PSION ORGANISER II

The machine that thinks with you

Screen: MAY:24:TUE:11.30 / P.DUKE at Psion
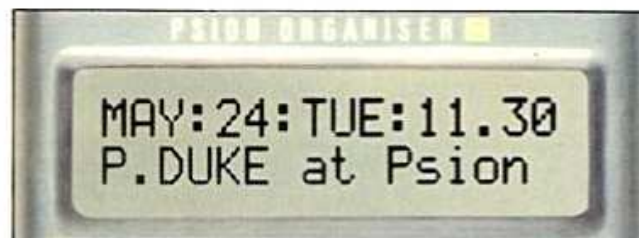
IT'S A DIARY THAT REMINDS YOU..

You can record appointments against the relevant date and time not just for the current year but for future years too. Like any other diary, you can browse through the entries, or go straight to a specific date. Unlike an ordinary diary, Psion Organiser II can be set to turn itself on and buzz you up to an hour before an appointment – and show you who, where and when on the screen.

Screen: MAY:24:TUE:12.30 / ALARM

IT'S 8 REGULAR ALARM CLOCKS...

You can set up to eight alarms to ring at any time during the day or week. The alarms can be programmed to ring at weekly, daily or hourly intervals as you wish — for example, for morning calls or regular weekly appointments.

Screen: WED 12 NOV 1986 / 08:25:18

IT'S A CLOCK AND CALENDAR...

Psion Organiser II has an in-built clock showing weekday, date, month, year, hours, minutes and seconds. And you can change the battery without losing the settings. The clock also monitors and controls the alarm and diary functions.

### Screen: J. SHORT, Doctor / 01-093-4321

IT'S A FIND-IT-FOR-YOU...

Psion Organiser II will store all your vital personal information, such as names, addresses, telephone numbers and business contacts. Just type in a small detail as a clue and the powerful built-in cross-referencing system will recall the item you require in less than a second and automatically scroll it across the screen.

Screen: STOCK NO: c4391 / Price 19.95

IT'S AN INDEXED FILING CABINET..

Personal and business information is cross-referenced to answer questions such as "Which restaurants do I know in Paris?", "What cars do we stock wiper blades for?" or "Which of my cassettes are by Beethoven?". Customer and stock records, suppliers lists, book catalogues and any other reference information can be stored and entries selected quickly and easily on particular criteria.

Screen: M1+3.6*sin(pi/4) =2.54558441227
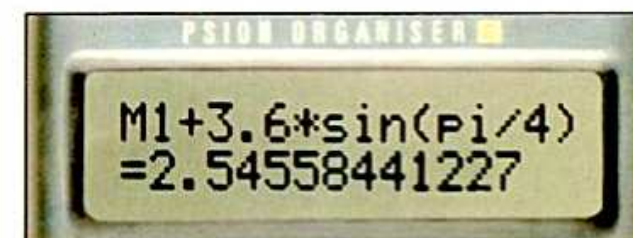
IT'S A CLEVER CALCULATOR...

Psion Organiser II does for calculators what calculators did for the slide rule. Calculations are displayed on the screen as they are performed, so that entries can be checked and changed if you want to carry out several similar ("What-If") calculations . It has twelve-digit calculation accuracy, ten memories and full mathematical and scientific functions. The number of decimal places required in the answer can be set at any level from 0 to 12.

Screen: cls: print time / until time > 30

IT'S ADAPTABLE...

Psion Organiser II contains an extremely powerful but easy to use programming language (OPL) allowing simple and sophisticated programs to be written to meet your own or your company's particular requirements. The programs can be stored either in the built-in memory, or on an optional Datapak, for repeated use later. OPL's many functions include accessing and processing data on up to 96 files held in the machine or on each Datapak.

Screen: FIND SAVE DIARY / CALC PROG ERASE

AND IT TELLS YOU ABOUT ITSELF..

A status report is available at any time on the amount of data and diary information currently stored in the machine and on Datapaks, and the quantity of internal memory still free.

