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EduCALC

Catalog #59

Fake displays?

No way!

These HP calculators still work fine — the 42S survived a dog attack, and the 48SX an 18-wheeled road hazard. You probably won't ask as much of *your* calculator, but HP engineering will be there if you need it. See my letter on page 3.

Jim Carter, Manager

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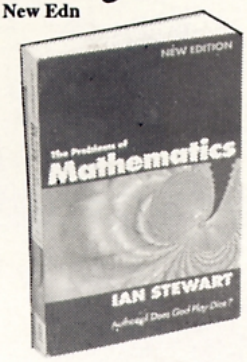
The Problems of Mathematics, New Edn

Brand New

by Ian Stewart



- bad puns
- can't put it down
- new jokes

Learn fun mathematics, writ funny! This new edition (with its Foreword by Yogi Berra) has old and new results — Kepler's sphere-packing problem, Tarski's circle-squaring question. Euler's conjecture about sums of square squares, and, well, digital sun-dials (state-of-the-art fractals, these).

However, the author puts you on warning: "Sorry, Virginia, there is no sanity clause."

Stock #2849, Problems of Math, 347p sftbnd.....$16.95

audacious orange Protective Case for your HP 48

TDS

Brand New

Thick nylon cloth with heavy stitching (sheds water) has clear plastic front cover membrane (you can key right through it), velcro seal, and cable port on lid; hand strap on back doubles as belt loop.

The surveyor's orange color is so bright that, if you drop it in the field, it may start a fire!

Stock #2865 [Orange 48 Case].....$29.95

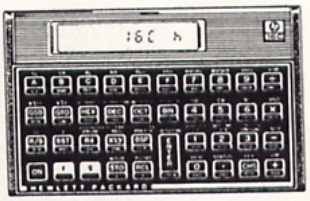
Put your MCI Mailbox in your pocket — new Maclean Mailer automates MCI access via HP 95 and works as well on any PC . . . see page 25.

Oldies but Goodies

The EduCALC team has scored for you again —this time in the nostalgia dept. We have found a few HP-16C calculators. They are all brand new and come with batteries and a full 1-year warranty. Here's the catch, though; we can offer just the instruments themselves for sale to you—they are not in boxes and manuals are not included (however manuals are available; see below).

Please consider these prices carefully — this offer is quite limited.

HP-16C calculator "The Computer Scientist"



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Base Conversions 16/10/8/2; integer and f.p. modes.

Bit manipulation with 64-bit capability; exact integer arithmetic, one's/two's complement and unsigned mode, bit shifting and rotating, and much more.

Programming with up to 203 lines or 101 registers, 8 conditional tests, 4 levels of subroutines.

Stock #HP16CI [HP-16C, instrument only] $34.95

Stock #720, HP-16C Owner's Manual $10

Want a Palmtop computer that speaks BASIC for under $90? See surplus HP-71Bs on p. 47.

Be sure to check out the new Wizard model, OZ-9600 — see page 8.

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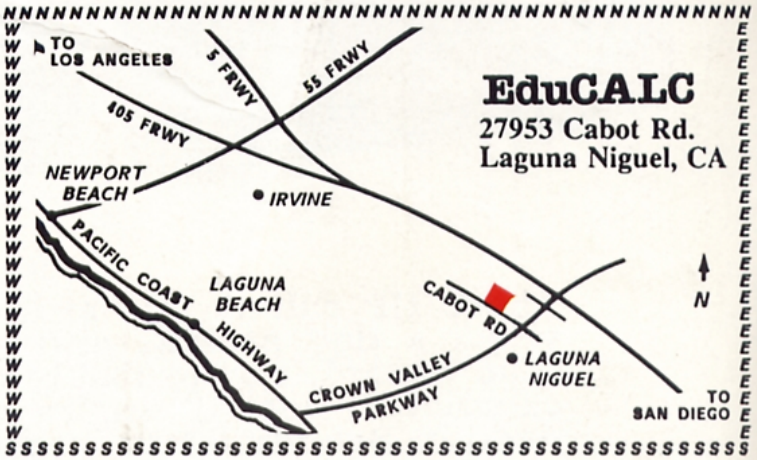

Here's who you'll talk to at EduCALC:

Liz

Ellen

Brent

Matt

Kelli

Richard

Christy

Deanna

Jim

Chris

Marta

Kaycee, EduCALC's official greeter

EduCALC
27953 Cabot Road
Laguna Niguel, CA 92677

Spring, '93

Dear Reader,

You may find some of these stories hard to believe.

Take that HP 48 pictured on our catalog's cover . . . I have recent letters from 3 other customers who had traffic accidents that left tire prints on their calculators, and at least one of them watched as a giant truck rolled over his precious instrument.

These accidents had several things in common. In each incident, the owner had left the calculator on the car roof before driving off. Each calculator worked perfectly after being run over (though one had a sticky ENTER key). And each was engineered by Hewlett-Packard.

In a wetter kind of accident, another HP calculator was cycled through a washing machine. After a couple days drip-drying, it worked fine . . . and it still does now, 8 years later!

A Cornell student wrote about his apartment building burning up. It was the worst fire in Ithaca's history. When he got back his charred book-bag, he reached inside for his HP 32S and tried to turn it on. It again displayed the number that he had put in its X-register before he turned it off.

Calamity does not strike everyone's calculator. Maybe your experience will be more like that of the customer who wrote:

> I was using my HP-11C calculator the other day when I realized that it had just passed its tenth anniversary with me. Ten years ago, I was single, a college student and using a TRS - 80 computer. Today I am married with two children, a successful actuary using a 386 PS-2. But I still have the same great calculator.
>
> My wife, an accountant, has gone through at least a half-dozen inferior calculators. The paint on her keys wears off, the keys stick and the digits repeat. My HP-11C works as well as the day I bought it.

That brings me to my bottom line . . . when you buy an HP instrument from us, you can count on being pleased or, sometimes, even . . . amazed.

Sincerely,

Jim

Jim Carter
Manager

P. S. I've hidden a coupon somewhere in this issue. Find it now and enter my contest for a FREE calculator.

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James Donnelly

as featured in *Scientific American* for February, '93

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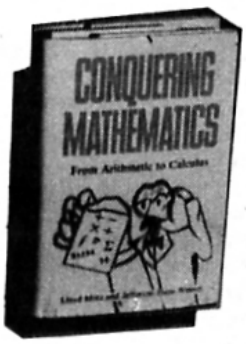

"a feast for the intellect" — *Publishers Weekly*

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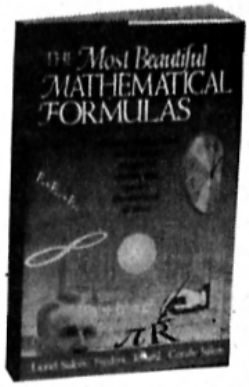
New



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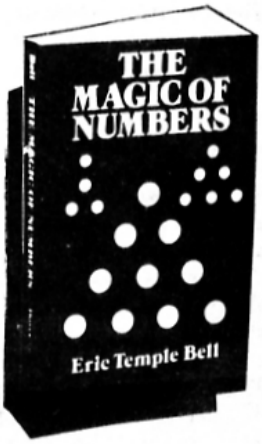

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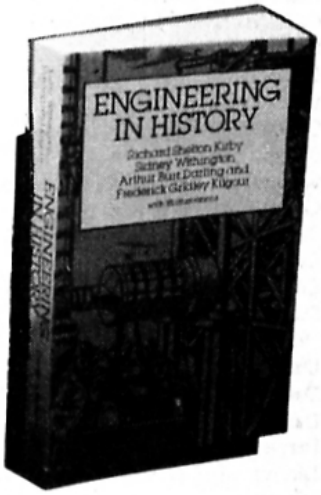

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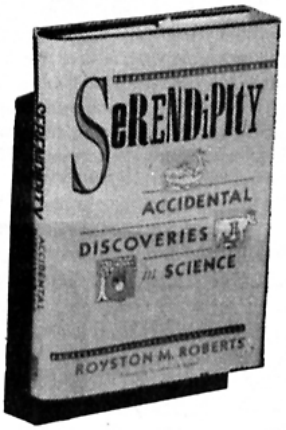

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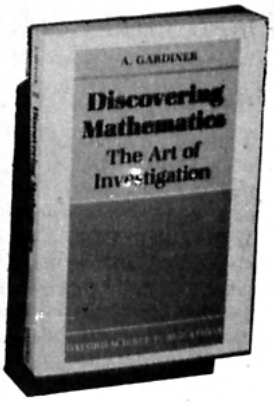
by A. Gardiner



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+, −, ×, ÷, square or square root, in Ft/In/Fraction to 1/16", or Decimal Feet or meters—convert back and forth! Finds diagonal or total rise with Pythagorean theorem. Memory.

USA-engineered with tough ABS case in **high visibility yellow**. Dust-resistant membrane under color-coded keypad. 1 year warranty.

Stock #DCINCH [Inch-Mate Calculator] List $40 .....$33.95

Calculator batteries, stands & cases—p 29-31

Tape Mate

the foot/inch/fraction calculator that attaches to your tape rule

DigiTool

Brand New

Attaches easily to most 25' and longer tape rules, including Stanley Powerlock —also fits in shirt pocket or hangs around neck.

Solar powered. Uses common fractions to 1/64" and decimals. Automatic areas and volumes. Rugged, dust-proof keypad, scratch-resistant Lexan lens. 1-yr warranty.

Stock #DTTM [Tape Mate] List $25 .....$19.95

ElectriCalc Plus

Electrical Code Calculator

Brand New

Calculated Industries

- *avoid code violations*
- *prevent material waste*
- *cut look-up and calculation time*

You'll have **Wire-Sizing** and **Voltage Drop**, plus *NEC* **1990/93** tables **310-16/17, 3B, 250-94/95**, built in—it's like having that 800-page **Codebook at your fingertips!**

You'll work directly in **Volts, Amps, Watts, Volt-Amps, HP, Efficiency** and **Power Factor.** Calculates **Wire** and **Conduit Sizes** accounting for **CU** and **AL** Wire, **75°/90°** Insulation, **Ambient** Temperature, and **10** and **30** systems. Finds **Voltage Drop Wire Size, Actual Volts Dropped** and **Percentage of Volts Dropped.** Solves Grounding calculations, finds Derated Wire Sizes.

Includes User's Guide, case, batteries and 1-yr warranty.

Stock #ECP [Electric Plus] List $100.....$89.95

Read our mail from Mississippi —

Thank you for your quick response and help. Glad to see that EduCALC is still one company who has the best interest of their customers in mind. I have repeatedly recommended your company to many friends who have purchased items from you. They also received quick and courteous service. Ron Burnham, Biloxi

Read our mail from Texas —

"Please tell all of your employees to keep up the good work. They will keep and expand their jobs by solving the customers' problems immediately, as they are doing and not by trying to pass the problem along to someone else. I am amazed that so few people really understand that their primary job is to take care of, and take over, customer problems." Robert L. McIntyre, Brownsville

Informators™

Wizard OZ-9600

SHARP
FROM SHARP MINDS COME SHARP PRODUCTS™

Brand New

- **touch-screen**—quick and simple for you to use
- **320 × 240 dots graphic display**—you can draw a map on it
- **true word processing**—type a letter comfortably, print with multiple fonts
- **a quarter-million bytes of memory**—now you can keep it all

Magic from Sharp, the world leader — a new standard for your time management and business productivity!

Touch-screen technology makes it a snap to use—you just touch an icon on the screen . . . no need to remember any key commands. You'll draw or write on the screen and save it as though it were a yellow sticky note (reduce or enlarge it if you like). If you're on the run, jot down a quick note or phone number by hand, and later attach it to a User File or telephone entry.

Keyboard is 75% the size of a standard PC, so you can type plenty, anytime and anywhere—print in bold, italic, underlined or plain fonts, set margins & indents and tabs. Print on any printer using new infrared technology or even print any screen (interface optional). Use OUTLINE to take notes or create lists with subtopics, so you can organize giant amounts of information to copy, collapse or expand and retrieve exactly what you want.

Your new FILER is your assistant, that will collect related info and put it all into a folder automatically. All incoming transfers go directly to your 'In-folder', where they wait for your review & filing, like the in-box on your desk.

Everything else you need is here — CALENDAR, SCHEDULE, TO-DO, ANNIVERSARY, SCRAPBOOK, TELEPHONE, CLOCK, CALCULATOR, SEARCH, the works. And all or any part can be SECRET. Back up everything onto a card in 5 seconds.

Built-in communication protocols let you use on-line data services like CompuServe to send/receive e-mail, or XMODEM a folder to another Wizard over the phone (modem optional). Infrared links (optional) connect your 9600 to a PC or a Mac, or to a printer.

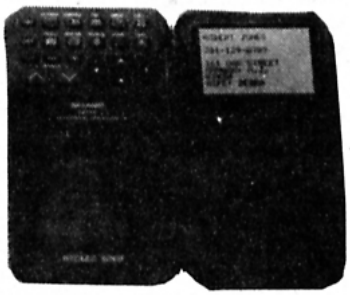
If you can touch a button, you are already a 9600 expert!

Stock #OZ9600 [Wizard] List $650.....$499
Stock #OZ701 (Time/Expense Management) List $120.....$89.95
Stock #OZ703 (Language Translator) List $100.....$79.95
Stock #OZ705 (Money-Planner) List $100.....$84.95
Stock #OZ707 [Scientific Computer, BASIC] List $130.....$99.95
Stock #OZ715 [Spanish-English Dictionary] List $110.....$84.95
Stock #OZ717 [Box Jockey, game] List $50.....$37.95
Stock #OZ8B01 [3-D Worksheet Manager] List $200.....$154.95
Stock #OZ8B03 [Scientific Calculator] List $130.....$99.95
Stock #OZ8C01 [Organizer Bible, Card] List $150.....$109.95
Stock #CEIR1 [Infrared to printer].....$124.95
Stock #CE315L [Dubbing Cable].....$69.95

Wizard OZ-7420
the smallest software-expandable organizer

SHARP
FROM SHARP MINDS COME SHARP PRODUCTS™

Brand New



Takes all the software cards, has 64K memory and does all your organizer jobs, even has a calculator-style keyboard, and links to a PC—*yet it fits in your shirt pocket!*

Stock #OZ7420 [Wizard] List $270.....$199.95

SAVE THESE NUMBERS

CASIO
Tech Support (800)634-1895

CALCULATED INDUSTRIES
Telephone (800)854-8075

CONTACT SOFTWARE
Telephone (214)484-4349

CORVALLIS MICRO TECHNOLOGY
Telephone (503)752-5456

D'ZIGN
Telephone (209)297-8025

EduCALC News Line *New*
Telephone (714)582-3976

E.Z. Software
Telephone (718)434-1766

HEWLETT-PACKARD
Technical Information (503)757-2004
Repair Service (503)757-2002
Thinkjet Hotline (208)323-2551
Customer Information Center (800)752-0900
HP 95 Technical Support (900)288-0025
First minute is free
Bulletin Board Modem (503)750-4448

HP 12C, 17B & 19B SEMINARS
Edric Cane (818)957-3026

HP 95LX Seminars
Computer Instructors Company (800)487-5040
Craig A. Levine (CALNET) (310)374-6167

IDEC (503)753-9403

KERMIT TECHNICAL SUPPORT (212)854-5126

PSION
Tech Support (508)371-0310

RAMSS
Telephone (301)876-7267

SHARP
Technical Support (800)732-8221
Wizard Information (800)321-8877

SPARCOM (503)757-8416

SUNDISK (800)688-7177

SURVEY MODULE INCORPORATED
Technical Support (615)357-8931

TEXAS INSTRUMENTS
Consumer Relations (800)842-2737
Technical Support (806)741-2663
Literature (800)847-2787
Warranty (800)847-5757

TRIPOD DATA SYSTEMS (503)753-9322
(800)426-8026

U. S. Robotics
Technical Support (800)982-5151

WORLDPORT MODEMS
Technical Service (800)982-5151

HPCC—*Handheld and Portable Computer Club. The independent group for the users of Hewlett-Packard handheld and portable computers; publishes DATAFILE 8 times a year. Direct inquiries to Membership Secretary, Geggs Lodge, Hempton Road, Deddington, Oxfordshire, 0X5 4QG, Great Britain.*

Series 3

Psion

Now comes with spreadsheet built in (a $150 value)!

the pocket computer for word processing and programming

***Inforworld's* #1 palmtop**
Best of *Comdex*, Fall '91
1991 *Byte* award of distinction

■ **built-in Word Processor/Outliner is *MS WORD* compatible** and can format complete, complex documents—bold, italic, flush left or right or justified, headers and footers, auto-numbering of pages, margins and tab settings, line spacings, widow and orphan control, font selection, and more—all with easy-to-use pull-down menus and ***style sheets***.

■ **built-in Graphic Programming Language**—OPL/w is BASIC-like and structured, has more than 200 statements, commands and functions, plus it handles graphics, windows and menu control. Programs are compiled and run from the program editor and can be added to the main display system with their own icons, just like other the applications.

■ **built-in Personal Info Management applications** — Database for name/address/phone records (or whatever; it's flexible) by the thousands — Agenda with day-view appointments and alarms, week-view and calendar to 2049. plus things-to-do manager. Time and Alarm with 12 or 24 hour clock, snooze or cancel—World Information with dialing codes for 400 cities in 150 countries (plus edit or add); displays map with distance between home and target city; sunrise/sunset and 4 zones of Daylight Savings.

■ **built-in Calculator with Scientific Functions and Math Operators**—10 memories, unlimited parentheses. general and fix point, exponential and hexadecimal formats—complete calculations can be edited for what-if recalculations—or you can run your own OPL procedures.

■ **built-in Connectivity and Communications**—loudspeaker with DTMF autodialing, peizzo buzzer; Epson and IBM Proprinter printer drivers (and compatibles)

■ **optional Connectivity**—Serial Link gives RS232 interface to computers, modems and printers, including communications software; Parallel Link interfaces to printers.

Specifications

16 bit V 30H, 80C86 compatible, 3.84 MHz.

384K ROM includes multitasking windowing operating system

256K RAM plus 2 slot-drives for up to 4 Megs of storage that's MS-DOS compatible with PCs. Flash memory cards up to 2 M require no battery backup and are super-safe. RAM memory cards have lithium batteries, hold up to 1M.

Display is a high-contrast Hitachi double retardation film LCD, 40 characters by 8 lines. Overall folded it is 6.5 × 3.3 × 0.9 inches; 240 grams without its 2 AA batteries (a bit over a half pound, 2-4 months typical life).

The Series 3 got *BYTE Magazine's* Award of Distinction—their Dick Pountain said the graphics interface was "brilliant", "the multitasking operating system is far more suitable than DOS is for a pocket machine", "the phone dialer is cleverly integrated with the World application so that it can prefix the proper international code for an overseas call but omit it for domestic ones; you set 'Home City' in World to tell the Series 3 which country you are currently in", "the World application is the best of its kind I've seen", . . . WOW!

Stock #2751 [Series 3, 256K RAM] List $545.....~~$459.95~~ $399.
Stock #2626 [128K Flash Memory Card] List $80.....$59.95
Stock #2627 [256K Flash Memory Card] List $140.....$105.95
Stock #2628 [512K Flash Memory Card] List $240.....$179.95
Stock #2629 [1M Flash Memory Card] List $400.....$299.95
Stock #2630 [128K RAM Memory Card] List $140.....$105.95
Stock #2631 [512K RAM Memory Card] List $400.....$299.95
Stock #2632 [Serial Link, IBM PC] List $140.....$105.95
Stock #2633 [Parallel Link] List $60.....$49.95
Stock #2634 [AC Adapter] List $20.....$15.95
Stock #2715 [Mac Link] List $199.....$124.95
Stock #2740 [Games Card] List $100.....$84.95

Plug-in ROM-card Software

Spreadsheet—with full graphics display (Lotus 1-2-3 & Microsoft Excel compatible). Built into current model.
Stock #2800 (Spreadsheet, card) List $150.....$134.95

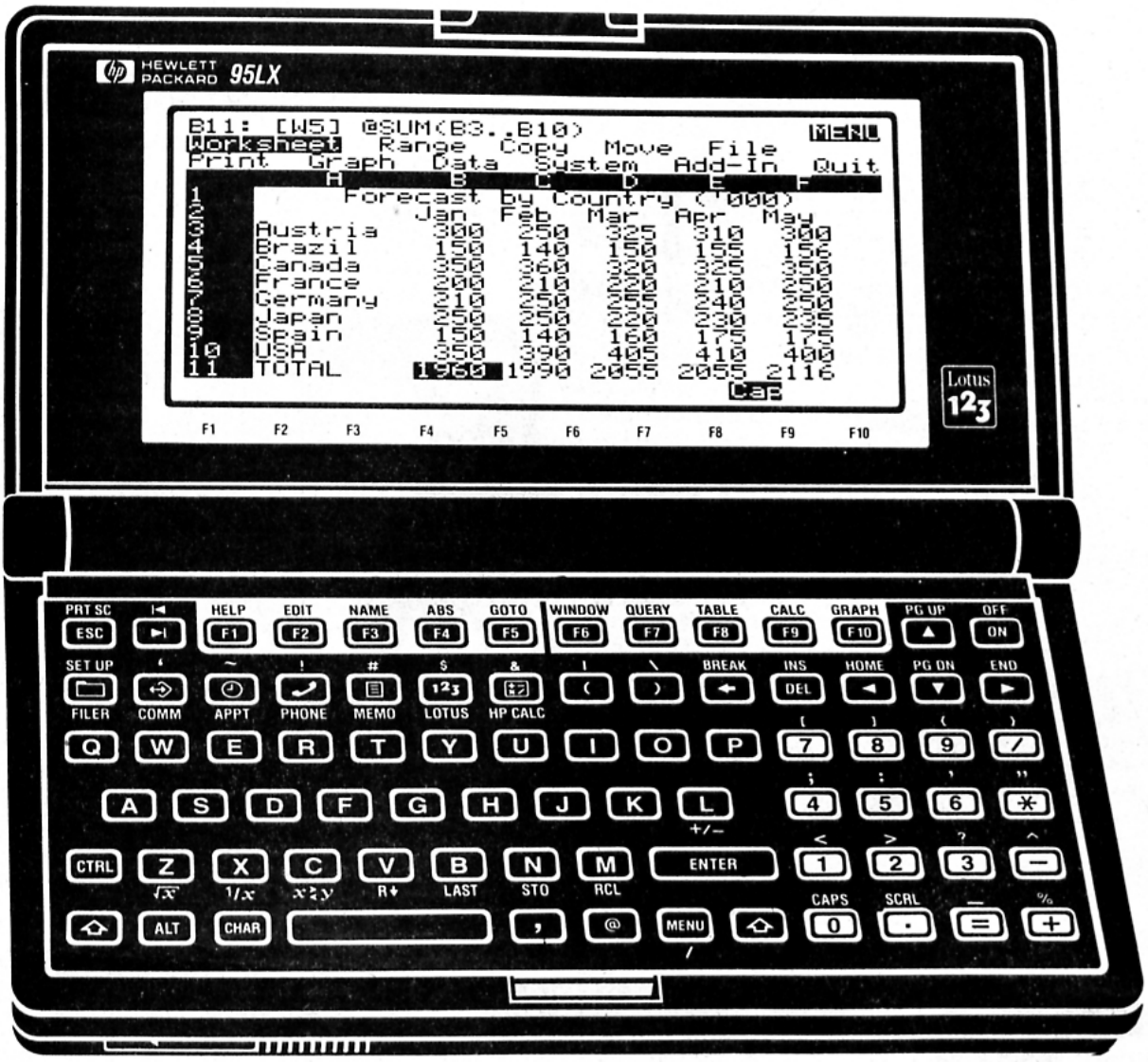
Professional Finance—advanced financial routines for business: cash flow, % breakdown, interest, statistics, forecasting (emulates HP financial calculator).
Stock #2801 (Professional Finance, card) List $100.....$89.95

Chess—worldwide award-winning chess game with full 3D graphics.
Stock #2802 (Chess, card) List $100.....$89.95

PC Software for MS Windows

Intellilink—makes it easy for you to transfer your Series 3 files to the most popular PC software packages.
Stock #2699 (Intellilink, 3½") List $100.....$89.95

Be sure to check out our **surplus HP 71B** offer on page 47.



life-size picture — blue keys are the first 7 in the second row

HP 95LX

HEWLETT PACKARD

the 7 wonderful keys —

those extra blue keys that will turn the HP 95LX into your favorite computer at any size! at any weight! at any price!

