

Program Entry

- A Line without a program number executes immediately
- A line with a number is inserted in order in the program
- Line numbers must be from 0 to 32767
- No blanks in keywords (LET, IF, THEN, GOTO, GOSUB, GO, TO, SUB, RETURN, INPUT, PRINT, LIST, CLEAR, RUN)
- Blanks outside keywords are optional
- SHIFT/O (Back-arrow) deletes last character typed
- CONTROL/H (Backspace) has the same function as SHIFT/O (for use with CRT's)
- CONTROL/U Deletes the entire current line

Program Control

- CLEAR clears all variables (A-Z) and all stacks
- NEW deletes the program in PAGE 2 (normal page)
- NEW n (n is from 2-7) deletes the program in page n
- LIST lists the program starting at the lowest line number or the line number given
- RUN starts the program at the lowest line number

NOTE

Repeated pressing of the BREAK key interrupts execution and returns the system to programming mode.

Expressions

- All expressions are 16-bit, twos-complement values
- 26 variable names: A through Z.
- Relational Operators: <, >, =, <=, >=, <>
- Arithmetic operators: +, -, *, /
- Logical Operators: AND, OR, NOT
- Decimal Constants in the range -32767 to 32767
- Hexadecimal Constants denoted by '#' followed by Hex digits

- Expressions can be on individual lines or several can be inserted on the same line if they are separated with a colon (e.g., 100 PRINT "HOW MANY";INPUT X)

Functions

- RND(a,b) returns the random number in the range a through b
- MOD(a,b) returns the remainder of a/b
- STAT returns the value of the INS8060 Status Register
- PAGE returns the number of the current page
- TOP returns the highest address of the NIBL program in the current page

Input/Output Statements

- INPUT X
- INPUT X,Y,Z
- PRINT "A STRING"
- PRINT "F=",M*A
- PRINT "TAKE",X,"PILLS BEFORE";

NOTE

The semicolon suppresses an otherwise automatic carriage return after any PRINT statement.

Assignment Statements

- LET X=7
- E=I*R
- STAT=#70
- PAGE=PAGE+1
- LET @A=255
- @(T+36)=#FF

- $B = @(TOP + 5)$

Control Statements

- GO TO 15 or GOTO 15
- GOTO X+5
- GO SUB 100 or BOSUB 100
- RETURN
- IF $X + Y \geq \#1A$ GOTO 15
- IF $A = B$ LET $A = B - C$
- FOR I=10 to 0 STEP -2
- NEXT I
- FOR K=1 TO 5
- DO: X=X+1: UNTIL (X=10)OR(@X=13)

Indirect Operator

- If the value of V is #2000, then "LET @V=100" stores 100(dec) at memory location 2000(hex) and "LET W=@V" sets W to the contents of the location specified by V.

NOTE

The values that can be stored at any one specified memory location range from 0 to 255(dec)

String Handling

- \$T="THIS IS A STRING"
- PRINT \$T, \$(TOP+72)
- INPUT \$(U+20)
- \$U=\$(TOP+2*36)

Additional Statements

- LINK "address" causes control to be transferred to the SC/MP Machine Language Routine starting at "address" which is a decimal number
- REM - This statement is used to insert comments into the NIBL program
- END - this statement is useful for inserting breakpoints into the NIBL program while it is being debugged. When NIBL encounters an END statement, it prints a break message and the current line number, and returns to edit mode

Message	Description
CHAR	Character after logical end of statement
DIV0	Division by zero
END"	No ending quote on string
FOR	For without next
NEST	Nesting limit exceeded in expression, FORs, GOSUBs, etc
NEXT	NEXT without FOR
NOGO	No line number corresponding to GOTO or GOSUB
RTRN	RETURN without GOSUB
SNTX	Syntax error
STMT	Statement type used improperly
UNTL	UNTIL without DO
VALU	Constant format or value error
AREA	No more room left in current page for program

