

PSION ORGANISER

POCKET COMPUTER

E=M\*C\*\*2

ON	MODE	SAVE	FIND	<<	>>
CLEAR	HOME	↑	↓	←	→
A	B	C	D	E	F
<	>	7	8	9	/
G	H	I	J	K	L
=	"	4	5	6	*
M	N	O	P	Q	R
%	£	!	2	3	-
S	T	U	V	W	X
,	:	∅	.	EE	+
SHIFT	Y	Z	SPACE	DELETE	EXECUTE
(	)				

# THE PSION ORGANISER

THE WORLD'S FIRST  
PRACTICAL POCKET  
COMPUTER

# A Unique New Invention that will change the way you work

If you've ever thought how much more convenient and simple your life could be with a full-feature micro-computer — but have always been deterred by the size, complexity and cost of conventional systems, then it's time you discovered the PSION ORGANISER: the world's first practical pocket computer!

The PSION ORGANISER is a versatile and innovative personal computing resource incorporating hybrid microprocessor technology more advanced than that found in systems twenty times the price. **And the entire system — Including screen, keyboard, mass storage and software is compact enough to hold in the palm of your hand and carry around in your pocket. The photograph on the front cover of this brochure is actual size.**

## Packed with exclusive features:

**Built in database system** allows instant access to programs and information.  
**Off-the-shelf software library** provides a mass of powerful programs and data.  
**Simple operating procedures** make the ORGANISER incredibly easy to use.

**The purpose designed POPL programming language** enables you to write and save your own programs.

**Communicate** with other computers, modems, printers and peripherals through the industry standard RS232 interface.

### TIME AND DATE

Automatically displayed when you switch on.

### EDITABLE CALCULATOR

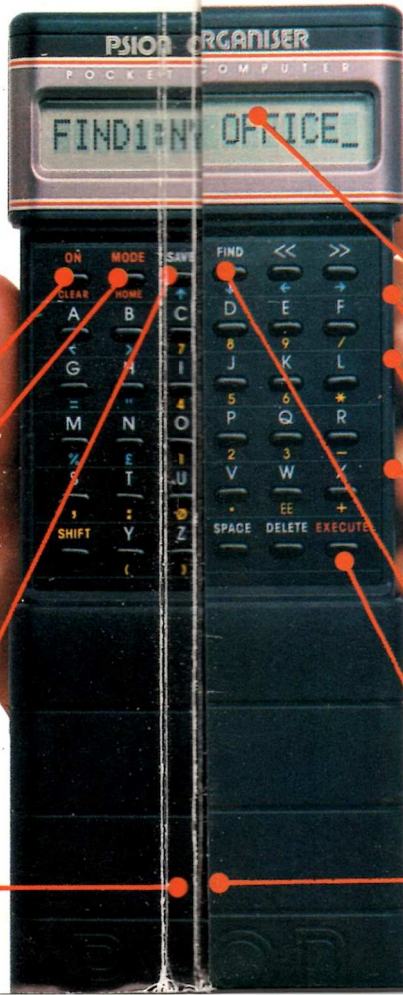
function allows you to carry out complex calculations involving up to 200 characters with two levels of brackets. You can also re-edit both data and formulae after completing a calculation to carry out "what/if" analyses. A special utility pack extends the power of the calculator even further with an extensive range of additional maths and science functions.

### PERMANENT SAFE STORAGE

of information in removable datapaks using the "SAVE" command.

### ORGANISER RUNS OFF STANDARD PP3 9V BATTERY

Auto switch off after five minutes and low power CMOS components give up to six months life in normal use.



## PRICE LIST

## TECHNICAL INFORMATION

## COMMUNICATIONS

## PERSONAL PROGRAMMING

## SOFTWARE LIBRARY

## A PERSONAL DATABASE

### THREE WAYS TO PRACTICAL POCKET-COMPUTING!

#### AS YOUR OWN PRIVATE DATABASE...

Use the PSION ORGANISER to store information at will and retrieve it instantly — keeping vital day-to-day records safely and securely.

#### WITH READY-TO-RUN SOFTWARE...

The PSION ORGANISER offers you a comprehensive — and constantly-expanding — library of purpose-written software packages for

instant problem solving. Just plug in the program pack of your choice and you're ready to go.

#### AS A CUSTOMISED SYSTEM TO RUN YOUR OWN PROGRAMS...

The PSION ORGANISER is so advanced it even has its own programming language — POPL — which is as easy to learn as it is to use.