SUMMARY SPECIFICATIONS – SOFTWARE (STANDARD IN ROM)

GENERAL

MENUS	Functions selected from menu using cursor. The top menu can be rearranged and user-created items added.
DATA STORAGE DEVICES	Internal (A), Datapaks (B,C — optional).
PERIPHERALS	Connected through top port (D).
MEMORY RETENTION	Internal — Indefinite with battery or mains adaptor connected. 2 minutes allowed for battery change. Datapaks — Indefinite. Can be removed without loss of data.
TOP-LEVEL MENU	FIND, SAVE, DIARY, CALC, PROG, ERASE, ALARM, TIME, INFO, COPY, RESET, OFF.

FILING

SAVE	Saves records on data storage devices (Datapaks, Internal). Entries can be edited, and are automatically scrolled if longer than 16 characters. Maximum 255 characters and 16 lines per record.
FIND	Finds records which match given search text. Repeated key presses list records one by one. Record on screen can be edited and resaved.
ERASE	Finds records as FIND. Prompt to confirm deletion.
COPY	Copies data files from one data storage device to another.
INFO	Information on memory usage/availability.
ACCESS TIME	0.5 second average for 32K of data.

DIARY

DISPLAY	Tabular form: Days horizontally, ½ hour appointment slots vertically. One time slot displayed on screen. Move around diary with cursor keys. View and set entries. Automatic year scrolling for perpetual diary up to 1999.
LIST	List appointments chronologically.
SEARCH	GOTO day and time. FIND entry with given search text.
ALARM	Reminder alarm set 0-59 minutes before appointments.
TIDY	Block-erase entries to clock date.
FILES	SAVE and RESTORE diary file from data storage devices. DIRectory of diary files.

TIME/ALARM

CLOCK	Hours, minutes, seconds.
CALENDAR	Year, month, date, day.
ALARM	Up to 8 Alarms may be pre-set, each with weekly, daily or hourly repeat.

CALCULATOR

ACCURACY	To 12 digits.
OPERATORS	+, −, /, *, **. Any number of brackets.
FUNCTIONS	50 mathematical, scientific and user-programmed functions.
MEMORY	10 store (+, −, overwrite) and recall.
EDITOR	Editable, 'What-if' facility.
DISPLAY RESULT	User definable from 0-12 decimal places.

PLUG IN EXTRA PROGRAMS

PSION ORGANISER II

RATE OF RETURN = 18.92%

IT'S A FINANCIAL ANALYST...

Psion Organiser II is built to run plug-in applications programs. For example, the **Finance Pack**, in addition to all the normal financial calculations like discounted cash flows, interest calculations, annuities, mortgage repayments and APV, allows you to record, monitor and analyse your expenses and payments as they are incurred. Each item is automatically dated and logged for later analysis and printing.

PSION ORGANISER II

ITEM: TAXI-FARE AMOUNT: 5.20

IT'S A BANK MANAGER

The **Bank Account** facility within the Finance Pack allows you to record bank transactions as they take place and provides you with a detailed bank record and current balance at all times. Standing Orders are automatically applied on the correct day each month. Comprehensive bank statements can be printed out and particular transactions can be traced simply by keying in the date, item or amount.

**PSION ORGANISER II**

POLYNOMIAL ROOT = 1.34239

IT'S A MATHEMATICIAN...

Solve Bessel functions, polynomial equations, quadratics, the solution of matrices, Eigenvalues, integration under a curve, as well as more standard statistics calculations, correlation coefficients, confidence levels, 'Chi-squared' and more with the optional plug-in **Maths Pack**.

PSION ORGANISER II

ENTER: nec NECESSARY

IT'S A REFERENCE LIBRARY...

With the huge amounts of memory available on Psion Organiser II you can at last have electronic reference books at your fingertips. Check your spelling, for example, with the **Concise Oxford Spelling Checker.** Just type in the first three or four letters to define the word and Psion Organiser II will display the correct spelling on the second line of the screen. Many such reference applications are planned for release shortly.