1•2•3 Don't leave the office without it! Now you can *download* spreadsheets from the big PC to your HP 95LX. Because this is real Lotus 1•2•3.

Take that sales report, budget or investment portfolio right along with you in your pocket. *Update* as you talk. *See* the results instantly. *Zoom* them. *Show* them around. *Transfer* them back to your PC when you are in the office again.

If you need to leave Lotus, perhaps to check your appointments or to find a phone number, just press another blue key. When you're ready to use Lotus again, touch the blue 1•2•3 key and you'll be back in your spreadsheet. exactly where you left off. You can also copy part of a worksheet and move it to where ever you want it, maybe into a memo.

Here are some other things you can do with this powerful version 2.2 of Lotus:

- Use, edit, or create large worksheets—up to 256 columns and 8,192 rows of data
- Create and view 1•2•3 graphs
- Zoom in for a close-up look at a portion of a graph
- Manipulate databases using 1•2•3 data commands including Sort, Query, and Regression
- Execute macros to speed up repetitious tasks and keystroke sequences
- Link files
- Use Worksheet, Range, Copy, Move, File, and Add-in commands
- Print to a text file or printer
- Use 1•2•3 @ functions from @ABS to @Year
- Perform cash flow analysis or statistical analysis using built-in 1•2•3 templates

Note: Allways™, PrintGraph, and Translate are not included in the HP 95LX. To use them, transfer your 1•2•3 file from your HP 95LX to your IBM-compatible PC, and run them from your PC version of Lotus 1•2•3.

HP 95LX

Sure, your HP 95LX will do the same timely chores that a Wizard or a BOSS will . . . to help you with appointments, schedules and priorities.

But the HP 95LX is itself a PC, so it has a big Appointment Book program, with all the frills of an office machine — plus the big memory to match.

You can *set your alarms* to go off, say, 15 minutes in advance. You can highlight your appointment and press FG to get the *background information* (including a 1•2•3 spreadsheet, if that's what you need).

Set repeating apopointments once and they'll show up as specified, weekly, monthly, or yearly.

Can't remember details from a note you saved? No problem. Enter a word or short phrase and *search* for the note in your appointment book.

What time is it in Dallas? In Geneva? In Melbourne? Access the *city list*, highlight a city, and read the *time* at the top of the screen.

Here's what you can do with your appointment book:

- See your daily schedule
- Repeat appointments on a weekly, monthly, or yearly basis
- Set alarms for appointments
- Check your daily to-do list
- Mark to-do items as completed and carry over past-due items automatically
- Attach extra information as a note to an appointment or to-do item
- Search for a word or phrase in the appointment book
- Create multiple appointment books
- Print your appointments or to-do items, for one day or a series of days, to a text file or printer
- Consult a monthly calendar
- Check the time locally or in any one of over 250 worldwide cities, including towns or locations that you have added to the city list
- Use the HP 95LX as a timer or stopwatch

Your HP 95LX will have *all the goodies* that go with a big PC Phone Book program done by Lotus, plus *its giant RAM memory capacity*. Here's what you can do with it:

- Access an alphabetical list of names and phone numbers
- Find a name and number quickly by scrolling, searching for the name directly, or searching for the first letter or letters of the name
- Keep, for each name, a card of information—such as an address, job title, birthday, or whatever you want
- Search for a word or phrase in the phone book cards
- Create a smaller phone book from an existing phone book
- Print one or more names and numbers, with or without their information cards, to a text file or printer
- Use the phone book's database capability to create additional useful lists, for example, a price list or inventory list

You won't want to type a book into your HP 95LX — that's what desk PC's and secretaries are for. But you could *edit* a book on your 95, by using its Memo Editor, which is a small word-processor. Or *store reference information*. Or *take a quick note* on the spot. Here's how:

- Create a memo, note or letter
- Edit ASCII-format documents or reports transferred from your PC to the HP 95LX — the display's right margin is adjustable and can accommodate a line width up to 240 characters
- Use standard word processing features including:
  word wrap, cut and paste, copy and paste, insert and overwrite, tab and margin setting, insertion of text from another file, page break
- Search for a word or phrase in your memo or document
- Print all, or a portion, of your memo or document to a printer

Do simple arithmetic simply — either Algebraic or RPN style — you decide.

But your HP 95LX will have the latest, most sophisticated Financial Calculator, one that only HP could give you. *Time Value of Money* answers and *"what-if"* recalculations. *Backsolving* for any variable in your equation — and you can use this feature to compute values in worksheet cells, automatically!

Note the *currency conversions* and the quick *plotting* and *root-finding* in this list of powerful features:

- Do arithmetic and use general math functions including percent, square root, reciprocal
- Use an automatic constant
- Store numbers directly to, or recall them from, a Lotus 1•2•3 worksheet with the STO@ and RCL@ functions
- Keep a running total of a list of up to 100 numbers, with list review and editing capability
- Perform these time-value-of-money calculations: compound interest, amortization, interest rate conversion
- Send an amortization schedule directly to a Lotus 1•2•3 worksheet
- Compute business percentages: percent change, percent of total, markup, margin
- Perform currency and other unit conversions: nine standard currencies or others of your own choosing, length, area, volume, mass
- View the elements and progress of each calculation on the large HP 95LX display; see labeled variables, the contents of 10 storage registers, or the history stack
- Use the HP Solve application to customize the calculator with often-used equations — solve for one variable in terms of the others without rewriting the equation
- Store HP Solve equations to the Solve Catalog
- Use Solve 1-2-3 to backsolve to a desired result in a Lotus 1-2-3 worksheet — calculate the value of one cell to achieve a desired value for another cell
- Plot an equation or mathematical expression, zoom in on chosen areas of the graph and calculate roots
- Use technical math functions including: trigonometric functions, polar/rectangular coordinate conversions, exponential and logarithmic functions, integer part, fractional part, and absolute value, rounding a number, random number generation, permutations, combinations, and factorials
- Choose your preferred form of data entry, either algebraic or RPN
- Print to a printer any of the following: contents of the calc line, contents of the history stack, contents of the storage registers, all data in current calculator screen, an amortization table

Stay in touch — with your electronic mail, stock markets, news, weather and sports.

Download new charts or tables from the home office. *Upload* new field data, orders, specifications or instructions.

Here's what you can do with Data Communications:

- Access information networks such as your company's electronic mail system
- Access electronic information services such as CompuServe
- Save information you receive in a capture file
- Set data transmission speed to 300, 1200, 2400, 4800, 9600, or 19200 bps
- Use the 40-column HP 95LX display as a window into an 80-column screen to communicate with systems that require a full 80-column screen
- Wrap incoming data to 40 columns when communicating with a system that does not require use of all 80 columns
- Transfer files using Kermit or XMODEM protocols, or as straight ASCII text
- Emulate a VT-100, ANSI, or tty terminal
- Automate logon using a script file
- Choose among built-in configuration files, including ones to connect to CompuServe, Dow Jones News/Retrieval, or MCI Mail; or create and save your own

Note: Datacomm requires either the HP 82222A serial interface cable to connect directly to a remote computer; or the cable, a modem, and a modem adapter to connect by phone to the remote computer. Direct connection may also require an optional cable adapter. The filer, described below, includes additional file transfer capability.

The Filer is a "DOS shell", an easy-to-use labor-saver Lotus has programmed for the HP 95LX so you can simply and quickly create, move, view, copy, delete, print and generally *manage your files*.

There's also a game here, TigerFox, where you chase the fox while the tiger chases you. The complete list is:

- Create, rename, and move among directories
- View a listing of files in your directories
- View the contents of a specific file
- Copy, move, or delete one file or several files at once
- Rename a file
- Sort files by date, by extension, by size, or alphabetically by file name
- Run a program from electronic RAM disk, from a plug-in RAM card, or from ROM

HP 95LX

- Execute MS-DOS commands available in the HP 95LX
- Transfer files between one HP 95LX and another via infrared interface
- Transfer files between an HP 95LX and an IBM-compatible PC, either through direct serial connection or via an optional modem, using the optional HP F1001A Connectivity Pack
- Simplify file management tasks, especially file transfer, using the split-screen feature; lets you see two directories at once, making it easy to copy a file from one to the other
- Print a file, set of files, or directory listing to a printer
- Play TigerFox, a chase game with 45 different mazes

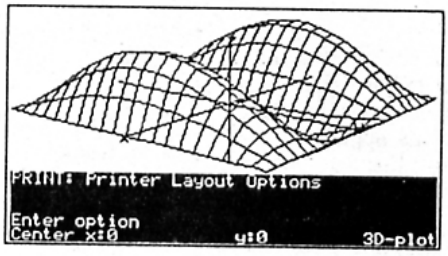
Setup Utility
- Adjust display contrast, memory allocation, and beeper volume
- View battery level
- Set date and time formats
- Specify punctuation, language, keyboard, and currency settings
- Select or modify printer configuration
- Create customized user keys that let you quickly recall a string of text or automatically execute a series of keystrokes to perform a specific task
- Format a plug-in RAM card
- Personalize the HP 95LX by filling in a business card display or adding your own customized graphics image

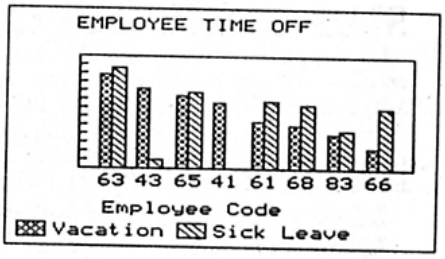
That's what the 7 wonderful keys do, each by itself. But that's not all — *these applications fit together*. This means that you can *jump* from one to another at will, and even *take data along* with you. It means that you won't have to learn different schemes of commands for each piece of software, because these are *consistent*, as alike as Lotus programming could make them.

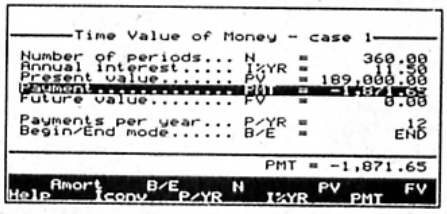
Look at these consistency features:
- Press a single key to access any of the 7 built-in applications
- Press a single key to switch to another application without having to close the first one
- Find your way around an application easily, guided by menu keys and softkeys
- Access [redacted] from any application by pressing [redacted]
- Move information among applications by copying it to a clipboard and pasting it where you need it
- Save time by creating custom user keys to recall specific sequences of keystrokes that you use often

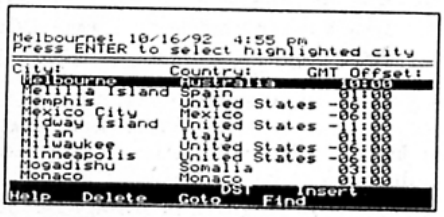
"This handheld hybrid may change financial organization as we know it."
Portable Office

"HP's 95LX is an engineering triumph, incorporating amazing advances in miniaturization and connectivity."
BYTE









the specs

HEWLETT PACKARD

HP 95LX and HP 95 LX1MB Palmtop PCs Include
- Owner's Manual
- Quick Start Guide
- Two AA and one CR2032 batteries
- Engravable personal nameplate

Physical Specifications
- Dimensions:
  16 × 8.64 × 2.54 cm (6.3 × 3.4 × 1 in) closed
- 16 × 16 cm (6.3 × 6.3 in) open
- Weight (with batteries): 312g (11 oz)

Memory
- Built-in ROM size: 1 Megabyte
- Software built into ROM:

MS-DOS 3.22	Lotus 1•2•3 2.2
HP financial calculator	Memo editor
Appointment book	Phone book
Data communications	Filer

- Built-in RAM size: 512K or 1M bytes with adjustable partitioning between system RAM and electronic RAM disk
  Built-in RAM availability: Because the built-in software executes from ROM and uses minimal RAM, most of the RAM is available for file creation and file storage
- Expansion capability: PCMCIA 1.0 Industry-standard plug-in card slot lets you increase electronic RAM disk, for file storage, or add ROM-based software applications.

Industry-standard PC Architecture and Central Processing Unit (CPU)
- IBM PC-XT architecture
- NEC V20H CPU (80C88-compatible) running at 5.37 MHz

Display
- Type: Supertwist liquid crystal
- Size: 40 columns × 16 rows
- Graphics resolution: 240 × 128 dots
- MDA compatible
- Character size: 5 × 7 dots

Beeper
- Alarm feature in appointment book
- Adjustable volume
- Audible warning of operator error

Keyboard Layout
- Familiar typewriter-like QWERTY layout
- Separate numeric keypad
- 10 function keys (softkeys)
- 7 application keys providing one-key access to built-in software applications

Input/Output
- Built-in 3-wire serial interface for connection to RS-232 devices
- Built-in infrared transmitter/receiver for wireless HP 95LX to HP 95LX communication at 2400 bps with a separation distance up to 20.3 cm (8 in)
- Built-in data communication software: VT-100, ANSI and tty terminal emulation Kermit and XMODEM protocol
- Built-in printer driver sets supporting:
  HP LaserJet
  Epson FX-80
  IBM Proprinter
- Plug-in card slot

Power
- Two 1.5 v AA main batteries
- One 3 v CR2032 coin cell backup battery
- Battery life for main batteries is 1 to 2 months of typical use, depending upon type.
- Optional ac adapter

Operating Requirements
- Operating temperature:
  0° to 45° C (32° to 113° F)
- Storage temperature:
  -20° to 60° (-4° to 140°F)
- Data retention temperature (operating or storage):
  0° to 45° C (32° to 113° F)
- Humidity:
  90% relative humidity at 40° C (104° F) maximum

Technical Support
90 days free tech support; then 900-number support with first minute free—call 800 443-1254 for recorded information

HEWLETT PACKARD

still undecided?

Let's recap the facts—this little gem has Hewlett-Packard design excellence in its logical architecture and in its calculations. It has Microsoft's MS-DOS, so it's fully PC-compatible. And it has Lotus 1•2•3 and Lotus Development's programming of its applications, so they all have similar, consistent command structures, and so you can transfer data and results back and forth between them.

- Lotus 1•2•3
- Appointment book
- Phone book
- Memo editor
- HP financial calculator
- Datacomm
- Filer
- 512K bytes or 1 Megabyte of RAM
- MS-DOS 3.22
- 2.5 times as fast as an XT

Is that reason enough to buy it now?

You can see the excellence of its HP machine design in its keyboard, its Input/Output capabilities, and its case (not to mention its robust reliability).

- Crisp 40 column × 16-row display
- Familiar QWERTY keyboard
- Separate numeric keypad
- One-key access to applications
- Serial and infrared interfaces
- Industry-standard card slot
- Protective clamshell design
- Easy-to-carry size, weight

Is that why you have decided to get yourself an HP 95LX, now? This is exactly the way you've always known computers should be. So it's no wonder that the HP 95LX will be your favorite computer, at any size, at any weight, at any price!

It's an always-with-you extension of your desk-bound computers, so anywhere, anytime, you can

- find important phone numbers
- convert currencies
- edit your letters and reports
- calculate loan payments
- check the time around the globe
- dial up information services
- explore "what-ifs" with your spreadsheets
- track your appointments and assignments

This computer is personal and exciting—your power tool for the '90s. Best of all, it weights just 11 ounces, fits into a pocket and costs only a fraction of what a laptop or desktop PC does.

which model fits your needs?

You get your choice of two models, the HP 95LX or the HP 95LX1MB. There's just one difference, but it's a big one—one has 512K RAM memory. while the other has a full 1 Megabyte of internal RAM. Having the extra memory built in is like having a second card slot with a 512K RAM card permanently installed in it, but you'll save substantially by getting your extra memory in model HP 95LX1MB rather than by buying the card.

On the other hand, if you do not yet require more than 512K RAM, you'll save with model HP 95LX—and if you later decide you want more memory, you can have HP upgrade your instrument for you (see box below).

That's not all, either—you'll have EduCALC's 30-day warranty, for a no-questions credit or refund. You can try out your HP 95LX for a month, put it through its paces and make sure it is exactly what you need—there is no risk, because we want you to be delighted. *(Note: we have a lease plan for our commercial customers—call for details.)*

Stock #HP95LX [Palmtop Computer] List $550..... $399
Stock #HP95LX1MB [Palmtop Cmptr] List $799 .. $589

free — your name engraved — free

We will personalize your name or initials free on a small plate that you can neatly adhere in a countersunk space on the back of your new 95. Just include Stock #95CNP and we will include everything you need to get your FREE engraved name plate. You'll be limited to 16 characters and your imagination.

Stock #95CNP [HP 95 Custom Nameplate]..... Free

Trade In Program — Save even more—

TRADE IN your used HP 19B or HP 19BII. Just send it to us, insured, in working order, with all its Manuals. Take CRedit on your Order—$45 CRedit for a 19B or $55 CRedit for a 19BII—and put the order and your check right in the box.

If you prefer to keep your old instrument until your new HP 95 arrives, just send it to us later, along with its Owner's Manual and a copy of the sales receipt for your new machine—we'll send you your refund right away.

Here's where you find...

Accessories 13
Cables/Interfaces 15
Peripherals 17
Software 20
Programming Aids 25
Bookware 26

Accessories

Mobile Data Link

HEWLETT PACKARD

Cradle connects HP 95 with NewsStream receiver while still providing access to serial and infrared communication interfaces as well as the AC adapter. Your 95 will slide easily into cradle.

The NewsStream receiver is a product of Motorola, Inc.; it is not included in this package. Cradle size 8.7 × 3.7 × 1.08 inches; software application card, nameplate and User's Guide included.

Stock #F1006A [Mobile Data Link] $119.95

AC Adapter for your HP 95

HEWLETT PACKARD

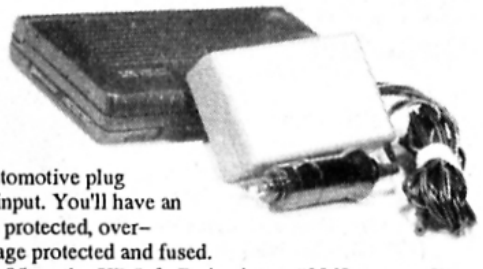
Stock #82241A [AC Adapter, for USA] $14.95

Going overseas? Take your power with you—9v, 13.5 va output for HP 95 or for HP82240B InfraRed Printer.

Stock #82241AB [AC Adapter for Europe, 220v 50Hz] $14.95
Stock #82241AU [AC Adapter for the U.K., 240v 50Hz] $14.95
Stock #82241AJ [AC Adapter for Japan, 100v 50/60Hz] $14.95
Stock #82241AG [AC Adapter for Australia, 240v 50Hz] $14.95

Cigarette-lighter Adapters for the HP 95 and portable printers

EduCALC



Just plug it in—standard automotive plug accepts varying 11-15 VDC input. You'll have an output that is reverse-voltage protected, over-voltage protected, surge-voltage protected and fused.

Our #2569 powers the HP 95 or the HP InfraRed printer. #2862 powers HP 95, IR printer, or the Canon Bubble Jet/HP DeskJet printers. #2863 powers HP 95, IR printer or the Kodak Diconix printer.

Stock #2569 [Cigarette-lighter Adapter] List $40..... $34.95
Stock #2862 [Cigarette-lighter Adapter] List $45..... $39.95
Stock #2863 [Cigarette-lighter Adapter] List $45..... $39.95

HP 95LX

Accessories continued

ACE RAM DoubleCards
■ Inexpensive PCMCIA memory

ACE Technologies

New version 2.0 with DoubleRAM - Doubles your HP 95 internal RAM disk, too!

Is it possible to store 6 *Megs* of spreadsheets in an HP 95 RAM card? Yes—if you use a 4M-size DoubleCard with Stacker LZS data compression technology. These cards are rated at 2:1 compression—the '4M' Double Card compresses into 2M space, for example—but Lotus files may compress at more than 3:1 ratio, and some DOS files may have only a 1:1 ratio.

The data compression is transparent to you—it's handled in real time, and RAM cards are so fast you probably won't notice any speed difference.

Cards are preformatted and loaded with free utility software (a 3½" disk is also included with duplicate program). Free card batteries for 5 years, too; reassuring lifetime warranty.

Stock #2595 [1M ACE DoubleCard] **$132**
Stock #2596 [2M ACE DoubleCard] **$246**
Stock #2598 [4M ACE DoubleCard] **$369**

DoubleFlash Cards

ACE Technologies

Brand New

Available April '93

The same "plug-n-play" capability of *DoubleCard* has been brought to *DoubleFlash*.

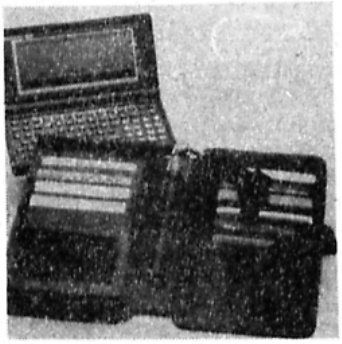
FlashMemory is a non-volatile solid state storage technology that does not require batteries to retain its contents. *DoubleFlash* functions much like your PC's hard disk drive except there are no moving parts.

A Rom card is provided to allow you to install the *DoubleFlash* in a matter of seconds. Comes with built-in Battman battery-management software. Includes *DoubleRAM* to compress your HP 95's internal RAM disk. Includes additional software, too—Password, CardCopy, Unmount, and a collection of shareware programs. Lifetime warranty.

Stock #2872 [10M ACE DoubleFlash] **$599**
Stock #2873 [20M ACE DoubleFlash] **$999**

The Pocket Professional Organizer

Sparcom



Much more than a carrying case for your HP 95—this black leather beauty holds memory cards, driver's license, credit cards, checkbook and pen. It has a zippered pocket for important documents and a detachable swivel strap. Made of the finest drum-dyed Nappa cowhide.

Stock #2354 [Pocket Prof. Organizer] **$69.95**

Plug-in RAM Cards

■ store giant spreadsheets ■ run huge programs

Each card has its own long-lasting battery—it can be stored or mailed without losing the data or programs you've filed on it.

These cards satisfy PCMCIA specifications—they fit in the HP 95, the Poqet PC, the Sharp PC-3000 and the NEC Ultralite.

HEWLETT PACKARD

• simply the best!

Stock #F1002A [128K RAM card] List $150 ..... **$129.95**
Stock #F1003A [512K RAM card] List $300 ..... **$249.95**
Stock #F1004A [1M RAM card] List $600 ..... **$485.95**

ACE Technologies

software included

• pre-formatted—and pre-loaded with FREE software, games like Chess, HP Tetris and Invaders, plus utility programs including one that can copy from one card to another with your 95.

Stock #2521 [512K RAM ACE card] **$113**
Stock #2522 [1M RAM ACE card] **$218**
Stock #2396 [2M RAM ACE card] **$341**

Sparcom CORPORATION

• up to 40% longer battery life than standard PCMCIA RAM cards.

