

PREMIER MICROSYSTEMS  
SUMMER 1983 NEWSLETTER

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Enclosed are many bargain offers! Yes, Premier have bowed to customer pressure and are having their first Summer Sale. The price list supplied with this newsletter shows the offers available, but to whet your appetite here are a few in a bit more detail.

#### DISK SYSTEMS      DISK SYSTEMS      DISK SYSTEMS

Premier Disk Systems for the UK101/Ohio now start from as little as £275.00! All Systems are supplied complete and include postage and packing and VAT! They'll probably never be cheaper and availability is immediate!

##### Disk Drives

Starting from under £200, our superb 5.25 two-thirds height and half-height drives are positively the BEST value for money on the market. They come complete with smart case and custom-built UK PSU - we found the American supplied PSU to be marginally rated so we supply one of our own design at no extra cost to you! As a major supplier of disk drives, Premier can offer you the best drives at the best possible prices!

##### ADVENTURE GAMES COMPENDIUM

We have grouped together our Adventure programs into 'bargain packs' for ease of purchase. Prices start from as little as £11.95 for two Adventures and you can buy all seven for an amazing £21.95. Has anyone got out of THE TOWER yet or escaped from ESCAPE? We have had many people ringing up pleading for the answers - but sorry, you paid for the game so we aren't going to spoil it by telling you how to do it!

ADVENTURE GAMES COMPENDIUM will give you hours of intriguing pleasure. Order now while the offer lasts!

##### UPGRADE EPROMS

Almost the whole range of PREMIER upgrade EPROMS are on special offer this month. TOOLKIT, BASIC 5 and BASIC X can all be purchased for bargain prices, as can one of the above plus a mini-EPROM board.

##### UK101 HYPER UPGRADE PACKAGE

This pack has been designed to appeal to the UK101 owner who has not yet upgraded his UK101/OHIO and wishes to achieve this in one purchase. The HYPER kit consists of the Screen Enhancement Kit, CEGMON X monitor, BASIC4, BASIC 5, BASIC X, TOOLKIT2 and a Mini EPROM board. It gives the UK101 owner a tremendous package of improvements. The three BASIC chips and TOOLKIT give over 50 new BASIC words alone! The Screen Enhancement Kit (our best-seller for a long time) gives a superb 32 x 64 display AND the option of many other displays to retain compatibility with the software/hardware you have already purchased. CEGMON has become the STANDARD upgrade monitor, giving a full-screen editor, machine code monitor, plus many other improvements.

Please state your machine type when ordering the HYPER kit. Availability is immediate.

##### SOFTWARE SPECIALS

See new price list for details of software contained in this special offer.

#### SPRITE GRAPHICS BOARD

This board is very close to release. As the UK101/OHIO market is not now expanding, we have had to design a Sprite board that will cater for a range of computers - a board for the UK101 alone would be prohibitively expensive.

To recap on the information given in the last newsletter, the Sprite board gives 256x192 graphics, 16 colours and 30 fields of Sprites. Only a few memory locations are needed to implement the board. Trials with Sprite board have shown that the possibilities are tremendous - our main problem has been that the Sprite internal 'processor' is very awkward, requiring 14 bit information!! This has made designing support software 'interesting' to say the least!

We are now taking orders for the SPRITE board - see the enclosed STOP PRESS for prices.

##### Colour Board Kits

We now offer a range of Colour Board Kits. These consist of :-

- a/ A version which gives R.G.B. output
- b/ A version which gives composite colour output.
- c/ A PAL adaptor for T.V. use
- d/ The bare P.C.B. for adventurous customers!

See Price List for details. Availability of all versions is immediate.

##### Bare Boards

We now offer bare P.C.B.'s for the majority of our hardware items. Each P.C.B. is supplied with a components list and layout diagram to enable the user to purchase and position components BUT we cannot always supply a circuit diagram as some of our products were computer designed so no complete (or comprehensible!) diagram exists!

We must stress that many of our boards are high-density and building should only be attempted by EXPERIENCED constructors. The SEK and FDC cards especially should not be attempted unless you are a confident builder.

##### Dynamic Ram Cards

We have a few of these 32K upgrade kits left, but as delays from the suppliers are so long we are not re-ordering. To give an example, it has taken SEVEN MONTHS to get a quarter of our last order through and this after many phone calls and broken promises. To supply any orders at all we have had to supply a PSU of our own manufacture, thus cutting our profit to zero. This is of little use to us and even less to our patient customers. Most of you will know which firm we get - sorry 'TRIED TO GET!' - the boards from - draw your own conclusions!!