MADE IN U.K.
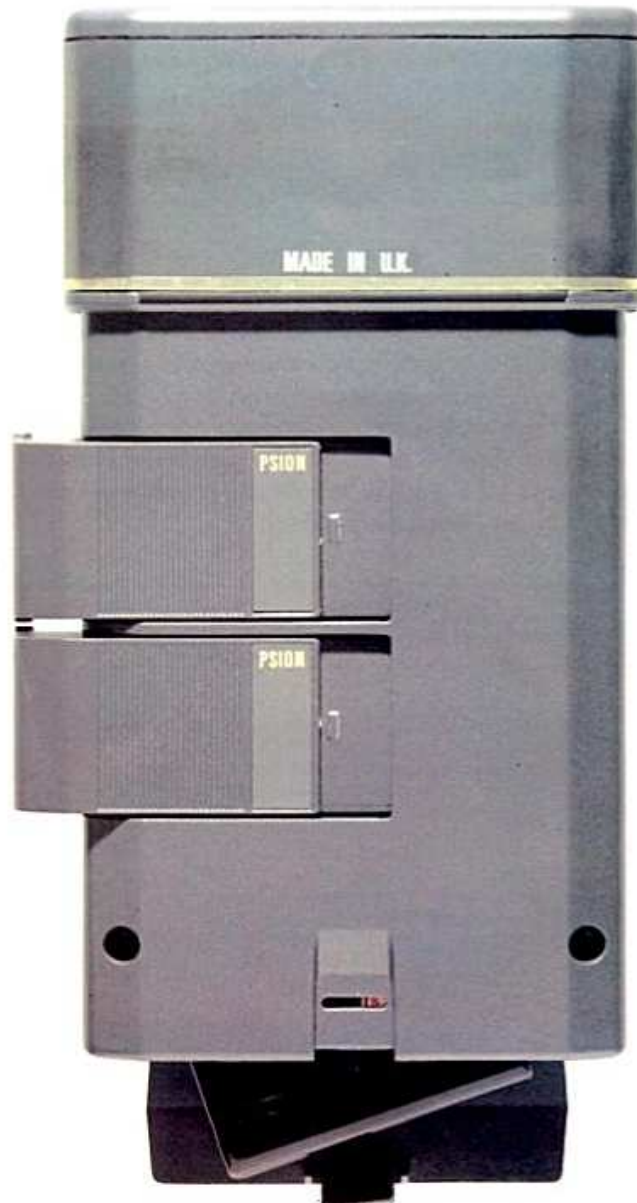
IT'S A COMPUTER...
...DESIGNED FOR A THOUSAND APPLICATIONS

The trouble with computers is that they are of no use to anyone. By themselves. But with software, they will solve thousands of problems. So the useful computers are those which are designed to run software applications.

That is why we have built the features of a desk-top PC in probably the most powerful hand-held computer yet devised . . . up to 304K of on-board memory . . . ready-to-use software built-in . . . powerful programming facilities for your own specific needs . . . extra plug-in program packs . . . 'solid-state drives' to store information and load programs . . . plug-in peripherals and links to office-bound systems . . . all for a mere fraction of the price of a desk-top computer.

Rugged, reliable and battery powered, it can be carried in your pocket to be used whenever and wherever you are. You need no computer experience, for Organiser II comes with built-in menu-driven programs. And that's just the start. You can program Psion Organiser II for your particular needs by using the built-in OPL programming language

and run 'off-the-shelf' software by plugging in optional program packs. Programs can be saved for later repeated use and the most frequently used can even be inserted on the top-level menu for quick and easy access.

Expanding Psion Organiser II's internal memory up to 304 Kilobytes is as easy as plugging in 'Datapaks' or program packs into the two thumb-sized slots in the back of the machine. These packs perform a similar role to floppy disks on a desk-top computer. Datapaks provide mass storage of data and programs with exceptional data security, which means that your information is safe even when the packs are removed from the machine. Datapaks are available in a variety of sizes from 8 Kilobytes (with a capacity of 8000 characters) up to 64 Kilobytes for model CM, and 128 Kilobytes for Model XP. In other words 160 Kilobytes (model CM) and 304 Kilobytes (model XP) can be present in Psion Organiser II at any one time – phenomenal for a computer of any size, let alone one held in the hand.

