SLOGGING IT OUT

Bernard Emblem speeds up his Electron with a Slogger RAM board

Slogger's Master RAM board offers Electron micro users a solution to the two criticisms most commonly, if rather unfairly, levelled at their machines, that is their limited speed and memory. Though it is already a reasonably fast machine, the Electron does suffer from speed restrictions when compered with the BBC micro, and lack of memory has been a long standing criticism of both machines.

Although the Master RAM Board offers more dramatic solutions than any other add-on, and at a comparatively modest cost, Electron owners would be advised to think carefully before deciding that increased memory and speed will solve all their problems. Are things ever so simple?

Slogger's 'Unique Guarantee' promises return of your micro within seven days of its receipt by Slogger. However, my machine was away for 15 days and it took a phone call before it was returned with its new switch rattling in the box.

The Master RAM comes on a small board containing a 16k ROM, programmed with a new machine operating system (MOS), which sits inside the micro, and automatically switches out the old Acorn MOS. It is connected to a flimsy switch on the side of the micro, which switches between three modes — Shadow, Turbo, and Normal. Let's examine those modes:

1) Shadow mode: In some modes, 20k of the Electron 32k RAM may be used just to handle the screen, leaving precious little left for programs.

The 'Shadow' principle, as used by Acorn themselves, sets aside some memory to deal with the screen (in this case, the Electron's original 32k RAM), and then provides extra memory (here 32k) to deal with programs. Though some memory is required by the operating system in any mode, this means that programs, whether in Basic or machine code, as well as text files when using ROM chip based databases or wordprocessors, can now be up to ' 28k long. What's more, they'll run faster.

Mathematicians may have realised that, with the original 32k of RAM handling up to 20k of screen display, that still leaves at I least 12k unused. Slogger's inadequate user
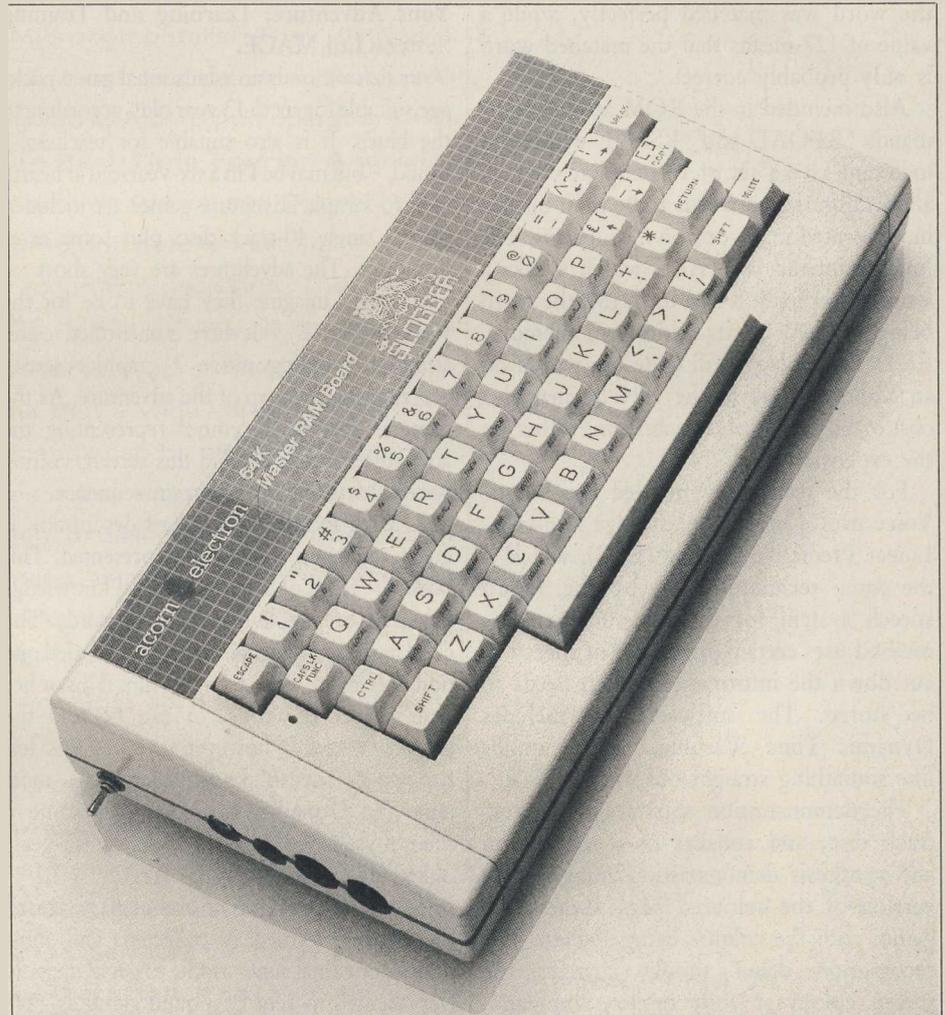
The only signs of the Slogger are the switch and stick-on label

