THE CGRS MICROTECH

PEDISK 8 IS GREAT!

PEDISK 877-1 8 INCH DISK DRIVE FOR CBM

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While much of the world seems to be enthralled with the Commodore 64, there is one company which continues to support the PET/CBM series of computer -- cgrs MICROTECH of Langhorne, Pennsylvania.

The products they produce are numerous, and each one is outstanding in its class. The three which I own are the COMPACK (communications package which includes a communications board with STCP software), the ROMSWITCH, and the PEDISK system. In this review, I will outline the PEDISK 8" system. Essentially, this review is to say that the product is outstanding; more on that later.

The reason I bought this product is an interesting story. When writing a major program for work, I ran out of memory on my CBM 8032. In itself, this was not a major problem; this can be easily overcome by chaining programs from disk. However, I decided to start to look around for memory expansion products. There were basically two choices: the Commodore 64K Ram expansion board and the MADISON Computer Z-RAM board. The Z-RAM board seemed to offer more for the money, mainly by offering the option of CP/M. With a little help from The Information Connection in Ottawa, the Z-RAM board was installed. As one discovers with memory expansion, unless you understand bank switching and assembly language, the memory doesn't just increase -- you have to work with it. It did nicely expand the available memory for VISICALC to 80K.

It was at this point I read a small-print advertisement in MICROCOMPUTING for cgrs MICROTECH'S PEDISK system with a small note about compatibility with standard 8" CP/M using the Z-RAM board. For those of you not aware of it, CP/M standard is 8" floppy disk using single-sided, single-density disks. The fact that CP/M software is available for Apple, Osborne and Heath is due to the fact that the software producer has chosen to produce it in a particular format. One can get all kinds of CP/M software on Commodore format to work with the Z-RAM board, but it is available from limited sources; in Canada, you can get it from the Z-RAM distributors (Computer Workshops) and in the U.S. from Lifeboat Associates in New York City. But you'll pay! All of the sales for CP/M software that one reads in MICROSYSTEMS, INFOWORLD are on 8" format. This seemed to be the answer.

To make a long story short, I ordered the PEDISK 877-1 8" single drive from AB Computers in Colmar, Pennsylvania along with the PEDISK/CPM software. The total cost came to $995 (US) for the drive and controller card and $99 for the software.

The Disk Controller Card

The disk controller card sits in the $e000 rom slot on the CBM board. It consists of the following. A ROM chip which acts as the controller, a space in which to place the existing Commodore chip, and a location in which to place the disk cable. There's nothing to installing the board and the instructions are excellent. What MICROTECH doesn't like to tell you is that they will sell you the controller card by itself (about $400 US) and then you can go buy your drive from some of the discount outlets like JADE.

The Disk Drive

The drive is a standard Siemens 8" drive. It is beautifully configured by MICROTECH. If there is any problem with 8" drives, it is that they are noisy. They are constantly spinning; MICROTECH

provides you with a software technique which can quiet the drive so that it only gears up when it is needed; otherwise, you certainly know that you own an 8" drive. The drive uses both SSSD and SSDD disks. There is certainly no need to spend the extra bucks for double density disks.

The Software

If you order the PEDISK system without the Z-RAM board, then what you have is an alternative to the Commodore disk system. I am not sure that I would recommend this particular approach. It's not that the drive isn't excellent and blows the doors off of Commodore drives; it's just that there is a limited amount of available software on the PEDISK format to use with the Commodore system. There's Moser's MAE, the COPYWRITER word processor, Riley's FLEXFILE, but not much more.

When you want to put the drives into operation, you do a SYS59904 and you get a cgrs MICROTECH greeting; you also lose the top 2K of RAM. If you only have a single PEDISK drive, like I do, then you have to make sure that you have copied over the utility programs which will occupy a couple of sectors of the 77 tracks on the 8" disk. I could go into all of the details of how you can disassemble computer or disk memory, get the directory, etc., but that's not the point of the review.

When you program using files on the PEDISK, you essentially use the same techniques as CBM DOS. You have to open the file, but you place an exclamation mark in front of each statement to tell the machine language program up in high memory that you are talking to PEDISK. For example, you !open a file, !input a file, !print a file, etc. You can use relative files, sequential files, and program files.

I guess the question is "Why use the PEDISK?" For a serious programmer, it has the advantage of speed -- incredible speed. Instead of data travelling over the IEEE bus, it is dumped straight into memory at the rate of 250K bits per second, or 30K bytes per second.

When you buy the PEDISK CP/M software to go with the Z-RAM board, you get an awfully powerful system which, really, doesn't have a lot to do with Commodore. The moment you boot the Z-RAM disk (with a 4040 drive), the following happens: Commodore drives 0 and 1 become CP/M drives A and B; second, the PEDISK becomes drive C. If you are using an 8050 then Commodore drives 0 and 1 are still drives A and B, but the PEDISK becomes drive D, allowing for the installation of another drive. There is software on the disk which allows you to configure a second set of dual drives as device 9. All very good and incredibly powerful.

Right now, for example, I am using NEVADA COBOL and JRT PASCAL compilers on my Commodore system. There have been no hang-ups or problems; everything compiles beautifully. This will also open up a chance to consider DBASE II, WordStar, and all of those other "things" we see in magazines.

Summary

I can't say enough good things about the people at cgrs MICROTECH. Whenever I talk to them on the telephone, they are kind and helpful. In one case, they called me (at their own expense!) to get some information from me. The PEDISK system is great; in fact, on my next trip to the Philadelphia area, I intend to buy their 8" dual disk drive system, since the controller system can address three drives. I have no doubt that, when the time comes, they'll help in making the drives another part of the CP/M system.

Should you buy the PEDISK system? If you are using your computer for software development, then of course, you should. Remember, you can store 250K on the 8" disk and you can easily transfer programs back and forth between PEDISK and Commodore drives. If you are using your computer strictly to take advantage of available software (e.g., text editing, data management, games), then stick with the Commodore drives or Commodore compatible drives. ✱