##### PREMIER UTILITY PROGRAMS

Premier have several utility programs to aid the UK101 programmer. As a special summer offer, we have temporarily grouped them together to form a special UTILITIES PACK.

##### COMPACT

This program squeezes your BASIC program onto the least possible number of lines, thus effecting a worthwhile saving in memory and slightly speeding execution. The program takes full account of GOSUB, GOTO, IF..THEN statements etc. Comes complete with user-documentation. Indispensable to owners who still have an 8K machine.



#### B.L.S.F.H.

This program is for the 6502 machine code user. It provides named machine code files to cassette, a fast software generated load/save routine (no board mods required) and many other features to aid the 6502 user.

#### FLOPTRAN

....is a very small BASIC compiler. FLOPTRAN will cope with a small range of BASIC words and gives a worthwhile speeding up of graphics, maths formulae, etc. It is NOT a full compiler and is best treated as a development tool.

UTILITIES PACK - £17.95 (to 31/8/83 only)

#### SARGON CHESS

We ordered these from America before Xmas and they still have not arrived. The last batch we did manage to purchase were all faulty and many customers had to send them back - many apologies. This product too we have dropped as we see little chance of obtaining supplies in the foreseeable future.

#### ARE PREMIER DROPPING THE UK101/OHIO SUPPORT ?

This question is often asked by worried customers when telephoning orders. The simple answer is that PREMIER will not drop support of the UK101/OHIO machines unless sales fall to such a level that we cannot make a profit - we are not a charity! In a way the answer lies with our customers - keep supporting us and we'll keep supporting you!

We are also often asked why we no longer take full page adverts for the UK101/OHIO. The answer is again simple - the machine has been out of production for at least a year, so the only machine purchases are of a secondhand nature. Through experience we have found that many customers selling their UK101s recommend PREMIER as a source of supply to the new owner! A page in a computer magazine costs a lot of money - well over £1000 when artwork costs, design costs and the advertising fee are totalled.

#### REPAIR SERVICE

The UK101 repair service is the one facility that PREMIER are seriously considering dropping. It has NEVER made a profit and we have only retained it up to now because it is so popular and we feel that if we stop the service customers will not be able to get their machine repaired elsewhere.

Why doesn't the service make a profit? The main answer is labour costs. When a machine arrives it has to be unpacked and documented, repaired, repacked and posted. The repair can take anything from ten minutes to a whole day - eight hours at a modest ten pounds an hour labour charge is eighty pounds before postage, repacking etc. If we were to bill a customer that amount, he'd probably have to sell his machine to pay it! Even if the repair is a short one, unpacking, repacking and postage must still be allowed for.

As from 1/7/83 the rules concerning repairs are as follows. All the salient points are as in previous newsletters except:-

- 1/ The deposit required with each repair is £50.00
- 2/ A repair number must be obtained by telephone before sending the machine to us. Unsolicited machines will be ignored until you collect them!!
- 3/ Computers with enhanced screens will NOT be repaired unless the

enhancement is via Premier's SEK.

- 4/ Computers with home-brew or magazine mods or non-Premier expansion will not be repaired unless the mods are removed BEFORE you send the machine to us.

#### UK101/OHIO GRAPHICS

Many customers phone us asking how to POKE graphics to their screens. Superboard owners generally received a graphics manual with their computers, which although vague in places, did at least give a grid of screen addresses and an idea of the shape of each graphic.

All the UK101 owner got was a quick reference to the screen addresses (in hex!) and a program which purports to show all the graphics. Unfortunately, it didn't. (If you change line 10030 in the UK101 manual from F=225 to F=255, you will see all the graphics from 226 to 255!). Amazingly, none of the program examples given in the UK101 manual POKE the screen, so a first-time user cannot even glean any information from there.

#### POKING GRAPHICS to the screen

The following explanation applies mainly to the UK101 owner, and all POKE addresses are for the UK101 16x48 format. However, CIU owners should be able to carry out most of the examples as shown. CIE owners should subtract 12 from all screen addresses quoted. If you are a newcomer to the UK101, and haven't yet worked out how to POKE the screen graphics, try the following examples and don't be afraid to experiment - you cannot possibly damage your computer. At the very worst, you will only have to RESET COLD START!