guide suggests that 'the user may wish to use this extra RAM as a printer buffer'. Nice idea, but how do we do it? 'See the section on Technical Information'. Not a great deal of help I'm afraid.

I was pleased to find everything I typed in, all *Acorn User* software I tested, and all Acornsoft's 'Creative Graphics' programs running at BBC micro speed, with extra memory left for enhancements as required. This is a great boon for people who frequently use Electron programs on a BBC micro, and vice-versa.

2) Turbo mode: Games players will, however, quickly discover that very few commercial games will run successfully in Shadow mode, as most of them write directly to the screen, which has, in effect,

moved address. Turbo mode was created for you. The Electron's memory remains unchanged, but the machine runs at roughly BBC micro speed. Slogger claims that the Electron will now run BBC micro games 'where speed was the limiting factor'. Most Electron owners with access to BBC B games will know this is a very limited promise, since very few model B games will run on the Electron.

Slogger quotes *Aviator* and *Strike Force Harrier* as two games which can now be played on the Electron, but I had very little success — two games I tried wouldn't run at all *(Noc-A-Bloc* and *Smash and Grab),* one which used to run slowly wouldn't load *(Wallaby),* and just one was brought up to par *(Chukkie Egg)* . The plain truth is that,
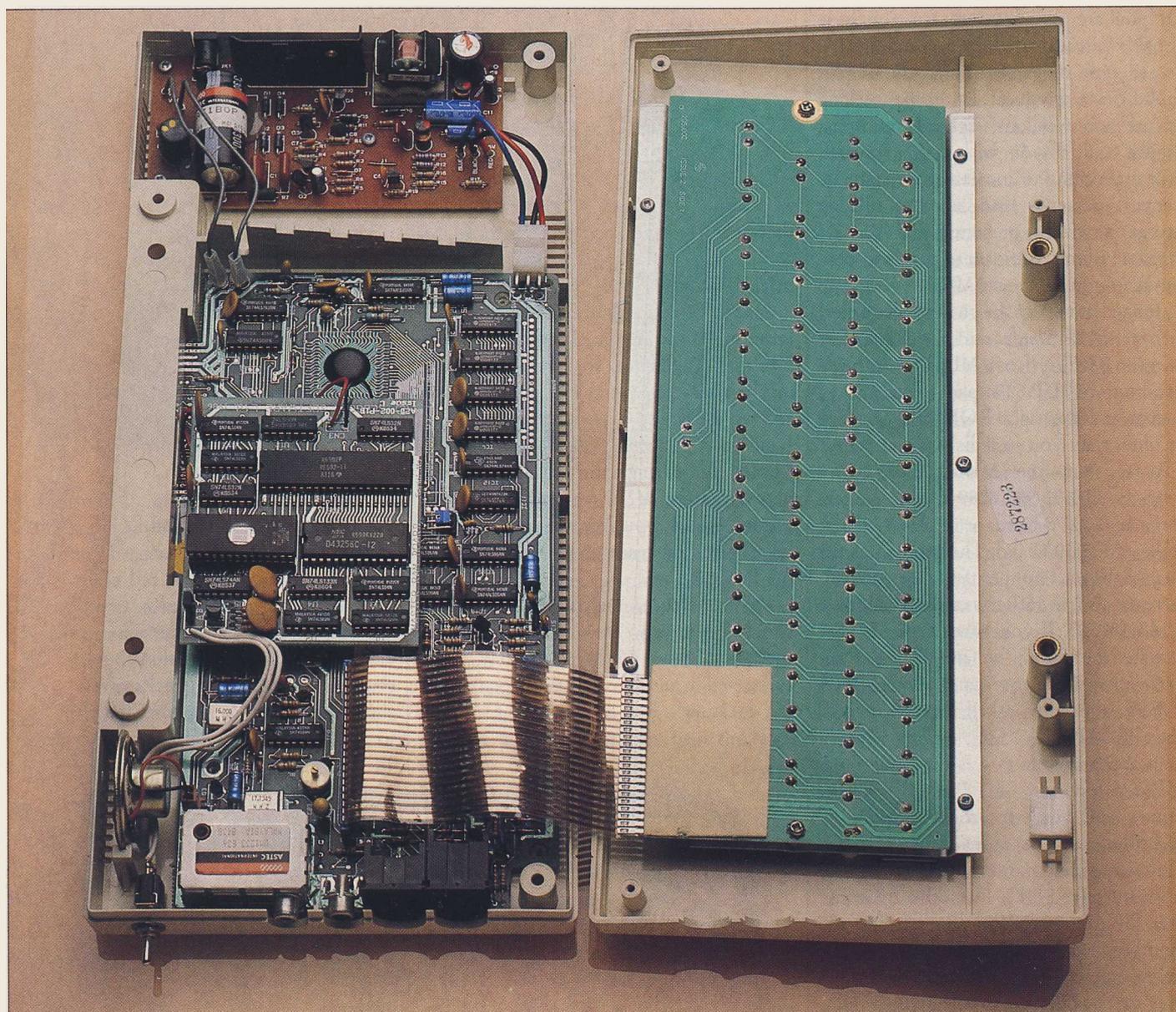
The inner workings of the Slogger

with Electron games now outselling BBC micro versions, most high quality BBC micro games have an Electron version, with the two often on a back-to-back tape, so who needs BBC micro games?

