To the rescue

The beauty of the Z88 has been flawed by its lack of Eprom storage. Andy Redfern reports on the RangerDisk, a 3½in battery-powered disk drive that saves the day.

The Z88 has a certain appealing simplicity that gives it the edge over many of its competitors. No extra equipment is necessary and everything is packaged into 2lbs of plastic and electronics. But the one feature that still annoys me is the Eprom storage. How many times has the innocent message 'No Room' popped up or the battery low symbol appeared after saving a file to Eprom.

While Cambridge Computers thinks up a solution to the problem (probably based around 2in floppy disks), Ranger Computers has come to the rescue of frustrated users everywhere by launching a 3½in battery-powered disk drive for the Z88.

The RangerDisk consists of a Z88 Eprom cartridge containing a file manager, a serial cable and a small oblong box holding what amounts to an IBM compatible machine.

The box itself is 7ins deep, 5ins wide and 2½ins high. Sturdy and made of aluminium, its interface port, controls and the drive itself are located in the front and back plates. The unit weighs about half as much again as the Z88, checking in at around 3lbs. Apart from the disk drive itself the front panel has power, battery low and disk usage LEDs, and a main power switch. The power is provided either by a 9V external power supply or a pack of six Duracell MN1500 alkaline batteries. These are inserted in the machine through a rear-mounted panel held on by two secured thumb screws.

The disk drive has a 720k capacity and is MS-DOS 2.1 compatible. As all versions of MS-DOS above 2.1 are backwardly compatible, this should present no problems to users of the more common 3.2 and 3.3.

Inside the box is a DOS emulating computer without a keyboard or screen. The disk drive is a standard NEC 3.5in device that uses the ubiquitous Western Digital floppy disk controller. The system functions are stored in ROM and the Hitachi processor is similar to the one used in the Psion Organiser.

The connection to the Z88 is made through the serial port on the right of the machine. The cable supplied is one metre long, which is usually adequate.

The next crucial element to the system after the DOS compatibility is the software that controls the drive on board the Z88. This has to be able to provide all the usual DOS functions such as renaming and erasing files and formatting disks, as it is not safe to assume that everyone who buys the unit will have access to a DOS machine. The software is shipped on a 32k Eprom and will work in slot 2 or 3.

The program can be run by selecting it off the menu or by typing the keyboard short-cut □ZD. Once run the application takes over the whole screen and is designed to appear similar to the Z88's own filer. The left side of the screen contains the menu items, while the rest indicates lists on the files in the default RAM drive and on the current disk in the external drive.

Functions provided

The menu options and their actions work in a similar way to the filer. This makes using the program very simple except that, most annoyingly, the ESC key doesn't return you to your application. You have to press the index key or use a □ key combination.

The package allows both the Z88 default device and the disk contents to be catalogued. The disk catalogue shows the file names, the time and date stamps, the attribute status and the file size. The next two menu items allow the Z88 device and directory to be changed.

Files are sent to the disk using the Save To Disk option and retrieved using the Fetch From Eprom command. The Change Disk command will be needed whenever the disk is changed or if the connection to the drive is broken. Once the program thinks the disk isn't available it doesn't waste time trying to find it again until Change Disk is selected, when a new connection will be attempted.

Ranger has provided what amounts to four DOS-style commands to manipulate the disk. Files can be erased, renamed and viewed and, perhaps most importantly, disks can be formatted.

Performing a file operation is simply a matter of selecting the file or group of files and invoking the command from the menu, the keyboard short cut or the list of commands that will appear when the menu key is pressed. When a connection to the disk drive has been established, a window appears giving information about how long the current file is and how many bytes have been transferred.

In use

The most important and limiting feature of this product is the throughput of data between the two devices. For some reason the drive has been set up to work only at 9600 baud, even though the Z88 serial port will, in theory, drive up to 38,400. Ranger says the problem is at the Z88 end as it leaves excessive pauses at the higher speeds.

To transfer a 22k file from the disk to the Z88 took 38 seconds, while the reverse process took seven seconds longer. Although this is not a startling performance, the constantly updated count of the number of bytes transferred gave the impression of speed. For transferring the odd file this will not be a problem, and even with the biggest Z88 system I've seen, anyone using a complete system download would only take just over 10 minutes.

The other disk functions work fast and well apart from formatting, which, although reliable, takes over two minutes to complete. But as most users will only be transferring text files onto disk, the number of disks they use should be limited. In fact, I used one disk for the whole review period. One final point to bear in mind is that a 45k ASCII file took 70 seconds to transfer from the disk to the Z88 and then took another 42 seconds just to be loaded into the Pipedream word processing package.
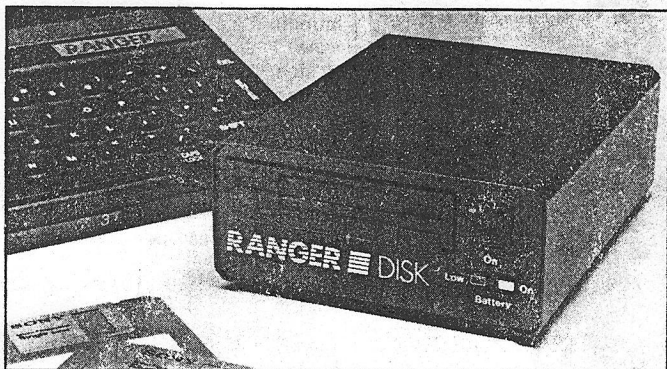
A worthy product but for whom?

At £450 the Ranger product is not cheap but as it would cost you £300 to buy the same storage capacity in Eproms it is not excessive. Most buyers of this product will be in the corporate sector or in small offices where a number of people use Z88s. The drive can provide a simple, convenient mechanism for getting data in, out and between the machines. In this case, the high cost can be set against the number of users who have access to the drive.

The only questions that remain to be answered are would I use it on the move and would I buy it. I wouldn't personally use it on the move as it is bulky and inconvenient for train travel. I think it is intended to be used at your destination or to be left at home as part of a base station. As to whether I would buy it, I'm not sure. If someone else were footing the bill I certainly wouldn't say no, but you can buy a PC compatible for the same price as this drive, and you might consider that a better investment.

RangerDisk is a blessing but you'll have problems carrying it around

Specifications

Disk drive
Price: £450
Includes: drive, cable, mains power supply and file transfer utility, Eprom
RangerDisk is available from Ranger Computers on (0604) 791064.

Next month: Wordmongers' Superchip 4 — a database, a comms package, an outliner and tape back-up system all on one chip!