Stock #2368 [256K RAM card]List $160 ..... **$139**
Stock #2586 [512K RAM card] List $240 ..... **$199**
Stock #2369 [1M RAM card] List $360 ..... **$289**
Stock #2587 [2M RAM card] List $630 ..... **$499**

NATIONAL CALCULATOR

• dual back-up battery system prevents loss of data during replacement of primary battery.

Stock #2681 [256K RAM card] **$99**
Stock #2682 [512K RAM card] **$110**
Stock #2683 [1 M RAM card] **$215**

From a recent winner of EduCALC's Free Calculator drawing —

"I am overwhelmed, flabbergasted, excited . . . Thank you so much for the 15C. I will enjoy it and enjoy learning its capabilities. A quick thumb of 'Enter' says that it too will be fun to read and useful in my tutoring.

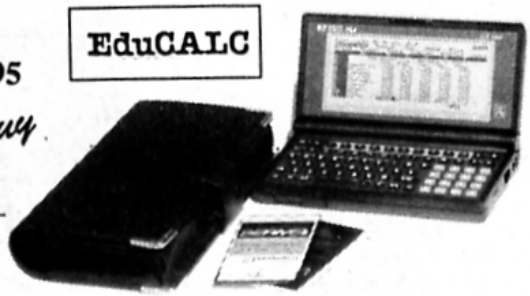
Thank you again for 'making my day'." R. A. Sturley, Kirkville, NY

Accessories continued

black leather Wallet for your HP 95

EduCALC

Best Buy



- **impress softly**—with premium wallet leather
- **hold it all**—a pen, cards, notes and checks as well as your 95
- **protect and cushion**—you'll even have shiny brass corner guards

Half the fun of having a palmtop! Pocket for notes or checkbook. 6 slots organize your software or memory cards and business or credit cards. Velcro strap adjusts to hold the load snug.

Stock #2638 [Leather Wallet, black] List $70 ..... $43.95

Solid-State Drives for your HP 95 or PC-3000

New

Get yourself *enough* memory!

Could you use a 10MB hard drive that fits right into your card slot? How about 20 MB (that's 20,000,000 bytes)?

Here it is—it's *FLASH*, the hot new high-capacity solid-state memory for your HP 95!

An SDPL5 SunDisk is complete—a hard disk on a card. It has flash memory chips, developed jointly by SunDisk with AT&T and Matsushita. Plus there's a built-in solid-state controller. It supports PCMCIA Rev. 1.0 slots and is 100% MS-DOS compatible.

It works just like a hard-disk drive, so you can store many really big programs and plenty of data. But, when you're done, you can remove it—lock it up for security, give it to a friend to use in his PCMCIA-equipped computer, or mail it to your office. No back-up is required—**this is a back-up!**

Flash memory is non-volatile so there are **no batteries**—this means no replacements for you, plus it uses less power. As for **reliability**, it's good for 100 years!

Data access is up to 20 times faster than a hard disk drive. And your SunDisk will consume 100 times **less power.**

Durability? It will take 1000 G shock and 15G vibration, whether operating or not. It's **upgradeable**, too—you'll need no new system software changes to use it with existing and next-generation computer products, so it's a wise investment.

SunDisks work with standard data-compression software. But you can order yours with **optional, inexpensive data-compression** already installed. This will roughly double the capacity (depending on your data); that means you can have up to 20 MB capacity!

SunDisk cards come in several capacities, each with 3½" diskette driver, User's Guide, 1-year Warranty card, and serial cable (HP 95 to PC).

Stock #2822 [2½ MB SunDisk] $399
Stock #2823 [5 MB SunDisk] $599
Stock #2824 [10 MB SunDisk] $999
Stock #2826 [2½ MB SunDisk Data Compression] $439
Stock #2827 [5 MB SunDisk Data Compression] $639
Stock #2828 [10 MB SunDisk Data Compression] $1039

Sale—buy a TMD550 External ThinCard Drive on the same order as your SunDisk—you'll SAVE BIG as you read and write to your SunDisk with your PC! See page 18.

Carrying Cases for the HP 95

Palmtree

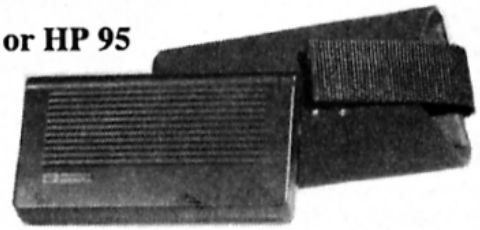
Look good being safe! This handsome zippered pouch will protect your 95 from dust, dirt and spills as well as knocks, scratches and bruises—just what's needed for a go-everywhere computer.

Handy outside pocket plus inside pocket for IC cards, etc. Naugahyde model is tough-skinned, has belt loop. Nylon model is made of washable, waterproof fabric. Leather model is soft and elegant.

Stock #2665 [Naugahyde 95 Carry Case, black] List $30..... $23.95
Stock #2519 [Nylon 95 Carry Case, black] List $25..... $19.95
Stock #2520 [Leather 95 Carry Case, black] List $40 ..... $27.95

The Pouch for your HP 48 or HP 95

The Pouch



Brand New

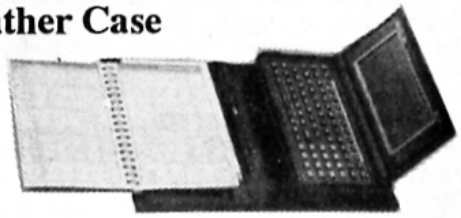
Are you a utilitarian? Here's a no-frills pouch for the simple life—made of bouncy neoprene foam and nylon, with belt-loop and velcro closure.

Stock #2736 [Instrument Pouch] $19.95

TimeBoss Leather Case from Europe

Brand New

TimeBoss



Top-grain leather surrounds your HP 95LX, giving you all the confidence of a contemporary paper orgainzer. You'll have monthly/yearly calendars, note pad and pencil, plus pockets for additional computer cards, money and credit cards.

It's convenient, too—use your HP 95LX right in the case. Your sense of organization will thank you.

Stock #2750 (Leather Organizer) List $100 ..... $89.95

Cables/Interfaces

How to hook up your HP 95

It's simple to connect to a PC—you'll need a cable (we offer several below) and some software which includes a standard datacomm protocol (such as Kermit or XMODEM).

But suppose you want to be able to hook up to printers and modems as well? If your cable is EduCALC's #2449 or CMT's #2342 (or you're using JetEye) you should have no problem. But if it is our #2556 or #2588 or HP's Serial Interface Cable, you will require their Adapter Kit #82224A also.

Dual-Purpose HP 95 Serial Cable

EduCALC

Switches so it can connect to computer or to printer—eliminates adapter and NULL modem. Elegant, lightweight, 6' long.

Stock #2449 [Dual Purpose Serial Cable] $36.95

HP 95LX

Cables/Interfaces cont.

Experimenter's Serial Cables

EduCALC

■ Engineers ■ Instrument Makers ■ Hobbyists

Connect your HP 95 to anything you want! Six foot cable has 4-line serial connector molded onto one end, with the other end unterminated (just 4 wires for you to solder).

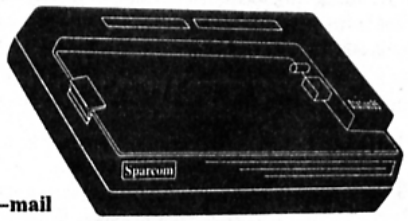
You can also order this cable terminated with a female 9-pin (computer RS-232) connector and built-in strain relief.

Stock #2601 [Unterminated Serial Cable, 6'] $12.95
Stock #2609 [4- to 9-pin Serial Cable, 6'].....$22.95

SmartDock docking-station connectivity for your HP 95

Brand New

Sparcom



- quickly **up/download** to desk units
- easily **FAX** your memos
- conveniently send/receive **e-mail**

When you click the HP 95 into your docking station's elegant contours, its 4-pin serial port and AC adapter port align automatically—simple, all at once, without unsightly cables or plugs (an AC adapter and PC serial cable are included with each SmartDock along with a 1-year warranty).

☐ **Station95 instantly connects your 95 to a PC** so you eliminate time-consuming hook-up procedures and prevent battery drain.

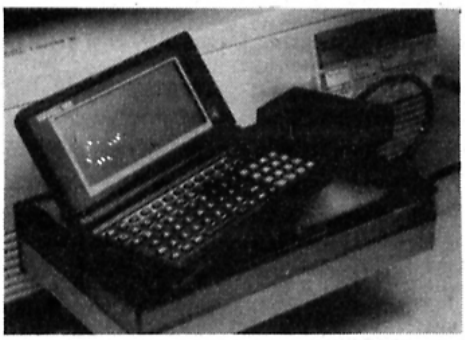
☐ **PrintStation connects your 95 to any parallel printer,** as well as to a PC—has built-in series/parallel converter, comes with DOS/Windows connecting software on 3½" disk.

☐ **ComStation has it all! Built-in modem** accesses Internet, Compuserve, ATT-Mail, MCI Mail, Prodigy and other e-mail services—PSILink and DOS/ Windows connectivity software included on 3½" disk. FAX any text file with system-compliant Fax Manager software (included). Connect to a PC or a parallel printer. Has built-in serial/parallel converter and rechargeable batteries.

Stock #2588 [Station95] List $60 .....$49.95
Stock #2737 [Sta95 + Pod Pal (#2684] + Games (#2687)] $124.95
Stock #2742 [PrintStation] List $170 .....$154.95
Stock #2741 [ComStation] List $400 .....$349.95

JetEye InfraRed to LaserJet Printer Interface for the HP 95

Extended Systems



A point and shoot printer interface for your HP 95! You can install it, in seconds, without power cords, cable changes or printer reconfigurations. You merely insert its plug between your printer cable and LaserJet — your one or many PCs will still print as usual.

Works with HP 48 also. Supports LaserJet II, IID, IIP. III, IIID, 4. and IIISi. Multiple-page printing requires driver software for the 95 (included) and an optional Serial Interface on your PC to install it. InfraRed reception distance 8 inches. 2 year warranty.

Stock #ESI9500A [JetEye Interface] List $129 .....$99.95

FREE 95 Mug — see back cover

Battery-powered HP 95 to Parallel Printer Data Converter

Greenwich Instruments

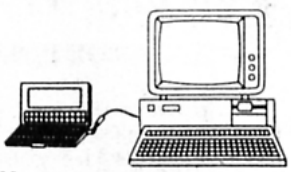
Get beautiful printout—now your HP 95 can drive a portable parallel printer (such as the Canon BJ-10e Bubblejet).

You connect this serial-to-parallel converter to any PC via a serial cable, and send its output to any parallel printer via a 'Centronics' 36-lead cable. Up to 250 hours on one 9v battery (not included).

Stock #GA935 [Serial/Parallel Converter] List $100.....$79.95
Stock #9V [Alkaline Battery] $2.80

Connect your 95 to your PC

this software runs with the following applications under Windows 3.0:



- IBM Current including mainframe PROFS
- Borland Sidekick 2.0 (under Windows 3.0)
- Asymetrix Toolbook and Daybook, with memos
- MS Word for Windows & AmiPro & Excel
- Paradox database (maps PHONE and MEMO fields)
- Q + E support for dBASE and SQL Server
- Windows 3.0 Clipboard • Lotus 1-2-3 for Windows

IntelliLink

Direct imports/exports to/from Windows applications at the field level with a few simple clicks of the mouse! Requires HP 95 with Serial Cable and PC running MS Windows 3.0 (IntelliLink is HP New Wave aware).

Stock #2517 (IntelliLink 2.51, 5¼" & 3½") List $100.....$89.95

Connectivity Products

HEWLETT PACKARD

Use the 4.9 foot Serial Interface Cable to link the HP 95 to your IBM-compatible PC—optional Connectivity Pack includes cable and datacomm software for the PC, plus a female 9- to 25- pin adapter (in case you need one).

Pack contains PC versions of the Appointment Book, Phone Book and Memo Editor, all programmed by Lotus specifically to take advantage of the HP 95's environment—plus this software will translate files from *Metro*, *Sidekick* or *PC Tools* for your 95.

You get PC versions of the HP Financial Calculator and Filer applications, too, along with *DOS-Connect*, a utility that lets you treat the HP 95 as a disk drive while you are within other software applications on your PC.

With the Connectivity Pack you'll have symmetric environments on your HP 95 and your PC. But users who don't want this added convenience can still do PC-to-HP 95 file transfers by purchasing the cable alone to connect to their PC and communicate via standard datacomm protocols (for example, Kermit or XMODEM).

You can use your Serial Interface Cable to connect the HP 95 to a printer or modem, but you will need the Serial Cable Adapter Kit as well.

Pack includes both 5¼" and 3½" disks and a brief manual.

Stock #F1001A [Connectivity Pack] List $100.....$79.95
Stock #82222A [Serial Interface Cable only] List $35.....$29.95
Stock #82224A [Serial Cable Adapter Kit] List $15.....$14.95

Cables/Interfaces cont.

Serial-to-Parallel Conectivity Kit

bse

BYTE POURNELLE'S USER'S CHOICE AWARD Awarded May 1992

Drive a parallel printer at 19,200 Baud — **drive a hard disk** at 19.2–115.2 Kilo-Baud!

Includes standard 9-pin serial cable to connect to HP 95 port; 9 to 25-pin parallel adapter, plus file transfer software — everything you'll need.

Stock #2816 [Serial to Parallel Kit] **$89.95**
Stock #2816A [Serial to Parallel Kit w/out serial cable] **$79.95**

Connectivity Kit between PC and HP 95

Nuvotech

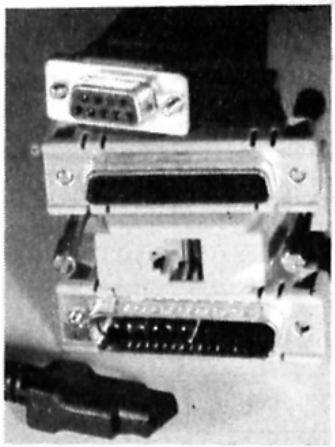
Transfer and translate Lotus spreadsheets, wordprocessing text or Hypercard files — merge, upload or download the appointment book and phone book, memo, calculator and filer. Autotranslation (just point and click) of HP 95 *Phone* and *Appointment Book* to *Sidekick*, *Paradox*, *Metro*, *PC Tools* or *CDF*.

Kit contains 1.5 meter serial cable, communication software and Owner's Manual.

Stock #2556 [PC Connectivity Kit, 3½" & 5¼"] List $99 ..... **$79.95**

Serial Interface Kit for HP 95

CMT



Avoid connector misfits! This 6' cable fits HP 95 Serial Port on one end and its other end is a phone jack. Cable is shielded and has strain relief.

4 adapters are included that accept the cable's phone jack — a 9- and a 25-pin female to fit PCs, a 25-pin male for a modem, and a 25-pin male for a printer.

Kermit communication program for PCs is included on disk, along with brief directions for its use.

Stock #2342 [95 Serial Interface Kit, 5¼"] **$36.95**

4 × 4 Cable for fast data transfer, 95 to 95

EduCALC

Works with two HP 95s or two HP 48Ss or HP 48SXs, just like Infrared transfer but 4 times as fast. 2' cable has 4-pin serial connectors on both ends and is small enough to fit in a case with your instrument.

Stock #2624 [4 × 4 Cable] **$22.95**

MacLinkPlus for the HP 95

DATAVIZ

Brand New

Back up, translate and transfer files between your HP 95 and any Mac Plus (with hard disk and OS 6.0.3, or newer; System 7 compatible) — with a few clicks!

Translate files between popular word processors, spreadsheets, databases and PIM applications for the Mac and the HP 95, including its Phone and Appointment Books, Memo and Lotus 1•2•3.

Includes serial cable, software and Reference Manual.

Stock #2820 (MacLinkPlus 95, 3½") List $129 ..... **$109.95**

DataExchange Macintosh connectivity pack

Sparcom CORPORATION

Link your 95 to a Mac — transfer and convert phone, appointment and Memo files.

DataExchange software is System 7 compliant and supports many Mac applications, including Addressbook Plus and Hypercard. Includes software, cable and manual.

Stock #2685 [DataExchange, 3½"] List $90 ..... **$79.95**

Peripherals

Drive95 Portable 3 1/2" Disk Drive for your HP 95

Sparcom CORPORATION

This lightweight, battery-operated disk drive features Sparcom's device driver software, engineered to read and write in MS-DOS format on standard 3½" HD floppy disks.

Drive95 makes it affordable to store data, simplifies program execution from 3½" disks and facilitates basic file operations, such as copying, transferring, and formatting.

Designed for remote operation, the drive has an intelligent cache which extends battery life up to 15 hours on a single charge. Compact (7¼" × 5¼" × 2") and contoured to complement the HP 95, Drive95 also interfaces with the HP 48SX or any DOS based palmtop, laptop, or desktop computer, and supports 720K and 1.44M capacity 3½" disks.

Includes device-driver software, manual, serial cable and AC charger/adaptor; 1 year warranty.

Stock #2602 [Drive95] List $330 ..... **$284.95**

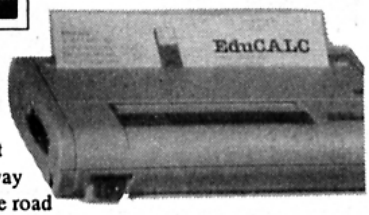
BUY A DRIVE95 NOW and SAVE $25 on Games 95. Order your DRIVE95 and use the stock # below for your Games 95 on the same order. See Games 95 description on page 23.

Stock #2747 [Games 95 ordered with DRIVE95] **$19.95**

HP 95LX

Peripherals cont.

Diconix 180si Portable Printer



- Make last minute revisions to your presentations
- Create new overheads in an instant
- Customize your proposals on the spot
- See your letters in final form right away
- Respond to clients while you're on the road

Only 2 × 6.5 × 10.8 inches, and it weighs just 2.9 lbs (3.5 lbs with optional batteries); RS232C serial interface; prints on sheet or tractor plain paper or transparency. Multiple fonts and print modes in 96 × 96 dpi Draft or 192 × 192 dpi Quality resolution. Quiet; just 45 dB. Includes AC adapter/recharger.

HP ink-jet print head is user-replaceable. Can recharge its batteries even while printing. 1 yr warranty.

Stock #K180SI [Diconix Serial Printer] List $450 ..... $339
Stock #CN [NiCd C Cell] (requires 5) ..... ea $4.49
Stock #2351 [Kodak Print Head] $13.95
Stock #51604A [HP InkJet Print Head] $8.95

Bubble Jet portable printer

Canon

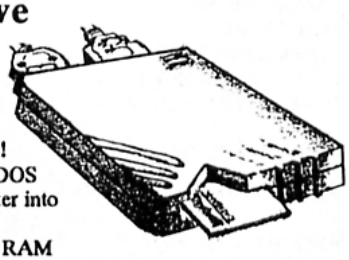
Its type is near laser-printer quality — yet this ink-jet is compact, 12 1/4 × 8 1/2 × 1 7/8 inches, weighs only 4 pounds, and runs on AC adapter (included) or NiCad rechargeable battery (optional). In LQ mode it prints Roman, Sans Serif or Draft fonts (but no italic).

Has parallel (Centronics) interface; to connect to serial port of HP 95, Poqet PC, etc., use optional converter. Grey; 1-yr warranty.

Stock #BJ10EX [BJ Parallel Printer] List $499 ..... $389
Stock #2667 [NiCad Battery Pack] List $50 ..... $44.95
Stock #2668 [Auto 30-sheet Feeder] List $90 ..... $79.95
Stock #2731 [BJ10EX Print Cartridges] List $25 ..... $21.95
Stock #2816 [Serial/Parallel Converter] List $100 ..... $89.95

External ThinCardDrive

Databook



Read and write to cards with your PC! Just plug this into the printer port of your DOS or Windows computer, and plug your printer into this for pass-through operation.

Model TMD500 reads and writes static RAM cards in all popular formats: TMD550 also handles FLASH cards. Both models come with complete, self-installing software, cable and User's Manual.

Stock #TMD500 [External Card Drive] List $300 ..... $229
Stock #TMD550 [External Card Drive] List $349 ..... $259

Sale — buy a SunDisk now with your TMD550 and Save Big!

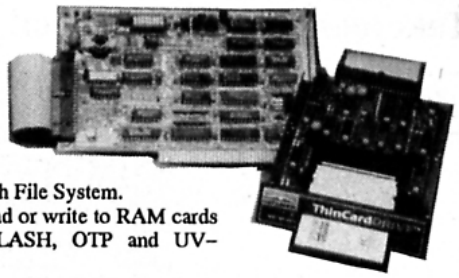
Here's how—order any SunDisk hard-drive card, .8MB to a whopping 10MB, and use the stock number below to buy your External ThinCard Drive that works with your Sundisk on the same order — you'll save $129.50 and you'll get yourself enough memory! See SunDisk description and stock numbers on p. 15.

Stock #TMD550ZZ [TMD550 ordered with SunDisk] Sale ... $129.50

FREE 95 Mug — see back cover

Internal ThinCardDrive

Databook



Transfer data from IC memory cards to and from PC/XT/AT computers—in all popular formats including PCMCIA, POQET, Metaformat and Microsoft Flash File System.

Model TMB-200 will read or write to RAM cards and can also program FLASH, OTP and UV-erasable EPROM cards.

System contains a half-length PC board, 24" interconnect cable, card drive unit which fits into slots for either 3½" or 5¼" disc-drive units, software and user's guide.

Stock #TMB200 [ThinCard Drive] $289

External Card Drive

Pamco

4" × 1" × 8"; 19 oz. Includes AC Adapter , connects to your parallel printer port on your PC. Reads of writes to RAM cards or SunDisk FLASH.

Stock #CD3568ZZ [Card Drive] $154.95

Solid-state Data Drives

Adtron

Brand New

- read and write PCMCIA memory cards
- easily transfer data and programs between palmtop and desktop
- all models read & write RAMs and read Sundisks

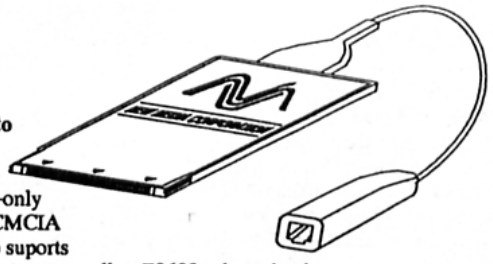
External drives are low cost, low power and portable—they have parallel or line-printer interfaces (6' cable included) so they are high speed. Universal model #2739 reads/writes FLASH and OTP cards as well as RAMs.

Internal drives are high speed, low power and low profile — this one reads/writes FLASH cards, too. It fits into a standard 3½ floppy drive bay and its 8-bit adapter card plugs into your PC's expansion bus.

Stock #2738 [Standard Parallel Card Drive] List $295 ..... $269
Stock #2739 [Universal Parallel Card Drive] List $395 ..... $349
Stock #2855 [Internal Card Drive] List $395 ..... $349

PalmModem 2400/PalmFax

New Media



Just plug this into your HP 95's card slot—you've got a modem or a send-only fax machine! It's PCMCIA compatible and also suports Zeos and Sharp palmtops as well as F8680 subnotebooks.

Up to 2400 bits/sec for data, compatible with all major communication standards. Fax transmission will go at 4800 bits/sec using CCITT V.27ter, V.22 bis, V.22, V.21, Bell 212A, and Bell 103 standards.

All terminal emulation and facsimile software is built into this card, plus there's 128K RAM onboard, so data is made transmittable without using your 95's memory.