SUMMARY SPECIFICATIONS – HARDWARE

PHYSICAL		MEDIUM	
DIMENSIONS	(With protective sliding case closed) Length 142mm, Width 78mm, Depth 29mm.	ACCESS SPEED TO CAPACITY	Read/Write EPROM — 'Datapak'. 100 KBytes/sec. 8KBytes, 16K, 32K, 64K (Models CM, XP), 128K (XP only).
WEIGHT	250 grammes (without battery).		
		INTERFACING	
PROCESSOR		PORT	16-pin slot on top.
CPU	8 bit CMOS 6303X 80 pin surface-mounted (6800 family).	SERIAL	RS 232 Read/Write.
		PARALLEL	To 100 KBytes/sec.
SPEED	Clock speed 1 Mhz.	PERIPHERALS	Bar Code Reader, Magnetic Card Reader, Mains Adaptor.
DISPLAY			
TYPE	2 line x 16 characters, dot-matrix LCD.	**AUDIO**	
CHARACTERS	78 character set from keyboard, 8 graphic user-defined characters. Total of 232 characters accessible using built-in OPL programming language.	PITCH	11 Hz - 10 KHz, software controlled.
		DURATION	1 msec. to 30 secs.
		POWER	
KEYBOARD		BATTERY	PP3 – Long life alkaline. 2-6 months life typically.
TOTAL	36 keys.	PSU	External mains if required.
ALPHA	26 upper and lower case.	CONSUMPTION	50 micro amps to 100 mA, dependent on operating mode.
NUMERIC	10 numeric, 16 operators and punctuation.		
CURSORS	4 keys.		
RESPONSE	Audio 'click' and tactile mobile feedback. Auto-repeat after 1 second continuous depression.	**DURABILITY**	
		CONTACTS	Gold-plated.
INTERNAL MEMORY		CASE	Sliding protective cover.
ROM	32 KBytes (Model XP), 24KBytes (Model CM) Operating system and language.	OPERATING TEMP.	0-50°C.
		WARRANTY	One year (excl. battery). Full details supplied with Organiser..
RAM	16 KBytes (XP), 8KBytes (CM) CMOS. 1 KByte can store 1000 characters.		
MASS STORAGE			
DRIVES	2 'solid-state' drives built-in, which take Datapaks or program packs.		
DATAPAK	Maximum capacity 128 KBytes (Model XP) 64 KBytes (Model CM). Up to 2 can be present in the machine at the same time.		

EASILY PROGRAMMED

Built into Psion Organiser II is an extremely powerful operating system and programming language (OPL) designed to enable individuals and companies to find solutions to their specific problems. Psion Organiser II offers the power and flexibility for any needs from simple programs for everyday use through to complex applications such as stock movement and credit card control. Organiser II is supplied with a comprehensive manual to enable both novices and experts alike to develop their own programs quickly and easily.

The high-level, structured programming language built into the ROM of the Organiser is essentially drawn from BASIC but developed further using modern structured programming concepts. Procedure-based, the language is designed to be easy, comprehensive and very fast. For example, the first 100 prime numbers can be obtained 3 times faster than the same procedure written in BASICA on an IBM PC. It includes integer handling, real arithmetic, variables and string and numeric arrays.

To enhance Psion Organiser II's already impressive data handling capabilities, the language includes full database facilities which allows the creation of files, the definition of fields and records, the searching and locating of records and so on. This makes Organiser II's programming language a powerful data processing and fully featured database handling language. These facilities also allow complete software control of the screen, keyboard, peripherals and three devices (internal memory, two Datapak devices).

Psion Organiser II's operating system is soft, so that the top level menu can be rearranged, added to and functions not needed deleted. Applications can be called or booted from the Datapak drive. Entries to machine code are also allowed. The operating system supports a wide range of peripherals through the top port of Organiser II.

