



LISP, a language for use in artificial intelligence studies is also available from Commodore. For schools and teachers, COMAL, a structured version of BASIC is available free of charge through our Education department.

If you have software (or want to write some) that requires the CP/M operating system, an add-on board is available.

A good thing has been made better. If you write your own programs, whether you are experienced or just learning you will find some invaluable aids described below.

- Disables the Power Pack for special user purposes.
- Power cursor – all cursor movements and automatic repeat function for insert/delete.
- Renumbers partial or entire program.
- Selects or deselects BASIC keyword expansion.
- Trace modes.
- Allows user to merge two BASIC programs together.
- Searches and replaces within entire programs or given line range.

Price £49.00

Professional Software Ltd  
0707 42184



## PETCLOCK

The Petclock Real-Time Clock-Calendar Type GCC1 plugs into the User Port of any CBM. No wiring or external power supply is required. Accuracy is maintained when the computer system is switched off. A lithium battery has a typical life of 10 years. Software is provided which is easily incorporated into any BASIC or Machine-code program. Date and time may be printed on the screen, returned in a character string for easy manipulation, or saved in any area of memory for further processing.

- Automatic date-printing for business programs.
- Event timing using GCC 1 interrupt outputs.
- 'Date-stamping' programs under development.

Price £62.00

Greenwich Instruments Ltd  
01-853 0868



## CP/MAKER

The CP/Maker is an integrated board which incorporates the Z-80A microprocessor. With the addition of the CP/Maker the Commodore computer can operate with the CP/M operating system (created by Digital Research Inc.)

- Increases the internal RAM of the Commodore computer by 64K.
- Adds Z-80A microprocessor running at 4MHz.
- Runs Z-80 and 6502 processors simultaneously at full speed.
- 9511A math processor is available.
- Operates with CP/M 2.2.
- In memory expansion mode, 32 mappings are available.
- All programs written for the Commodore computer will run when the CP/Maker is in place except those which write to the ROM space.
- Software is included to run printers with RS232 interface.
- Has a 26 pin expansion connector which enables user designed I/O devices to be connected to the Z-80.
- Easily installed inside the computer, it requires no external electrical connections.

Price £485.00

Tamsys Ltd  
07535 56747



## VISIBLE MUSIC MONITOR

This program enables you to compose and replay four-part harmony music on your Commodore computer. Your opus is displayed in real musical notation on the screen. There are full editing facilities so that you may alter the music as you go.

- Programmable wave forms for each voice allow you to create your own sounds.

- User definable keyboard so that notes can be entered in the most convenient way.
- Master mode facility means that pieces or bars of music that are repeated need only be written once. There is full control over the replaying of the piece with transposition and tempo changes possible at any point.
- The package comes complete with sample tunes and digital to analog circuit board that fits into the back of the Commodore computer and interfaces with a speaker or hi-fi system.

Price £45.50  
(cassette version £39.50)

Audiogenic Ltd  
0734 586334/5



## CBM GRAPHICS BOARD

A high-resolution graphics add-on to the Commodore 8032 computers. High resolution graphics are available operating in three different display modes; two pages of 512 by 256 resolution or one page of 512 by 512 resolution.

- The graphics display memory takes none of the computer's address space.
- Graphic and normal displays can be overlaid or displayed individually.
- Additional 25 BASIC commands added to aid in the generation of all types of pictures, from static graphs to moving objects.
- Optional serial line interface with extra ROM software which turns the CBM computer into a VDU. Enables down-line loading so that a host computer can be easily used for cross-assembly.
- Lightpen input.

Price £234.00

Commodore  
Business Machines  
0753 79292

