labelled A, B, C and D. The drive casing is the same solid plastic as the computer, and operation is extremely quiet by comparison with some business machines that sell at twice the price.

On the back of the drives is a pair of RS232 sockets, one to connect to the 480Z and the other to allow devices to be 'daisy-chained' together; these also have their own mains power supply. The disk filing system, which manages the transfer of data to and from the computer, is fitted inside the disk drive casing, rather than within the computer. This use of 'intelligent' disk drives means that the computer can be doing other things while the disk management is left to the drives themselves — thus conserving the memory for system use.

When the machine is switched on, the user is prompted either to enter the ROM-based extended BASIC, or to see the HELP menu. Pressing H (for Help), displays the list of available ROM-based options. These are mainly concerned with the input/output system. The operator can choose to load systems programs from either cassette or disk, or boot the network system. The cassette speed or the printer options can also be selected. There is a Front Panel option (essentially a memory monitor), which enables the user to examine and alter the processor registers and the memory locations. Associated with this option is the Jump command; this allows control to be passed to an address in memory. For example, the command J103 passes control to the warm start vector.

SCREEN RESOLUTION

A number of screen resolution modes are available to the 480Z. These range from the 80 by 25 text screen to the 640 by 192 ultra-high resolution display (although this can support only two colours on screen). There are a further three colour modes — which, in medium resolution, support the full range of 16 colours.

Like the 380Z, the Link 480Z uses the Z80 microprocessor. This enables the computer to run a wide range of available software, including, of course, the CP/M operating system. The availability of software was possibly the prime reason why Research Machines decided to stick with this chip rather than adopt a more modern processor. Although the company claims software compatibility between the 380Z and 480Z, some software called from BASIC generates a disk error when the 480Z attempts to read the disk.

Inside the machine, provision has been made for the addition of extra chips. Although this facility is not comparable with the 380Z, which is designed so that extra boards can be easily fitted, it does mean that extra ROM-based applications can be added — such as a digital-to-analogue converter to enable the accessory port to be connected to an analogue device.

Included with the computer is a systems disk, which includes a number of demonstration programs, a version of BASIC with disk-handling commands and the CP/M operating system.

The design of the Link 480Z seems to suggest
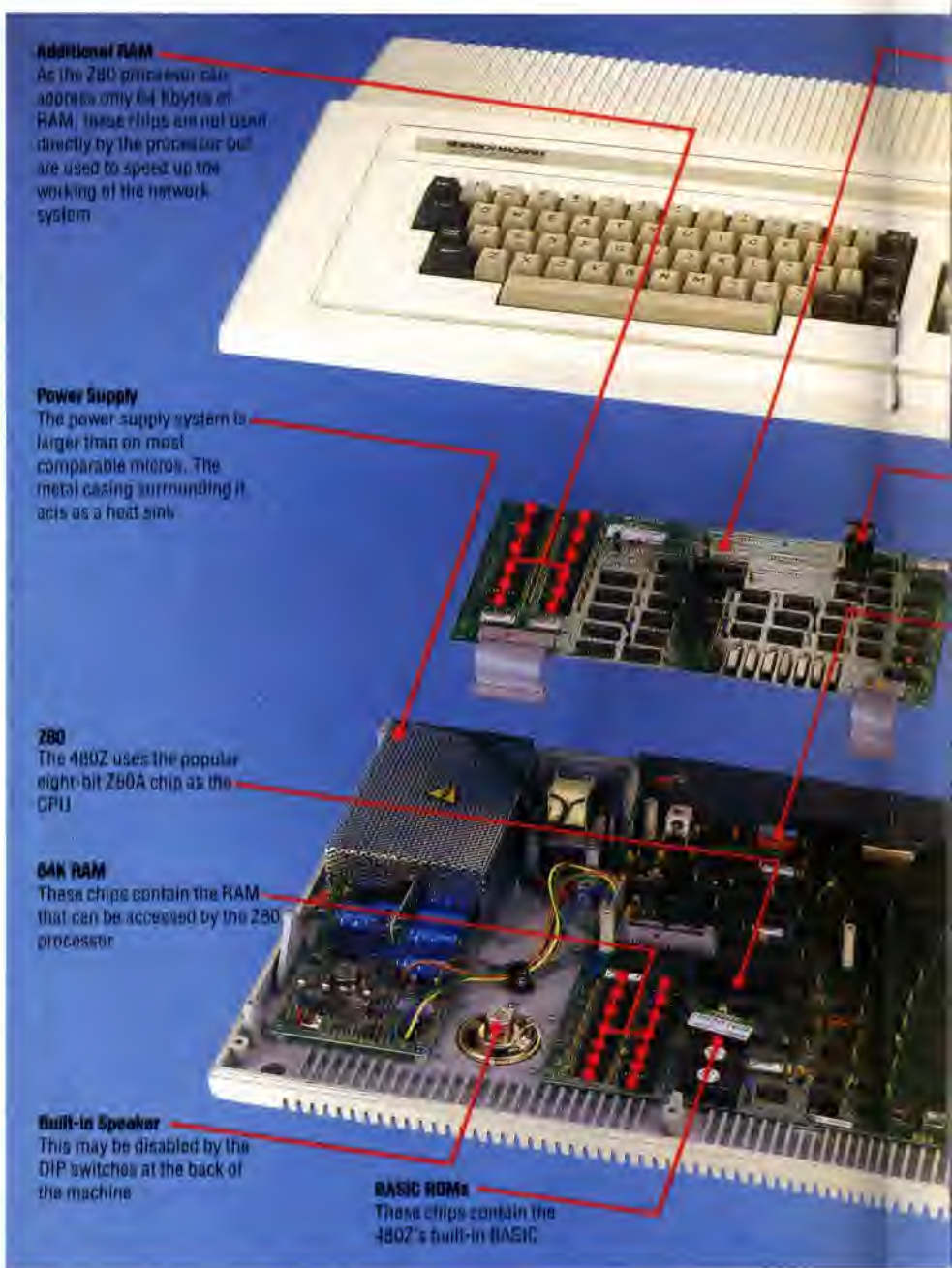
Additional RAM
As the Z80 processor can address only 64 Kbytes of RAM, these chips are not used directly by the processor but are used to speed up the working of the network system

Power Supply
The power supply system is larger than on most comparable micros. The metal casing surrounding it acts as a heat sink

Z80
The 480Z uses the popular eight-bit Z80A chip as the CPU

64K RAM
These chips contain the RAM that can be accessed by the Z80 processor

Built-in Speaker
This may be disabled by the DIP switches at the back of the machine

BASIC ROMs
These chips contain the 480Z's built-in BASIC

Twin Disk Drive

Each drive is double-sided, giving a total of four sides that can be accessed. These are labelled A,B,C and D following CP/M convention. The drive accepts double-density disks, enabling the machine to store twice as much information on one side of a disk. In addition Research Machines has produced a quadruple-density drive