

# PREMIER PUBLICATIONS

## APRIL 1981 NEWSLETTER

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Here is the newsletter you have all been waiting for! From the number of letters and telephone calls we have received from worried customers wondering if they have been missed, it is quite obvious that many of you enjoyed our last newsletter. This edition contains many new and exciting products which we hope will be of interest to you. We have also included some hints and tips which we think you may find useful.

Some of the new products include CODEKIT (an assembler/disassembler/editor for the UK101/OHIO in an incredibly compact 2K), BASIC FIVE (many new run-mode commands, including PRINT USING), a mini EPROM board for less than £15, and a massive price reduction on our T.E.S. range of hardware. We also have some new software on offer, several new customer services, plus printers and attractive Special Offers.

As you will see if you look very carefully at the print of this newsletter, we have used a printer to produce it this time instead of having it type set or using a typewriter. The printer we have used is the CENTRONICS 737, which has proportional spacing and a useful range of print sizes. It is, in our opinion, the only dot-matrix printer which comes anywhere near to producing letter-quality output. Our two Word Processors, Word Wizard and WORD4WORD have been very useful in the preparation of this newsletter.

You will notice in the newsletter that we are offering 'updated' versions of some of our software. It is our company policy to improve our products wherever possible, but if we do so we ALWAYS offer our existing purchasers the chance to have the latest version for a modest service charge. Please note however, that we will only supply the new version if you return the original cassette.

The price of our T.E.S hardware range has been reduced considerably, but as explained inside, the quality has not suffered! The new range has been designed by Michael Bedford, and is being produced 'In House', hence the new low prices. We hope to publish an increasing range of 16K programs in the future to cater for the many customers who are upgrading. Also, during the summer, many of our popular programs will be converted to run on a 32x48 or 32x64 screen size to cater for purchasers of our Screen Enhancement Kit. If you have already purchased the software in its original form, only a service charge will be required for the new version.

## **POSTAGE PACKING AND DELIVERY**

Our rates are 60p for software (regardless of numbers of programs ordered), and £1.50 per item for HARDWARE (MAX £3). EPROM postage rates vary - details are given in the catalogue. All hardware and firmware is sent insured by either recorded delivery or registered post, depending on value. All products are sent by first class post.

We aim to despatch orders within five days of receiving them, and it is our company policy NOT to cash cheques where the product is out of stock. We try to keep a good stock of all our merchandise, but unfortunately we are at the mercy of outside suppliers sometimes and cannot therefore guarantee prompt despatch.



## BASIC 5

BASIC 5 adds seventeen new BASIC words to your UK101/OHIO, making it one of the fastest, most powerful BASICS around. All these new words can be used within program lines - they are NOT simple immediate mode words. All the commands work at machine code speed, thus providing extremely fast graphics generation capability.

The new words BASIC 5 provides are

VLIN - HLIN - SCR - TEST - SET - BLK - GET - INAT  
PUTAT - GO - GO\$ - PRNTUSNG - GS - GT - RD - WI - CWI

VLIN and HLIN - allow the user to plot vertical and horizontal lines, using any graphic character, virtually instantly on screen.

SET and TEST - provide a single slot plotting system, ideal for graphs, etc.

SCR - provides an instant screen clear OR an instant screen fill of any graphic character.

BLK - allows block of graphics to be created on screen.

GET - really essential for the UK101/Ohio - a non-halting GET-KEY routine.

INAT - allows you to input a response to the screen at a pre-determined location, using a predetermined 'field'.

PUTAT - is the equivalent of PRINT AT - enables you to print a string anywhere on screen.

PRNTUSNG - a powerful PRINT USING function is included in BASIC 5. It allows you to specify the format of items in a line of output. For instance, you can specify the number of decimal digits to be printed, the position of the decimal point, or the size of the field. The field may be up to 48 characters wide, allowing great flexibility. Strings, as well as numbers may be formatted.

GO - allows you to GO to a decimal address and execute the machine code routine situated there. Eg: GO57088 would execute a routine at that address. A variable may replace 57088.

GO\$ - same as GO, but allows you to call the routine in hexadecimal notation. Eg GO\$025F would execute a routine stored at 025F. Variables not allowed.

