

APPENDIX B — REFERENCES

1. Sinclair ZX Spectrum BASIC programming manual, Sinclair Research, 1982.
2. Sinclair ZX Spectrum Introduction booklet, Sinclair Research, 1982.
3. Oxford Illustrated Dictionary, Oxford Univ. Press 1962.
4. Mostek Z80 and PIO databooks.
5. Mostek 1980 memory databook and designers guide.
6. Texas Instruments, TTL Databook, 1980.
7. Ferranti Semiconductors, Quick Reference Guide 1981.
8. Zilog Microcomputer Components Data Book, 1980.
9. National Semiconductor, Linear Databook, 1980.
10. National Semiconductor, CMOS Databook, 1981.
11. Ferranti Electronics Ltd., Data Converter Handbook, 1980.
12. J.C. Nichols, E.A. Nichols and P.R. Romy, Z80 Microprocessor Programming & Interfacing Book 2, 1981.

Machine code — a program in binary which the CPU can understand directly.
Memory — the devices in which all of the information about BASIC and programs is stored.

1MHz — a frequency of 1 million oscillations per second.

Peripheral device — some device connected to the CPU. The keyboard and cassette recorder are both peripheral devices.

Refresh — an operation which must be performed regularly on certain types of memory if they are to retain their stored data.

RAM — random access memory can be read from or written to at any address by the CPU. Two types are commonly used, static which does not need refreshing and dynamic (as used in the Spectrum) which does.

ROM — read only memory, as the name implies can only be read from but not written to. The BASIC operating system in the Spectrum is stored in this type of memory.

State — an input or output can normally only be in one of two states, 0 or 1 (" but see tristate).

Transducer — a device which converts some physical quantity such as speed, air pressure or temperature into an electrical signal suitable for processing by a computer.

Tristate — sometimes several outputs from different chips can be connected together. So that their data cannot conflict by having a logic 0 and logic 1 state connected together (shorting the power supply through the chips!), all but one of the outputs would be placed in a tristate condition. The tristate outputs can then be either a 1 or 0 and it doesn't matter.

ULA — uncommitted logic array. Mass produced device which can be committed to perform a particular function in the final stages of manufacture.

Zener diode — used to stabilise the voltage across it at some level defined by the diode characteristics.