The programming language is supported in Organiser II by an editor program, LOAD and SAVE and the cataloguing of programs. Programs can be written with these aides directly on the Organiser, tested, debugged and run within the machine. In addition, for very large applications, Psion provides an emulator running on an IBM PC, XT or AT so that the program, once written, tested and debugged, can be downloaded into Organiser II.

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PLUGS INTO OFFICE SYSTEMS

Psion Organiser II has a standard peripheral port at the top of the machine to allow a wide variety of devices to be attached for communications and specialist applications. Once the peripheral has been connected, additional commands which access the codes from the peripheral are activated automatically within Organiser II.

The portable Organiser II is expanded into a complete system simply by plugging in the optional **RS232 Link** communications cable and connecting it to printers, computers and modems equipped with the industry standard RS232 port. Records and files can be transferred in either direction, from the Organiser to the printer, computer or modem and from the computer or modem to the Organiser. The communications software allows for error-free transmission of files down telephone lines via a modem. This system enables Psion Organiser II to be used as a portable database, holding information from a central computer or for collecting and transferring data to other systems. Additionally, it can communicate with messaging services such as **Telecom Gold ©** to access the telex network, for example. Moreover, you can print, send or receive information from the OPL programming language.

SUMMARY SPECIFICATIONS – OPL PROGRAMMING LANGUAGE

LANGUAGE
PROCEDURE– BASED, BASIC-LIKE, EXTENSIBLE.

CONSTRUCTS

IF, ELSEIF, ELSE, ENDIF
DO, UNTIL
WHILE, ENDWH
BREAK/CONTINUE
GOTO

VARIABLES

EXTENT	Local, global, single and arrays.
TYPE	Real, integer, string, fields.

COMMANDS

AT i,j	Position on two line screen.
BEEP i,j	BEEP with i duration, j period.
CLS	Clears the display.
CURSOR i	Sets cursor mask.
EDIT a$	Edit a string.
ESCAPE ON/OFF	Allows/Dis-allows user to break into program.
INPUT i/x/a$	Input an integer/number/text string.
KSTAT i	Set keyboard status.
ONERR LABEL	Goto label on error.
ONERR OFF	Turns off error protection.
OFF	Turns Organiser II off.
PAUSE i	Wait in 50 millisecond units.
POKEB/W i,j	Poke j at address i.
PRINT a$,i,x;	Print numbers or strings.
LPRINT a$,i,x	Print to a printer.
RAISE i	Generate an error condition.
RAND x	Seed the random number generator.
REM	Remark statement.
RETURN i/x/a$	Return i/x/a$ to calling procedure.
STOP	Exit from the language.
TRAP	Trap errors on the next command.

FILE HANDLING

APPEND	Append a record.
COPY	Copies a file or files.
CREATE	Creates a file.
DELETE	Deletes a file.
ERASE	Erases a record.
FIRST/ LAST/ NEXT/BACK	Gets the first/last/next/previous record.

OPEN/CLOSE	Opens/closes a file. Up to 4 files can be open at a time.
POSITION	Selects a record by number.
RENAME	Rename a file.
UPDATE	Update a record.
USE	Change files.

FUNCTIONS

FIND (a$)	Finds record containing string a$.
DATIM$	Date time string.
FREE	Returns free memory in bytes.
COUNT	Returns the number of records in a file.
POS	Returns the correct record number.
SPACE	Returns free space on the device.
DIR$(a$)	Returns file name.
FIX$(x,i,j)	Returns x as a fixed point decimal number.
GEN$(x,i)	Return x in the best fit format.
NUM$(x,i)	Returns x as an integer.
SCI$(x,i,j)	Returns x in scientific format.
ERR	Returns the last error number.
ERR$(i)	Returns the error string associated with an error number.
DISP(i,a$)	Display a record.
MENU(a$)	Provides a menu option.
VIEW(i,a$)	Displays a scrolling string on the screen.