GS - another extremely powerful function. GS<sub>n</sub> (where n=2000) causes the program to GOSUB2000 under VARIABLE control.

GT - as GS but GOTOn where n is any variable.

RD - a fast READ DATA function. RD allows you to manipulate the DATA pointer and read past large amounts of data very quickly. Extremely useful in DATA-based programs.

WI and CWI - special controls for CEGMON owners. WI initialises BASIC 5's pointers to the current window. CWI allows you to easily manipulate (in dec or hex) the CEGMON 'print' window for height and width - something which up to now has required much thought! These two commands will also be very useful to purchasers of our 'Screen Enhancement Kit', since CWI will allow fast and simple 'window' changes in conjunction with the software screen-switching ability of the Kit.

We must emphasise that all the above functions, (except GO\$) operate either under direct number OR variable control OR using an expression, thus providing total flexibility of programming and program control. Graphics can be speeded up enormously with the new commands, as can data-based programs. Calling machine code routines now becomes a very simple matter with GO and GO\$. PUTAT and PRNTUSNG provide much more comprehensive screen formatting system than the standard PRINT. GS and GT allow labels to be used for subroutines. GET solves many programming problems!

BASIC 5 requires 2K of memory space. The tape version will normally be supplied to reside at the top end of 8K user RAM, the EPROM version at 9000. Versions for other addresses can be supplied to order, but please allow an extra few days in these cases.

We intend producing many programs which make full use of the facilities that BASIC 5 offers, and to encourage you to purchase it, we have kept the introductory price as low as possible. BASIC 5 is available on cassette, disk or in EPROM.

Cassette.....14.95    Disk.....17.95    EPROM.....19.95

All prices include VAT, but please add 60p for cassette or £1.00 for EPROM/Disk for P&P.

BASIC 5 is available immediately for CEGMON-based UK101s and Ohios. Versions for all other UK101 and OHIO machines will become available during MAY '81. (If you do not have CEGMON and wish to order before your version is ready, your cheque will not be cashed until a few days before despatch.)

COMMISSIONED, DEVELOPED AND AVAILABLE ONLY FROM PREMIER PUBLICATIONS.



# CODEKIT

CODEKIT .....a line assembler/disassembler/editor for all UK101/OHIO computers.

Codekit will revolutionise your machine code programming. In only 2K of code you have an assembler, a disassembler and an editor. In an 8K machine, this leaves you with almost 6K of programming space. (The 'standard' Ohio/Compshop Assembler/Editor takes almost 6K of space on its own).

Some of the main features of CODEKIT are:-

- \* It is completely portable and will locate, without alteration, to any 2K block of memory.
- \* CODEKIT supports all 6502 mnemonics and addressing modes.
- \* Editing, deleting and moving code is a simple, logical operation.
- \* A full range of error messages are generated to signify faults in syntax, invalid mnemonic character, data out of range, etc.
- \* Because of its portability, CODEKIT can be co-resident with BASIC. You do not crash CODEKIT if you return to BASIC.
- \* Your operand can be hex, decimal, binary or ASCII, thus allowing complete flexibility of programming.
- \* supplied with full documentation.
- \* Gives a full tabular screen display of disassembled code.

CODEKIT also has an output to printer routine, allows rapid entry of code, and because it is only 2K of machine code, it loads from cassette considerably faster than other versions. Please note that CODEKIT is a single line assembler - it does not support labels or source files.

CODEKIT is available immediately for all versions of the UK101/OHIO range which have the normal (inverted) keyboard. A version for the C1E, etc, is under development. CODEKIT will run under CEGMON, both Compshop monitors and the original Superboard monitor only. It is available on disk, tape or in EPROM. Prices are as follows:-

Tape £14.95    Disk £17.95    EPROM £19.95

The above prices include VAT but postage and packing (tape 60p EPROM/DISK £1) must be added when ordering. CODEKIT was commissioned, developed and is only available from PREMIER PUBLICATIONS.