Those who hope the Turbo will give their Electron games a new lease of life can also expect only limited success. Some games seem unaffected by the Turbo mode (Electron *Chukkie Egg, Frak!* and *Citadel),* some won't load in this mode *(Thunderstruck, Felix in the Factory* and *Last of the Free),* some are just that bit faster *(Star Striker, Repton 2* plus several adventure games), while some run ridiculously faster *(Hopper, Snapper, Overdrive* and *Mr Wiz).* The modest speed increases generally improve the games, particularly in the case of

the adventures, where pictures are drawn very much quicker, and commands are interpreted a great deal faster.

For the games which run at Turbo speed, it's a matter of personal choice. High speed *Snapper,* for example, has gone down very well in our house, especially with Fred, our resident *Snapper* addict, but on the whole, I feel most arcade games reach impossible levels pretty quickly, with slow initial speeds being a function of the game design, rather than a reflection of the machine's poor processing speed.

3) Normal Mode: Here the Electron behaves as a standard machine, and will be used by me for most games, while I'll stay in Shadow for serious and home-made software, and use Turbo for adventure

games and playing high speed *Snapper.* The Slogger Master RAM Board delivers the extra speed and memory its publicity promises, but has the drawback of non-standard facilities.

If you need more memory for writing programs to use on your own machine, or for text files, or want to see your programs run at BBC micro speed, you may consider this a sound investment, but if your interest is in games, I'd think carefully before buying — I suspect the novelty of Turbo *Snapper* will soon wear off.

The Slogger Master RAM board costs £64.95 inclusive of VAT installed by Slogger or as a kit without the 6502 processor for £54.95. Contact Slogger Ltd, 107 Richmond Rd, Gillingham, Kent ME7 1BR