**16 CHARACTER ALPHA-NUMERIC DISPLAY** with full scrolling over each record up to 200 characters long.

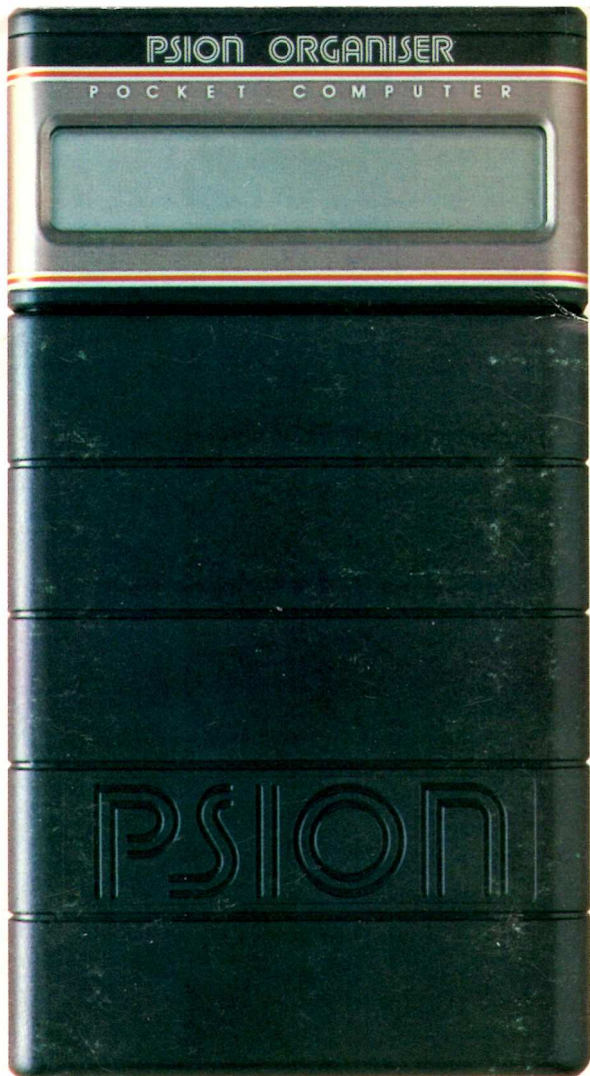
**ADJUSTABLE CONTRAST CONTROL.**

**UNIQUE TWIN 'SOLID STATE DRIVES'** Allow open ended use of plug-in software and data. The range of information, program and peripheral packs that can be slotted into the drives is enormous.

**ACCESS INFORMATION IN MILLISECONDS.**

**EASY TO USE, POSITIVE TOUCH KEYBOARD.**

**BRITISH DESIGNED** and built to the highest standards with gold plated contact points and a tough protective sliding case for rugged reliable use.



(Actual size of ORGANISER when closed)



22 Dorset Square,  
London NW1 6QG.  
Tel: 01-200 0200 anytime

**PSION ORGANISER**

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PSION ORGANISER WITH 8k DATAPAK £99.95

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SCIENCE PACK £29.95

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MATHS PACK £29.95

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FINANCE PACK £29.95

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LINK-UP COMMUNICATIONS PACK £39.95

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16k DATAPAK £19.95

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8k DATAPAK £12.95

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FORMATTER £44.95

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SPARE DATAPAK LABELS (30) £2.40

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FORMATTING SERVICE see other side for details

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DEALER STAMP



Although datapaks permanently and securely store information it is possible to clear and re-use an entire datapak using a machine called the PSION FORMATTER (£44.95).

This facility is also available by post at £3.50 (incl. P&P) for each datapak, whether 8k or 16k. Your datapak will be dispatched by Recorded Delivery within 48 hours of receipt, with a guaranteed capacity of either 8k or 16k, for the storage and retrieval of new information.

Before using this service, please ensure that all the information you wish to retain is transferred to another datapak.

Please complete this form and send it with your datapak(s) in suitably protective packaging to PSION LTD, 22 DORSET SQUARE, LONDON NW1.

**YOUR ORGANISER DEALER MAY PROVIDE THIS SERVICE. PLEASE ENQUIRE.**

Please format the enclosed datapak(s). I understand and agree that all the information held in the datapak(s) will be permanently and irrevocably lost.