(PLEASE NOTE that a knowledge of 6502 Machine Code will be needed to use CODEKIT successfully. If you are a beginner, we would recommend a good book on the 6502 such as '6502 SOFTWARE DESIGN' by Scanlon be purchased in conjunction with CODEKIT)

# SOFTWARE RELEASES FOR

## APRIL/MAY 81

There are many new games on release this month, a lot of which are designed to use the special features of CEGMON. If you order the games and buy CEGMON at a later date, we will re-record your tape with the CEGMON version for a small service charge.

### STOCK EXCHANGE

This game, for up to seven players, simulates the wheeling and dealing involved in the Stock Market. All the features you would expect are included, plus a few you didn't expect! You can buy or sell shares, affecting their value as you do so. The shares go up and down and occasionally 'crash' altogether, leaving you bankrupt. Other features include full on-screen status of shares and player status.

At present this game is only available for CEGMON based UR101's with normal (16x40) screen. Other versions will be released at a later date.

### SUPERMIND

Supermind is a development of a very successful game with a similar title! (That other name is Copyright!). You are given twelve attempts to try to find the correct combination of eight or nine coloured pegs on a board. The clear, well laid out graphics of this game are very impressive. I have spent many brain-numbing hours playing SUPERMIND and still cannot come to terms with the fact that I sometimes manage it in twelve guesses, but my wife can do it in nine every time!

SUPERMIND is available in two versions, for CEGMON and standard monitor machines. Please state which when ordering.

### TABLE TENNIS & TABLE FOOTBALL

You can now play these two ever-popular games in the comfort of your own home instead of paying a machine 10p a go. Both feature fast, easily controlled 'paddles' for deflecting/returning the ball and give full on-screen score status. As a special offer we are offering both these games for the price of one! (See current price list). State CEGMON or standard monitor when ordering.

### BREAKOUT

Another popular pub game. For those who have never played it, the aim of the game is to knock all the bricks out of a wall by bouncing a ball onto it. The catch is that the ball is liable to bounce off the wall at erratic angles so quick reactions are needed to position your 'paddle' in the correct place for the ball to bounce back at the wall. The game gets progressively faster as you do better at it. For CEGMON and Standard monitors - state which when ordering.

### STAR BASE ATTACK

This game, as described in our last newsletter, is now available. It uses many CEGMON features, such as multiple screens, and is not therefore suitable for standard monitor machines.

### DRAUGHTS

This game is still in the process of being translated from Z80 to 6502 code. It is not proving at all easy, and we regret that it will still be some time before it becomes available.



## MINI EPROM/ROM BOARD

This newcomer to the TES II range makes the addition of TOOLKIT, CODEKIT, BASIC 5, etc, a much more attractive proposition. The board takes all four BASIC ROMS from your main board, and when plugged into your vacated BASIC ONE socket, leaves three sockets on the main board for EPROMS. Very little modification to the main board is required since OHIO envisaged putting all the BASIC in one chip and provided extra decoding to take advantage of this. Full instructions are provided with every kit.

The cost of the mini EPROM board is a mere £14.95 as a kit and £20.95 fully built and tested. Both prices include VAT but 80p P&P should be added. Delivery on these boards is immediate. (See 'SPECIAL OFFERS' section before ordering for details of even lower prices if you order one of our EPROM products with the Mini EPROM board).

## T.E.S. ....LONG CABLES

If you have fitted our TES I RAM card and are finding that long programs sometimes scramble, possible causes are

- 1 Long cables - we have found that the 24 inches supplied really is too generous! You should cut them down to the smallest length needed.
- 2 Slow RAM - (450ns and above) should not be used on expansion boards, especially if a motherboard is fitted too. We always supply 300ns MINIMUM RAM.
- 3 Running at 2mH - this certainly needs fast RAM - a lot of early UK101's seem to have RAM of 550ns or slower fitted.

While on the subject of 2mH running, we should like to make it clear that none of our EPROMS can be guaranteed to run at this speed (although most in fact will).

Having trouble with one or two keys which always seem to double? Here's a solution which will cost you nothing except a few minutes' work. Remove the offending keys and replace them with keys which could not care less how many times they double - the Shift and Reset keys!

We are thinking of holding a weekend course in 6502 Machine Code programming in September. The cost, for a very full days' course, would be around £15. Before we start organising it, we would like some idea of the possible response to such a course. If you would like to attend, please drop us a line, letting us know of your interest.