First of all, look at the grid shown on the page opposite. It shows the VISIBLE part of the UK101 screen. This starts at memory location 53260 and ends at 54267. We will start by poking a thin line to the middle of the screen. Note that line 999 will appear in all the examples. This is a screen 'lock' to prevent scrolling giving a false result. To exit each example press CTRL C.

```
10 POKE 53795,128
999 GOTO999
```

In the above example, 53795 is a screen memory location (see map) and 128 is a graphics value. Any value from zero to 255 may be POKED to the screen (try some!).

The next routine will poke a block into each corner of the screen.

```
10 POKE53260,161:POKE53307,161:POKE54220,161:POKE54267,161
999 GOTO999
```

If you cannot see the right-hand graphics, subtract about 3 from the second and fourth POKE values.

Next we will POKE a block across the top of the screen.

```
10 FORN=53260 TO 53307:POKE N,161:NEXT
999 GOTO999
```

You should now have a solid white line across the top of the screen. Edit the above example, changing the value 161 to 128. This will give a thin white line. Try some other values, particularly 32, which turns the area 'off'.

To produce graphics on the next line of the screen, the value 64 (which is



the true screen width) needs to be added to 53260 and 53307, hence

```
10 FORN=53324TO53371:POKEN,187:NEXT
999 GOTO999
```

will draw a line on the next line down.

Poking the screen in this way, either with FOR...NEXT loops or with individual pokes, is the way that graphics are built up on the screen. For example, to produce a rectangle :-

```
10 FORN=53390TO53400:POKEN,128:POKEN+128,135:NEXT
20 POKE53453,143:POKE53465,136
999 GOTO999
```

To POKE a vertical line needs a different routine - a stepped FOR...NEXT loop. Try:-

```
10 FORN=53280TO54240 STEP64:POKEN,139:NEXT
999 GOTO999
```

In the above example the routine contains STEP64 - this tells the FOR...NEXT loop to affix a value to every sixty-fourth memory location and thus produces a vertical line. To POKE the screen properly needs a thorough knowledge of the screen layout, so a very close look at the UK101 screen map supplied will help enormously.

Once you have mastered POKEing the graphics you will soon find that you sometimes need to know what is where on the screen. For this we use PEEK. Consider the following example:-

```
10 FORN=54220TO54267:POKEN,232:NEXT
20 FORN=53260TO54267:IFPEEK(N)=32THENPOKEN,46
30 IFPEEK(N)=232THENPOKEN,178
40 FORA=1TO300:NEXT
50 NEXT
999 GOTO999
```

Line 10 POKES a line of diamonds across the bottom of the screen.  
Line 20 scans the whole screen looking (PEEK(N)) for 'empty' spaces (=32). If an empty space is found, it is replaced by graphic 46 (a full stop).  
Line 30 is looking for the diamonds we poked at line ten. If it finds any, it converts them to triangles (POKEN,178).  
Line 40 is simply a delay to let you see what's happening and can be left out.  
Line 50 completes the FOR...NEXT loop started in line 10.

When RUN, the routine should replace all spaces by '.' and all diamonds with triangles, but should leave intact any text left on the screen.

One last trick before we finish - a diagonal stripe. See if you can work out how it works.

```
10 FORN=53260TO54220STEP65:POKEN,189:NEXT
999 GOTO999
```

Below are some useful graphics - note that the UK101 and OHIOS are different, the OHIOS having the better set! Each graphic is made up in an 8x8 matrix.

Graphics No.	Comments
1 and 2	racing cars
2 and 3	open brackets
4	crown
14 and 15	houses
16 to 23	Set of rotating arrows
24	Pound sign (not OHIO)
32	blank space
48 to 57	Numbers 0 to 9
65 to 90	letters A to Z
97 to 122	lower case a to z
128 to 135	set of rising horizontal lines - very useful
136 to 143	set of vertical lines - again useful
144 to 164	various block combinations - not well thought out
161	full block - all 8x8 matrix alright!
165 to 174	Quarter blocks in various positions
175 to 178	triangles
183 to 187	half tones - useful for contrasting graphics
189 to 190	Full height diagonals - useful for joining purposes
195 to 202	angled diagonals - can join to 128-143 set
203 to 206	set of small right angles - join to make small square
207 to 210	set of large right angles
215 to 219	useful set of thick joining lines
220 to 223	set of curves - make a small circle
224 to 225	when joined, these make a 226 - useful for animation
229 to 232	card symbols
233	reverse of 232 - open diamond
236 to 239	set of aircraft
240	little man!
242 - 255	UK101 - useless set of Greek symbols!
	OHIO - set of guns and tank symbols

In addition, the OHIO has parts of spaceships and warships which join to make excellent graphics (5 to 12 and 179 to 182) - the UK101 has much less imaginative Greek characters in those slots.

