



A standard input routine controls the EVB operation while the user types a command line. Command processing begins only after the command line has been terminated by depressing the keyboard carriage return (<CR>) key.

#### 4.5 COMMAND LINE FORMAT

The command line format is as follows:

><commands> [*<parameters>*]<CR>

where:

- > EVB monitor prompt.
- <command> Command mnemonic (single letter for most commands).
- <parameters> Expression or address.
- <CR> ENTER keyboard key - depressed to enter command.

#### NOTES

- The command line format is defined using special characters which have the following syntactical meanings:
  - <> Enclose syntactical variable
  - [] Enclose optional fields
  - [...] Enclose optional fields repeated

These characters are not entered by the user, but are for definition purposes only.

- Fields are separated by any number of space, comma, or tab characters.
- All input numbers are interpreted as hexadecimal.
- All input commands can be entered either upper or lower case lettering. All input commands are converted automatically to upper case lettering except for downloading commands sent to the host computer, or when operating in the transparent mode.
- A maximum of 35 characters may be entered on a command line. After the 36th character is entered, the monitor automatically terminates the command entry and the terminal CRT displays the message "Too Long".
- Command line errors may be corrected by backspacing (CTRL-H) or by aborting the command (CTRL-X or DELETE).
- After a command has been entered, pressing <CR> a second time will repeat the command.



#### 4.6 MONITOR COMMANDS

The monitor BUFFALO program commands are listed alphabetically by mnemonic in Table 4-2. Each of the commands are described in detail following the tabular command listing. In most cases the initial single letter of the command mnemonic or a specific symbol (shown in Table 4-2) can be used. A minimum number of characters must be entered to at least guarantee uniqueness from other commands (i.e., MO = MOVE, ME = MEMORY). If the letter M is entered, BUFFALO uses the first command in Table 4-2 that starts with M.

Additional terminal keyboard functions are as follows:

- (CTRL) A Exit transparent mode or assembler
- (CTRL) B Send break command to host in transparent mode
- (CTRL) H Backspace
- (CTRL) J Line feed <lf>
- (CTRL) W Wait/freeze screen <sup>(1)</sup>
- (DELETE) Abort/cancel command
- <CR> Enter command/repeat last command

#### NOTES

- Execution is restarted by any terminal keyboard key.
- When using the control key with a specialized command such as (CTRL)A, the (CTRL) key is depressed and held, then the A key is depressed. Both keys are then released.

Command line input examples in this chapter are amplified with the following:

- Bold entries are user-entered on the terminal keyboard.
- Command line input is entered when the keyboard <CR> key is depressed.

Typical example of this explanation is as follows:

**>MD F000 F100<CR>**



Table 4-2. Monitor Program Commands

Command	Description
<b>ASM</b> [<address>]	Assembler/disassembler
<b>ASSEM</b>	(same as ASM)
<b>BF</b> <addr1> <addr2> <data>	Block fill memory with data
<b>BR</b>   [<address>]...	Breakpoint set
<b>BREAK</b>	(same as BR)
<b>BULK</b>	Bulk erase EEPROM
<b>BULKA</b>	(same as BULKALL)
<b>BULKALL</b>	Bulk erase EEPROM + CONFIG register <sup>(1)</sup>
<b>CALL</b> [<address>]	Execute subroutine
<b>COPY</b>	(same as MOVE)
<b>DJUMP</b>	(same as MD)
<b>EEMOD</b>	Modify EEPROM mapping
<b>ERASE</b>	(same as BULK)
<b>FILL</b>	(same as BF)
<b>G</b> [<address>]	Execute program
<b>GO</b>	(same as G)
<b>HELP</b>	Display monitor commands
<b>HOST</b>	(same as TM)
<b>LOAD</b> <host download command>	Download (S-records <sup>1</sup> ) via host port <sup>(2)</sup>
<b>LOAD</b> <T>	Download (S-records <sup>1</sup> ) via terminal port <sup>(2)</sup>
<b>MEMORY</b>	(same as MM)
<b>MD</b> [<addr1> [<addr2>]]	Dump memory to terminal
<b>MM</b> [<address>]	Memory modify
<b>MOVE</b> <addr1> <addr2> [<dest>]	Move memory to new location
<b>P</b>	Proceed/continue from breakpoint
<b>PROCEED</b>	(same as P)
<b>RD</b>	(same as RM)



Table 4-2. Monitor Program Commands (continued)

Command	Description
<b>READ</b>	(same as MOVE)
<b>REGISTER</b>	(same as RM)
<b>RM</b> [p.x,y,a,b,c,s]	Register modify/display user registers
<b>STOPAT</b> <address>	Stop at address
<b>T</b> [<n>]	Trace \$1-\$FF instructions
<b>TM</b>	Enter transparent mode
<b>TRACE</b>	(same as T)
<b>VERIFY</b> <host download command>	Compare memory to download data via host port
<b>VERIFY</b> <T>	Compare memory to download data via terminal port
<b>XBOOT</b> [<address1> [<address2>]]	Send program to another M68HC11 via bootstrap mode
<b>?</b>	(same as HELP)
[<address>]/	(same as MM [<address>])

**NOTES**

1. On newer mask sets of MC68HC11, CONFIG can only be changed in special test or bootstrap modes of operation.
2. \* Refer to Appendix A for S-record information.