# PRINTERS

We are now able to offer a range of printers. We had hoped to include a really cheap printer in the range, but upon investigating one, we were put off by its non-standard paper (almost unobtainable in the UK), its ability to fall apart after a few months, and a total lack of spares back-up! Since we are only interested in selling quality products, that particular printer has been rejected. The printers we are offering are:-

## EPSON MX 70

features include.....80 columns - 80cps - 5x7 text matrix - high res graphics capability - parallel interface standard - enlarged printing - 9.5inch tractor feed

## EPSON MX80 & EPSON MX80F/T

features include..... true lower case descenders - bold, large and condensed script - 80 CPS - 9x9 dot matrix - 169 character set - 4 print sizes - vert and hori tab - easy paper handling - adjustable paper feed - form feed & line feed controls - bidirectional.

## OKI MICROLINE 80

features include..... ASCII & graphics chrs - friction or pin feed - condensed and double width print - 9x7 dot matrix - 3 standard print sizes - three way paper handling - 40,80 or 132 columns.

## CENTRONICS 737

features include..... proportional spacing - letter quality print - 80 CPS - 3 way paper handling - underlining capability - nx9 (proportional) or 7x8 matrix - right margin just. - 96 char ASCII set - full one line buffer - expanded print.

The above printers represent, in our opinion, a good range of quality, reasonably low cost products. Of the three, the Epson80 is the most versatile, the OKI80 is the quietest, the Epson70 the cheapest, and the 737 provides the best print quality. (Most of this mailout was printed using the Centronics 737 controlled by our two Word Processors, WORD4WORD and WORD WIZARD).

Our prices for these printers are as shown in our current price list. When comparing prices, please note that we always quote VAT INCLUSIVE. (Most magazine adverts do not). Please note that you will almost certainly need to purchase an interface board if you intend connecting the EPSON or OKI to your computer. Ring for further advice.

# PRINTOUT FACILITY

Having a printer of your own makes life a lot easier when debugging a program. (See separate 'PRINTERS' section if you want to buy one!). As an experiment, we are now offering a Program Printout facility to customers who have bought any of our products. This service is available to UK101, OHIO, TRS80 and VIDEO GENIE owners only.

The tape supplied must be recorded at the normal BAUD rate and it must contain your own programs - we will not do printouts of any commercially available software, whether bought from us or elsewhere. The charges for printout are as follows:-

Up to 4K.....£1.25    8k.....£1.50    16k.....£1.75    (and 35p per 4K above this).

Postage and return packing is 60p. Please note that the maximum UK101/OHIO program we can handle is 32K. TRS80/VG - max is 48K.

Tapes should be sent, well marked, minus their library cases and a return address label should be included. Printouts will normally be done by return of post, but if we are very busy they could take longer.



# TOOLKIT UPDATE

Response to our TOOLKIT has been extremely favourable. Having now used it ourselves for a few months, here are some tips for getting even more out of it.

The FIND\* routine seems to be one of the most popular with purchasers. Not only will it find ordinary text, it can also be used to find if you have used a certain variable yet, or to change an oft-used number to a variable. For example:-

FIND\*B= will search for all occurrences of B= in your program listing. (Do NOT use FIND\*B or every B in the program (GOSUB etc) will be found.)

Many bytes of memory can be saved by converting numbers to variables. (The program will run faster too). For example:-

FIND\*53260 would find all occurrences of this number. Note down the line numbers, then change each 53260 to a variable. This will immediately save you four bytes for each 53260.

In the same way, an often used routine with a long line number wastes bytes. Each time you call GOSUB12000 you are using six bytes. If you moved GOSUB12000 to line 30 you would save three bytes each time the GOSUB was called and again the program would run faster since BASIC always starts searching for its GOSUB calls from line zero!

Another useful command is LIST\* (Controlled LIST). This function can be used to decide which short BASIC lines can be compacted. Make a note of these line numbers and then use FIND\* to see if the list of line numbers you have made is called from another line. If it is, that line must NOT be compacted onto another line (although other lines can probably be added to the end of it.)

LIST\*1 is very useful for single-stepping through the program lines. Holding any key down allows a 'fast scan' through with the facility of an immediate stop when required.