By combining graphics, a form of 'high resolution' can be achieved. The main weakness of the UK101/OHIO graphics is their lack of outer edge graphics; for instance, a symbol which had a combined 128 and 135 (top and bottom horizontal lines) would be extremely useful as it would allow you to draw parallel horizontal lines using only one line instead of two.

The various UK101 and OHIO machines share the same basic screen addresses, but different use is made of the memory available. The standard 24x24 Superboard has the screen configured to 32x32, all the rest (in theory) are either 64x16 or 64x32. The problem is that each format uses a different part of the RAM for its start and end addresses, thus making the UK101 and various OHIOS all incompatible! To add to the confusion, the various screen mods available also produce different (and sometimes unpredictable) results. Below is a short list of the most common screens.

A/ UK101 Standard - screen starts at either 53260 or 53261, has a scroll width of 64, but only 48 are normally visible. Sixteen lines.

B/ Superboard Standard - screens starts at 53381, is 32 wide, with 24 normally visible. Twenty-four to thirty-two lines, depending on monitor. (Synmon gives 24, Cegmon up to 32).



C/ CIE - screen starts at 53248, but first scrolling line is 53376 (two lines down, to avoid VDU problems). Scroll width is 64, with 48 visible. Normally 28 lines.

CIU - the awkward one! Screen starts anywhere between 53248 and 53260, depending on which screen mod was done. Scrolling starts two lines down as per CIE, is 64 wide with 48 normally visible. Normally 28 lines.

In addition to the above, there are other formats available, usually from 'homebrew' mods. (Now you can see why our Screen Enhancement Kit, which can emulate nearly all the above formats, has sold so well!!!)

The consequence of all these formats is that software written for one computer will appear on the wrong part of the screen for another. In the case of the 24/32 Superboards, no UK101/CIE/CIU software will run coherently at all, unless it uses simple print statements - and even that sometimes doesn't work because of the 32 scroll width.

One last inconsistency, which really throws a spanner in the works, is the keyboard. All UK101, CIU and standard Superboards have an inverted keyboard. The CIE/C2/C4 have a non-inverted keyboard. If you are a CIE/CIU owner, please carry out the test below. If you did not buy CEGMON from Premier, do NOT, repeat NOT, trust the label on your CEGMON if it says CIE - so many times we have found that the machine is really a CIU wrongly labelled. This has caused us endless trouble when trying to supply the correct soft/firmware.

PRINT PEEK (57100) <RETURN>

If the answer to this question is less than 10, you have a CIE (non-inverted) machine. A value of over 245 means a CIU inverted machine - compatible with UK101. When ordering from Premier, please ALWAYS state which machine you have to avoid delay or wrongly supplied goods.

#### OSI BOOKS

We have a few OSI manuals left and when they are gone we can get no more. All books listed below are on SPECIAL OFFER at £4.95 (+£1.00 P&P)

OSI BASIC REFERENCE MANUAL

ASSEMBLER EDITOR EXTENDED MONITOR REFERENCE MANUAL

C4P USER MANUAL

CIP USER MANUAL (very useful to UK101 owners)

C2/C3 WORKSHOP MANUAL

65V PRIMER

BASIC 5    BASIC 4    BASIC X    TOOLKIT II    BASIC 1 & 3  
CEGMON

Below is a summary of the BASIC words and other facilities you get when purchasing our range of PREMIER BASIC enhancement EPROMS all of which are on SPECIAL OFFER for AUGUST. We have produced the list in response to customers who have phoned to ask which enhancement they need for a specific purpose. The list also gives the memory address of the EPROM (where relevant)

BASIC 5 (\*\*) (9000hex)  
VLIN    HLIN    SCR    TEST    SET    BLK    GET  
INAT    PUTAT    GO    GO\$    PRNTUSNG    GS    GT  
RD    WI    CWI    CWI\$

BASIC X (\*\*) (8800 or 9800hex)  
REPEAT....UNTIL    ELSE    APPEND    CREATE    OPEN  
CLOSE    DUMP    GET    LPRINT    LISP    VIA    PAR  
RSPO    IN    OUT    PSG    RESET    NOISE  
CHAN    ENV    VOL    REG    MODE    HANG

BASIC 4 (replaces standard ROM)  
named programs to tape  
capable of handling high baud rates for fast cassette transfer  
a tape verify facility  
seven new SAVE/LOAD commands  
automatically initialises BASIC 5 (if present)  
autorun of loaded programs  
OLD - a program crash recovery command

TOOLKIT II (\*\*) (8000hex)  
TRACE    VIEW    MC    AUTO    LIST/    DELETE  
RENUM    LIST LINE ON ERROR    FIND    REPLACE    DUPL  
Toolkit also unmarks BASIC to give correct error messages and corrects the warm start OM error.