With this you won't even have to carry a printer—just fax your output to a local fax machine to get hard copy!

Stock #2680 [PalmModem] List $259 ..... $234

Peripherals continued

Will you want to phone home? Take along this tiny modem!

Worldport

About the size of a deck of cards, it's completely portable. There is an internal 9-volt battery, so it draws no current from your computer or from a phone line.

Even though it's the smallest modem of its kind, and Hewlett-Packard recommends its use with the palmtop HP 95, it works just fine with your desktop PC as well (or any other computer that has a serial port).

The WorldPort comes in three models, for 1200 and 2400 baud, all designed for the HP 95. Each provides dual communication standards, so you can use it anywhere in the world. It supports the Bell 103/212A standards in the USA and also the internationally recognized CCITT v.21 (300 bps) and v.22 (1200 bps) standards, and it is both switch- and software-selectable. The 2400-baud models also support the world-wide v.22 bis standard.

Each modem is fully compatible with the Hayes AT Command Set, including all the latest extended commands. It also has Auto-dial and Auto-answer capabilities and automatic power control.

Of course, it has a U.S.-standard modular phone jack. But sometimes you're in a phone booth, a hotel room or a foreign country where no jack is available. The WorldPort gives you additional, direct interface to optional, low-cost acoustic cups for such field situations.

Comes with battery and AC adapter, 7' modular phone cable, acoustic cups adapter cable, internal speaker, Manual and Quick Reference Guide, plus bonus MNP Level 5 software for fast transmissions by data compression; 2-year warranty. It's made in the USA; furthermore, you'll have 800-number tech support. To use it with your HP 95 you'll need a Serial Cable (best buy is #2449). Two year warranty on all modems.

Stock #2461 [WorldPort 1200 Modem] List $159.....$134.95
Stock #2462 [WorldPort 2400 Modem] List $229.....$194.95

FAX with your modem—new model will send-only, ASCII symbols only, to a FAX machine at 4800 bps (has all other features of #2462).

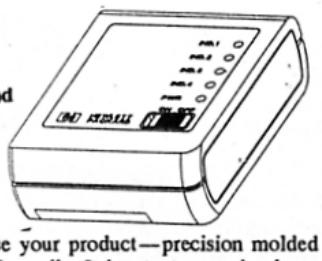
Stock #2383 [Worldport 2400 Plus Modem] List $249.....$219

Save 75% on telephone charges—world's fastest pocket-size lightweight external 9600 to 300 bps modem with MNP 4 error control.

Stock #2585 [Worldport 9600 v.42 Modem] List $499.....$479

Plastic Accessory Box

EduCALC



Attention: hardware developers and electronic hobbyists—let your imagination soar. How about a tiny hard drive? a special modem? a receiver for Global Positioning Satellites?

We've done the hard part for you—here is an empty plastic shell to house your product—precision molded to fit perfectly with an HP 95 into the MDL cradle. It has texture and color exactly like the 95 itself, so your finished product will have that fully professional look!

Comes with drawings for overlays and 2 PCBs you may mount inside, and there's enough internal volume to accommodate more electronics. Battery compartment can flexibly hold a 9v block-type batteries.

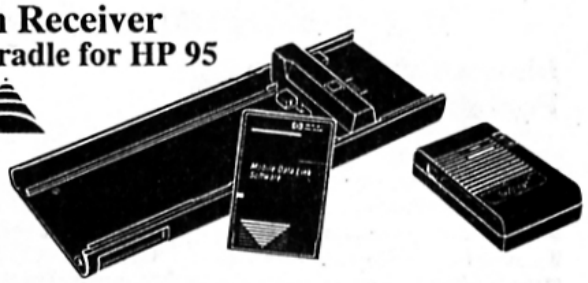
5 plastic pieces and drawings are included; approx 1 × 2 1/2 × 3 3/8 inches outside.

Stock #2688 [Accessory Box] 1 to 9 units.....each $5.95
Stock #2689 [Accessory Box] 10 to 49 units.....each $4.95

(Please call us for quotations in larger quantities.)

SkyStream Receiver with MDL cradle for HP 95

SkyTel™



HEWLETT PACKARD

Receive e-mail & messages, news & sports, weather and market reports—right now, when you need them. Even works inside buildings and airplanes.

Update appointments & travel schedules. to-do lists and Lotus spreadsheets—instantly, wirelessly, anywhere, anytime.

Receiver is built for a fixed frequency, ready for SkyTel service (not included here, costs perhaps $50-$80 per month)—telecommunications via satellite, nationally, regionally or internationally. To learn more about subscription, call 1-800-456-3333, ext. 764.

The new SkyStream Receiver has 32K message memory when standing alone. But slide it into the MDL cradle (included) along with your HP 95 (not included) and you can store incoming message-files in the 95 or automatically update files that are already there—then you can read and review these files or send them to your printer.

Receiver weighs 3 oz, comes with MDL cradle, software application card (F1006A), User's Guides and operating instructions; 1 yr warranty.

Stock #F1009B [SkyStream Receiver] List $525.....$429
Stock #F1007A [Cradle only] List $60.....$54.95

Telecoupler II

Computer Products Plus

- ✓ pay phones
- ✓ foreign phones
- ✓ customer's phones
- ✓ hotel phones
- ✓ digital phones
- ✓ car phones

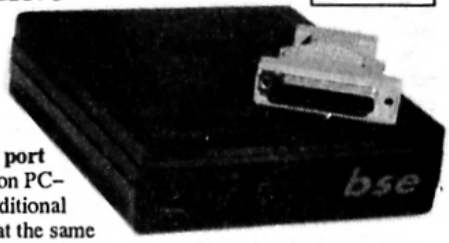
Works with any telephone, and most modems—you won't have to search for an RJ-11 jack.

Does not work with "line-powered" modems. Transmits up to 2400 baud for modems or 9600 baud for fax.

Stock #2674 [Telecoupler II] List $160.....$139.95

Flashdrive 25 portable hard-disk drive

bse



- ■ tiny—only 1½ lb.
- ■ rechargeable batteries
- ■ 20M to 130M
- ■ costs less than RAM cards

Just plug it into your printer port and go! Runs from parallel port on PC-3000 or Series 3 and provides additional port so you can use your printer at the same time—for HP 95 or Poqet PC use optional 9 to 25-pin, serial/parallel converter.

Solve all your storage problems—save and back up, programs or data—**at last you have enough room!** Comes complete with tested hard disk, cable, AC adapter, software, internal rechargeable batteries, instructions, on-line FREE support and a 1 year warranty. Requires DOS 3.0 or higher.

Stock #2812 [Flashdrive 25, 20M] List $299.....$289
Stock #2814 [Flashdrive 25, 80M] List $549.....$489
Stock #2815 [Flashdrive 25, 130M] List $649.....$589
Stock #2816 [Serial/Parallel Converter] List $99.....$89.95
Stock #2816A [Serial/Parallel Conv w/out serial cable].....$79.95

HP 95LX Software

ACT! FOR THE HP 95LX

CONTACT SOFTWARE INTERNATIONAL

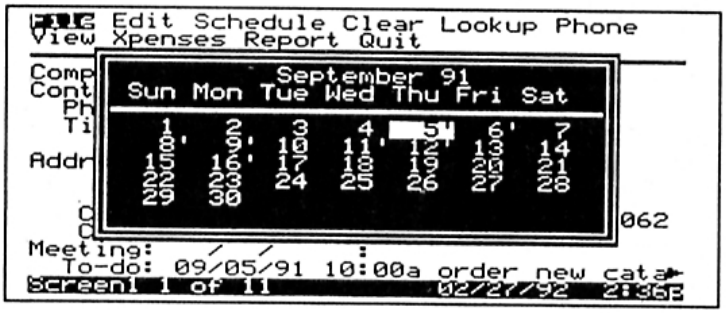
take your *ACT!* on the road

you'll have the world's most popular contact-management software where you need it most—right with you, in your 95.

Track your contacts and clients

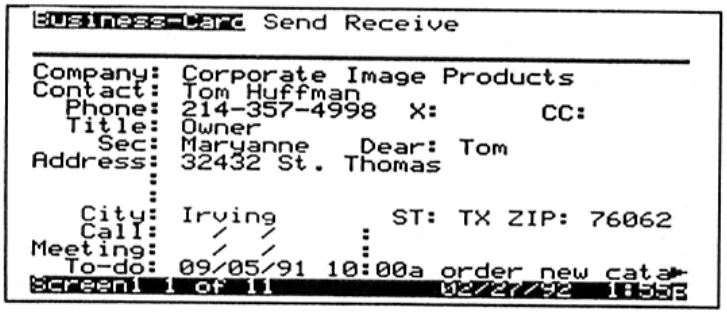
- Tracks up to 4000 contacts
- 71 user-definable fields
- Hide/protect field attributes
- Database Password Protection
- User-definable and keyboard search
- Automatically-updated contact history
- User-definable, pop-up windows for easy data entry
- Instant contact 'Look-Up' capability
- Date-stamped notes for each contact

Generate reports, to view, file and print out



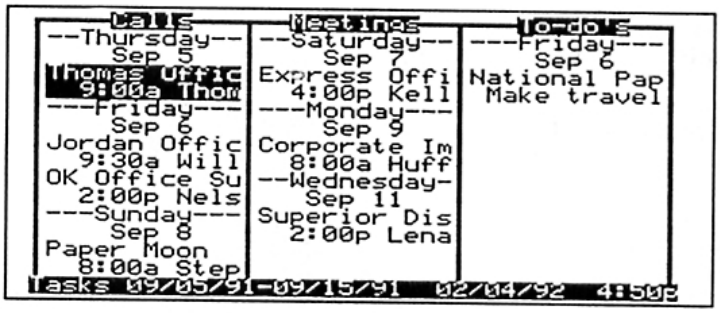
- Address list
- Phone List
- Tasklist for all activities
- Future Activity report
- Contact report
- Calendar of to-do's

ZAP business cards and integrate data



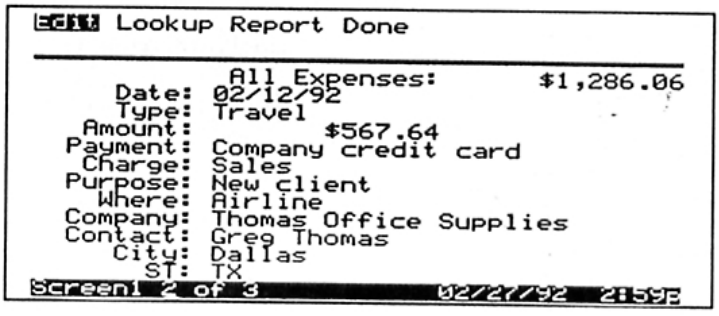
- Import/export ASCII delimited data
- ZAPCARDS wireless business card exchange
- Direct *ACT!* data exchange with PC's via cable (included)

Manage your calendar and to-do list



- Daily activity list of calls, meetings and to-do's
- 'One-finger" scheduling of multiple activities
- Instant "Tasklist" for any date-range
- Week-at-a-glance calendar view
- "Pop-up" alarms for critical activities

Track all your expenses, on the fly



- Expense detail, billable hours and mileage
- Expense reporting by date range or type of expense

What, you may ask, does *'Zapcards'* mean? That's when you wish to give your business card or other contact info to a friend—you simply press CTRL-Z, line up the infrared ports on your two HP 95s and ***Zap!*** it goes like a TV remote.

It's easy to get started—to download you connect your HP 95 to your PC using the cable included with *ACT!*, put the *ACT!* program disk in your PC, and type INSTALL—that's all! In one step, *ACT!* is transferred to your 95. Once it's there, you have easy-to-use menus to guide you. Keystroke commands are like those for the PC version of *ACT!* and there's friendly HELP at your fingertips.

In addition to your User's Guide, you'll get a tutorial, a Quick Reference Card and an *ACT!* template for your 95's keyboard. (5¼" and 3½" disks plus a 6', 4- to 9-pin cable also included). This program needs at least 150K free system RAM in your HP 95. Manufacturer's 30-day money-back guarantee.

Stock #2600 (*ACT!* for the HP 95, 3½" & 5¼") List $149 ..... $89.95

ACT! and the HP 95, together

Buy both together, your new HP 95 (either model) and a copy of *ACT!* for it, and **save even more.**

Stock #2621 [HP 95 512K & *ACT!* #2600] List $699 ..... $479
Stock #2622 [HP 95 1M & *ACT!* #2600] List $948 ..... $669

ACT! preloaded in a RAM card

EduCALC will load your copy of *ACT!* for the HP 95 into a 256K RAM card —so all you do is insert the card into your 95 and turn it on! Price includes *ACT!* software, RAM card, and a nominal $5 loading charge.

Stock #2623 [ACT! #2600 in RAM card] List $348 ..... $194

What about *ACT!* in your PC?

If you want *ACT!* in your HP 95 to exchange data with your PC, you'll need *ACT!* version 2.11 in that PC. If you're now a registered owner of *ACT!* version 2.1, you'll automatically receive a free upgrade to version 2.11 by mail.

But if you need a copy of ACT! for your PC as well, order this latest version now at our deep discount price. It comes on both 3½" and 5¼" disks.

Stock #2620 (*ACT!* for PCs v. 2.11) List $395 ..... $249
Stock #2735 (*ACT!* for Windows v. 1.01) List $495 ..... $349

Software continued

Money Manager
software for your HP 95

Autobyte

Portable accounting in the palm of your hand — gives full control over banks, checks, credit cards, income and expenses—plus simple reconciliation of banks and credit cards. Complete reports on screen or sent to printer.

Requires HP 95 with #82222A serial cable. Includes versions for 95 and also for your PC/compatible (512K RAM) on 3½" or 5¼" disk. Also, when you buy Money Manager, you may have us install the 95 version right on a 256K RAM card for you, ready to run even without a PC or cable (#2583 includes #2492).

Stock #2492 [95 Money Manager, 3½" & 5¼"] List $60.....$54.95
Stock #2583 [256K RAM Card includes #2492 installation] ..$159.95

FX-7 Flight Pak
software for the HP 95

PARAGON TECHNOLOGIES

- **flight plans**
- **DUATS weather briefings**
- **E6B and weight & balance**

Generate great-circle routes in RNAV, LORAN or VOR to VOR format—largest database available with 34,500 airports, navaids and intersections—in all North and Central America.

Tap into the FAA computerized weather system from any phone, **free**, for plain English briefings that you can read, store or print out.

Calculate a full E6B. Store a customized weight & balance template for each aircraft you fly—then recall one before your flight to fill in only the parameters that have changed.

Capt. John Kimberling is a 9000-hour pro who does organ-transplant flights where every minute counts with a life in the balance. He says, *I have either used, tested, or bought every flight planning computer that there is and I have finally found something that I can use in every plane that I fly—from the single engines through the range of jets. I am extremely happy with the FX-7 program.*

Complete, pilot-friendly system includes 6 month's database-update subscription, comes on PC disks that require a Serial Interface to download to your HP 95. You'll need a modem for DUATS briefings. Drop shipped to you.

Stock #2544 (FX-7 Flight Pak, 5¼") $185.95
Stock #2544A (FX-7 Flight Pak, 3½") $185.95

The Golfer's EDGE
truly portable in your HP 95

Brand New

COMPUTERBOOKS

On the course you'll instantly score a round in progress, view hole statistics to devise a optimal strategy, plus access tips for playing a specific type of shot—off the course you'll quickly calculate USGA handicaps and analyze past rounds to identify strengths and weaknesses.

Includes pocket-sized User's Manual, stores info on up to 50 courses, including yardages, indexes and ratings, as well as green breaks, clubs used, etc. Comes either on ROM Card for insertion in HP 95 or on 3½" disk for downloading.

Stock #2845 (Golfer's EDGE, card) List $100.....$89.95
Stock #2846 (Golfer's EDGE, 3½") List $70 .....$64.95

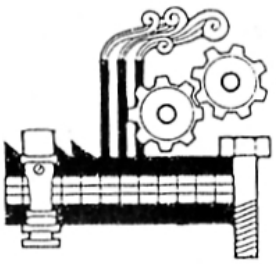
TravelWare

RSE

Keep all your trip records on the HP 95—to-do lists, schedules, flights, auto, lodging, meals, expenses. Summarizes expenses, has alarm clock. Instructions on-screen, plus Manual; comes on disk (and works on PC too) for downloading (requires Serial Interface).

Stock #2555 (95 TravelWare, 5¼").....$29.95

Mechanical Engineering Equation Library for the HP 95



Paul Harmon

160 most-used equations for MEs—plus Lotus 1-2-3 spreadsheets containing ME conversion factors, properties of common shapes and volumetric properties of common geometries. In addition there are text help files for each subject. All in less than 60K bytes of disk space.

Equation groups include spring design, gear design, beam design, stress analysis, press fit design, pressure vessel design, heat transfer analysis, electric motor design, fluid motion equations, a third order steam table approximation, more.

The equations are grouped together in logical sets by a practicing mechanical engineer and greatly simplify iterative design tasks. Using the HP 95's calculator, spreadsheet, and cut and paste facility allows straightforward access to problem solving algorithms, the material and conversion constants required by the algorithms, and an easy way to bring the two together. The equation sets are simple to modify or extend, and new equation sets can be integrated with the library.

Comes on PC disk; requires Serial Cable (#82222A) to download.

Stock #2535 (ME Library for HP 95, 5¼") $29.95

ME Equation Library for Spreadsheet Use

Same as 2535 with all equations done in Lotus 1-2-3 spreadsheet form so the HP 95's HP-CALC program is not used. Spreadsheet format is HP 95 friendly, but may be used with any 1-2-3-compatible spreadsheet program.

Stock #2810 (ME Equation Library for Spreadsheets) $29.95

Foreign Language Translation with the HP 95!

- correspond in French!
- read Spanish books!

globalink™

Impossible? No—it's true! You get sentence-by-sentence results equivalent to those of mainframe systems—including special features like idiomatic expressions and even multiple translations of a word that might be a noun, a verb or an adjective.

Translate a sentence or a whole block of text, then use on-screen editor to produce finished results. The dictionary has over 60,000 entries, and you can input foreign-language accents and punctuation on the 95's English keyboard.

Each language system comes on 2 IC cards and translates both to and from English.

Stock #2566 (95 Spanish, 2 cards) List $299 .....$199
Stock #2567 (95 French, 2 cards) List $299.....$199

Derive, the computer algebra, calculus, graphics and numerical program—now available on ROM card for the HP 95. See page 67.

HP 95LX

Software continued

Dictionary/Thesaurus
ROM Card for the HP 95

HEWLETT PACKARD

Based on *The American Heritage Dictionary* and *Roget's II: The New Thesaurus*. Checks your spelling of a single word or every word in your document. Gives you all the meanings of a word, and then finds similar words for any one of those meanings. Next, you can insert just the right synonym in your document with the touch of a key, since this ROM program works neatly together with other HP 95 applications, like MEMO.

Extra features include Wildcards searches, where it finds all the words when you have a partial spelling. Also has an Anagram function that gets you every word you can spell with a given collection of letters—for killer Scrabble! Includes the popular word game Hangman.

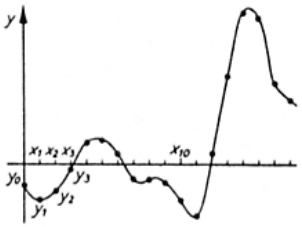
Stock #F1005A (Dictionary/Thesarus, card) List $150.....$129.95

Curve Fit
linear-regression software for the HP 95

MacroMed

✓ Scientists ✓ Engineers
✓ Physicians ✓ Pharmacists

- enter up to 99 (x, y)-data points
- find area under curve between 2 points
- compare std. deviations of best-fit curves
- graph curves and data on 95's screen



New version 2.0 calculates 1st or 2nd derivative, graphs on your monitor, scales graphs.

Automate least-squares fit of 2-term curves for straight line, exponential, logarithmic or power equations—plus 4-term equations for cubic polynomials and for Fourier series. Analyze a curve's coefficients for each term's significance. Save and retrieve data and equations to an ASCII file.

Comes on floppy disk to download from your PC (Serial Interface required) or on a 256K ROM card that you insert directly in your HP 95.

Stock #2545 (Curve Fit, ROM card) List $260.....$235
Stock #2547 (Curve Fit, 3½" disk) List $180.....$169

Personal Food Analyst
Nutritional software for your HP 95

Mirical

Brand New

☛ ***Take control of your own body!***

Take this intelligent diet program along with you—it will analyze food for 27 nutrients to show you how much you should eat (based on your personal profile and daily goals), record what you do eat, and keep track of how well you've done during the past week (printing it out if you wish).

The Personal Food Analyst + HP 95 acts like your own personal Nutritionist or Dietician, and **does it right at the table with you!** You can preview the full spectrum of a food's nutritional content **before** you eat it—there's a built-in data base of over 4000 foods, and you can add as many more as you want. Then the Analysis Screen shows you bar graphs of your day's or week's results—you can see at a glance how well you've done.

Comes on 1 Meg ROM card to slide into the slot on your HP 95—so easy to use that in 20 minutes it will start having a stunning effect on your health and appearance! Infovideo and illustrated booklet included.

Stock #2852 (Personal Food Analyst, card) $295

Medical Software
for your HP 95

COMPUTERBOOKS

■ **Pharmaceuticals**—gives you instant dosages, warnings and contraindications, therapeutic and pharmacologic classifications, and supplier information on over 3300 generic and trade-named drugs.

■ **Physician's Reference I**—saves you significant amounts of time and effort in your daily diagnostic analyses. No need now to look up detailed formulas and manually calculate results. Instead you'll have these 26 formula-based subprograms, each with plenty of detailed on-screen information—from Alveolar-Arterial O_2 Gradient to Systemic Vascular Resistance.

■ **Patient Management**—replaces those cumbersome 3 × 5 cards with automated records, styled your way, for patient information, medical history, lab results, notes, reminders, etc.—so you'll never have to call your office again to get this updated data.

■ **Patient History** — elminate hand-written questionnaires, rapidly record each patient response using yes/no, multiple choice, fill-in-the-blank, numerical and reference table formats. Satisfy HCFA documentation requirements for higher-charge CPT codes and justify all charges in a Medicare audit. Creates tailored history with over 260 questions on general information, personal and family medical history and complete review of systems.

■ **Drug Interactions**—gives you quick and easy, yet thorough research on interactions. Works 3 ways: give it your list of drugs and it tells you their interactions. Or it will find all drugs that interact with a single agent. Or select a drug classification and it will list all the member drugs.

Each of these programs comes on a ROM card that inserts into your 95 and includes a complete User Manual (plus 800-number tech support).

Stock #2551 (95 Pharmaceuticals, card) List $399 ..... $369
Stock #2552 (95 Physician's Ref I, card) List $299 ..... $279
Stock #2553 (95 Patient Mgmt, card) List $399 ..... $374
Stock #2650 (95 Patient History, card) List $399..... $374
Stock #2554 (95 Drug Interactions, card) List $399 ..... $374

Antibiotica PC
infectious disease analytical software for the HP 95 (or any PC-compatible)

Brand New

MacroMed

You can quickly, precisely choose appropriate treatment for infections—with **lifesaving, best-choice accessibility to antibiotic, bacteria and patient-specific data.**

You can simultaneously evaluate up to 100 organisms for 1st, 2nd, 3rd and variable sensitivity drugs of choice—plus list toxicities of antibiotics. Offers copyrighted antibiotic substitution analysis by computerized drug-spectrum matching and computer-assisted optional drug selection.

You may customize this program to develop sets of sensitivities, add organisms or antibiotics, modify the antibiotics of choice for each specific hospital, filter out antibiotic classes and individual drugs for patient allergies or physician preferences—even optimize drug selection based on cost.

