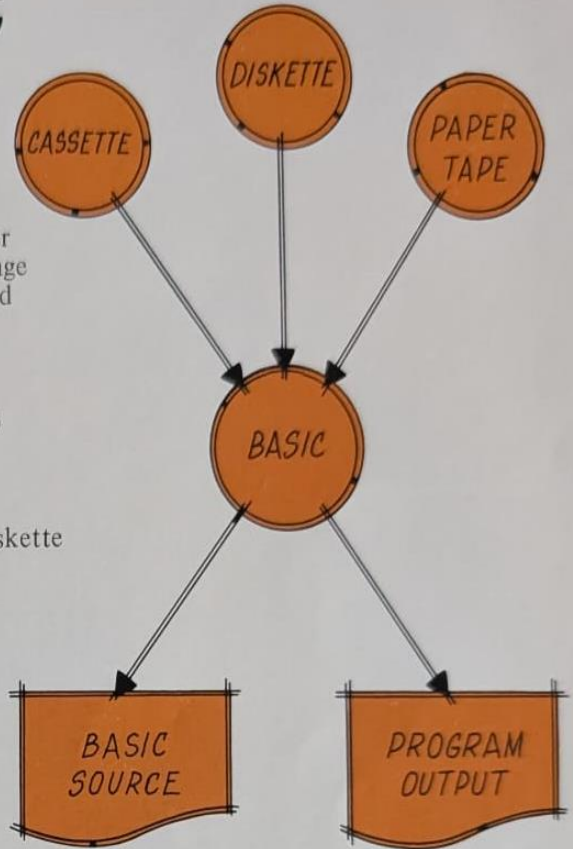


M68BASR010 Resident BASIC Interpreter

The EXORciser-resident BASIC interpreter provides a new tool for problem solving to the M6800 Microcomputer family of parts. BASIC is a high-level programming language widely used for general purpose and certain business-related applications.

- Decimal arithmetic
- String variables and arrays
- Direct statement execution for Debug (calculator mode)
- Only 8K bytes of memory required for small programs
- Call machine language programs
- BASIC may reside on cassette, paper tape, or diskette
- User programs may reside on cassette, paper tape, or diskette
- Program output to printer or console
- Optional LET statement
- String functions and concatenation



System Configuration

The minimum system hardware configuration is:

- An EXORciser
- 8K bytes of memory
- An EXORciser compatible terminal

The minimum configuration may be expanded up to 65,536 bytes of memory and up to four disk drives providing over a million bytes of disk storage.

Language Features

Data Types

- Range (1.0E - 99 to 9.99999999E + 99) may be represented as either integer, decimal, or exponential.

Variable Names

- Single alphabetic character or single alphabetic character followed by a digit (0 through 9).
- String variables, single alphabetic character followed by a \$.

Arithmetic and Logical Operators

- Exponential
- Negate
- Multiplication
- Division
- Addition
- Subtraction
- Relational operators

Sequence Control Statements

- GOTO
- ON expression GOTO statement n, (m, . . . ,1)
- ON expression GOSUB statement n, (m, . . . ,1)
- IF relative
- FOR
- NEXT
- STOP
- END

I/O Statements

- INPUT
- READ
- DATA
- PRINT
- RESTORE

Specification Statements

- DIM - dimension variables and strings

Remark Statements

- REM

Optional Statements

- LET

BASIC Commands

- LIST – display source
- RUN – execute program
- CONT – continue after stop or break
- NEW – define new program
- SAVE – save current program (tape or diskette only)
- LOAD – load new program (tape only)
- APPEND – add to program from tape (tape only)
- PATCH – patch memory from MAID
- TRACE ON – prints line number as it is executed
- TRACE OFF – turns off trace
- LINE LENGTH – define maximum print line length
- DIGITS – establishes the number of digits to right of decimal point
- POKE – sets absolute memory address

Subprograms

- DEF – define user function
- RETURN – return from subroutine
- GOSUB – go to subroutine

Intrinsic functions

- TAB – tab on print
- RND – random number
- INT – integer number
- ABS – absolute value
- SGN – sign of argument
- POS – position of printhead
- LEN – number of characters in string
- ASC – decimal value of any ASCII character
- CHR\$ – string value of ASCII character
- STR\$ – ASCII string value to numeric constant
- VAL – numeric constant equivalent to ASCII value
- LEFT\$ – returns left-most string of characters
- RIGHT\$ – returns right-most string of characters
- MID\$ – returns middle string of characters
- PEEK – returns decimal memory value
- SIN – sine
- COS – cosine
- TAN – tangent
- ATAN – arc tangent
- LOG – natural logarithm
- EXP – inverse of LOG
- SQR – square root

ORDERING INFORMATION

Option	Media	Part Number
1	Cassette	M68BASR010A
2	Paper Tape	M68BASR010B
3	Floppy Disk (EDOS)	M68BASR010D
4	Floppy Disk (MDOS)	M68BASR010M



MOTOROLA Semiconductor Products Inc.

BOX 20912 • PHOENIX, ARIZONA 85036 • A SUBSIDIARY OF MOTOROLA INC.

10211-9 PRINTED IN USA 1-77 IMPRESA, LITHO IN MEXICO