BASIC 1 & 3 (replaces standard ROMS)  
corrects serious string-handling bug present in standard ROMS.  
allows m/c programs to be called from BASIC.  
unmarks BASIC, allowing graphics direct from keyboard.

CEGMON (replaces standard monitor EPROM or ROM)  
standard upgrade monitor.  
full screen editor - delete, concatenate, copy etc.  
user-defined screen windows.  
highly advanced machine code monitor.  
DISK bootstrap - essential for disk use.  
keyboard correctly decoded allowing shiftlock to work as intended!  
BASIC in/outputs vectored through RAM.  
comes complete with extensive manual.

All the above EPROMS have been designed to be compatible with one another - you can initialise BASIC 5, TOOLKIT and BASIC X and use them ALL in the same program.

\*\* denotes that the product needs an EPROM board to run (see Special Offers in price list). All other products replace an EPROM/ROM already present on-board your machine.

Other PREMIER EPROMS include WORD WIZARD (for Word Processing) and ENCODER (assembler/disassembler/editor). A second Mini EPROM board can be supplied where memory allocations become filled!



## CEGMON MULTIPLE SCREEN SWITCHING

The small program below shows you how to achieve two screens on your UK101/OHIO, with the facility for instantly switching between the two, or updating one while showing the other. REMs are included to explain each line of the program. You will need to be proficient in converting decimal and hex numbers to use the routine successfully - if you are not, why not buy our Binary/Decimal/Hex program!!

A small machine-code routine is POKEd into spare RAM in page two by the first line of BASIC. This clears the Y register and jumps to the CEGMON block shift routine. This routine gives the capability of displaying one screen while updating another and switching between the two instantly. The number of screens you can use is only limited by the memory size of your machine. 1K is needed for each screen, plus 1K as a temporary dump. Also, be careful not to overwrite your BASIC workspace when experimenting!

```
1 REM Memory shift routine
2 REM for CEGMON based machines only
3 REM
4 REM routine to clear Y-register, then jump to mem-shift routine.
5 REM POKE576,160 : POKE577,0 : POKE578,76 : POKE579,228 : POKE580,253
9 REM fill second screen with example graphics
10 REM FORN=5000 TO 7047 : POKE N,255*RND(8):NEXT
20 REM
30 POKE254,136: POKE255,19: REM start of store
40 POKE249,255: POKE250,31: REM end
50 POKE228,0 : POKE229,208: REM new start
60 POKE 11,64 : POKE12,2: X=USR(X) : REM jump to m/c POKED on line 5
70 GOTO70 : REM prevent screen-scroll - CTRL C to exit
```

The program will take a few seconds to work as random graphics are poked to the new screen on line 10. Once the program has finished, hit CTRL C, clear the screen with CTRLZ, then GOTO30. The new screen will be instantly displayed.

The few notes below about the program will enable you to adapt it to your own purposes:-

Location 5012 (dec) becomes top left of new screen  
Location 7047 is the end of the second 'K' of the new screen. This could be changed to 6023 if you only have a standard 1K screen.  
Line 10 may be replaced by your own graphics designs  
Lines 30 and 40 define the true screen start and end addresses for transfer by the memory shift routine.  
Line 50 tells the memory shift routine where to start dumping stored characters.  
Line 60 brings the second screen into view on your VDU by activating the memory shift routine.  
As long as you know where your second screen is in memory, you can POKE to it directly while displaying another screen on the VDU. Updates can therefore become invisible and seemingly instantaneous to your friends!

## FOR SALE

The machines/equipment below are for sale. Please contact the owners directly if you are interested. Premier are providing this service to all customers who have bought from us in the past, but we offer NO guarantee about either the advert or the advertisers!