The VIEW command can be very useful (to CEGMON owners especially) where a normal input from cassette has resulted in a corrupted BASIC line being loaded. Rewind the tape, type VIEW and then reload the program until the faulty line appears on screen. Press the space bar to exit the VIEW command and then either re-type the relevant line or (with CEGMON) copy it from the screen.

The RENUMBER routine can save you well over 200 bytes (in an 8K program), if you use the command RENUM0-1 which will number the program sequentially in steps of one, and remove all redundant spaces. If you wish to later add to the program simply type RENUM0-5 to expand it out, make the necessary changes, then compact it down again.

If YOU have any hints to pass on concerning any aspect of the UK101/Superboard, please write to us and we will publish them in later newsletters.

## HINTS AND TIPS

Below are some useful POKES etc for the UK101 and SUPERBOARD. They will be of interest particularly to customers who have recently bought their machines and who have not yet discovered some of the 'tricks'.

POKE518 with anything from zero to 255 then LIST your program (try 50 for starters). As you will see, the print speed will slow down. This can be used from program to slow down printing to the screen. POKE518,0 returns to normal.

Almost all our software contains a machine code clear screen routine which is dumped into page two of the memory map. You can access it by

POKE11,78:POKE12,2:X=USR(X)

Location 600 (decimal) contains the character that the routine writes to the screen to clear it, so POKE600,42 followed by the above USR(X) call will fill the screen with stars virtually instantly. POKE600,32 returns the routine to sanity.

There is no GET KEY command on the UK101, but the following routine will enable your program to go to the keyboard and wait for a key to be pressed.

POKE11,0:POKE12,253:X=USR(X):K=PEEK(531)

The program will return with the variable K holding the ASCII value of the key which has been depressed. This routine is of no use where the program must continue if no key has been touched.



# SPACE INVADERS

## AND GALAXIANS.....

Space Invaders and Galaxians.....watch out !

The popularity of Space Invader type games is immense, and Galaxians seems to be drawing a similar enthusiastic following. The major problem with these games is that they require a lot of graphics to move very quickly - a thing BASIC was certainly not designed for! We have seen several BASIC attempts at Space Invaders and have not been impressed,

Premier Publications have commissioned a Space Invaders/Galaxian type game for the UK101/OHIO 16x48 and 32x48 machines.(The 32x48 version has been commissioned specifically to work with our Screen Enhancement Kit).It is being written entirely in machine code and the brief to the programmer was quite simple - make it the fastest, most exciting version on the market! A release date for this game is not yet available, but we expect it to be some time during the summer.It will be priced at a very competitive £7.95. If you wish to order it now and have it sent as soon as it is available, your cheque will be held and not cashed until a few days before despatch.

## WORD WIZARD II DISK WIZARD

### WORD WIZARD II

A new version of our Word Processor for the UK101 is now available. In addition to its previous facilities, WORD WIZARD II now includes

- Output of control characters to printer
- Margin control feature
- Improved AMEND function
- Faster Erase functions

Customers who have already purchased WORD WIZARD and would like the improved version should return their ORIGINAL Premier tape to us,enclosing a stamped addressed Jiffy bag. A service charge of £1.00 is payable. At present, WORD WIZARD II is only available for the standard screen UK101 - other formats will be released soon.

### DISK WIZARD

A Disk version of our Word Wizard is now available. In addition to the normal facilities, Disk Wizard will allow you to save text files to disk, and to find out which tracks contain text and which ones are free. See price list for cost and availability.



## A LIMITED REPAIR SERVICE

There is nothing more annoying than your computer breaking down ! Judging from the experience of some of our customers, getting it repaired can be very expensive, and very time-consuming, even if you can find someone to repair it. At Premier we have all the equipment necessary to fault-find, etc and since Michael Bedford is a Computer Engineer, repairs don't usually take too long!

As an experiment, we are starting a Computer Repair Service for REGULAR customers (UK101/OHIO only). Unfortunately, there are some rules attached to the above offer to avoid us being over-whelmed with dead computers. These are

1/ You must have bought some hardware/firmware from us in the past, and the item for repair must be either the main computer board or one of our peripherals - we cannot accept other manufacturers' products for repair.

