC COMMANDS

Command	Description
IF... THEN	Determines the direction of program flow based on the result returned by an expression.
INPUT	Allows input from the terminal during program execution.
INPUT #	Reads items from a sequential or random disk file and assigns them to program variables.
LET	Assigns the value of an expression to a variable.
LIST	Lists all or part of the program currently in memory to the active output device.
LOAD	Loads a file from external storage into memory.
NEW	Deletes the program currently in memory and clears all variables.
ON... GOSUB	Branches to one of several specified line numbers, depending on the value returned when an expression is evaluated.
OPEN	Establishes an I/O channel over the IEEE bus or internal devices.
POKE	Writes a byte into the memory location.
PRINT	Outputs data to the screen or a specified channel.
READ	Reads data from a DATA statement and assigns it to a variable.
RECORD	Used before GET #, INPUT # or PRINT # to position the record pointer in a random access file with DOS 2.0 or later versions.
REM	Allows explanatory remarks to be inserted in a program.
RENAME	Changes the name of a disk file.
RESTORE	Allows DATA statements to be reread from a specified point.

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## BASIC COMMANDS

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Command	Description
RUN	Executes the program currently in memory.
SAVE	Saves a BASIC program file on an external storage device.
SCRATCH	Deletes a disk file.
STOP	Terminates execution of a BASIC program.
SYS	Transfers control from BASIC to a machine language subprogram.
VERIFY	Compares the program in memory to a program on a storage device.
WAIT	Waits for a memory location to match a user-supplied mask.

## SCIENTIFIC FUNCTIONS

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Function	Description
SGN	Returns sign
INT	Performs integer function
ABS	Performs absolute value
SQR	Performs square root
RND	Generates random number
SIN	Returns sine
COS	Returns cosine
TAN	Returns tangent
ATN	Returns arc tangent
LOG	Returns logarithmic base 10
EXP	Returns $e^x$

## LOGICAL OPERATORS

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Operator	Description
AND	Logical And
OR	Logical Or
NOT	Logical Inversion

## FORMATTING FUNCTIONS

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Function	Description
TAB	Sets screen formatting
POS	Returns cursor column position
SPC	Sets screen spacing

## STRING FUNCTIONS

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Function	Description
LEFT\$	Returns left referenced substrings
RIGHT\$	Returns right referenced substrings
MID\$	Returns mid referenced substrings
CHR\$	Returns a character given a numeric code
ASC	Returns a numeric code given a character
LEN	Returns the length of a string
VAL	Converts a decimal value to a numeric string
STR\$	Converts a numeric string to a decimal value

## SPECIAL VARIABLES

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Variable	Description
TI	Retrieves time in 1/60 second increments
TI\$	Retrieves time in hours, minutes, and seconds format
ST	Returns status word for I/O operations
DS	Retrieves disk status (error number)
DS\$	Retrieves disk status (complete error message)

# PET™ 4000 SERIES COMPUTERS

Commodore Business Machines offers the low-cost, versatile PET computer for business, educational, and scientific applications. PET computers are easy to use — previous computer experience is not necessary. A variety of software applications is readily available and supported by your Authorized Commodore Dealer.

PET business programs include Civil Engineering, Assembly Development, mailing lists, and information management applications. The educational packages include Computer Assisted Instruction and tutorial aids in language, math, and science. BASIC comes with your PET for convenience in creating personal programs and applications.

## FEATURES

The PET 4000 series offers 8K, 16K, and 32K computers with an IEEE parallel port and an IEEE-488 bus for disk and printer communications. Also included is an eight-bit parallel user port with "handshake" lines. The PET 4000 series supports two Commodore C2N cassette ports for external cassette input and output.

Each PET 4000 system includes 14K of ROM containing BASIC and a machine-language monitor. The BASIC interpreter is activated when you turn on your PET 4000 — no loading is necessary.

## SCREEN

40 characters wide by 25 lines long  
64 ASCII plus 64 graphic characters  
8 x 8 dot matrix characters  
Green phosphor screen  
Brightness control

## KEYBOARDS

74-key professional keyboard  
Separate calculator/numeric pad  
Upper-case alphabetic characters  
Shift key gives 64 graphic characters

## MEMORY

PET 4000-8N: 8K (7167 net) random access memory (RAM)  
PET 4000-16N: 16K (15359 net) random access memory (RAM)  
PET 4000-32N: 32K (31743 net) random access memory (RAM)

## POWER REQUIREMENTS

Volts: 110V  
Cycles: 60 Hz  
Watts: 100

## SCREEN EDITING CAPABILITIES

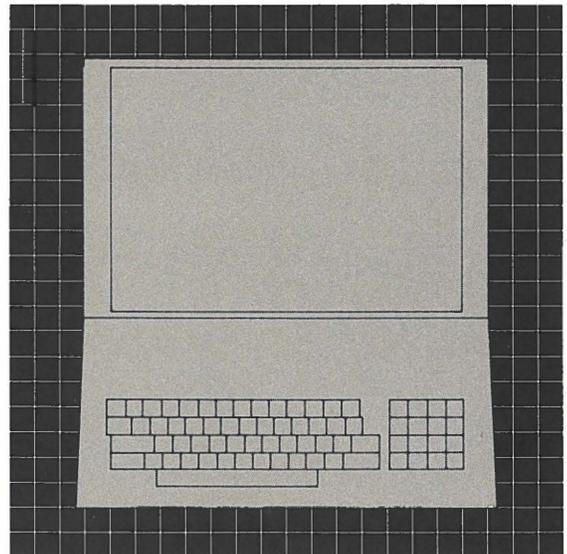
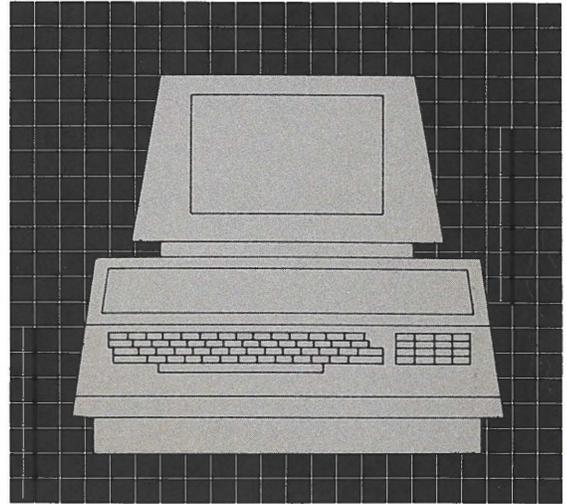
Full cursor control (up, down, left, right)  
Character insert and delete  
Reverse character field  
Overstriking  
Return key sends entire line to CPU regardless of position

## INPUT/OUTPUT

Parallel port  
IEEE-488 bus  
2 cassette ports  
Memory and I/O expansion connectors

## FIRMWARE

14K of ROM contains:  
BASIC (version 3.0) with 9-digit floating binary arithmetic  
Tape and disk file handling  
Machine language monitor



Scale: 1"

## PHYSICAL SIZE

Height: 14" (35.5 cm)  
Width: 16.5" (41.9 cm)  
Depth: 18.5" (47 cm)  
Shipping Weight: 46 pounds (20.9 kg)



Commodore Business Machines, 3370 Pharmacy Avenue,  
Agincourt, Ontario M1W 2K4 (416) 499-4292.

Call toll free 1-800-268-3105.  
In B.C. call 112-800-268-3105.

Commodore Business Machines, 950 Rittenhouse Road,  
Norristown, PA 19401 (215) 666-7950.