OSI CHALLENGER 1P, 32K, Cegmon, Screen Enhancement Kit, New Basics 1,3,4,5, 300/600 baud, BASIC 5 on disk, 610 board, 2 disk drives, video monitor, DOS and DMS, WP2, Fig Forth disk and a few odds and ends

Any reasonable offer around £450.00

Tel: Coxtie Green (0277) 72043

Twin TEAC FD50A 5.25" disk drives, cased with PSU and cables. Works perfectly with UK101. Only 1 year old, little used, £300.00  
Phone Chris Hellen

Tel: Wivenhoe (020622) 5671

## PRICES—AVAILABILITY—SUITABILITY UK101 and OHIO SCIENTIFIC

## SUMMER 1983 SPECIAL OFFERS (to AUG 31st 1983)

	Price inc UK101	SB	CIU	CIE	SB3
<b>ADVENTURE GAMES</b>					
<b>ADVENTURE SPECIAL OFFERS</b>					
Any 2 below for £11.95, 3 for 14.95, 4 for 17.95, 5 for 19.95					
or all seven ADVENTURE programs for only £21.95.					
P&P 2-4=95p, 5-7=£1.35					
Adventure Plus (16K)	£7.95	*	*	*	*
House of Horrors	£5.95	*	*	*	*
Caverns of Doom	£6.95	*	*	*	*
Dungeon of Death (16K)	£6.95	*	*	*	*
The Tower (16K)	£6.95	*	*	*	*
ESCAPE (16K m/c Adv Ceg)	£7.95	*	*	*	*
ESCAPE (Ceg disk)	£9.95	*	*	*	*
Safespot (B5)	£5.95	*	*	*	*
ADVENTURE COMPENDIUM	£21.95	*	*	*	*
<hr/>					
SNAKE (m/c)	£4.95	*	*	*	*
MASTER PACK 3 (B5)	£6.95	*	*	*	*
MASTER PACK 4	£6.95	*	P	*	*
MASTER PACK 5	£6.95	*	P	*	*
MASTER PACK 7	£6.95	*	P	*	*
MASTER PACK 8	£6.95	*	P	*	*
MASTER PACK 9	£6.95	*	*	*	*
MASTER PACK 10	£6.95	*	P	*	*
MASTER PACK 11 (B5N)	£6.95	*	P	*	*
MASTER PACK 12	£6.95	*	P	*	*
MASTER PACK 13 (B5N)	£6.95	*	P	*	*
MASTER PACK 14 (B5)	£6.95	*	*	*	*
Voy Of Nostromo (B1/5/32x48)	£5.95	*	*	*	*
Compact	£6.95	*	*	*	*
B.L.S.F.H. (Ceg)	£7.95	*	*	*	*
FLOPTRAN	£9.95	*	*	*	*
UTILITIES PACK (Ceg)	£17.95	*	*	*	*
Martian Rescue (m/c)	£5.95	*	P	*	*
FINCAL	£6.95	*	*	*	*
Cartoon Caper-bility (Ceg)	£7.95	*	*	*	*
Cartoon Caper-bility (Disk)	£10.95	*	*	*	*
Math Games Pack	£9.95	*	P	*	*
Challenge & No Match	£5.95	*	P	*	*
Spell Test & Math Ex.	£5.95	*	P	*	*
Break In & Warp War	£5.95	*	P	*	*
Scientific Pack	£12.95	*	P	*	*
Time Maze & A.T.C.	£5.95	*	P	*	*
Cribbage	£7.95	*	P	*	*
Cribbage on disk	£9.95	*	P	*	*



# SPECIAL OFFERS (to 31/8/83 ONLY)

TOOLKIT 2 + Mini EPROM board (kit)	£21.95
BASIC 5 + Mini EPROM board (kit)	£21.95
BASIC X + Mini EPROM board (kit)	£24.95
SOUND/VIA Board - BASE (kit), SOUND, 2xVIA KITS	£43.95
HYPER KIT - SEK (kit), MEB (kit), CEGMON, BASIC enhancements	99.95
HYPER KIT - as above but built SEK & MEB	112.95
Add £5.00 to above offers for built Mini EPROM board.	

## DISKS DISKS DISKS DISKS

All diskettes are 5.25in single-sided single density TOP QUALITY, fully guaranteed. (We use them all the time!) They are rated single density but we use them in double-density mode with no problems! Remember that the prices quoted for PREMIER disks include VAT!

If you buy ten diskettes from Premier, you get labels, write protect tabs and a strong, smart disk case absolutely free

DISKETTES	each	£2.30
	in tens	£19.95
	in tens (no case)	£18.95

## DISK DRIVES

40 track single sided Drive	£199.95
40 track Double sided Drive	£249.95
Dual 40 track single sided Drives	£379.95
Dual 40 track Double sided Drive	£475.95
80 track drives single or dual	POA
5MB HARD DISK	POA

All drives are fully cased with Premier-designed PSU.