2/ You must telephone us before you despatch your computer to us to ascertain turnaround time, etc. Unsolicited computers will NOT be repaired.

3/ The computer must be well packed, and the packaging must be capable of re-use on its return journey.

4/ You must accept full responsibility for potential damage during transit.

5/ A cheque for £25 must accompany the computer for labour, parts, and return postage. Since most faults are usually dry joints and faulty IC's, we would think that the vast majority of customers will receive a refund, but we have set the cost at £25 to cover most circumstances. As you will appreciate, an estimate for repair would be very difficult since some obscure faults take a long time to find. In the event of the repair being over £25, we would phone or write to you.

6/ Lastly, comprehensive notes concerning the fault, and the circumstances needed to produce it, should be included if relevant.

Rule One may be relaxed in the future if we find we can cope with the volume of repairs.

Most of the faults we have repaired up to now have centred round the power supply on the UK101 (the small capacitor seems to blow). Dry joints is another favourite. The main board seems to be extremely reliable but we have found that there can be a considerable voltage drop across the on-board fuse-holder. Try taking the fuse out, cleaning it and its holder, squeezing the lugs together slightly, then replacing the fuse.



# SCIENTIFIC I CK

This suite of programs will be of great use to our mathematically based customers. The programs feature excellent graphics and superb presentation. They give the interpretation of the result on-screen, thus reducing the need for the user to become involved in using and interpreting statistical tables.

The suite of programs making up the pack are :

- SAMPLE ANALYSIS - standard deviation, confidence limits, grouping of the data, plotting results on a histogram.
- CONSTANT LIMITS - standard deviation, confidence limits - loops for smaller data groups.
- STUDENT t-TEST - compares two samples of data.
- CHI-squared - tests goodness of fit to a ratio.
- CORRELATION - calculates linear regression of a line, gives correlation co-efficient and then plots a scattergram.
- FACTOR ANALYSIS - shows likeness between groups of data.
- SPEARMAN'S RANKED CORRELATION - allows comparison of two lists of ranked data.

Additionally, there is a DATA STORE program which allows the user to save and later retrieve DATA from tape. This allows the same data to be used with several of the above programs without the need to type it in every time.

## TWOGETHER

An entirely new two player game. Out-manoeuvre your opponent through obstacles up the hill to the house at the top, blocking his path as you go along. This game calls for careful thought, advanced planning and a cool nerve ( a sadistic streak could be useful too!). Win one round and the next becomes more difficult. There are ten rounds to a game, and the game features full graphics.

This could well be the game which introduces your partner to the pleasures of Computer Games.

## CRIBBAGE

A major new program from Premier Publications for the UK101; the card game CRIBBAGE is guaranteed to give hours of pleasure. The computer plays an excellent hand, and the on-screen presentation is superb. Full game status is constantly displayed, as are user prompts.

If you have any interest in card games, CRIBBAGE is an essential addition to your software library. During final testing of this program, several cribbage experts have been more than reluctant to turn off the computer!

WARNING ! This program has been found to be highly addictive.

STOP PRESS NOW AVAILABLE  
FOR TRS80 & VIDEO GENIE.

## ALIEN STRONGHOLD DEADLY TRIANGLE

### ALIEN STRONGHOLD

An innovation in Space Graphics Games. Create your own Stronghold, then fly your spaceship into it to destroy the aliens. Extend the mission by landing and taking on extra fuel, etc. Many other features make this game truly unique - for instance, once you have designed your Stronghold to your satisfaction, you can store it on tape for future use. The program comes complete with an example Stronghold to start you off. Written partly in machine code for really fast action.

### DEADLY TRIANGLE

A new twist to graphics games. Destroy the enemy fleet by firing your laser at the Deadly Triangle, knocking pieces off to land on the fleet. But Beware! The enemy fleet and the Triangle fire back! Written partly in machine code for fast action.



## BASIC ROMS

The new BASIC 1 and 3 ROMS are now available. As we stated in our last newsletter, NULL has been replaced with the very useful CALL routine. A point not made in the instructions supplied with the ROMS is that CALL can be used with a variable as well as with a whole number. Eg: CALL N where N=590 will cause the program to jump to location 590 and execute the machine code program stored there. You thus have variable control of program execution - a very useful feature.

