ON THE DOUBLE

Are Solidisk's low-cost double-density disc filing systems too good to be true? asks Chris Drage

Solidisk DDFS with 2.0 DFS £48.95
Solidisk DFDC with 2.0 DFS £54.95
SOLIDISK Technology (of sideways RAM board fame), retails two double-density disc filing systems (DDFS) at prices which make even a confirmed sceptic sit up. As most current DDFSs cost over the £100 mark, is the Solidisk offer too good to be true?

The smaller of the two boards is purely a DDFS based on the Western Digital 1770 chip (also found in the BBC B+). The second board, DFDC (dual floppy disc controllers), enables users to switch between the Acorn (single-density), 8271 and the WD1770. The DFDC system is designed for people who may wish to upgrade their Acorn DFS to take advantage of the double-density mode. The house-keeping routines of both systems are controlled by the Solidisk DFS 2.0. Existing users who have an earlier version of this DFS (1.4 to 1.8), should upgrade their firmware, as Solidisk claims the 2.0 has all reported bugs corrected.

Installing the DDFS board entails plugging in two buffer ICs, two jumpers, the controller board and the EPROM. The DFDC differs slightly in that the two jumpers are replaced by a pair of flying leads which must be either soldered or 'pushed' into the socketed legs of IC 86 and 87. It also has a switch to facilitate the selection of each controller chip, and this can be mounted in the Beeb's Econet 'hole'.

The installation of the boards lets down an otherwise excellent system. Cheap components and bare single-strand leads can result in problems for the inexperienced. If Solidisk provided header sockets for the leads on the DFDC board it would be doing everyone a favour including itself! The jumpers on the DDFS board can also cause problems — I recommend anyone interested in this system to purchase a pair of turned pin sockets to avoid the risk of damaging the Beeb's sockets. Solidisk does employ a number of 'local experts' around the country who will install their system free of charge and give advice on any problems.

Once up and running each system performs as it should. The double density feature allows 16 sectors per track (as opposed to Acorn's 10). This

60 per cent improvement in storage translates to 160k and 320k for 40 and 80 track discs respectively. If you are using long data files this is a substantial improvement.

The new 2.0 software is certainly speedy. It defaults to a fast disc access time (6ms STEP, Oms SETTLE), and is tube compatible. A marked improvement in time occurred when I verified discs and tried '*BACKUP'. Overall, the
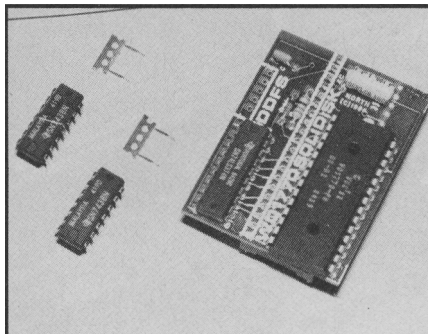
DDFS: worth considering

Solidisk DFS worked about a third faster than normal. As well as improving the speed of the WD1770 FDC, the 2.0 DFS can be purchased separately to improve the performance of the Acorn DFS system. Acorn DFS users simply replace their DNFS ROM with the new Solidisk one.

Perhaps the most welcome feature of the Solidisk 2.0 DFS is the unlimited number of filenames. When the number of files on the current catalogue reaches 31, a new catalogue is created automatically. There is also automatic density and drive-size selection upon catalogue, and the process is transparent to the user.

All the usual DFS commands are there plus a number of useful additions (figure 1). It's good to see a disc formatter/verifier DZAP and MZAP included as standard, and it's a real bonus to have a tape-to-disc copier thrown in! '*SPEED' is included to enable the speed of access, etc, to be altered if you have older, slower drives.

Another plus point is the WRITE-check feature. The Solidisk DFS does a read check every time a file is being saved, ensuring no errors are present on the disc — useful if you've had problems saving long text files transmitted

down the telephone line, for example.

One inexplicable, annoying problem with the review version was that on power-up, drive one would start whirring round even without a disc present. I thought the Acorn DFS was coming back to haunt me! Another grumble concerns the documentation — I wish Solidisk would sort out its manuals once and for all. The manual I received didn't even refer to the DFDC board! I learnt later there is a separate sheet for the DFS 2.0 which includes the installation of the DFDC.

Conclusions

A number of the double density systems on the market are not fully compatible — they do not read some protected discs. The Solidisk system scores very well here — it managed to run *Magic Mushrooms, Cocktail Maker* and *Revs* in WD1770 mode!
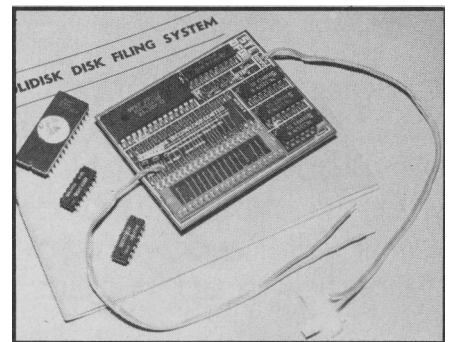
DFDC: particularly reliable

This is one of the most versatile systems around and at a price even humble *Acorn User* authors can afford. The DFDC board has proven to be particularly reliable.

I cannot recommend either system for the inexperienced, however, as there is a risk of unreliability or damage to the Beeb's sockets due to the unprofessional, installation procedures. For those prepared to take the plunge, Solidisk's DDFS system is definitely worth considering if you're after more space on your discs or the Acorn DFS is too pricey for you. With the DFDC board, 100 per cent compatibility is available at the flick of a switch, which could be an important consideration for Acorn DFS users. Overall, I'd recommend it to the enthusiast/hobbiest.