

## LOADING THE SPECTRUM MONITOR

Connect your Spectrum to a T.V., cassette recorder, and ZX printer if you own one, as described in the Sinclair manual, and switch on.

The MONITOR loads from cassette in the same way as a Basic program. Set the volume control to about 1/2 volume and set the tone control to maximum treble.

Type LOAD "Monitor 16" or LOAD "Monitor 48" according to which side of the cassette you are loading, or simply type LOAD " ". Start the cassette in play and press ENTER. As with all commercially recorded cassettes, you may find that you have to experiment until you find the optimum replay level for this tape. Make a note of the volume setting you find successful, for future use. The chances of a bad load are reduced if you observe the following:

- 1) Regularly clean the record/replay head of your cassette recorder, using one of the proprietary cleaning kits.
- 2) Clean the rubber pinch wheel and the capstan spindle that it makes contact with.
- 3) Use a cleaning kit supplied with a liquid cleaner that you apply with a cotton wool swab. This type is far more effective than the cleaning cassette type.
- 4) Disconnect the 'Mic' lead to the cassette recorder when loading.

If you should experience difficulty in loading your copy of the MONITOR, or if you accidentally damage your tape, please return the cassette to Picturesque (the address is on the front page of this book). Your cassette will be re-recorded directly from our ZX Spectrum, and sent back to you by return of post, along with postage stamps to cover your postage costs. We believe such a back-up service to be an essential part of our trading standards.

## ACCESS TO SPECTRUM MONITOR

Having successfully loaded, the MONITOR automatically relocates itself to the correct part of memory, resets Ramtop to below itself, and displays a message to this effect on the screen. This screen message shows the correct form of address to access the MONITOR, depending on which version is loaded.

RANDOMIZE USR 30479 (for 16K)  
RANDOMIZE USR 63247 (for 48K)

You can access the MONITOR from Basic in this way at any time, which will produce the following message at the bottom of the screen, in addition to whatever was already there:

Press BREAK for Monitor

On pressing the Break key (shifted or unshifted) the screen is cleared, and the prompt and cursor appear at the bottom of the screen. The MONITOR uses its own internal stack to make its use transparent to your machine code program. These functions will be explained more fully later.

## PROMPT & CURSOR

The prompt ( **▣** ) indicates that the MONITOR is waiting to be put into a command mode. It does not appear at the start of every line of the display, but only appears when a command routine has ended, and the MONITOR is waiting for a new command instruction. The flashing cursor is visible for the majority of the time, and indicates a request for a keyboard entry, and shows where the result of that keyboard entry will be displayed on the screen.

## COMMAND MODES

The range of commands offered by the SPECTRUM MONITOR are as follows:

- M Display a memory location and its contents, and change its contents.
- X Escape from a command mode to the start of the MONITOR, (Operates on all command modes except R and K.)
- A Move an area of RAM to a new location.
- F Fill a specified area of RAM with a specified byte value.
- I Insert up to 255 bytes into a machine code routine.
- D Delete up to 255 bytes from a machine code routine.
- J Jump to specified address, and start executing the routine there.
- B Set a Breakpoint in a machine code routine, to return control to the MONITOR.
- K Restore codes after a Breakpoint has been passed.