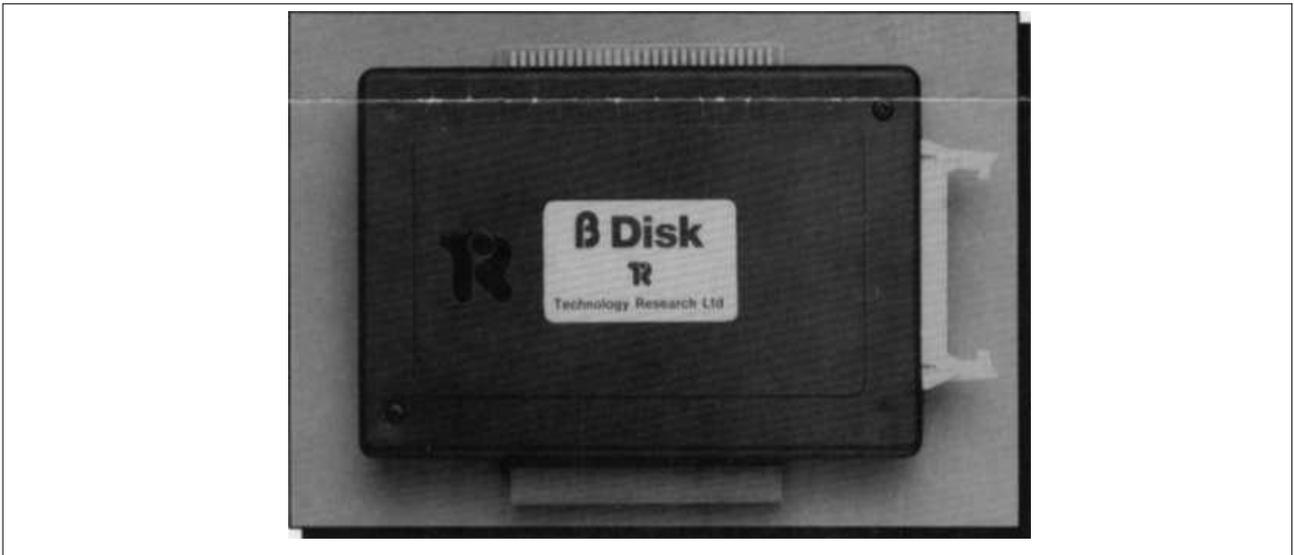


# FLOPPY DISK SYSTEM FOR SPECTRUM

## B Disk

Disk Operating System in EPROM	Uses Spectrum keywords
Uses ONLY 128 bytes of Spectrum memory	Locates below BASIC programs
BASIC programs can be merged	Random access facility
Duplicated Spectrum connector is provided	Password protected
Supports up to THREE disk drives	Friendly to use
Compatible with 40.80, tracks, single or double sided disk drive	
Up to 400K storage for 80 tracks, double sided disk drive	



### Some of the commands are

ERASE	To delete a file
LOAD	To load a file from disk to Spectrum
SAVE	To Save a file onto disk.
RUN	To load and execute a program
MOVE	To reorganise the location of files and pack them together
NEW	To change the name of a file on disk
USR	To change disk password
CAT	To display the filenames in menu form
A: B: C:	To select the disk drive to be used
RETURN	To return to Sinclair BASIC
RAND USR	To go into Disk Operating System
PEEK	To Random read from a file
POKE	To Random write to a file
MERGE	To combine two or more BASIC programs together

## Disc interface takes the waiting out of wanting

OWNERS of the Spectrum who want a fast method of data storage have, until recently, had to wait for the chance to buy the elusive Microdrive. Technology Research Ltd, however, has now taken the waiting out of wanting by announcing the latest version of its floppy disc interface. It will accept up to two 5.25. drives in either 40 or 80 track, single or double sided format and is complete with a utility disc. The interface is in the inevitable black box which fits into the user port at the back of the computer and has a through port for other addons. A socket on one side takes the cable to the disc and in the back left-hand corner is a socket for the Spectrum power supply. Unusually the box lies flat and out from the computer rather than standing up; that presumably is to aid stability but if, as is the case with this reviewer, your spectrum is housed in a full size keyboard, you could find that the interface ends up being about 1.5cm off the desk. An empty matchbox placed under the back edge of the interface solves the problem. Inside the box are two PCBs; the lower one takes the signals across the board to the extension at the back and also houses the power socket and

associated chips. The other contains the majority of the electronics, the disc operating chip - a 1771 - a 4K EPROM and the socket to the disc. The socket is suitably buffered so that the disc lead can be removed without crashing the system, a useful feature for BBC computer owners as it is wired to the same standard. On power-up, the interface loads the contents of the EPROM into the upper 4K of memory and re-sets RAMTOP to below that. In the version for the 16K Spectrum the program, or more accurately the disc operating remains in the interface, but otherwise the two versions operate in much the same manner. There is a complete range of commands which all have to be typed-in in full; you



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Cannot use Sinclair keywords. The DOS gives a temporary C cursor automatically and will not recognise lower-case commands as it differentiates between the two. SAVE will save either Basic or machine code but not variables. If the program name is preceded by a \$ sign a Basic program is saved; when loaded back it RUN from line 1. For machine code the name must be followed by three hex digits which denote the start, finish and autostart addresses of the code. The only time the system was made to crash was when trying to save a Basic program with the \$ sign omitted; all other errors were trapped successfully by the system. Two levels of protection exist for the user. First there is a password, which is held

On the disc. After a new disc has been formatted, using the program on the utility disc, the directory must be initialised using the UNIT command. The disc will then take the name of the current password. That name cannot be changed without erasing the disc. Second, every interface contains its own code number and while initialising or later using the LOCK command it is possible, if required, to store it on the disc so that only the interfaces used to save a program can load it back. The interface proved to be very easy to use and also reliable, apart from the instance mentioned. Almost any Basic program can be saved; only machine code programs which use the upper 4K of memory present a problem and they are fairly rare. Business software is being written to use the interface. Priced at £85, the interface is rather expensive but it allows the use of disc drives which are not dedicated to one machine. Also if used with an 80-track double-sided drive it can give 390K per disc at less than £2 a time. Further information from Technology Research Ltd, 356 Westmount Road, London SE9 INW. Tel: 01-8568408

## PRICE LIST

		PRICE	
Beta disc	Interface unit with Disc operating system in EPROM and edge connector for further card e.g. Printer. Utility disc is included	£85.00	
Cenprint	Centronic printer interface for Spectrum, DISC DRIVE FOR FDC-1	£29.00	
DDS	Single drive cased with own power supply, single side, 40 tracks, 5.25"	£195.00	
DDT	Twin drives cased with own power supply. single side, 40 tracks, 5.25"	£335.00	
CABLES			
CAS	Single drive cable. (Free when order Drive and Interface)	£10.00	
CAT	Twin drive cable. (Free when order Drive and Interface)	£15.00	
CAC	Cable for CENPRINT	£12.00	
DISKETTES			
	Box of 10 Diskettes	£18.00	£1.00
	*AIR POSTAGE AND PACKAGING - Interface	(£5.00)	
	Interface St Disc Drive (£10.00)	(£10.00)	
	Others + above	(add £1.00)	

\*PRICES EXCLUDE VAT

\*AIR POSTAGE AND PACKAGING APPLIES TO OVERSEAS ONLY.

\*PRICES ARE SUBJECT TO CHANGES WITHOUT ANY NOTICES.

MARCH 1984