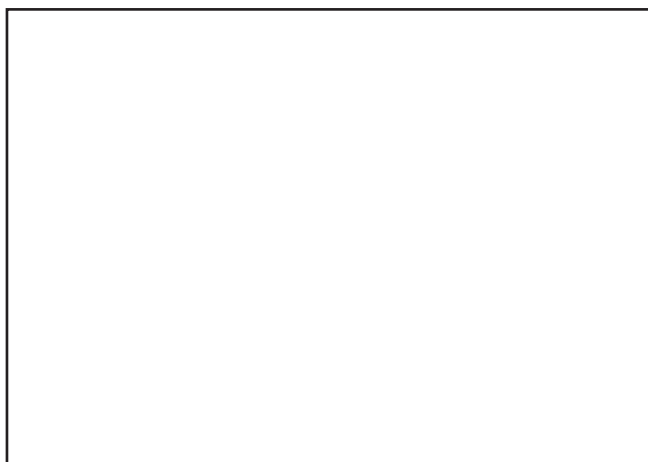


Acorn's Multimedia Expansion Unit

Reviewed by Lee Calcraft



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Acorn's Multimedia Expansion Unit is essentially a fast CD-ROM drive together with an audio preamplifier and mixer, housed in a case the same size as that of the A4000. It will therefore fit neatly on top of an A4000 or A5000, or underneath most other Acorn machines. As you may have read, there is provision within the box for an audio amplifier and for a further 3.5 inch drive such as a second CD-ROM drive or a magneto-optical drive. A suitable amplifier is to be marketed by Cumana Ltd, scheduled for the fourth quarter of 1993, though no price is available at the time of writing.

The idea of packaging these components in a compatible flat-stacking case is an excellent one, and avoids the extra desk space taken up by a conventional drive. The inclusion of the audio is another smart idea. The Expansion unit actually contains a 3-input audio mixer

(although without individual level controls on each input). You can even wire the audio output of the computer into the mixer by taking a lead from the Archimedes headphone socket to phono sockets at the rear of the Expansion Unit.

A further plus is that the drive used in the unit is a Sony CDU 561 double-speed, Photo-CD compatible drive, and has a claimed transfer rate of 300Kb/sec. This is twice the speed of standard CD-ROM drives, and we will see how this works out in practice in a moment. Standard CD-ROM drives are not fully Photo-CD compatible. Given the right software you can only access the first so-called session on a Photo-CD. Exactly how many sessions are used on any given Photo-CD depends in part on the whim of the operator. He may lay down a few images, then go off for a cup of tea, and lay down the rest in a second session. In any case, if images are laid down at different times on a given CD, this will always involve more than one session. To read anything beyond the first session, you need a multi-session compatible drive - and the Sony CDU 561 is just that.

In fact, assuming that you are using CDFS version 2.13 or later (essential for use with the Expansion Unit), your system is termed Photo-CD-ready. This means that when Acorn complete their Photo-CD software in the next few months, following the recent licence agreement with Kodak, you should only need a simple RISC OS application to read Photo-CD discs.

INSTALLING THE UNIT

So how does the Expansion Unit work out in practice? Setting it up is simplicity itself, thanks both to software supplied on the accompanying support disc (though, oddly, this only works with Cumana SCSI cards, not Acorn ones!), and to the SCSI address selector at the rear of the unit. The rear of the Unit houses two 50 way Centronics type SCSI connectors, and these must be connected into your SCSI bus. If your computer does not have a SCSI interface, you will need to obtain one. Acorn can supply a

Cumana-sourced one with the unit for an extra £100. This would be a fast 16 bit interface on a standard podule or an 8 bit interface on a mini-podule.

Once you have done this, just configure the number of SCSI drives, re-boot, and you are away. Place a CD-ROM in the caddy, insert it, and open up the root directory of your drive, just as you would any other drive. In use the Sony drive in the Expansion Unit received for review seemed nice and fast, though comparison timings showed that the drive did not do everything at double the speed of a standard drive (a Sony CDU 541).

SPEED PERFORMANCE

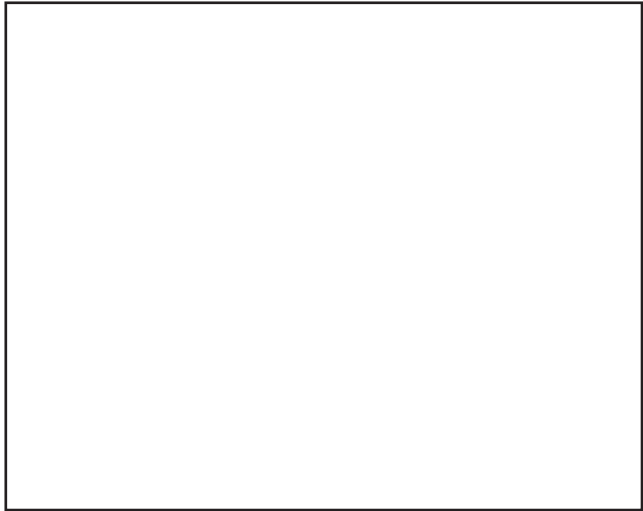
Opening directories on CD-ROMs is generally a rather slow process, and I had hoped that the Expansion Unit would show an improved performance. Unfortunately it gave the same time for opening a directory containing 65 sprites as the standard drive. The only test where the new drive performed significantly better was in loading large files. In the example, I loaded a 690K sprite into Paint. Here the Faster drive loaded the sprite in only 60% of the time taken by the standard drive. But to keep things in perspective, this was still four times as long as my SCSI hard disc took to perform the same feat.

	Hard drive	Sony CDU 541	Exp Unit CDU 561
Load 690K sprite (Paint)	0.9s	5.7s	3.5s
Load 50K text file (Edit)	0.2s	1.5s	1.5s

Table 1. Comparative timings for Conner SCSI hard drive, and normal and fast CD drives. Times are in seconds, with an ARM3 processor with the Desktop in Mode 21, and a 16 bit Acorn SCSI card.

As these tests suggest, while the data transfer rate of the new drive is double that of a standard drive, it has virtually the same access time. This is why the new drive only appears to be faster when loading large files - with small

files, more time is spent locating the file than actually loading it. Acorn are working on an upgrade to the SCSI filing system software which should result in faster directory opening times - and if successful, this will affect the performance of both normal and double-speed



Setting up the Expansion Unit

drives.

AUDIO

The preamplifier in the unit also performed well, as did the large slider volume control on the front panel. The review unit also contained a prototype of Cumana's optional audio amplifier. This has a rated output of 5 watts per channel, and gave some distortion in the middle frequency range on the large speakers which I tested it on. But in defence of the unit, it is

PRODUCT INFO	
Product	Multimedia Expansion Unit
Supplier	Acorn Computers Ltd Fulbourn Road Cherry Hinton Cambridge CB1 4JN Tel. (0223) 254 254
Price	£499 ex VAT £599 with SCSI interface
Product	Internal stereo amplifier
Supplier	Cumana Ltd Pines Trading Estate Broad Street Guildford Surrey