I enclose:

QUANTITY

8k datapaks  16k datapaks

Payment of £ \_\_\_\_\_ (£3.50 incl. P&P for each datapack)

Tick one:

I enclose my cheque/postal order made payable to PSION LTD

Please debit my credit card:

ACCESS

BARCLAYCARD/VISA

AMERICAN EXPRESS

DINERS CLUB

Card Number: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

We can accept no responsibility for goods damaged in transit to Psion.



## TECHNICAL INFORMATION

### ORGANISER

#### Dimensions (with protective case closed)

Length 142.0 mm  
Width 78.0 mm  
Depth 29.3 mm

#### Weight (without battery) 225 grams

#### Power Consumption (Milliwatts at 9V)

Organiser Off 0.2: On 40.0  
Datapak access (during 'SAVE' or 'FIND')  
One datapak 500.0: Two 800.0

#### Display

Sixteen character alpha-numeric (dot-matrix)  
liquid crystal.

#### Keyboard 36 keys comprising:

Control: ON/CLEAR; MODE/HOME; FIND;  
SAVE; EXECUTE  
Editing: SHIFT; DELETE; SPACE; «and».  
Character: A to Z; 0 to 9; arithmetical symbols and  
punctuation.  
Significance selected with SHIFT.

#### Microprocessor

HD6301X eight-bit CMOS microprocessor chip  
with 0.9216 MHz clock. (3.6864 MHz crystal  
frequency source), 2 Timers, serial interface, 53 I/O  
lines, 80 pin LSI.

#### Memory

Total 14k with one datapak  
Rom 4k (internal to microprocessor)  
RAM 2k

EPROM 8k (datapak)

#### Clock

CMOS real time clock with 32768 Hz crystal  
frequency source.

### DATAPAKS

#### Capacity

8k	16k	
10,900	21,800	Characters of packed data

#### 'FIND' times

Average (sec)	2.5	5	(with full datapak)
Maximum (sec)	5	10	

#### 'SAVE' time

4-8 characters per second, according to battery age

#### Data Retention

50 years at temperatures up to 100°C (MTTF)

#### Storage Medium

EPROM (Eraseable programmable read only  
memory)

#### Formatting

30 minutes in PSION FORMATTER prepares  
datapak for re-use

#### Life

Can be formatted up to 100 times

#### Dimensions

Length 53 mm  
Width 26 mm  
Depth 13 mm

#### Weight

20 grams

### PROGRAM PACKS

#### Contents

16k of facts, formulae and procedures for specialist  
applications.  
Programming language.

#### Storage Medium

ROM

#### Dimension and Weight

As for datapaks

### FORMATTER

#### Operation

Formats 1 or 2 datapaks in 30 mins.  
(auto-timer control)

#### Dimensions

Length 190 mm  
Width 95 mm  
Depth 65 mm

#### Weight

975 grams

#### Voltage

220-240 ac

#### Power

Consumption 6 watts

PSION has a policy of continuous product development and improvement. Small modifications arising from this are not necessarily included in this technical information.

## AN OPEN ENDED COMPUTER SYSTEM

Psion is dedicated to the continuous development of the ORGANISER as a practical, innovative and versatile computing resource for the personal and professional user.

Over the next few months we will be introducing a number of new software and peripheral packs designed for a wide variety of applications including database management, data logging and analysis and an expanding range of customised data bases.

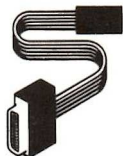
In addition to the creation of further software packs to increase the usefulness of the ORGANISER for the general user, a special PSION development team undertakes in-depth analyses to investigate the requirements of particular user groups. Specialist packs are currently planned for such widely differing markets as hospital doctors, general practitioners, pharmacists, farmers, teachers, meter readers, warehouse staff, stockbrokers and pilots.

Combined with the facility to interface with a wide range of other computers and peripherals through the LINK-UP Communications pack the opportunities for using the ORGANISER become almost limitless.

If you have any particular expertise or requirements which you believe could be addressed by the ORGANISER, we would be very pleased to hear from you. For further information please write to PSION SUPPORT, 22 Dorset Square, London NW1 6QG.

For full Technical Information on the PSION ORGANISER, see the reverse of this card.

## COMMUNICATIONS



The PSION ORGANISER can be linked to a wide range of printers and other computers with the simple to use industry standard LINK-UP pack. It enables the ORGANISER to:

- Send records and files stored in datapaks to other computers.
- Print out records and programs from datapaks.
- Receive and store information from other computers in datapaks.