Plus version has all the above *plus* ■ calculations for renal failure dosing ■ an empiric therapy data base for clinical situations ■ identification of unusual pathogens for clinical setting ■ add clinical conditions with empiric antibiotic choices ■ listings of most common diagnoses associated with a specific organism.

Comes on 3½" PC disk for downloading. You may call 1-800-848-8726 for further discussion and demonstration diskettes.

Stock #2847 (Antibiotica PC, 3½") List $95..... $89.95
Stock #2848 (Antibiotica PC Plus, 3½") List $195 ..... $184.95

"... a great idea. If you want to take a spreadsheet with you, keep a basic schedule, and communiate with your office, the HP 95LX is a smart way to do it."

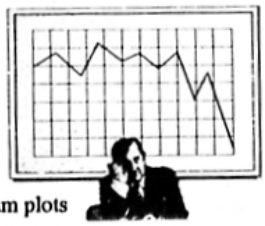
InfoWorld

Software continued

QC-Link/HP
quality-control software for your HP 95

Labtronics

Brand New



- get real-time plots from any RS232 device
- collect your data directly into Lotus 1*2*3
- update instantly for $\bar{X}$, R, XY, Sigma and histogram plots

Program lets you know immediately if a reading is out of control. You can easily modify incoming data so only required readings are used or add data/time stamps or user-defined prompts, batch or operator number, etc. You can even command your HP 95 to request data values at regular intervals, so you can graph time-dependence.

NO knowledge of programming is required. You'll set up with a new device in a couple of minutes—develop new plots by simply filling in prompts in an easy-to-understand window.

QC-Link/HP will convert collected data to the format your desk-top PC program requires. Comes on PC disk to download.

Stock #2864 (QC-Link/HP, 3½")..... $389

Smart Rounds
Physician's software for the HP 95

"The program has already paid for itself by allowing precision CPT Code billing under my control in the hospital setting. Also, just as important, the clinical note area is very useful in keeping track of my chemotherapy protocols for hospitalized patients." *Glenn Tisman, M.D., Advanced Treatment Cancer & Blood Diseases Center, Whittier, California*

MacroMed

- track hospital visits and procedures
- print out or interface CPT4 codes and descriptions
- finger-tip access to 700 commonly used diagnoses

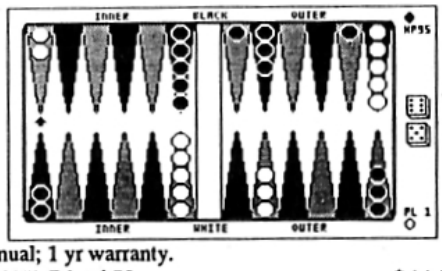
Replace your index cards or note pad with the impressive new HP 95 and Smart Rounds! You'll view at a glance all patient information, from alphabetical name, room number or account number. Access diagnoses by description or by ICD-9 code. Supports multiple physicians and multiple hospitals or locations.

Requires at least 130K system RAM available in your HP 95; you'll probably also want a RAM card to hold your patient data. Comes on PC disk for downloading (requires Serial Interface) or on 512K RAM card to insert directly into your HP 95.

Stock #2548 (Smart Rounds, 512K RAM card) List $745..... $669
Stock #2549 (Smart Rounds, 5¼" disk) List $495..... $459
Stock #2550 (Smart Rounds, 3½" disk) List $495..... $459

Games95

Sparcom CORPORATION



- Chess
- Checkers
- Backgammon
- Tetris
- Space Invaders

Comes on diskette with manual; 1 yr warranty.

Stock #2687 (Games95, 3½") List $50 ..... $44.95

GAMEcard
volume 1

ACE Technology

Plug a lot of fun into your HP 95—here are 14 games on a single ROM card, including Tetris, Blackjack, Craps, Adventure, Reversi, Go and Poker.

Stock #2651 (GAMEcard vol 1, card)..... $78.95

Switch 2.0
Launcher/Control Program

Ace Technologies

Now - Multi-tasking

You'll have easy control of your 95—to launch up to 48 HP-specific programs (.EXM files) from a single menu. Now supports multi-tasking—no more closing System Manager before running your DOS applications.

You'll have that same menu-power over an additional 48 DOS programs per drive. Plus the convenience of having your favorite programs (DOS or EXM) under their very own hotkeys, for instant launches.

You'll also get a Function Key Control Panel so you can supervise many of your HP 95's functions—defaults, auto power-off timer, battery levels, free memory & disk space, port status, cursor and scrolling.

Comes on disk to download; requires 128K RAM card and uses 94K active, 66K on disk.

Stock #2679 (Switch, 3½") List $69 ..... $64.95

Switchable Programs –

HP 95 applications that will run simultaneously with the built-in programs like MEMO, PHONE, and LOTUS. Additionally, Switch 2.0 comes with a loader file that will make *ACT! for the 95LX* switchable. Also, Personal Food Analyst (#2852) is switchable.

fastWRITE!

Brand New

A full-featured word processor for the 95 that supports multiple files and formats—and you can edit files from WordPerfect, WordStar, MS Word and XYWrite. Has built-in 100,000 word spell checker yet requires less than 300K storage.

Stock #2867 (fastWRITE!, 3½")..... $99

fastCOMM!

The only full-featured menu-driven communication utility for your 95. Supports transfers up to 9600 baud—can be fully automated with its powerful Macro Language.

Stock #2868 (fastCOMM!, 3½")..... $89

fastNOTES!

Lets you create, organize and access information as electronic pop-up notes — features include auto time-stamp, global search, ASCII import/export and quick index.

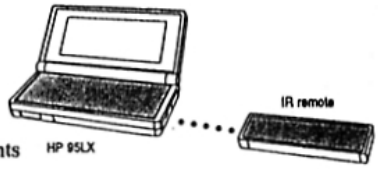
Stock #2869 (fastNOTES!, 3½")..... $69

fastLINE!

Fast HP 95 outliner and text processor—supports up to 8MB outlines and can be used for text retrieval with global searching. Auto date and time stamping for PIM functions. Built-in File Manager, requires less than 200K of RAM.

Stock #2871 (fastLINE!, 3½")..... $89

myREMOTE 2.0



- A/V presentations
- simplified VCR recording
- TV/stereo wake-ups
- single-key set up of all components

Turn your HP 95 into an audio-video remote control with this software!

Controls multiple IR components and switches them with a single keystroke. Macros send multiple commands with a single keystroke, for full customization, including programmable delay timer. Executable from a batch file.

Must be 'trained' for each device and is not guaranteed to work with all equipment—does work with many popular brands of TVs, VCRs, CDs, other A/V or camera or appliance control systems.

Stock #2808 (myREMOTE, 3½")..... $37.95

HP 95LX

Software continued

Developer's Kit for Switch 2.0

Ace Technologies

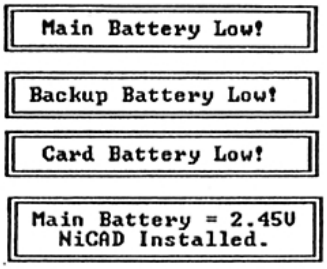
You can develop System-Manager compliant applications in just minutes! Kit gives you a simple application interface (API) to convert your DOS programs. Easily makes Assembler, C, QBASIC, PASCAL, Forth, etc., programs compliant, too. Includes unlimited royalty-free license to distribute.

Requires RAM card.

Stock #2807 (Switch 2.0 Developer's Kit, 3½") List $99.....$89.95

BATTman

Ace Technologies



Protect yourself from sudden data-loss — use this battery-management software and nickel-cadmium rechargeable batteries.

This program constantly monitors your batteries. Its special algorithms predict the sharp voltage drops that are inevitable with rechargeable batteries. BATTman warns you, and it shuts your 95 off automatically, saving your data.

Also gives you a timely warning when your RAM card battery is low (if one is installed) or if your HP 95's backup lithium battery is low.

Algorithm works equally well with NiCd, Lithium, Nickel, Metal Hydride or Alkaline cells installed in your 95. Comes complete with 2 NiCd batteries and a quick charger; manual.

Stock #2727 (BATTman, 3½") List $59.....$56.95

95 Utility Pack

Richard Harvey

Thirty-six small, efficient programs written in assembly language, each optimized for the 95 and its 40-column mode, to add many useful commands to DOS 3.22. Programs download from your PC.

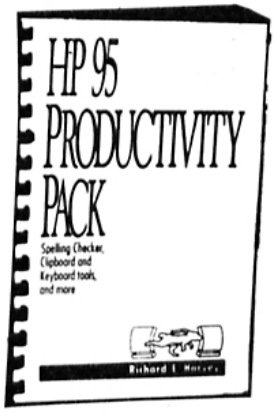
Get accurate information about memory, battery status, contrast, speaker level, keyboard state, . . . Set computer states from the command line. Find files fast. Filter extraneous characters from files for viewing or transmitting. Display graphics. Play music. Automate graphics demos. Enhance cursor.

Stock #2467 (95 Utility Pack, 3½" & 5¼") List $35.....$27.95

HP 95 Productivity Pack

Richard Harvey

Brand New



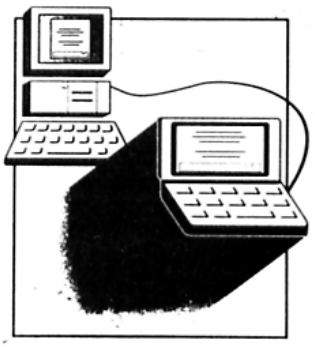
Spelling checker, Clipboard enhancer — and all System-Manager compliant, so you can switch easily between these and built-in programs.

Spell-checker has 3 versions, so you can choose the one you have room for. You can edit the clipboard and copy its files to disk. There are even 2 games as a bonus. Manual included.

Stock #2809 (HP 95 Productivity Pck, 3½" & 5¼") List $50...$38.95

QAPALM Database application-generator for DOS palmtops

QA Systems



Create your own custom 95-program to manage phone or address lists, catalog items, client tracking, job management, payroll . . . you name it.

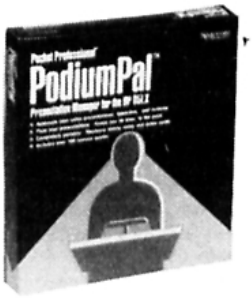
No experience necessary with this easy screen-painting approach—you just type in your captions and labels on your PC using intuitive menus to create fields, pop-up choice lists, specify default values, etc. Next emulate it on your PC, then download to your palmtop.

Features 2-way data transfer with your PC. Several applications can be run on your palmtop (with only one runtime module).

Stock #2642 (QAPALM, 3½) List $145.....$134.95
Stock #2643 (QAPALM demo 5¼").....$5

PodiumPal

Sparcom CORPORATION



For your **Public Speaking**—so you'll have the **confidence** of being organized, on time and to the point.

A true pal when you need one, it paces you with a clock and reminds you of key points. This mini-course comes with a workbook that includes 100 famous quotes, and it's easy to learn and use.

Kelly Roberts, Director of Public Speaking at the University of Florida, says *"PodiumPal is to speakers what the calculator is to accountants—power at your fingertips."*

Stock #2684 (PodiumPal, 3½") List $90.....$79.95

Match Up

Brand New

Interactive Digital

- intellectually appealing
- surprisingly revealing
- thoroughly amusing

It's like having dating-service software on your own HP 95—enhances social interaction and stimulates conversation at a party, or improves interpersonal communication, or increases self-awareness. A real fun-and-games ice-breaker, at home or traveling!

Match Up poses revealing questions on opinions, attitudes, values and feelings about Politics, Romance and Spiritual Beliefs—even has a Teenage Questionnaire to narrow the generation gap. Includes a challenging takeoff on the Prisoners' Dilemma Game.

Comes on disk; you can use it (in color) on your PC and also download it (using a cable) to your HP 95. Also available on card to plug into your HP 95.

Stock #2853 (Match Up, 3½") List $90.....$59.95
Stock #2856 (Match Up, card) List $120.....$89.95

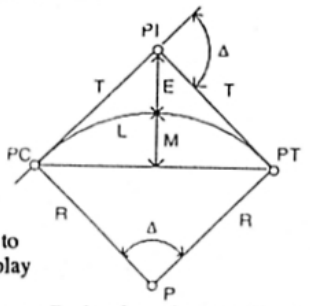
EduCALC News Line (714)582-3976

Phone EduCALC any time for weekly reports on the latest products and activities for handhelds and palmtops. Updates are made each Tuesday. Topics include new products or services, special offers, novel applications, and news about the activities of user groups.

Software continued

System 95 Surveying Software

TDS



Have your field data-collection AND your office-computation software all in the same machine—your HP 95 palmtop! This is small and easy to carry and to use, yet it's powerful and fast, with a big display to make your work easier.

You'll have all of the popular TDS-48 Survey Card and much more. Here are the groups of functions you'll work with—Job Creation and Review, Setup, Data Collection, Triangle Solutions, Leveling, Sun Shots, Earth Work, Coordinate Geometry, Stakeout, Curves, Adjustments, File Transfer to PC, and Print/Plot.

Comes on ROM card that plugs right into your 95. Communicates with all major RS 232 serial-port Electronic Total Stations.

Stock #2716 (System 95, card) List $695 ..... $549

The Maclean Mailer
automates MCI Mail for your HP 95

Pete Maclean

Brand New

Put your MCI Mailbox in your pocket—this superb program is the only one that automates your MCI access via HP 95, and it works as well on any PC.

Small—only 58K disk space and 26K as a TSR. So automatic that you won't need a manual Supports MEP2 and MNP, plus all MCI message types including FAX and telex dispatch. Even works smoothly with AT&T desktop payphones. Highly configurable for worldwide use, has special features for MCI Global Access.

Use requires a modem and an MCI Mail subscription, plus cable to download from PC to HP 95.

Stock #2854 (Maclean Mailer, 3½ & 5¼") List $49 ..... $44.95

Keep in View
the first PIM for your HP 95

Lucid

Brand New

An easy-to-use 3-D information organizer—a combination outliner and free-form data base, fully system-manager compliant.

Your information is organized like in an office filing cabinet, in 4 levels with each level expanding details from the level above. Add notes up to 16K long, marking any names or dates you wish for special reference. Later you can search all notes or add to any one, then print what you want.

Has powerful context-sensititve HELP, especially for users with very little HP 95 experience. Includes User's Guide, comes on disk for downloading from your PC.

Stock #2851 (Keep in View, 3½") List $70 ..... $59.95

Programming Aids

Swift!BASIC
A modern and structured, compact and fast language for your HP 95

Sparcom CORPORATION

Integrated in the System Manager environment, so programs will have the same user interface as the 95's internal applications. A joy to use, even for an inexperienced programmer—has a built-in editor that automatically checks syntax

You'll jump from one program to another with a 'hotkey'. All your programs share a single copy of the runtime module and library functions—this unique feature saves memory, especially important for the 512K model.

Floating-point calculation, graphics (from dot to pie charts), animation, bit manipulation, virtual arrays—here's real programming power, plus full support of all the HP 95's features! Comes on diskette to download.

Stock #2637 (Swift!BASIC, 3½") List $179 ..... $159.95

muLISP
for the HP 95

Soft Warehouse

Customized for the 95's unique screen, memory and power constraints. Port your expert system to the 95 with this fast, compact language! Comes on PC disk, requires Serial Interface to download to 95.

Stock #2560 (95 muLISP, 5¼") $399

Entry Coupon—

Free Calculator Drawing

Fill out and return this coupon to EduCALC before May 30, 1993, to enter (no purchase necessary).

1. *Which of the following is your most important calculator or palmtop?*

   ☐ *HP 48S* ☐ *HP 95* ☐ *TI 81/85*
   ☐ *HP 12/17B/19B* ☐ *Other*

2. *How many accessories for this machine do you own?*

   ☐ *None* ☐ *1* ☐ *2* ☐ *3* ☐ *5*
   ☐ *More than 5*

3. *How often do you use this machine?*

   ☐ *Hourly* ☐ *Daily* ☐ *Weekly* ☐ *Monthly*

4. *Please indicate the three most important features of your machine:*

   ☐ *Speed* ☐ *Reliability* ☐ *State-of-the art*
   ☐ *Portability* ☐ *Low cost* ☐ *Expandability*
   ☐ *Ease of use* ☐ *Connectivity* ☐ *Compatibility*
   ☐ *Serviceability*

I want a free ☐ *HP 32SII* ☐ *HP 17BII* ☐ *HP-71BU* ☐ *TI-81*

Send it to me, _____

(street) _____

(city, state, zip) _____

(I agree to having my name announced if I win)

Chad Wagner, Sterling, Alaska, won a free HP 32SII in our last drawing. Enter now—it may be you this time!

HP 95LX

Programming Aids cont.

95-UTIL
FORTH Programming System

EMS

```
HED.COM
0000  B8 96 16 89 26 F4 01 89 7...&t..
0008  E5 81 ED 00 02 FC FF 25 e.m..ü.%
0010  AD 97 FF 25 16 01 8B 76 -..%...v
0018  00 4D 4D EB F3 00 20 01 .MMk.. .
0020  45 45 89 76 00 8D 75 02 EE.v..u.
0028  EB E6 2C 01 53 8D 5D 02 kf,.S.].
0030  EB DE 34 01 53 8B 5D 02 k^4.S.].
0038  EB D6 3C 01 53 8B 1C 46 kV<.S..F
0040  46 EB CD 00 46 01 47 47 FkM.F.GG
0048  8B 3D FF 25 4E 01 58 45 .=.%N.XE
0050  45 8B 14 01 F2 46 46 89 E...rFF.
0058  56 00 45 45 89 46 00 45 V.EE.F.E
```

Turn your HP 95 into a portable software-development system with this small and very fast implementation of the Forth programming language. UTIL is System-Manager compliant, so it can be popped over other applications with a hot key.

Includes a Forth compiler, an 8086 assembler for speed-critical routines, a decompiler and disassembler for testing and debugging, and numerous source-code utilities and examples. Requires under 30K of system memory, maximizing space for your data and programs.

- Create System Manager loaders for your favorite DOS programs
- Source code tools to access built-in 95 graphics capabilities
- FREE games like Merlin and Master Mind provided as examples
- Music routine code makes your 95's keyboard musical
- Runs on your PC with HP's Connectivity Pack APP95 program

Manual included; comes on disk (requires Serial Interface to download from your PC).

Stock #2562 (95-UTIL, 5¼") List $70 ..... $64.95

UTIL Source Code Option

Examples of Forth programming to help you develop your own applications. Includes source code for: UTIL 8086 assembler, HP 95 EXM loader, line and screen edit functions, DOS gateway, System Manager menu and file services interface, disassembler and decompiler, tools to build UTIL system from the kernel file.

Stock #2385 (UTIL Source Code, 5¼") $49.95

UTIL Metacompiler Option

Lets you create tiny executable applications. You explicitly define only those words that are needed for your application and eliminate the overhead of the assembler, test interpreter, etc. Several examples of typical meta-source code are provided, including a file dump utility that metacompiles to only 1228 bytes. Requires UTIL Forth to run.

Stock #2384 (UTIL Metacompiler, 5¼") $24.95
Stock #2641 (UTIL Hex Editor, 5¼") $29.95

Bookware

Using Your HP 95LX
Practical Examples and Applications
by Monday/Robinson

Read this and you'll be able to automate your business and carry it in your pocket! You'll see in more than 150 real-life examples, tips and suggestions how to use your 95 to manage your time and money—how to schedule and plan meetings, send and receive e-mail, take 1•2•3 worksheets with you, calculate loans and project budgets.

This guide is written by experts: Lori Monday is the former HP engineer who edited the *HP 95LX Owner's Manual*, and Tracy Robinson was lead writer for the Lotus 1•2•3 rel. 3 documentation and is coauthor of *Lotus 1•2•3 Release 2.3 At Work.*

Stock #2564, Using Your HP 95LX, 380p softbound $24.95

The Answers You Need for the HP 95LX Palmtop PC

A must-have for the new HP 95 owner

GRAPEVINE PUBLICATIONS, INC.

Friendly, quick answers to those questions everyone asks at first:

- How do I use the SOLVER with Lotus 1•2•3?
- How can I transfer data with the clipboard?

Plus common questions about Lists, Macros, Printing, Plotting and Charting, Notes, Memos, Appointments, Files, Directories and Sub-directories, Downloading and Uploading Files, and much more.

Stock #2468, Answers for the 95, 112p softbound $8.95

Lotus in Minutes on the HP 95LX Palmtop PC

GRAPEVINE PUBLICATIONS, INC

An easy, plain-English tutorial and quick reference for the essential commands and procedures of Lotus 1•2•3 in the 95, including global commands, formulas, macros and databases.

Examples cover real-world situations, common mistakes and all, so you see first-hand how problems come up and how to correct them.

Stock #2469, Lotus in Minutes, 124p softbound $8.95

Explorer's Guide to the HP 95
by Richard Harvey

- Introduces DOS, redirection and piping file and directory management, TSRs.
- Program compatibility, customizing and optimizing the HP 95.
- Shows you how to use programs like CHKDSK, DEBUG. Hearts&Bones and the *other* version of TigerFox.
- Lots of tables, charts, sample programs and helpful hints.

Stock #2534, Explorer's Guide to HP 95, 112p combbound $17.95

Subscribe now to The HP Palmtop Paper

Thaddeus Computing

- Be an insider
- Be an expert
- Be fully up-to-date

You'll find out about the hidden features of your 95—how to access secret utilities—even hidden games!

You'll have how-to tips and tricks that make your work easier—solve your problems—even give you impressive new powers!

You'll read comparative brand-by-brand surveys of the software and programming languages that work best in your 95—plus consumer's advice on peripherals like RAM cards and drives.

Think of it as a giant (50 pages average) supplement to your EduCALC catalog—a new issue will come every other month, packed with the latest information—focussed right where you want it, on your HP 95.

Extra BONUS . . . each year's subscription comes with a copy of the Subscriber Disk for that year—the 1992 disk contains 34 free programs (no shareware), fully documented and easy to use utilities, games, templates and programmer's aids (8 of these are system-compliant).

FREE Issue . . . this subscription starts with the current issue, and you'll also get an extra back-issue—that makes 7 issues in all, plus your bonus Subscriber's Disk of programs.

(Allow 4 to 6 weeks for your subscription to start.)