The modification to BASIC 3 to allow proper string array handling is that used by the OSI User Group. It cures a very irritating fault. If your program has ever stopped dead for no apparent reason, with the screen 'twitching' uncontrollably, you will have met the bug already! Another useful side effect of the new ROMS is that CEGMON users no longer need the BASIC Unmask program to access the cursor control keys and rubout is not needed after CTRLZ.

## CEGMON UPDATE

First of all, a correction to the Multi-Screen program published in the last newsletter. Line 30 should POKE255 with 19, not 199!

Another use of the Memory-Shift routine in the Multiple Screen program is to use it to redefine character sets in our Programmable Character Generator.

Several users have remarked on how their keyboard debounce problems have disappeared since installing CEGMON. This is because when Compshop's MON02 was produced, the keyboard software debounce routine was not included in it!

The ability of CEGMON to provide programmable windows on screen is one of its most useful features. For those programmers who have not yet got to grips with the system, here are a couple of useful POKES.

POKE546,23 will 'freeze' the right hand side of the screen and cause all listings, print statements, etc, to use the left of the screen only. POKE546,47 returns to normal.

POKE548,210 'freezes' the top half of the screen. POKE 548,208 returns to normal. Try POKE548,209 and see what you get!

Our software releases for this month include several games which make use of CEGMON'S special features. See Software section for further details.

## PREMIER NEWSLETTER

We now have a huge mailing list, and the cost of mailing the newsletter to everyone is enormous. Therefore, if you have not bought from us since Christmas, this will be the last 'free' newsletter you will receive. To avoid you spending half an hour looking for your last bill, we have marked all such customers' address labels with an 'L' in the bottom left-hand corner. If you do not wish to buy anything as yet, but still want our next newsletter, please send a large envelope, self addressed and stamped.

## MONDAYS 7-9PM

Our Customer Queries evening is becoming very popular, and we apologise to customers who have been unable to get through during our two hour session. If you have an urgent enquiry, please phone during office hours and we will try to help you. If no-one is available who can answer your question, please leave your phone number and someone will get back to you as soon as possible.



# SCREEN ENHANCEMENT KIT

## SCREEN ENHANCEMENT KIT

Interest in this kit has been enormous! Almost every phone call has started with "How much and when?"

As stated previously, the kit will be plug in on the UK101, thus requiring no modification to your board. Superboard owners will have to unsolder (or cut out) some integrated circuits and attach the input wires to the board. We are still looking at this problem and are trying to find the easiest way possible for Ohio owners to upgrade.

The kit will give eight screen sizes and inverse video, all software selectable (ie one POKE to one location will switch screen sizes). The various sizes are:-

32x32 (Upper), 32x32 (Lower), 32x64, 32x48, 16x48 (Upper), 16x48 (Lower), 16x64 (Upper), 16x64 (Lower).

Since you have effectively two sets of screens at your disposal on some modes (Upper and Lower), writing to one while displaying the other is very simple and could lead to some interesting programs.

To get the best out of our kit, CEGMON is advisable, since it allows you to 'open the print window' to fill the whole screen. Purchasers of the kit who do not have CEGMON will only be able to PRINT to the original screen area, since their monitor will not cope with differing screen sizes. They can, of course, POKE to the new screen area.

The Screen Enhancement Kit will allow you to run virtually any software that exists for the UK101 and SUPERBOARD. We have deliberately made the screen switching software selectable for this very reason.

As I write this, The cost of the kit is being worked out. Please look for the STOP PRESS at the end of the newsletter for details of price and delivery date of this Super Enhancement.

## T.E.S. II .....BARGAIN PRICES

### T.E.S. II

We are in the process of completely re-designing our RAM, EPROM and MOTHERBOARD cards. The major advantage of this is that the prices of the above kits will fall enormously. Instead of £43-£45, all three kits will retail at just £29.95 inc.

These price reductions are not at the expense of quality - our new boards (TES II) are better designed, and the quality of the PCB, etc, is even higher. As with TES I, they will be supplied complete with all parts to make the kit - we have not reduced the price by removing part of the product and making it an extra!