The benefits are enormous and greatly extend the power of the ORGANISER as a versatile and portable database. Two way communication with other computers enables the ORGANISER to act as a remote terminal and data collection device for a central database, and to receive and use such information with speed and versatility.

The LINK-UP pack is fully integrated with the database system of the ORGANISER and allows automatic selection of records for transmission to computer or printer.

Connected to a printer, programs and information stored on datapaks can be listed, checked and changed using the ORGANISER's compact alphanumeric keyboard.

The LINK-UP pack consists of two units, the connector pack, which looks like a datapak and has a multicoloured ribbon lead emerging from it, and the software pack.



The software pack contains the programs which control the flow of information to and from the ORGANISER. Once the programs have been set, the software pack is replaced by a datapak to transmit or receive information through the connector pack.

The LINK-UP pack conforms to the widely used RS232 and RS423 standards, found in almost all home and desk top micros and serial printers.

The manual explains in detail how to use the software pack to set the ORGANISER to communicate with compatible machines including the Sinclair QL, BBC Model B, IBM PC and ACT Apricot computers and the EPSON FX80 with serial interface card.

The two metre ribbon cable terminates in a standard 25 pin D type socket which can be plugged directly into an IBM PC. Other computers and printers may require an additional adaptor which if you do not already have one, can be purchased from your computer dealer. Full details are provided in the manual.

## TECHNICAL INFORMATION

Inserting the SOFTWARE PACK and CONNECTOR PACK in the solid state drives provides two new MODE commands: SETUP and RESET.

SETUP provides the following communication parameters and default settings using the  $\uparrow$  and  $\downarrow$  keys:

BAUD	9600	EOL	CRLF
PARITY	NONE	EOF	1A
BITS	8	TRAN A	NONE
STOP (BITS)	1	TRAN B	NONE
HAND		EXIT	NO SAVE
(SHAKING)	NONE		

and are arranged in a continuous loop. Using the « and » keys, new parameters can be set, depending on the requirements of the 'target' computer or printer.

BAUD:	150, 300, 600, 1200, 2400, 4800, 9600
PARITY:	ODD, EVEN, MARK, SPACE, NONE
BITS:	7, 8
STOP BITS:	1, 2
HAND SHAKING:	RTS/CTS, XON/XOFF, NONE
EOL:	CR, LF, FF, or user defined
EOF:	CR, LF, FF or user defined
TRAN A:	CR, LF, FF or user defined
TRAN B:	character substitution.
EXIT:	NO SAVE, SAVE

### SEND AND RECEIVE COMMANDS

SEND L	Send Line	REC L	Receive Line
SEND F	Send File	REC F	Receive File
SEND P	Send Program		

# PERSONAL PROGRAMMING

## **POPL – A POWERFUL AID TO PERSONAL POCKET COMPUTING**

POPL – (PSION ORGANISER Programming Language) has been purpose designed for the organiser, and enables you to write, store and run your own programs.

With POPL you can customise the PSION ORGANISER to exactly match your own requirements – whether you simply need to store basic and repetitive calculations for day to day application or need to create a sophisticated program for later use.

Contained within the Finance, Maths and Science packs, POPL is built around a set of simple commands such as IN, OUT and GOTO and has a versatile line Editor.

POPL is a modular programming language, based on procedures which can be combined and cross referenced. Even the most complex and ambitious tasks can be split down into a series of discrete and manageable elements. This approach is highly flexible and enables you to write complex programs easily and quickly.

## **CREATE PROGRAMS AS INDIVIDUAL AS YOUR PROBLEMS.**

When any of the three program packs is plugged into the ORGANISER the MODE key provides options additional to those found in the base machine:

- CAT** Lists all programs and procedures held in the program pack and datapak, if there is one plugged into the other 'Solid-state drive'.
- RUN** Either a ready written program or one of your own stored in a datapak.
- PROG** Programming language.
- COPY** Transfer information from one datapak to another.

When the Programming Language option is selected a further range of facilities specific to POPL are available.

**EDIT:** For writing and editing procedures.

**INSRT:** Inserts a program line.

**QUIT:** Discards your current procedure.

**EXIT:** Takes you out of PROG and carries the procedure into RUN.

**SAVE:** Copies an edited procedure into datapak for permanent retention and access.

**ERASE:** Erases a procedure from a datapak.

The comprehensive manual included with each program pack contains an extensive description of POPL and advice on its use. Sections include:

Variables: INput, OUTput and Assignment.