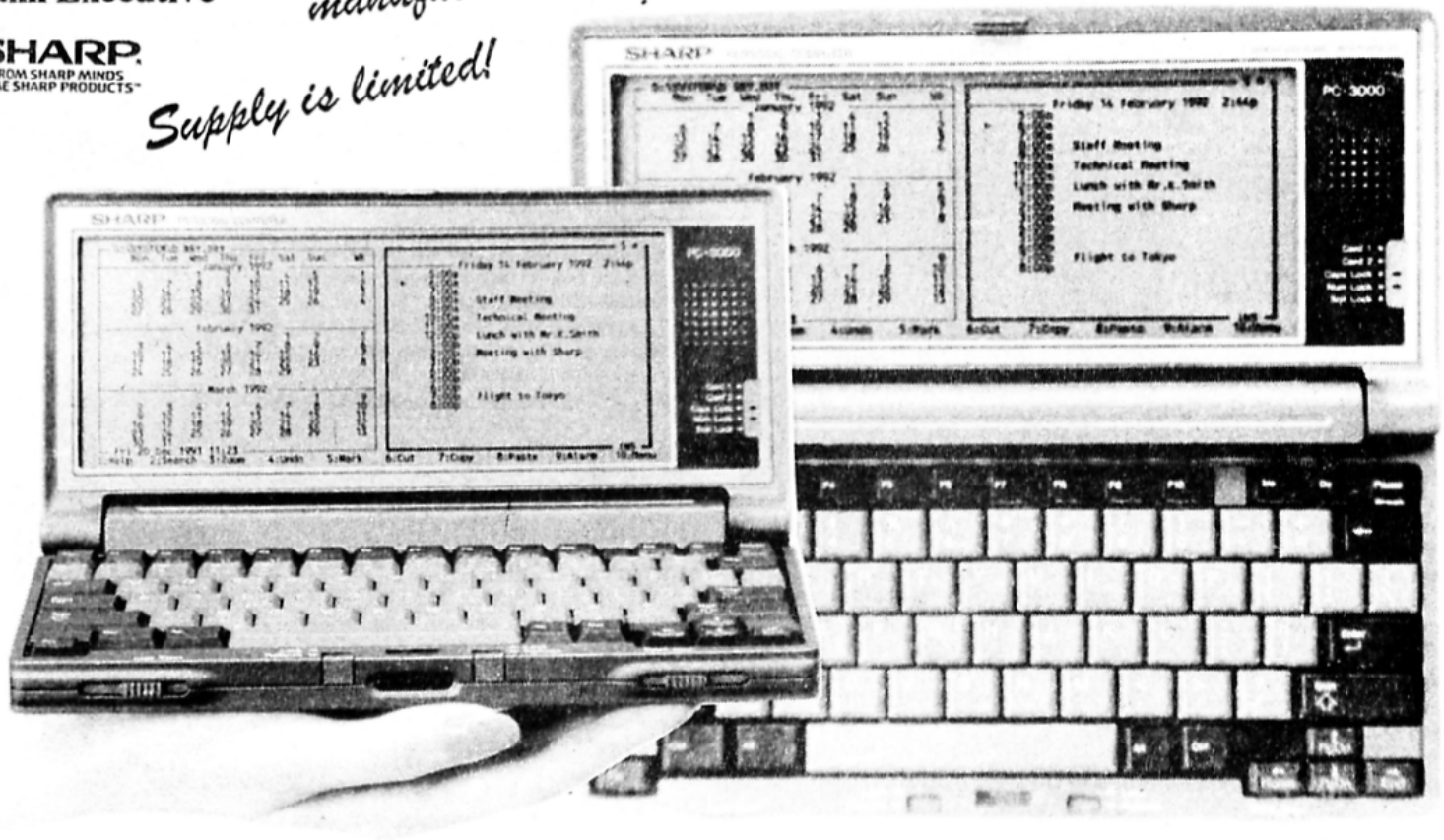
Stock #2676, HP Palmtop Paper, 1 year to U.S. address $39
Stock #2839, HP Palmtop Paper, 1 yr air to Canada/Mexico $45
Stock #2840, HP Palmtop Paper, 1 yr air, foreign $57

PC-3000
Palm Executive

Discontinued by manufacturer

SHARP
FROM SHARP MINDS COME SHARP PRODUCTS™

Supply is limited!



✓ You'll see ALL your work on this clear, PC-size screen: 80 rows × 25 col.
✓ You'll be touch-typing in 15 minutes on this standard 77-key QWERTY keyboard
✓ You'll run ALL your PC software here—it's fully compatible with MS-DOS 3.3, and has a RS-232 port for instant transfers to your main computer
✓ You won't have to wait on this baby—its 80C88A processor hums at 10 MHz, and it has 1 Megabyte of RAM built in.

Responsive 80C88A Processor Plus Ample ROM and RAM

The Palm Executive is equipped with an advanced 10 MHz 80C88A processor, giving you swift, responsive processing power. The system memory for the Palm Executive is 1 MB of RAM, enough for many standard applications.

Large, High-Resolution LCD

This miraculous compact computer makes full use of Sharp's renowned LCD technology. Wide enough to handle a spreadsheet, the innovative black and white LCD supports outstanding CGA/MDA text and graphics in a smaller, lighter package. And the 640 × 200 pixel resolution offers crisp, clear images.

True Portable Power

The Palm Executive weighs just over one pound (560 g) and measures a mere 222 (W) × 112 (D) × 25.4 (H) mm, giving you all the freedom and flexibility that only a palm sized computer can provide. This sophisticated design fits into a briefcase with room to spare, providing true on-hand productivity wherever you wish. Uses 3 AAA batteries.

Full-Function Keyboard

It has a standard 77-key Qwerty-type keyboard so you fingers will feel right at home. An Fn key along with an array of 12 function keys. Caps Lock, Num Lock and Scroll Lock simplify data entry and eliminate operating fatigue.

Comprehensive Personal Information Management (PIM) Software

The Palm Executive incorporates advanced PIM software to provide a full range of sophisticated time, scheduling and data management functions. There's even a spreadsheet application to help you process comprehensive business data with speed and efficiency. And to give you added power and reach, the Palm Executive has built-in multilingual capability, speaking a standard of 7 languages, including English, German, French, Italian, Spanish, Dutch and Swedish.

Wide Compatibility

Any work done on the road can instantly be transferred to your main computer via the built-in RS-232C port and LapLink®. In addition, the Palm Executive is fully IBM® PC compatible, incorporating MS-DOS® 3.3 and LapLink® to allow access to a wide field of applications.

Easy Expandability

These computers include parallel and serial ports as well as an expansion bus port for a 3.5" FDD unit, allowing connection with a full range of peripherals. Dual IC card ports accept a PCMCIA 1.0 standard memory card for fast, secure data storage and are lockable for convenience and safety.

Stock #PC3000 [Sharp Palm Exec] List $899 ..... $499 ~~$769~~
Stock #CE301F [1.44MB 3.5" FDD] List $428 ..... $394.95
Stock #CE301R [512K RAM card] $349.95

For plug-in RAM cards, see HP 95 Accessories on page 14.

Hard Disk Drive

~~bse~~ *New*

This portable external hard disk drive from bse uses your parallel port and includes an additional parallel port for your printer. Powered by AC or internal rechargeable batteries (included), it's only 5" × 5" × 1.5" and works with the PC-3000 as well as other DOS 3.0 or higher computer. Device driver software (3K) on 3½" disk is included.

Stock #F2520 [Hard Drive, 20 Mb] List $349 ..... $312
Stock #F2580 [Hard Drive, 80 Mb] List $699 ..... $489

Business Books & Software

Complete Reference Books—
Solid Help you can Rely on
from Osborne/McGraw-Hill

So complete that it's the only reference you'll ever need—clarifies the manual's start-up steps while you're still a beginner, teaches you steps as you progress, and becomes the lifetime reference that you really know your way around in.

Every command, feature and function, every prompt or error message you'll want to find out about is covered—**a giant softbound bargain.**

Stock #636A, dBASE III PLUS: Complete Ref, 768p.....$22.95
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Stock #636E, Turbo C: Complete Reference, 850p.....$24.95
Stock #636F, Turbo Pascal: Complete Ref, 640p.....$24.95
Stock #636H, UNIX SVR3: Complete Ref, 750p.....$26.95
Stock #636J, 1-2-3: The Complete Reference, 892p.....$22.95
Stock #636K, Quattro: Complete Reference, 660p.....$24.95
Stock #636L, MS WORD: Complete Reference, 900p.....$24.95
Stock #636P, WordStar Prof: Complete Ref, 850p.....$24.95
Stock #636R, DisplayWrite 4: Complete Ref, 850p.....$24.95

1•2•3 for Scientists and Engineers
by William Orvis

Did you realize that ordinary 1•2•3 offers mathematical operators and functions comparable to those in BASIC or FORTRAN? It does them with 15-digit precision and easily prints them out in handsome charts and graphs, too.

This how-to guide gives scores of examples based on real scientific applications, so you can learn to get solutions quickly and elegantly, and to present them in intuitive, graphic format.

You can create data and function tables, plot and fit curves, calculate statistics, sum series, differentiate and integrate, solve simultaneous equations and differential equations (ordinary and partial), and use database techniques for data handling.

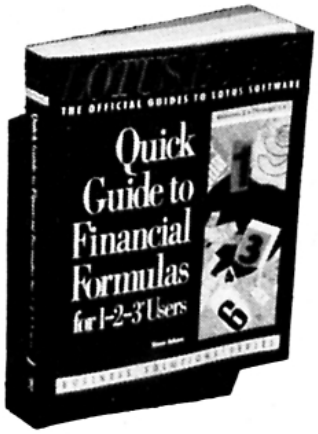
Stock #525, 1•2•3 for Sci/Eng, 341p softbound.....$24.95

Quantitative Systems for Business—PC software pkg
Stock #851 (Quantitative Systems, 5¼").....~~$26.50~~.....~~$53.95~~

Mastering Excel on the IBM PC for ver 2.0
Stock #587, Mastering Excel, 628p softbound.....~~$12.50~~.....~~$24.95~~

There is no reading more easy, more fascinating, more enjoyable or more appropriate than a catalog.

Quick Guide to Financial Formulas for 1•2•3 Users
by Steve Adams

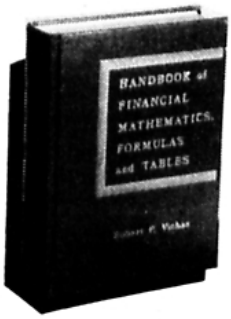


Find out what IRR really is and how to use it in 1•2•3, how to create formulas to calculate loan interest, how to track stock market gains, how to evaluate capital expenditures, how to calculate equity, how to depreciate real estate, more.

This practical book has hundreds of real-world examples to help you strengthen business skills and give you

Stock #2513, Financial Formulas for 1•2•3, 401p softbound ... $24.95

Handbook of Financial Mathematics, Formulas and Tables
by Robert Vichas



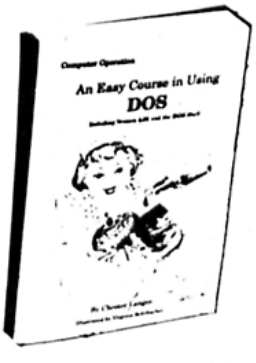
- analysts
- accountants
- advisors
- lawyers
- portfolio managers
- financial officers
- securities brokers
- insurance salesmen

Here are those formulas and mathematical shortcuts you'll need to minimize costs, conserve cash. predict potential bankruptcies up to 3 years early, apply inflation accounting, reduce losses, improve liquidity, evaluate businesses, acquire property and hedge receivables.

Definitions, descriptions and numerical examples will guide you as you zero in on just the right formula or ratio for your current project. Though nearly half of this volume is devoted to tables that you may prefer to replace with your calculator, there are 465 pages of solid financial reference here, all in one book, with one good index, one notation and one clear style, bound to last you years of hard use.

Stock #2662, Handbook of Financial Math, 870p hrdbnd $64.95

An Easy Course in Using DOS
by Chester Langin



Teach yourself — here's the finest, friendliest explanation about DOS, the operating language of PCs, with stimulating, memorable examples and self-quizzes, for versions up to 4.01.

It's thorough, too, even though "easy", starting with a brief history of calculating machines and a fascinating explanation of your computer's inner workings.

With this help you will grasp DOS, never again to be intimidated by your machine.

Stock #2456, Easy Course in DOS, 336p softbound $17.95

Read our mail from New York —

"I want to tell you how pleased I am with Ellen Pierce's help in getting me an HP manual for a discontinued 41CV application module. When impressed me was her willingness to help on such a small item. Ellen made a call to HP and found archive copies of what I needed. She got them to copy it and I paid EduCALC. I really appreciate the effort. Congratulations for having this kind of backup at EduCALC. There is no doubt where I'll buy from in the future."
E.S. Popko, Woodstock

Calculator Stands, Cases & Batteries

START HERE ☛
First find your instrument in these lists, then check out the stands & cases that fit it. Buy your batteries from the list on page 30.

	Manufacturer & Stock No.	Battery No. × Size	Stands & Wedges	Hard Leather Cases	Soft Leather Wallets	Vinyl Cases
	HP10B, 14B, 17B, 20S	3×A76	642	2062	92169K/M	
A	21S, 22S, 27S, 32S 42S		2403, 2127, 2326	2068, 2070		
B	HP18C, 19B, 28C, 28S	3×N	769, 2025	2063	92169D/F	
C	HP11C, 12C, 15C, 16C	3×A76	629 998		688/K 92169B	
D	HP41C, 41CV, 41CX	4×N	2403, 642, 2127	511		82111A
E	HP71B	4×AAA				
F	HP48SX	3×AAA	2403, 2249, 2252	2225	2638	82221A

Manufacturer & Stock No.	Battery No. × Size	Stands & Wedges	Hard Leather Cases
TIBAII, 30, 36, 55III, 60	2×A76	642	
TICC Collegiate		769, 2025	
TIFIA Financial Analyst	2×CR2032		
TIPP Paperless Printer		998	
TI65 Technical Analyst	2×A76		
TISC, 74, 95	4×AAA		
Aurora GF21, SC5	2×CR2025		
CICM, GAM, PMM	2×A76	642, 2127	
CIDMP	4×AAA		
Casio fx7000G/8000G	3×CR2032		
Casio SF4000	3×CR2025		
Casio SF7000, SF7500	3×CR2025		
Casio SF9000	2×CR2032, 1×CR2025		
CMT MCII, MCV	5×AA		

Manufacturer & Stock No.	Battery No. × Size	Stand & Wedges	Hard Leather Cases
Digitool DCINCH	2×A76		
Franklin FCSCM	2×AAA	642, 2127	
Franklin LM2000	4×AA		
HP 48 RAM Cards	1×CR2016		
Psion CM, XP	1×9V		
Sharp OZ7000/7200 Wizard	2×CR2032, 1×CR1616	769, 2025	
32K RAM Card OZ780	1×CR1616		
64K RAM Card OZ781	1×CR1616		
Sharp EL470 Travel	1×CR2032		
Sharp EL731 Financial	2×A76	642	
Sharp EL5200	2×CR2032		
Sharp EL6250H	2×CR2032		
Sharp PCE500	4×AAA		

Desk Stands

- **Dramatic—give your desk a professional look**
- **Sensible—avoid keying errors by putting your instrument at the right angle on non-skid feet**
- **Eye-easing—reduce fatigue with a better view of your readout**

Astech

Rigid Plastic Case & Stand—tough, good-looking protection—with a clever double hinge so it becomes a stand when open. Coffee brown.
Stock #2326 [Rigid Case/Stand, size A] $18.95

EduCALC

Ice-clear acrylic stand—strong and thick, for desk-top sparkle.
Stock #998 [Acrylic stand: Clear, size C] $14.95
Stock #2025 [Acrylic stand: Clear, size B] $18.95
Stock #2127 [Acrylic stand: Clear, sizes A, D] $9.95
Stock #2252 [Acrylic stand: Clear, size F] $11.95

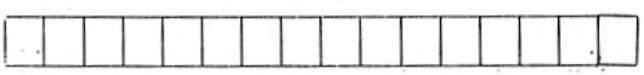
Brown plastic folding stand—adjustable viewing angle, quickly collapses for your pocket. A *Best Buy*.
Stock #2403 [Plastic stand; Brown, size A, D, F] $5.95

Oak stand—dense, thick and sturdy—complements your desk and blends with other accessories.
Stock #629 [Oak stand, size C] $14.95
Stock #642 [Oak stand, sizes A, D] $14.95
Stock #769 [Oak stand, size B] $19.95
Stock #2249 [Oak stand, size F] $16.95

CHROME NAMEPLATE for your desk stand

EduCALC

Personalize any stand above with your own name, engraved in blackened letters on bright chrome-plated brass. Self adhesive backing. Please fill in boxes below for up to 16 engraved characters (including punctuation and spaces)—just tear out this page and send it with your order.

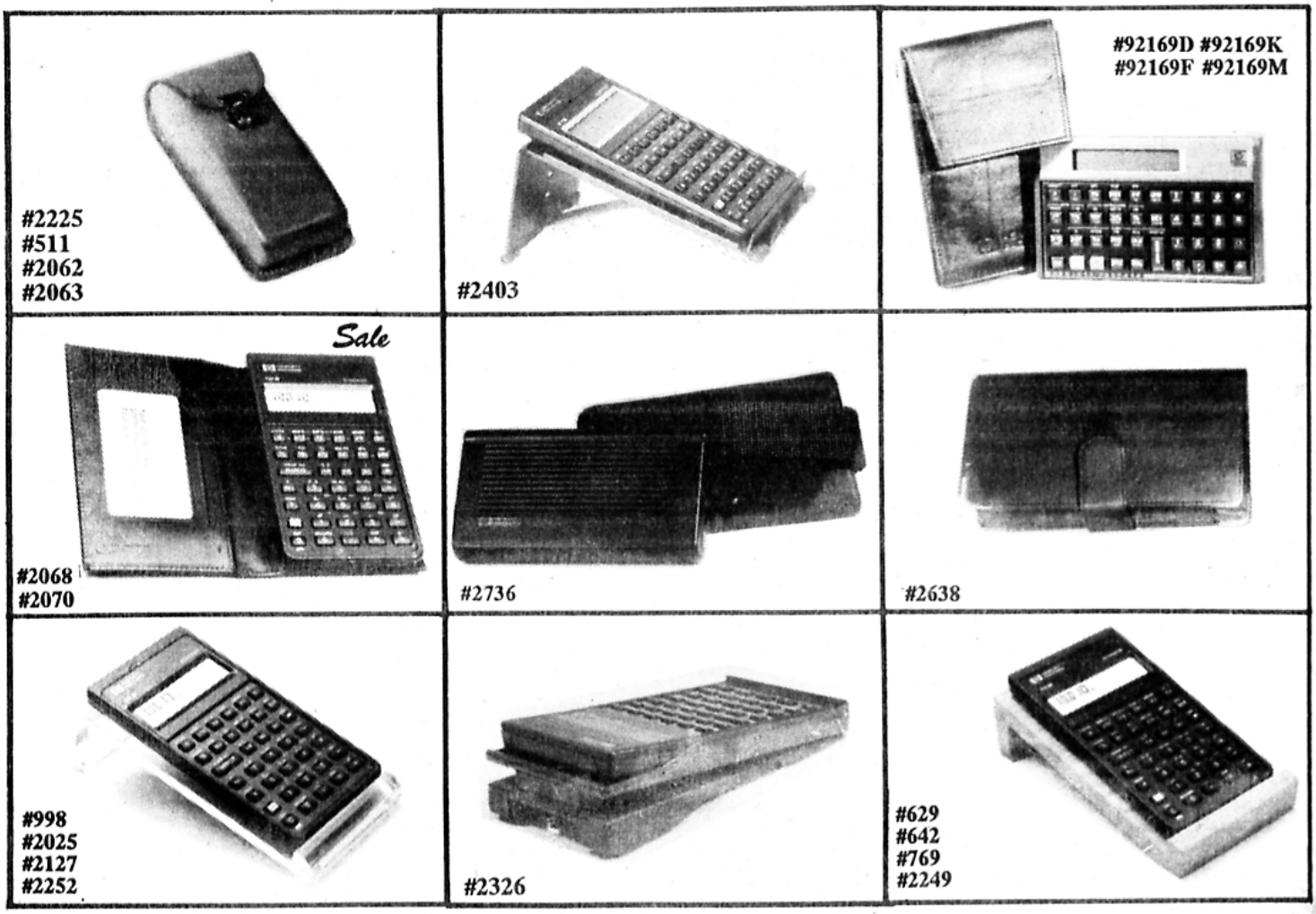


Stock #AWNP [Custom Nameplate: Chrome] $7.95

Get *Instant Gratification*— use our optional UPS *Overnight* Delivery!

Did you realize that the 2nd item you order from us gets free shipping? So does the 3rd, the 4th,... !

Calculator Stands, Cases & Batteries



☛ *Find out what fits your instrument in chart on preceding page*

Hard Leather Cases

- **Outdoors—surveying, construction, line work**
- **Inside the shop, factory, lab or mill**

Insure your calculator—if you work rough and ready, protect it with rigid 8 oz cowhide. Rugged, professional looking, with broad belt loop. Light tan.

These cases are handcrafted; they may require a long delivery time.

Stock #511 [Case: HP 41 without Crd Rdr, size D] List $39....$34.95
Stock #2062 [Hard Leather Case, size A] List $35.....$34.95
Stock #2063 [Hard Leather Case, size B] List $56.....$48.95
Stock #2225 [Hard Leather Case – 48SX, tan] $42.95

Soft Vinyl Cases

HEWLETT PACKARD

Just like the one that came with your instrument.

Stock #82111A [Vinyl case: Brown, size D].....$9.95
Stock #82221A [Vinyl case: Black, size F].....$14.95
Stock #82110A [Vinyl case: Black].....$4.95

In a hurrry? Use our UPS 2ND DAY AIR

Sale

Chary

Side-folding wallet with a BIG BONUS—this wallet opens to become a desk stand when you use your instrument—holds it at the proper angle for hand and eye. Soft, thick, top-grain cowhide.

Stock #2068 [Wallet/Stand: Black, size A] List $30..... $12.95 ~~$21.95~~
Stock #2070 [Wallet/Stand: Burgundy, size A] List $30 ..... $12.95 ~~$21.95~~

Tuck-top wallet with a second layer of pliant cowhide

Stock #92169K [HP wallet: Black, size A] List $19 ..... $17.95
Stock #92169M [HP wallet: Burgundy, size A] List $19 ..... $17.95
Stock #92169D [HP wallet: Black, size B] List $19..... $17.95
Stock #92169F [HP Wallet: Burgundy, size B] List $19..... $17.95
Stock #92169B [wallet: Brown, size C] List $12 ..... $10.95

Stock #2638 [HP48/95 Black Executive Case]..... $43.95
Stock #2579 [HP 48 Leather Case, black] $34.95

A Big Hurry? UPS OVERNITE AIR!

Business Calculators

Batteries

- Get *extra batteries* now—avoid memory loss—avoid shopping trips!
- Get *fresh batteries* from EduCALC—we sell the most calulator batteries, so we replace our stock fast!
- Premium brands (Eveready, Kodak, Duracell, etc.) guarantee longer life and freedom from leakage and corrosion—they're tested!
- Find out what fits your instrument in chart on preceding page.

The most used calculator battery size is A76, an alkaline button which is also called LR–44, PX76A, 1166A or V13GA. The A76 may also be replaced with our **super long life** (at least 225% more) silver–oxide battery, S76 (also called SR44, EPX76, MS76, RS76, G13, V76PX or 1107SOP).

Stock #A76 (Alkaline battery) **$0.89**
Stock #S76 (Silver oxide battery) **$3.20**

The following alkaline batteries are usually the **original equipment specification.** We also offer nickel–cadmium (NiCd) rechargeables in most of these sizes (and rechargers)—please call us for details.

Stock #AA (Alkaline battery) ..... **$.89**
Stock #AAA (Alkaline battery) ..... **$.89**
Stock #C (Alkaline battery) **$1.39**
Stock #D (Alkaline battery) **$1.39**
Stock #N (Alkaline battery) ..... **$.98**
Stock #9V (Alkaline battery) **$2.80**

The lithium button–cells listed below last twice as long as alkalines.

Stock #CR1616 (Lithium battery) **$1.75**
Stock #CR2016 (Lithium battery) **$1.75**
Stock #CR2025 (Lithium battery) **$1.95**
Stock #CR2032 (Lithium battery) **$1.95**

Business Calculators

HP 10B
Algebraic entry— for Business Professionals and Students

Now — Traditional HP reliability is affordable

HEWLETT PACKARD

The HP 10B is the ONLY calculator under $40 that gives you ALL 3—

- **HP dependability**—molded keys, so the letters will never rub off and you'll never have to worry about sticking keys or double entries.
- **Label descriptors**—make it easy to understand and enter cash flows, and to see which values in a schedule are interest, principal and remaining balance.
- **Easy access to your solutions** — large 12–character display. Simple movement between functions, so you don't lose your data (no cumbersome 'compute' keys or mode switching, either). Auto–increment feature generates amortization schedules quickly.