We will begin delivery of these kits during the latter part of May. We know that many customers want to expand their systems, but have been put off by the high price. Now you have no excuse! Customers who order TES II before its release date may rest assured that their cheques will NOT be cashed until we have supplies of the product in stock. We anticipate a good response to TES II so must remind customers that all orders will be dealt with in strict rotation.



## STOP PRESS

Design, testing and costing of our Screen Enhancement Kit is now complete and the prices are as follows:-

Kit.....49.95inc  
Fully built and tested.....64.95inc

As with our other kits, all parts to complete the kit are included in the price. The specification of the kit has not changed - up to 32x64 characters, software selectable, inverse video, and plug-in on the UK101.

Deliveries of this kit will begin in June. We know that many customers are very keen to buy it (we've turned away lots of money already!), so we must repeat that orders will be dealt with in strict rotation. Advance orders are welcomed, but if you order the kit before its release, your cheque will NOT be cashed until we have the goods in stock.

## P.I.A./SOUND BOARD

Design of this board is complete. A price and details of full features will be in the next newsletter (JULY/AUG).

## J1 EXPANSION BUFFER BOARD

This new addition to the T.E.S. II range will completely buffer correctly the various address and control signals required by any off-board expansion. This will consist of a miniature board, plugging directly into J1 and providing a duplicate buffered J1 socket.

## A CASE FOR YOUR UK101/SUPERBOARD

We are negotiating the purchase of a job-lot of ex-terminal consoles which will make superb cases for the UK101/OHIO range. There is room inside them for expansion, a small VDU and a power supply. The price will be very tempting and the number on offer will be VERY limited! More details in the next newsletter.



# Modifying Your Cassette Interface to 600 Baud

MASTER  
PACK

This modification will enable you to SAVE and LOAD programs at twice the usual speed. Switch selection of 300 / 600 Baud is provided, so you will still be able to use material at 300 Baud.

The modification involves a small amount of soldering on the UK101 circuit board. If you built your Compukit yourself you should have no problems at all, but if you are dubious about your soldering skills, we recommend that you ask a friend with experience of soldering on closely-packed PCBs.

You will need a metre or so of un-screened wire (about 2A - 4A current capacity, although it won't be handling anything like that much!), and a switch for Baud rate selection. This should be a single-pole double-throw type (SPDT), and should be 'suitable for small-signal handling', i.e. self-wiping, with gold-plated contacts. Any RS components stockist will be able to supply a suitable switch.

Proceed as follows:

- 1 Choose a suitable position for the Baud rate selection switch. This will usually be on either the front panel (if you intend to change Baud rates frequently) or the back panel of your case.
- 2 Locate solder-pad W 5 on the PCB. It is just above IC 14 (U 14), with the UK101's keyboard nearest to you. Cut the right-hand PC track leading out of the top of W 5. Solder a piece of wire long enough to reach your switch to the lower part of the track you have just cut. The upper part of track is to be left as it is.
- 3 Locate IC 63 (U 63), then turn the PCB upside down, still keeping the keyboard nearest you. Pin 1 of IC 63 is now the bottom left pin. Counting clock-wise from this pin, locate pins 9 and 11. To each of them solder a length of wire sufficient to reach your switch. Take great care not to create a solder bridge to adjacent tracks. This completes the work on the UK101 circuit board.
- 4 Connect the wire from W 5 to the centre terminal of your switch, and the two wires from pins 9 and 11 of IC 63 to the two remaining contacts.
- 5 LOAD a program recorded at 300 Baud. It should only load correctly in one of the switch positions, and this is to be labelled 300 Baud.
- 6 With a program in memory, switch to the 600 Baud position and SAVE the program. Recording should take exactly half as long as usual. Now LOAD the program. If the program does not load correctly, the cause will usually be an inadequate or poorly-maintained recorder, or poor quality cassettes. If after cleaning the tape heads and drive mechanism you still have no joy, re-check your soldering. In rare circumstances, you may find it necessary to experiment with the routing of the wires to the switch. This should only be needed if you have extra boards, such as colour cards or memory expansion, in close proximity to the switch wires. If all else fails, you can revert to normal 300 Baud operation by un-soldering the three wires and solder-bridging the break in the track from W 5.