GOTO, Branching and Labels. Conditions: IF,

AND, OR and NOT. Looping and Iteration.

Globals and Arrays, STORE and RECALL.

Calling procedures. Parameters and Error messages.

## SOFTWARE LIBRARY

However simple or complex your computing requirements – the PSION ORGANISER can meet them – at work or in the home – with a range of ready-written software that you just plug in and run. Each program pack also contains an extended range of mathematical and scientific functions and POPL – the PSION ORGANISER Programming Language. Three packages are already available and more are on the way soon:



### FINANCE

**MORTGAGE:** Monthly repayments  
**CASH FLOW:** Net present value  
Internal rate of return  
**INVESTMENT:** Bond redemption yield  
Equity price to earnings ratio estimates

**COMPOUND INTEREST:** Mortgage  
Payment  
Value  
Capital  
Duration

**DEPRECIATION:** Straight Line  
Reducing Balance  
Lifetime Estimate

**BONDS AND EQUITIES:** Bond redemption yield P/E estimate: Whitbeck-Kisor model.



### SCIENCE

A suite of science programs suitable for a wide variety of applications.

**Physical Constants** – Planck, electron mass, electron charge, Rydberg, Gravitation, Avogadro, speed of light, sound. Gas constant, permeability, permittivity, earth radius, Bohr radius, Astronomic unit, etc.

**Conversion Factors** – UK to MKS etc.

**Formulae** – LC circuit, Lenses, Bohr energy levels, Larmor, plasma, etc.

**Integration Under a Curve**

**Least Square Fit**

**Solution of Polynomial Equations**

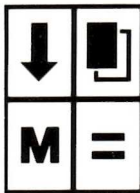
## SOFTWARE LIBRARY



### MATHEMATICS

Valuable for the mathematician, the student and scientist – with a comprehensive range of facilities:

**Bessel Polynomials Matrices** – functions  
– solutions to equations  
– solution to matrix equations  
Eigenvalues  
**Integration Curve-fitting Statistics** – under a curve  
– least squares  
– mean  
standard deviation  
Chi-squared



### UTILITY PACK

Further increases the power of the PSION ORGANISER'S calculator functions with a powerful

range of additional mathematical and scientific functions.

LOG, ALOG, LN, SQRT, EXP, SIN, COS, TAN, ATN, ABS, INT, DEG, RAD, MOD, MIN, MAX, FAC, SGN, ROUND, MEAN, STDEV, PI, RND, RAND, ENG, FIX, POWER FUNCTION AND COPY.



## A PERSONAL DATABASE

Imagine the convenience of having a filing system and secretary in your pocket. With the PSION ORGANISER you can forget about diaries, notebooks and the backs of old envelopes. All you have to do is type in your information in ANY order or sequence and file it away at the touch of a button. For instant retrieval use the FIND command, type in a few characters which match ANY part of your original entry and all the information will be displayed.

Editing and amending a record is just as simple and you can scroll through an entire entry up to 200 characters long using the cursor keys. Even if the battery is accidentally disconnected, your database stays intact because it's *permanently* stored in a choice of 8k or 16k datapaks.

The 8k datapak holds 11,000 characters and the 16k 22,000. So with two 16k datapaks you can store information equivalent to 1,000 names and addresses and recall them with a few keystrokes. As both datapaks can be removed and replaced at will, you can build an infinitely large personal database which you can access in a few seconds.

You can use the ORGANISER to store all the vital day-to-day information you need:

<b>Names and</b>	<b>Price Lists</b>
<b>Addresses</b>	<b>Schedules</b>
<b>Important dates</b>	<b>Expense details</b>
<b>Restaurants</b>	<b>Timetables</b>
<b>Customer and</b>	<b>Survey information</b>
<b>supplier records</b>	<b>Statistics</b>
<b>Exchange rates</b>	<b>Experimental data</b>
<b>Personal Reminders</b>	

and there are dozens of other examples. The potential for the ORGANISER is as wide as your imagination!

Although datapaks permanently and securely store information, it is possible to clear and re-use an entire datapak using a process called formatting, a service which is available by post or through using a PSION FORMATTER.

Further details are provided on the ORDER FORM.