☐ **Essential business and finance functions** — time value of money, amortization schedules, cash flow analysis with IRR and NPV, interest rate conversions, percent and percent change, margin and mark–up.

☐ **Statistics and math functions**—1– and 2–variable statistics with mean, weighted mean, sample and population standard deviations, forecasting and linear regression, basic math functions.

15–memory registers (more memory than similar models, and it's more usable), automatic constant saves keystrokes on repetitive calculations. Special 3–key 'M' memory for simple, fast use.

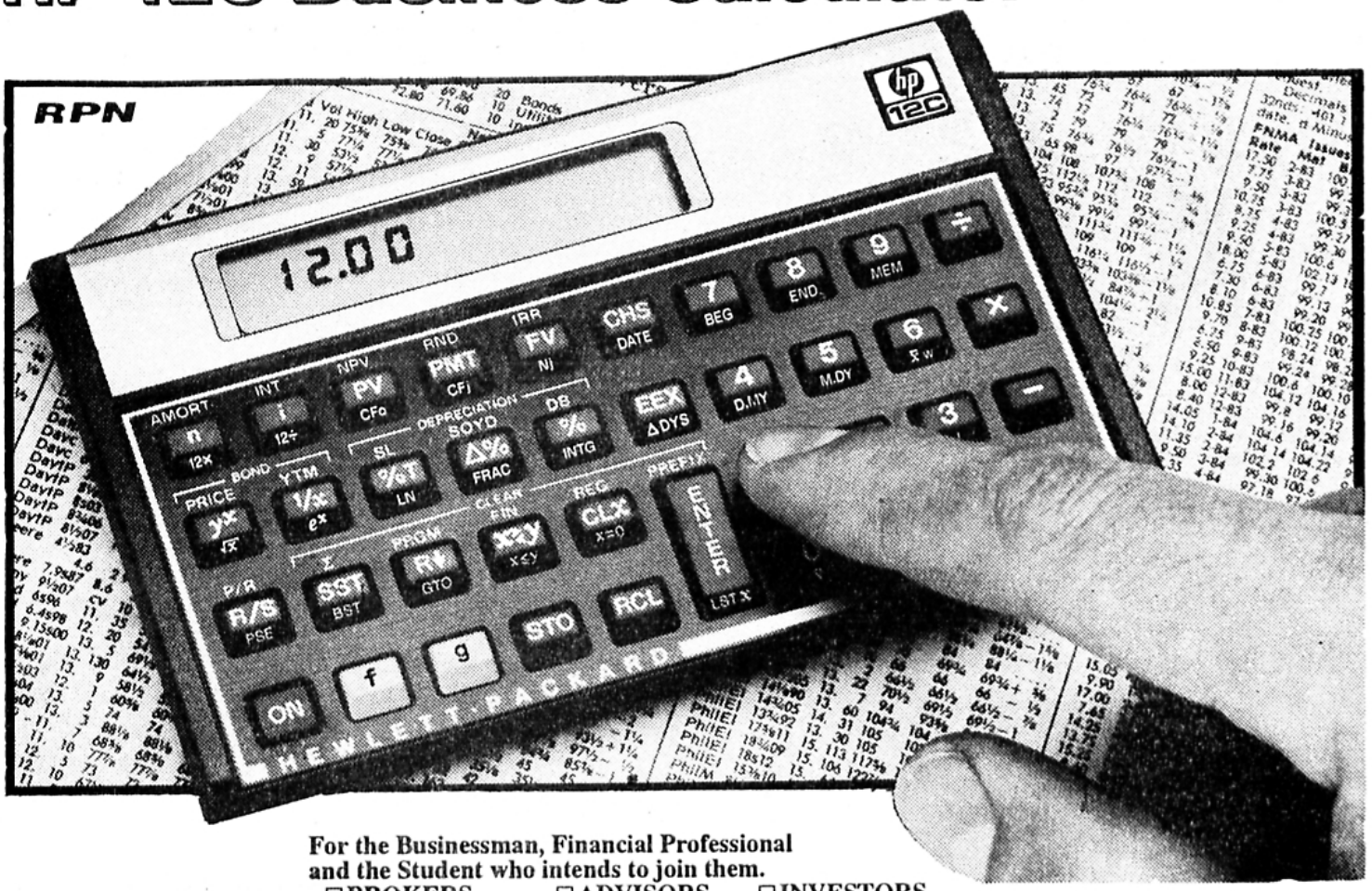
Batteries, Manual, wallet included, 1 yr warranty.

Stock #HP10B [Business Calculator] List $40 ..... **$32.95**

Check out anything you want without risking a penny. At EduCALC you get a 30 day return privilege.

Calculator stands & cases—see pp 29–30

HP 12C Business Calculator



For the Businessman, Financial Professional and the Student who intends to join them.

HEWLETT PACKARD

☐BROKERS ☐ADVISORS ☐INVESTORS
☐LESSORS ☐BANKERS ☐CONSULTANTS

Imagine Yourself . . . Calculating what-if answers with ease—right on the spot!!! Answering your client's questions instantly without tables. Being first with IRR and NPV figures, to the penny! Freeing yourself from arithmetic, so you can do the real thinking.

YOU CAN—get yourself an HP 12C calculator and buy the book or tape 'SELF SEMINAR' listed below that fits your needs. Then invest a couple of hours study time. You'll be delighted with your quick new power and ease.

FINANCE/BUSINESS: Solves for Number of Periods (n), Compound Interest Rate (i), Present Value (PV), Payment (PMT), and Future Value (FV); Amortization with Accumulated Interest and Remaining Balance; Net Present Value (NPV); Internal Rate of Return (IRR); Bond Yield and Price; Depreciation by Straight-Line, Declining-Balance, Sum-of-Digits (SOD); Odd-day's Interest; Simple Interest; Percent, Percent Change and Percent of Total; Calendar Functions; Beginning- or End-of-Period selection; 5 Financial Registers.

STATISTICS: Summations; 2-Variable Statistics with Means, Standard Deviations, Linear Regression, and Correlation Coefficient; Factorial.

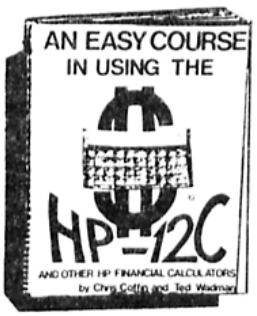
PROGRAMMING: Up to 99 Steps; Program Review; Unconditional Branching; 2 Conditional Tests; Pause.

Yet it's FRIENDLY—a first-time calculator user can expect to solve amortization and cash-flow problems with the 5 top-row keys in a matter of minutes!

Stock #HP12C, List $95 (Battery, case & manual incl)..... $74.95

An Easy Course in using the HP 12C

by Coffin/Wadman



Written just for you, to work at your own pace. You can relax, sit back and let these experts show you the way with lots of illustrations, example stories and quick reviews. This is a sometimes playful treatment, from the beginning, with many common applications in lending and investment analysis. It may also be used with other HP calculators, such as the 37, 38, 67/97 with pac software, and 41 with module software. HP #92234

Stock #260, Easy Course 12C, 256p wirebound..... $21.95

Quick Reference Guide for the HP 12C

by Evan Gost

This booklet is no bargain by the ounce—that's because it's been boiled down so it fits in your shirt pocket (even with cigarettes there), or in the 12C case. It is a training guide and ready reference which supplements your Owner's Handbook. The author also gives seminars on the use of the 12C, so he knows what you need.

Believe it or not, this little book contains methods and examples covering every function of the calculator—plus more examples to steer you through problems complex enough to require two-stage solutions. It's concise, complete and useful.

Stock #243, 12C Quick Reference Guide, 36p softbound..... $4.50

Calculator stands, cases & batteries: see pp 29-31

HP 12C Business Calculator

HP Applications Books

HEWLETT PACKARD

The HP 12C Training Guide

New! A self–seminar from Hewlett–Packard that begins at the beginning and ends with you feeling comfortable with your HP 12C. Lots of examples, tests with answers, summaries and reviews will guide you. When you're finished, you'll be able to calculate mortgage payments, loan amounts, determine IRRs, write and run a program, and much more!!

Stock #90022, 12C Training Guide, 169p softbound $14.95

HP 12C Solutions Handbook

Here are keystroke procedures from Hewlett–Packard supplementing your owner's handbook for applications to real estate, lending, savings, investment analysis, securities, forecasting, pricing, statistics, personal finance, Canadian mortgages, and more.

Stock #477, HP 12C Solutions, 152p softbound $14.95

HP 12C Leasing Applications Handbook

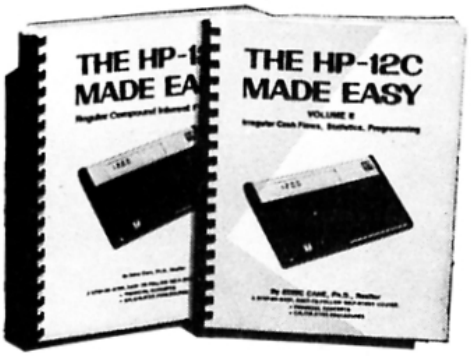
Stock #90021, Leasing Applications, 117p softbound.....$14.95

HP 12C Real Estate Applications Handbook

Stock #90015, Real Estate, 102p softbound.....$14.95

The HP 12C Made Easy

by Edric Cane



Open the box, open this book, and you're in business — master teacher Edric Cane will not so much simplify it as make it obvious. A realtor himself, Cane chooses examples mostly from real estate. They illustrate all the compound interest features on the HP 12C for regular cash flows. No prior knowledge of the calculator is assumed (and this course can be used with the HP 37, 38 and 41 machines as well).

This book was born in seminars where thousands of students have successfully gotten understanding and power—seminars at UCLA and UC Berkeley and to boards of realtors, executives and investors from New York to Hawaii. It anticipates your questions and gives clear, complete explanations of concepts.

Stock #273, HP 12C Made Easy, 246p combbound $19.95

VOLUME II: Complete your kit of 12C skills—learn how to handle IRREGULAR CASH FLOWS, STATISTICS and PROGRAMMING.

It's all quickly made clear to you by Edric Cane, the master teacher who wrote Volume I as well.

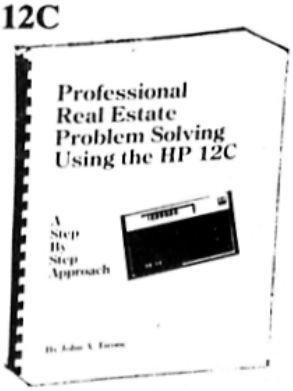
Vol I is not prerequisite to Vol II—but you'll need to thoroughly understand regular cash flows and simple arithmetic on the HP 12C.

Stock #682, 12C Easy Vol II, 228p combbound $19.95

Professional Real Estate
Problem Solving Using the HP 12C

by John Tirone

Brand New



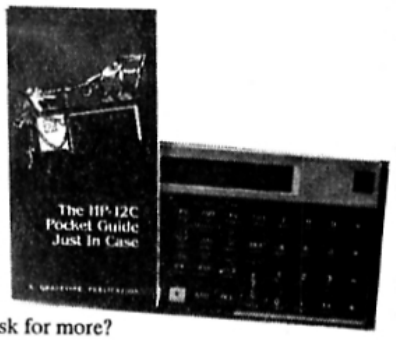
Your confidence will grow with every problem and example you do—you'll learn why and when, not just how, to do them.

Author Tirone is an attorney who has taught thousands of RE professionals how to calculate the numbers they need to make money fast. You'll like his clear, step–by–step instructions and simple explanations—most of all, his practical examples.

Stock #2859, 12C RE Problem Solving, 271p combbound..... $22.95

The HP 12C Pocket Guide: Just in Case

by Coffin/Wadman



Jiffy HELP that fits in the pouch with your HP 12C—yet it is complete enough, with Descriptions, Instructions and Examples.

It covers every common type of problem, even guides you with (excellent) diagrams and illustrations in the authors' humorous style. It is quite well–written, plus you'll recognize the keyboard colors printed right in the instructions. Could you ask for more?

Stock #649, 12C Pocket Guide, 50p softbound $4.95

Investment Securities Program Guide using the HP 12C

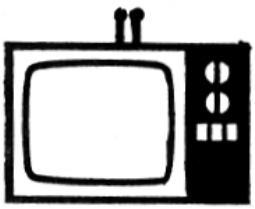
"With the programs in this book, I've got the answers my clients want while my competitors are still setting up the problem," says Stephen R. Willson, VP (Public Finance), Blunt Ellis & Loewi, Incorporated; "I'm not always near my computer. But I always carry my HP 12C."

John L. Maginn, CFA, Exec VP and Treas, Mutual of Omaha Insurance Co., says, "I especially appreciated the organization of the *Program Guide* across the spectrum of calculations for securities, options, warrants/calls, and portfolio management. The book is concise, complete, comprehensive — and essential for the investment practitioner that loves the convenience and power of the HP 12C."

Stock #435, Investment Securities 12C, 147p softbd $17.95

HP 12C Video Training Program

Smartz



Just pop this in your VCR and relax. Your trainer, Dale Hillard, takes you right from keyboard layout through programming basics—this full 2–hour training session gives you an end run around that owner's manual.

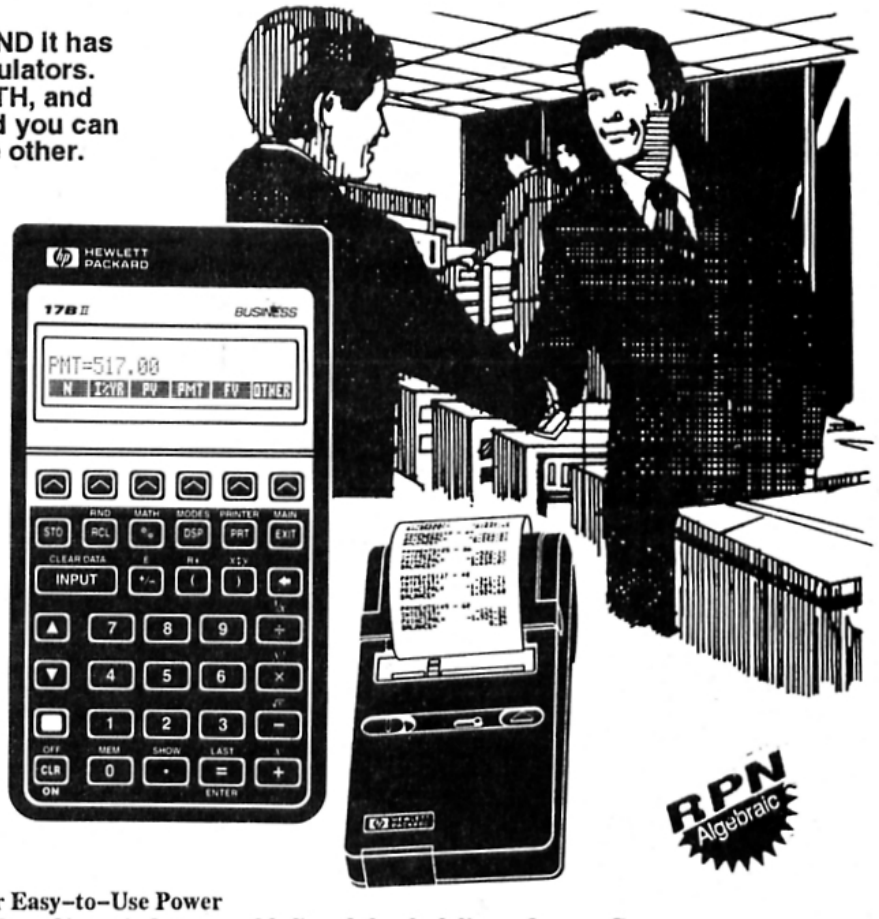
Former college professor Hillard is the RE broker that conducts HP 12C workshops nationally for the RE, banking and financial industries.

Stock #2182 (HP 12C Video Training Program) $44.95

Want a PC–version of your HP 12C? See our Math Software section.

HP 17BII Business Calculator

New model 17BII—
It has HP's time-tested RPN entry system AND it has the Algebraic System common to other calculators. You choose—RPN or Algebraic—it does BOTH, and you can change it any time—you decide, and you can even try out either system while you use the other.



- **Business and Finance**
  - Amortization with table printout
  - Bonds; price, yield
  - Date arithmetic
  - Depreciation
  - Interest rate conversions
  - List-based cash flows
  - Mark-up as percent of price and cost, percent change, percent total
  - Number lists; edit, sort, store
  - Time value of money
- **Statistics and Math**
  - Mean, standard deviation (1 or 2 variables),
  - Weighted mean
  - Forecasting/curve fitting
  - LN, LOG, e^x, 10^x, y^x, $\sqrt{x}$, x^2, 1/x
- **Time and Dates**
  - Appointments and alarr
  - Clock, calendar

HP 17BII

HEWLETT PACKARD

- **6,500 bytes of Usable Memory**
- **Algebraic Entry System with Menus and Softkeys for Easy-to-Use Power**
- **State-of-the-art Vertical Design with one-piece keyboard/case (robot assembled) and the sleek lines of a new German car**
- **HP SOLVE — enter custom equations without programming**
- **Clock, Calendar and InfraRed Printer interface**

It's 15 times faster than the HP 12C, and displays more than 4 times as much information. This powerful calculator from Hewlett-Packard is an indispensable companion for all the business problems you face daily. Practical, dependable, the HP 17B is by far the most function-packed business calculator you'll find anywhere for the price.

The HP 17B's powerful set of functions includes time value of money, amortization, discounted cash flows (NPV and IRR), interest rate conversions, percentage calculations, bonds, depreciations and more.

You'll use the HP 17B's list-based cash-flow and statistics functions to find solutions for a wide variety of business problems. Plus, you can store lists of data for quick retrieval, editing and calculating. And the HP 17B keeps a running total as you go.

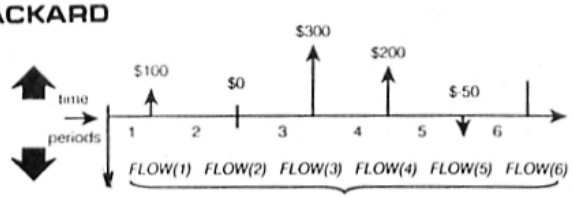
You can analyze your sales by fitting them to four different curve models and use the HP 17B's forecasting application to predict future sales. In addition, this multipurpose calculator performs time calculations and reminds you of pending appointments.

And 6,500 bytes of usable memory mean you have enough room to store everything you need. Manual, batteries, soft case included; 1 yr warranty.

Stock #HP17BII [Business Calculator] List $110 ..... $84.95

Step-by-Step Books for Business Using the HP 17B

HEWLETT PACKARD



Stock #544, Real Estate, Banking, Leasing..... $9.95
Stock #545, Business, Finance, Accounting..... $9.95
Stock #546, Marketing, Sales..... $9.95
Stock #547, Personal Invest/Tax $9.95

Calculator stands, cases & batteries: see pp 29-31

An Easy Course in Using the HP 17B

GRAPEVINE PUBLICATIONS, INC.

A clear, straightforward explanation of your HP 17B. It's written in Grapevine's friendly style, so it's easy to understand, right from the first.

You'll learn to work with menus, lists, arithmetic — how to develop your personal list of equations. Then you'll explore the built-in financial equations, the 'hows' and 'whys' of loans, mortgages and investments — and make sense of them all with the Time Value of Money keys NPV, NFV, IRR, and MIRR.

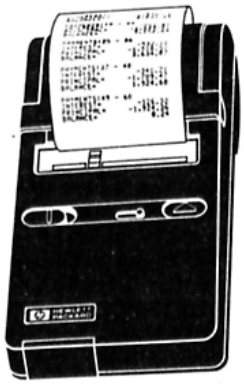
Clear diagrams and explicit, worked-out examples from Savings, Real Estate and Banking will tie it all together for you, painlessly!

Stock #540, 17B Easy Course, List $23..... $21.95

HP 17BII Business Calculator

InfraRed Printer
for your HP 17, 18, 19, 27, 28, 41 with IR Module, 42 or HP 48

HEWLETT PACKARD



Get hard copies of all your graphics, data, programs or calculations. This silent thermal printer operates on four AA alkaline batteries (included) for go-anywhere portability — a set of batteries prints about 6000 lines, or there is an optional AC Adapter.

Printer connection cords have been replaced by an invisible infrared beam from your HP calculator. It's the only link required for your printing needs.

You have plenty of leeway — up to a foot and a half — to put the printer where it's most convenient for you. Just point your calculator at it and push [PRINT]. No cords to tangle with.

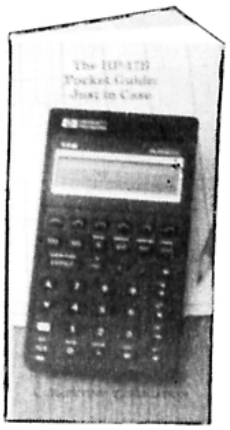
Print speed with fully-charged batteries is just a shade over a half second per 24-character line. By putting the printer in TRACE mode, you can print out a complete record of the numbers you've used in your calculations, as well as your results. Or print selectively and provide clients with copies of quotes, amortization tables or itemized lists.

Stock #82240B [Portable InfraRed Printer] List $135 ..... $115.95
Stock #82241A [AC Adapter for IR Printer] $14.95
Stock #82175A [2¼" Printer Paper, black, 6 rolls] $9.95
Stock #AA [Batteries, Printer uses 4] ..... ea $.89
Stock #92169G [Cover, black] $22.95
Stock #92169H [Cover, brown] $22.95
Stock #92169J [Cover, burgundy] $22.95

Foreign adapters available; see page 13 (HP 95 section).

The HP 17B Pocket Guide:
Just in Case

GRAPEVINE PUBLICATIONS, INC.



Refreshes your memory after you have completed the Easy Course. Lots of examples to follow, each with keystrokes and explanations. And this Friendly Companion fits right in your calculator's case.

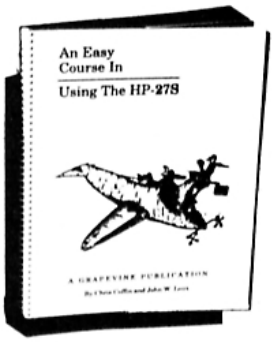
Stock #2022, HP 17B Pocket Guide, 64p softbound $4.95

Read our mail from Texas—

"Please tell all of your employees to keep up the good work. They will keep and expand their jobs by solving the customers' problems immediately, as they are doing and not by trying to pass the problem along to someone else. I am amazed that so few people really understand that their primary job is to take care of, and take over, customer problems." Robert L. McIntyre, Brownsville

An Easy Course in Using the HP 27S

GRAPEVINE PUBLICATIONS, INC.



A clear, straightforward explanation of your 27S. It's written in Grapevine's friendly style, so it's easy to understand, right from the first.

This Easy Course starts with the basics, with lessons on keyboard operation, arithmetic and how to move through a menu. Next it explains the built-in equation-solver (including its 'smart' features). Then you'll put it all together in a series of commonly encountered, practical problems (with complete solutions).

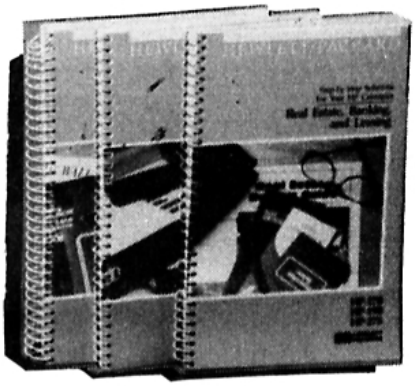
You'll also get extensive training in personal finance using the TVM (Time Value of Money) menu, including concepts and methods of financial analysis.