ADDITIONAL FUNCTIONS

SECOND, MINUTE, HOUR, DAY, MONTH, YEAR

ABS(x), ATAN(x), COS(x), DEG(x), EXP(x), FLT(i), IABS(i), INT(x), INTF(x), RND(x), LN(x), LOG(x), PI, RAD(x), SIN(x), SQR(x), TAN(x).

GET, GET$, KEY, KEY$.

ASC(a$), CHR$(x), HEX$(i), LEN(a$), LOC(a$,b$), LOWER$(a$,) UPPER$(a$), VAL(a$).

LEFT$(a$,i), MID$(a$,i,j), RIGHT$(a$,i), REPT$(a$,i).

ADDR(i/x/a$), USR(i,j), USR$(i,j), PEEKB(i), PEEKW(i).

EOF, EXIST(a$), RECSIZ.

SUMMARY SPECIFICATIONS – STANDARD PERIPHERALS

DATAPAKS

CAPACITY	8KBytes, 16K, 32K, 64K, 128K.
SIZE	Length 52mm, Width 23mm, Height 13mm. Fit flush in slots in rear.

RS232-LINK

COMPUTERS	Asynchronous communications to desk-top PCs and minicomputers. 50-9, 600 baud, read/write. Standard cable to top port. Range of adaptors for most micros.
PRINTERS	RS232 cable with software and control characters for most RS232 printers.
MODEM	Through RS232 to variety of standard modems. Software incorporated includes RTS/CTS, XON/XOFF handshaking and XMODEM error checking. Telecom Gold/Messaging services support.

BAR CODE READER

TYPE	Digital switched wand.
INTERFACE	Includes cable, port connector, high-level software.
CODES	EAN8, EAN13, UPC, CODE39, 2 in 5 interleaved.

MAGNETIC CARD READER

TYPE	Track 2 card reader.
STANDARD	ISO 3554.
DURABILITY	Excess of 300,000 passes.
INTERFACE	Plug, cable and software built-in.

MAINS ADAPTOR

POWER	Mains 220-240 volts, 50-60 Hz. 3 pin square plug (13 amp) or flying lead.
INTERFACE	Connects to top slot for desk-top use. In parallel to battery, preserves memory during connection.

DEDICATED TO YOUR BUSINESS

Bar Code Reader

Connected to the top of Model XP, this optional extra allows bar code data to be read into Psion Organiser II for storage and processing. The data can be read from within a program so that data files can be structured or analysed for different needs.

Mains Adaptor

For heavy desk-top use, Psion Organiser II can be connected to the mains power supply using the optional Mains Adaptor. This plugs into the peripheral port, and can still be used at the same time as other peripherals.

Magnetic Card Reader

This slots into the top peripheral port of Model XP and can be used to read in information held on magnetic strips on credit cards, for example. By referring to data held on a Datapak, the magnetic card reader could be used for example to validate credit cards, check credit limits and expiry dates, and record transaction details on a Datapak for later transmission to a central computer.

For many corporate applications, Organiser II forms part of a complete system, which often requires the large-scale production of custom programs and the transmission of large amounts of data. To meet this demand Psion has designed and produced an IBM PC/XT/AT-based applications development system with an Organiser emulator and a range of associated equipment.

Copier 8

Copies Datapaks in bulk either from a master Datapak or directly from an IBM PC, XT or AT thus allowing the mass downloading of information or the mass reading and uploading of data. The copying process takes typically four minutes to duplicate eight 32K Datapaks.

Formatter

Formats (erases) up to 2 Datapaks, and automatically switches off after 30 minutes. A formatting service is also offered by many dealers or by post to Psion.

Eraser 16

Holds up to 16 Datapaks and formats them completely within 10 minutes. Packs can be formatted over 100 times without their capacity or performance being affected.

Organiser Customisation

For very large-scale corporate or specialist applications, Psion Organiser II can be customised to the requirements of specific companies or end-users. The keyboard overlay, casing and packaging can be altered for certain applications. Psion offers a programming consultancy and implementation service based on agreed specifications. Contact the Sales department at Psion for further information.

PSION