## SPECIAL UK101/OHIO DISK PACKAGES(to 31/8/83 only)

PACKAGE 'A' Floppy Disk Card (kit), Drive, Cables, VORTEX, P&P	£275.00
PACKAGE 'B' F.D.C (built), Drive, Cables, VORTEX, P&P	£290.95
PACKAGE 'C' same as 'A', but double-sided drive	£325.95
PACKAGE 'D' same as 'C', but double-sided drive	£340.95
PACKAGE 'E' F.D.C.(kit), cables, VORTEX, dual drives, VORTEX	£449.95
PACKAGE 'F' F.D.C.(built), cables, VORTEX, dual drives, VORTEX	£479.95

POSTAGE AND PACKING - SOFTWARE 95p per tape, max £1.90, HARDWARE KITS- £2.00 per item (Max £10.00), EPROMS (if ordered alone) - 95p, PRINTERS - at cost, please ring, DISK DRIVES - £4.50, BOOKS - 95p per book, max £3.00, VDU MONITORS - £4.50

Maximum postage (U.K. Mainland) is £10.00 (printers, disk drives and VDU's excepted). All hardware and firmware sent Recorded Delivery or Registered, unless otherwise stated above. Goods not despatched if insufficient postage included - if in doubt ring us for a quote before ordering. Despatch is normally 5 working days after receipt of order (not overseas), but Credit Card orders sent same or next day (stocks permitting)

OVERSEAS - send English postal rates (see above) but DON'T remove VAT - we'll balance postage against the VAT free price and refund the difference. Minimum overseas order is £25.00 sterling. Goods only sent Airmail if sufficient postage enclosed.

Other products are under development. Details available in our periodical newsletter

which is sent free to our regular customers. Phone technical/product advice service available for enquiries on MONDAY nights 7 - 9pm (only) on 01-659-7131. Or ring any time during normal office hours Mon to Fri 9.15 to 6pm (Wed 1pm). Sat 9am - 5pm. We would prefer technical enquiries between 4-6pm

REPAIR SERVICE available against £50.00 deposit - ring or consult our latest newsletter for details. NO repairs carried out on 32 x 48 modified machines unless SEK fitted. NO unsolicited repairs accepted.

PREMIER MICROSYSTEMS regret that due to the vulnerability of computer software/firmware, we cannot refund money OR exchange against other goods.

## Key to Abbreviations

*	immediate availability
SEK	Needs PREMIER Screen Enhancement Kit
TBA	To Be Announced
POA	Price On Application.
Ceg	CEGMON monitor must be resident
B5	BASIC 5 upgrade EPROM required
B5N	BASIC5 or Normal versions available
B1/3	needs new BASIC 1 and/or 3 to run
P	Should run on CIU in top of screen, if top left hand corner screen address is around 53260.

## <C> 1983 PREMIER MICROSYSTEMS LTD.

208 CROYDON RD, ANERLEY, LONDON SE20 7YX Tel 01 659 7131 or 778 1706

This price list supersedes all previous lists.

ALL PRICES INCLUDE VAT ( @ 15% ) 25/07/83

E & O E.



Stock Exchange (Ceg,02)	£5.95	*			P				
Alien and Deadly	£5.95	*			P				

#### SPECIAL OFFERS ON CASSETTE SOFTWARE BELOW

Any 2 for £6.95, 3 for £9.95, 4 for £11.95, 5 for £12.95

P&P 1-3=95p 2-5=£1.

