

## FIRMWARE OPTIONS ON MAIN BOARD

The Triton Main PCB has room for 4K of firmware resident in 2708 (1K x 8) UV erasable eproms. Space is provided for four of these chips and the options are as follows.

### L4.1 MONITOR & BASIC COMPRISING A SET OF THREE CHIPS

#### TRITON READY

#### FUNCTION? P G I O L W T

##### 1K Monitor

Provides for 2 front panel interrupts allowing screen clear/cursor reset and re-initialisation without clearing memory plus master reset and pause.

**P** For programming in machine code from specified start address in memory-examine or modify.  
**G** For "Go" - Running machine code progs from a specified address in memory.  
**I** For "Input" from tape with named file search facilities for program retrieval.  
**O** For "Output" to tape - asks for program name and outputs basic or machine code progs to tape.  
**L** For "List". Lists machine code from a specified address - screen full at a time.  
**W** For "Write" turns Triton into a video typewriter and typed messages appear on the screen.  
**T** For "Tiny Basic" monitor jumps to tiny basic and the interpreter takes control.

##### 2K Basic Interpreter

Provides the following commands and functions.

ABS IF NEW RETURN STEP  
FOR INPUT NEXT RND STOP  
GOSUB LET PRINT RUN TO  
GOTO LIST REM SIZE VDU  
ARITHMETIC AND LOGIC OPERATIONS  
(INTEGER ONLY) DIVIDE MULTIPLY  
SUBTRACT ADD GREATER THAN LESS THAN  
EQUAL TO NOT EQUAL TO GREATER THAN  
OR EQUAL TO LESS THAN OR EQUAL TO.

Programming in a high level language is now possible. With clear and precise prompts and default statements. The L4-1 monitor and basic is the one supplied with the Triton Main PCB unless otherwise specified. User documentation is supplied in the Triton Manual.

### L5.1 MONITOR & BASIC COMPRISING A SET OF FOUR CHIPS

#### FUNCTION? P G I O L W T R C A D H V M B

##### 1.5K Monitor

A new more powerful monitor developed to use Tritons potential to the full as a tool for program development.

**P** Modified from L4.1 to step backwards as well as forwards through memory.  
**G** Same as the L4.1 version above.  
**I** Modified from L4.1 version to print out the header codes of programs when found on tape.  
**O** Same as the L4.1 version above.  
**L** Same as the L4.1 version above.  
**W** Same as the L4.1 version above.  
**T** Vectored jump to new extended tiny basic L5.1 (see opposite).  
**R** Register dump of all 8080 registers for inspection or modification.  
**C** Continue command to continue from a break point in m/code program.  
**A** ASCII string "input" to a specified address in memory.  
**D** ASCII string "display" from a specified address in memory.  
**H** Hex dump of memory contents between specified limits in memory.  
**V** VDU switch - switches output from VDU to printer - selectable Baud rate.  
**M** Monitor control for cassette motor on and off.  
**B** Base number conversion from hex to decimal and decimal to hex.

##### 2.5K Basic Interpreter

New extended Tiny Basic L5.1

Allows interactive programming, inputs, outputs and editing in the basic mode.

As L4.1 Basic but includes the following extra commands and functions.

<b>Read</b>	Allows data to be read in from any port in real time in basic.
<b>Write</b>	Allows data to be written out to any port in real time.
<b>Peek</b>	Peek a value from any address and return it into the program.
<b>Poke</b>	Poke a value into an address to modify program or data.
<b>Call</b>	Call up a machine code subroutine from basic and return to basic.
<b>Edit</b>	Edit, insert, delete or modify a line without retyping.
<b>Spare</b>	User definable extension to basic look up table for your own extensions.

L5.1 Monitor and Basic can be supplied as standard or to upgrade from L4.1 we simply erase and reprogram the eproms - see price list. User documentation is supplied separately.

Complete listings of the L4.1 and L5.1 firmware are available on request.

Note a version of the L5.1 monitor is also available to run at a master cycle speed of 18MHZ; this also requires an 18MHZ crystal in place of the 7.2MHZ crystal of the standard unit.