✓ Arrowwise (B5)	£3.95	*		*					
✓ Angling (32 x 48)	£3.95	*		*					
✓ Sheep Pen	£3.95	*							
✓ Empire Battle	£3.95	*			P				
✓ Turnemup	£3.95	*			P				
✓ Tank Battle	33.95	*			P				
✓ Bomber Defense	£3.95	*		*					
✓ U.F.O.	£3.95	*		*					
✓ Asteroids	£3.95	*		*					
✓ Maze Chase	£3.95	*		*					
✓ Executive Jigsaw	£3.95	*		*	P				
✓ Square Solitaire	£3.95	*		*	P				
✓ Nine-in-a-line	£3.95	*		*	P				
✓ Roulette	£3.95	*		*	P				
✓ Super Fruit Machine	£3.95	*		*	P				
✓ Twixt Twister	£3.95	*		*	P				
✓ Challenge	£3.95	*		*	P				
✓ Number Matcher	£3.95	*		*	P				
✓ Space Rover (B1/5)	£4.95	*		*					
✓ Spelling Test	£3.95	*		*	P				
✓ Math Exerciser	£3.95	*		*	P				
✓ Flak	£3.95	*		*	P				
✓ Splat	£3.95	*		*	P				
✓ Break in	£3.95	*		*	P				
✓ Warp War	£3.95	*		*	P				
✓ Time Maze	£3.95	*		*	P				
✓ Air Traffic Control	£3.95	*		*	P				
✓ Wipeout etc	£3.95	*		*	P				
✓ Codebreaker	£3.95	*		*	*				
✓ Scrambler	£3.95	*		*	*				
✓ Calendar etc	£3.95	*		*	P				
✓ Games Scoreboard	£3.95	*		*	P				
✓ Binary Dec Hex Converter	£3.95	*		*	P				
✓ Alphabetical Sort	£3.95	*		*	*				
✓ Catacombs (B5N)	£3.95	*		*	*				
✓ Alien Stronghold	£3.95	*		*	P				
✓ Deadly Triangle	£3.95	*		*	P				
✓ Twogether	£3.95	*		*	P				
✓ Star Base Attack (Ceg/B3)	£3.95	*		*	P				
✓ Supermind (Ceg,02)	£3.95	*		*	P				
✓ Table Tennis & Football	£3.95	*		*	P				
✓ Word Square	£3.95	*		*	P				
✓ Breakout	£3.95	*		*	P				
PRODUCT	PRICE INC	UK101	SB 24X24	CIU	CIE	SB 3			

#### EPROM/DISK Software

FORTH disk (5.25)	£49.95	*	*	*	*				
FORTH disk (8in)	£52.95	*	*	*	*				
LINK 65 / LINK 6	£15.95	*	*	*	*				
SCOPYM	£6.95	*	*	*	*				

#### DISK OPERATING SYSTEMS

VORTEX	£49.95	*	*	*	*	*			
ROMDOS	£19.95	*	*	*	*	*			
WORD WIZARD I, III Word Processors									
cassette (WWIII)	£15.95	*	*	*	*	*			
EPROM (WWI,not MON02)	£17.95	*	*	*	*	*			
EPROM (SEK,WWI)	£17.95	*	*	*	*	*			
disk (WWIII)	£24.95	*	*	*	*	*			
TOOLKIT II for 101/OHIO	£13.95	*	*	*	*	*			
CEGMON	£17.25	*	*	*	*	*			
Extended Monitor (EPROM)	£7.95	*	*	*	*	*			
BASIC 1 & 3	£17.25	*	*	*	*	*			
BASIC 4 (Ceg,MON02 only)	£9.95	*	*	*	*	*			
BASIC 5									
EPROM	£13.95	*	*	*	*	*			
disk (Ceg)	£15.95	*	*	*	*	*			
BASIC X	£13.95	*	*	*	*	*			
ENCODER	£24.95	*	*	*	*	*			

#### HARDWARE for UK101 and OHIO

	KIT	BUILT	Bare PCB	Availability
Floppy Disk Card	£49.95	£67.50	£25.00	*
Mini EPROM board	£11.95	£16.95	£7.00	*
Screen Enhancement Kit	£59.95	£69.95	£28.00	*
SPRITE GRAPHICS BOARD	See STOP PRESS		n/a	*
Colour Board:-				
RGB Colour Kit	£36.00		£23.00	*
Composite Colour Kit	£35.00		£23.00	*
PAL adaptor	£18.00		£23.00	*
Sound/VIA Board BASE Kit	£21.95	£26.95	£12.00	*
Sound Kit	£9.95			*
VIA Kit	£8.95			*
RS232 Kit	£6.95			*
Dynamic RAM card	n/a	£69.00	n/a	Few left

RAM 2114 (300ns low power minimum spec.)  
4K for £10.00, 8K for £19.00, 16K for £37.00

#### VIDEO MONITORS

VM 1	12" BLACK & WHITE	£72.95
VM 2	12" GREEN	£82.95
VM 3	9" HIGH RES B & W	£98.95
VM 5	9" HIGH RES ORANGE	£115.95
VM 6	NOVEX high res green 12"	£113.95
VM 7	Colour Monitor	POA

#### PRINTERS

PREMIER DAISYWHEEL (Special Offer)	£795.00
(Please state RS232 or Parallel)	
EPSON - full range	£ POA
Microline 80	239.95
OKI 82A	£445.00
Any other make to order	

Phone for price confirmation. We try hard to beat any advertised price !!