Includes clear diagrams and explicit examples.

Stock #542, 27S Easy Course, List $23 ..... $9.95

Step-by-Step Books for Business
Using the HP 17B, 19B and 27S

HEWLETT PACKARD



Let experts help you set up your calculations so you can work with them most easily. These professional references include practical routines and tips for getting the most from the Built-in Menus as well as setting up Personal Menus for your specific profession. Order the ones that fit your work.

Stock #544, Real Estate, Banking, Leasing $9.95
Stock #545, Business, Finance, Accounting $9.95
Stock #546, Marketing, Sales $9.95
Stock #547, Personal Invest, Tax Plan $9.95
Stock #548, Tech Applications using HP Solve $9.95

Schaum's Outline Series

50% Off

Limited Supply

Sinking Fund Schedule

Period	(a) Interest added	(b) Deposit	(c) Increase in fund	(d) Amount in fund at end of period
1	0	592.92	592.92	592.92
2	8.89	592.92	601.81	1194.73
3	17.92	592.92	610.84	1805.57
4	27.08	592.92	620.00	2425.57
5	36.38	592.92	629.30	3054.87
6	45.82	592.92	638.74	3693.61
7	55.40	592.92	648.32	4341.93
8	65.13	592.92	658.05	4999.98
Totals	256.62	4743.36	4999.98	

Low priced books with basic theory, definitions and hundreds of carefully solved problems — for reference and review.

Stock #2128, Business Mathematics ..... $4.95 ~~$9.95~~
Stock #310, Business Statistics ..... $5.50 ~~$10.95~~
Stock #2129, Mathematics of Finance ..... $4.95 ~~$9.95~~

Get *Instant Gratification* — use our optional UPS *Overnight* Delivery!

In a hurry? Use our UPS 2ND DAY AIR. A Big Hurry? UPS OVERNITE AIR!

The HP 19BII Business Consultant II

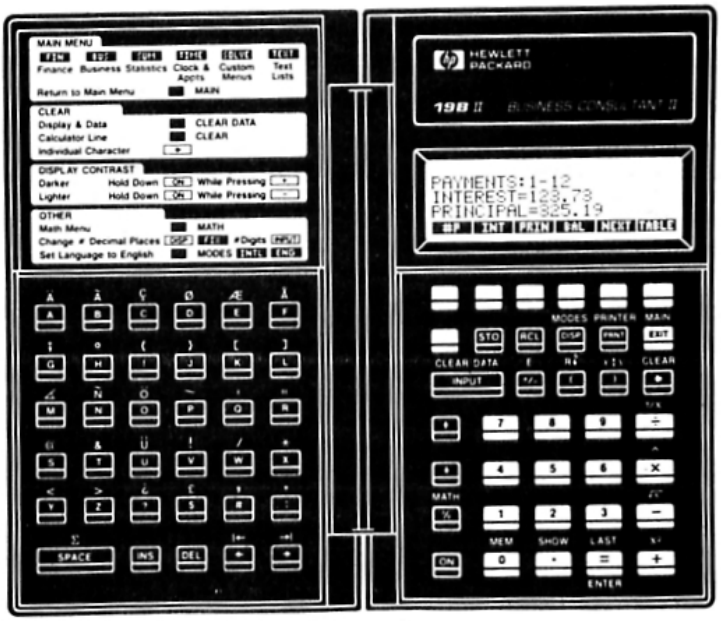
John C. Dvorak of the *San Francisco Examiner* and *PC Magazine* calls the Business Consultant "The hottest new portable super calculator." He likes the printer, too: "Forget about RS-232 cables. This is the way to go. Watching a little printer magically print data from an infrared link is both eerie and exciting."

Data-Saving and Sorting Power

Problem-Oriented Power

Time-Managing Power

Menu-Driven Power



RPN Algebraic

New model 19BII—
It has HP's time-tested RPN entry system AND it has the Algebraic System common to other calculators. You choose—RPN or Algebraic—it does BOTH, and you can change it any time—you decide, and you can even try out either system while you use the other.

HEWLETT PACKARD

Solve your special problems WITHOUT PROGRAMMING!

☐ USER DESIGNED POWER—Hewlett-Packard asked people like yourself what they wanted in a finely-designed business calculator. Now you've got it. There are **2 straightforward keyboards**—one has numbers and function keys while the other keeps your alphabet separate for typing ease—yet the Business Consultant II folds for your pocket. The **revolutionary 4-line LCD screen** shows you the numbers you're calculating with, or menu options to choose from. An **infrared printer interface** drives the optional printer, without bothersome cables.

☐ MENU-DRIVEN POWER—**the Business Consultant II is self-guiding**, with Prompts in English, so you'll find it easy to use right from the start. You won't be referring to the manual very often.

Standard business formulas are already built in. Simply make a choice, then push a button.

To help you find your way around, menus—a series of headings—appear on the Business Consultant's four-line screen.

They make these functions push-button close:

- ☐Interest rates
- ☐Time and appointments
- ☐Payment schedules
- ☐Markup and margin
- ☐Statistics
- ☐Internal rate of return
- ☐Interest rate conversions

☐PROBLEM-ORIENTED POWER—**the Business Consultant II is smart**, so you'll only tell it the problem formulas, and it will figure out how to solve your problem for you. No more will you need to program your solutions; just tell your BUSINESS CONSULTANT what the problem is!

☐TIME-MANAGING POWER—**the Business Consultant II is punctual**, so it will remember appointments for you—and remind you with a beep. In addition to the 19B's calendar, there's a handy clock in it, and memory for your expenses, so you can note them right on the spot. With the clock you can keep track of billable time.

☐DATA SAVING & SORTING POWER—when you key in data to do statistical analysis (say, mean and standard deviation even on weighted data) **your Business Consultant II remembers every data point**, not just those sums it uses to calculate your statistics. Furthermore, it will sort your data points, so you can find their minimum, maximum, range, median, mode, and percentiles, or print them all out in sorted order.

The Business Consultant II does bond price/yield/depreciation, plus all the usual financial calculations, percent, compound interest, cash-flow analysis, calendar, statistics, factorial, trig, probability, and ln x, e^x, y^x—all the functions you expect.

Its new power includes Interest Rate Conversions, Markup as % of Cost and Price, Net Future Value (NFV), Net Uniform Series (NUS), Clock Functions, Appointments and Alarms, Logarithmic and Exponential and Power Curve Fitting, Currency Conversions.

It calculates with Algebraic Logic, dealing with equations just as you write them. It has 6500 bytes of RAM memory for your own customized menus, equations or data, and it remembers everything while it's turned off. **It's 15 times faster than the HP 12C, and displays more than 9 times as much information.**

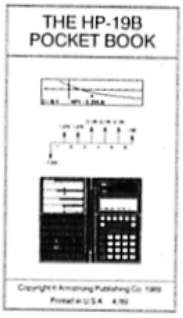
The Business Consultant II is 3 5/8" wide by 6 1/2" high and 5/8" thick when folded; open, it's 7 1/2" wide. Owner's Manual and batteries included.

Stock #HP19BII [Business Consultant II] List $175..... $134.95

Calculator stands, cases & batteries: see pp 29-31
InfraRed Printer: see p 35

HP 19BII Business Consultant II

HP 19B Pocket Book



All the help and reference you'll want to have along with you—fits right in the case with your instrument.

Covers calculator operation and all the functions, using menus, printing, etc. Details with examples for TVM, amortization, even and uneven cash flows, bonds, depreciation, more. How to use time and appointment functions, equation solving, text lists, exchange rates and conversions.

Stock #2142, 19B Pocket Book, 60p softbound.....$6.95

Read our press—here's a comment about us from an article in *Best's Review*: . . . "EduCALC, a company whose catalog entices thousands of us to buy books, programs and electronic accessories that are frequently not available elsewhere." John B. Read, Jr., CPA, Dallas

The Home Buyer Income Qualification Manual – HP 17 and HP 19 Routines

- **Realtors**
- **Investors**
- **Loan Officers**

by John Tirone

Don't chase deals that cannot income-qualify! Check it out quickly and accurately on your 17 or 19.

It beats the back of the envelope and the paper napkin by miles—your calculator automatically takes account of lending ratios, taxes, other expenses and debt load, and returns to you standard PITI, annual income to qualify, required down payment, or average after-tax payment cost as a function of holding period.

Manual has explanations, formulas, examples and practice problems with all its programs—just punch them in. Menus and labels in English guide you for quick, error-free computation under pressure.

Stock #2187, Home Buyer Qualif Manual, 73p wirebound.....$9.95

1991 Revisions to The Home Buyer Qualification Manual

by John Tirone

This supplement to #2187 expands the coverage of the main book and is a **must** for the real estate professional.

There are 3 MAXIMUM SALES PRICE routines which also compute required down payment and income to qualify, plus 7 new buyer income qualification routines, including all-in-one PITI/INCOME/ATAX/DOWN PAYMENT.

Stock #2514, 1991 Revisions for Qualification, 90p $14.95

In a hurry? Use our UPS 2ND DAY AIR.

An Easy Course in Using the HP 19BII

GRAPEVINE PUBLICATIONS, INC.

Your own "Driver's Training Course" for the 19BII—quick & easy.

First shows you how to use menus, lists and arithmetic, in either RPN or algebraic notation. Then you get lots of "on-the-road training" in financial problem-solving and cash-flow analysis. Perfect for HP 19B as well.

Stock #541, Easy HP 19BII, 320p softbound.....$21.95

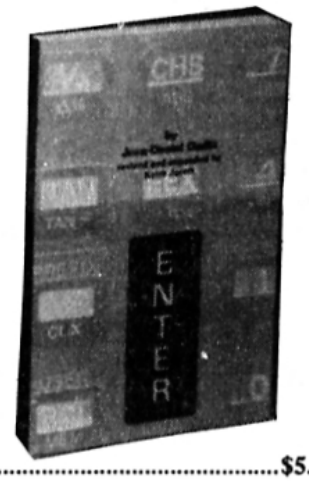
"We recommend HP financial calculators to our commercial banking clients because they are the accepted standard—the only creditable solution on the market." *Globecon Group, international banking consulting firm, New York City, New York*

Enter

(translated from the French)

by Jean-Daniel Dodin

Limited Supply



A hundred hints, suggestions, and techniques to help you get used to and use the RPN logic of HP calculators (especially the 11C and 15C). You're guaranteed to calculate and program faster and more reliably when you use these simple tips and subtle tricks.

Stock #329, Enter, 146p softbound $5.95

Arithmetic and Calculators

by Chinn/Dean/Tracewell

Ideal for adult self-study or for a gift to your bright-eyed relative. These experienced authors first cover arithmetic from the ground up and make it clear. Then they carefully teach its real-world applications. The book covers precalculus math except for trig with many delightful topics thrown in, like Fibonacci numbers and magic squares. Plenty of exercises including word problems. Written for any calculator with algebraic logic.

Stock #23, Arithmetic and Calculators, 488p softbound $16.95

Read our mail from Iowa—

"I've always been pleased with the quality and service EduCALC provides, but your phone call was above and beyond anything I could have expected. . . . What a pleasure it was to have it all taken care of in a few minutes. You are "A-Number-One" in my book and I look forward to doing business with EduCALC for a long time." Doug Koehler, Bettendorf

School Calculators

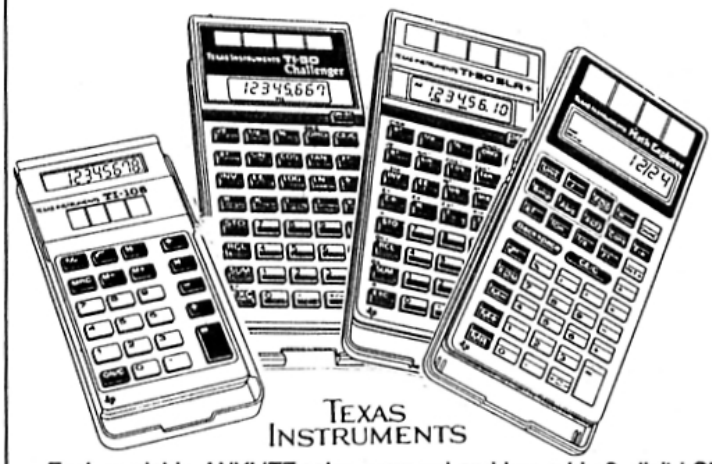
Notice to Educators —

EduCALC is your distributor for school calculators—from TI, HP, Sharp and Casio—designed to follow your student's progress, K through 12, in his or her American classroom.

Call our School Specialist, Deanna Beck, at (800)677-7001 for your best wholesale price in large or small quantities (min. 10). We'll deliver them to you quickly.

Please address your Requests for Bids to Deanna, also.

School Calculators



Each model is *ANYLITE* solar-powered and has a big 8-digit LCD display. Each has its large keys color coded and arranged in 'zones' for easy, natural learning.

Each model is engineered for heavy use in schools—impact-resistant, with a clever slide-on case that can take a beating. Instructions included; 1-year warranty.

For grades K through 4: TI-108

Four basic functions plus percent, square root, and plus/minus keys, as well as automatic constant.

Stock #TI108 [Grade School Calculator] $6.50

For the Youngest Students: TI Math Mate

AOS Algebraic Operating System with parenthesis amd memory keys—tough case is attractive red with yellow buttons.

Stock #TI7 [Math Mate] $8.50

For grades 4 through 8: TI Math Explorer

4-8th grade students do **fraction arithmetic** on this **unique calculator**—input, display, simplify and manipulate fractions or whole numbers. They get other functions, too, like integer division with whole-number remainder results, and place value computations.

Stock #TIME [Math Explorer] $20.95

For grades 7 through 10: TI-30 Challenger

All basic math, trig and scientific functions, including logarithms, antilogarithms, and pi. Large color-coded keys speed calculations, minimize errors.

Stock #TI30C [Challenger 30].....$15.95

For grades 9 through 12: TI-30SLR+ & TI-34

TI-30 SLR+ has the functions HS teachers want for college prep—log and antilog, trig and 1-variable statistics.

TI-34 has all the functions of the TI-30SLR+ and also does hex/binary/octal conversions, Boolean logic and fractions. 10-digit display.

Stock #TI30SLR [Sci/Stat Calculator].....$16.95

Stock #TI34 [Advanced Scientific].....$20.95

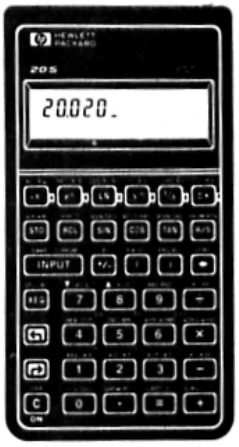
See our projectable calculators, for overhead displays, on p 40. See calculator activities books on p 42. Note the new Casio Student Graphics Calculator on p 41.

Scientific Calculators

HP 20S

A powerhouse scientific calculator with algebraic entry—and a startling low price for real HP reliability!

HEWLETT PACKARD



This HP 20S is the ONLY calculator for under $50 that gives you BOTH

- **Keystroke Programming—**
  - ☐ 99 program steps
  - ☐ 10 storage registers
  - ☐ conditional tests and branching
- **A Program Library**
  - ☐ equation solver
  - ☐ curve fitting
  - ☐ quadratic equations
  - ☐ complex number operations
  - ☐ numerical integration
  - ☐ 3 × 3 matrix operations

Algebraic

All essential math functions are here—exponential, natural and common log and antilog, pi, percent, percent change, polar/rectangular coordinate conversions, many more.

Two-variable statistics—including means and weighted means, regression, linear estimation, standard deviation, correlation coefficient; combinations, permutations, factorials.

Every essential trig function—including hyperbolics.

Base conversions and arithmetic—decimals, hexadecimal, octal, binary.

English/metric unit conversions—mass, distance, volume, temperature.

All this with 12-digit precision, an excellent LCD readout, and a keyboard that includes alpha A-F (for labels/subroutines/hexadecimals)! Batteries, manual, soft case included; 1 yr warranty.

Stock #HP20S [Scientific Calculator] List $40..... $32.95

Step-by-Step Solutions Book

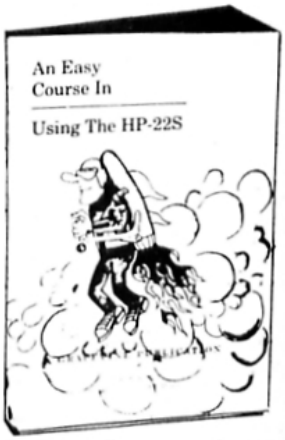
HEWLETT PACKARD

Hewlett-Packard's step-by-step Solutions Book for your HP 32S covers useful routines specific to engineering; they will help you set up applications the way you want them.

Stock #628, Engineering Applications, 108p..... $9.95

An Easy Course in Using the HP22S

GRAPEVINE PUBLICATIONS, INC.



If you're looking for a clear, straightforward explanation of math/science calculations on the HP 22S, **this is your book!**

Get friendly, how-to diagrams and examples for your work with menus, lists, variables and registers, statistics, and the built-in equation library.

Then you'll learn how to develop your own custom list of SOLVE equations — power, power, power!

Stock #2152, Easy Course/HP22S, 253p spiralbound..... $12.95

Scientific Calculators

HP 32SII

HEWLETT PACKARD

- **Real Programmability**
- **Real HP RPN**

New 'Algebrized' Model

- **Algebraic HP Solve Application**
- **Algebraic Equation Entry/Evaluation**
- **Unit Conversions**
- **Fractions**

Still with full RPN
Still only $56.95

- ☐ Over 180 functions, including all from HP 11C
- ☐ Root finder, SOLVE for any variable
- ☐ Base conversions: decimal/hex/octal/binary
- ☐ Polar/rectangular; decimal hours/hours-min-sec
- ☐ Probability: factorials, permutations, combinations
- ☐ 2-variable statistics, correlation and regression, with weighting

- **Numeric Integration**
- **Complex Number Functions**
- **RPN Data Entry—quick and sure**
- **Random Numbers**
- **HP EQUATION SOLVER: solutions without programming**
- **Menus and Softkeys—alpha variables and messages**
- **Modern vertical design with the Sleek Efficiency of a New German Car**

There's no guesswork with the HP 32SII—prompts, menu labels, and short messages help you know where you are every step of the way.

Enter keystrokes as a program—there are 390 bytes of memory and 26 storage registers—no keystrokes to learn since it's plain English (4 flags, 26 labels, 8 tests, indirect addressing—the works).

Playing out 'what-if' situations is simple with the HP 32SII. Just set up your equation, then solve for any variable. You key in the equation only once. When the situation changes, simply enter the new values for your changed variables. You get the answer—based on the new information—with little effort.

Manual, batteries, soft case included. 1 yr warranty.

Stock #HP32SII [Scientific Calculator] List $70.....$56.95

Calculator stands, cases & batteries: see pp 29-31

Tips and Programs for the HP 32S

by
W.A.C. Mier-Jedrzejowicz

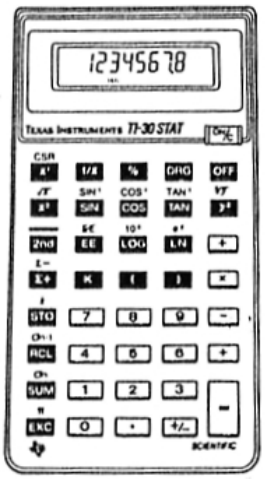
Your pocket rocket to skill and success with your HP 32S.

You start from GO, but there's also a quick-start for RPN-users. By Chapter 2 you'll do short programs that you may use in college courses. Then you'll learn how to make and use larger programs that add extra power to the HP 32S statistics and integration functions.

Lots of examples with keystroke sequences and readouts to show you just how and to teach you new tricks.

Stock #2014, HP 32S Tips & Programs, 81p spiralbound.....$7.95

TI-30 STAT Scientific Calculator



TEXAS INSTRUMENTS

New—with algebraic logic and statistics—a BEST BUY for learning to calculate.

52 functions, including factorials, powers, roots, logs and trig in degrees, radians and grads; 1-variable statistics including mean, variance and standard deviation for both sample and population data. 4-key Constant, Memory retains numbers when unit is off.

Large LCD display with 8 digits or 5 digits and a 2-digit exponent. Automatic Power Down if no key is pressed for 15 minutes or so. Comes with Easy Reference Guide which fits into nice blue wallet. Battery included.

Stock #TI30 [STAT-SCI Calculator] List $16.....$12.95

TI-68 Advanced Scientific Calculator

For almost two years, Texas Instruments asked thousands of technical students what they needed, and interviewed their professors. In addition, TI studied the calculator usage of its own technical staff. Then they fed the data into a computer to redesign the scientific calculator's functions and features to fit your needs. The result is the perfect machine for college technical students—the all new TI-68!

TEXAS INSTRUMENTS

- **254 Most Needed Functions for Math, Science and Engineering**
- **Simultaneous Equations**
- **Complex Numbers**

- ▸ **Solve up to 5 simultaneous equations**—with real or complex coefficients.
- ▸ **Evaluate 40 complex functions**—arithmetic to advanced trig—polar or rectangular form.
- ▸ **Recall, check, edit your last equation.**
- ▸ **Store up to 36 values**—with alpha numeric names you define.
- ▸ **Program up to 12 formulas you define**—up to 440 program steps.
- ▸ **Integrate your formulas on an interval**—uses Simpson's rule.
- ▸ **Calculate roots of quadratic, cubic, quartic polynomials**—with real or complex coefficients or roots.
- ▸ **Do 1- and 2-variable statistics**—including linear regression, trend analysis.
- ▸ **Make number-base conversions and calculations**—to/from/in decimal, hexadecimal, octal and binary—plus Boolean logic.
- ▸ **Convert polar/rectangular, English/Metric and deg/radians/grads.**

12-character alphanumeric display scrolls to display 80-character formulas. Constant Memory. Automatic Power Down.

Includes comprehensive Guidebook with step-by-step examples, Quick Reference Card for handy summary, unique rigid sliding case; 1-year warranty.

Stock #TI68 [Advanced Sci Calculator] List $65.....$49.95

Be sure to check out our **surplus HP 71B** offer on page 47.

Projectable Calculators

fx–115D
*TURBO*Scientific Solar Calculator

Casio

- 167 functions
- base conversions
- regression analysis
- engineering symbols
- complex numbers
- logical operations

AOS algebraic operation with 18 levels of parentheses, 1 independent and 6 constant memories. Includes Workbook and pouch.

Stock #FX115D [Solar Scientific Calculator] List $25.....$19.95

HP 15C Advanced Functions Handbook

Continues where the *Owner's Handbook* leaves off—tells you how your 15C performs its advanced functions and how to interpret their results. There's a whole section on using SOLVE effectively; another that shows you just how to work with the Numerical Integration key–function.

A third section covers calculation in the Complex Mode and shows you how to use SOLVE and to integrate complex functions with example applications. Section 4 fully describes Matrix Operations, with some application programs (like least–squares and eigenvalues/vectors) that you might use later.

The appendix thoughtfully surveys accuracy and error analysis.

Stock #90011, 15C Adv Functions, 221p softbound.....$14.95

Overhead–Display Magnifier Firmware

Doubles the width and the height of the screen image of your calculator display—that gives 4 times the area, so it's BIG! Works with any projectable calculator display, any projector.

Stock #2413A [OH Display Magnifier] List $200.....$139.95

Educator Overhead–Display Calculators

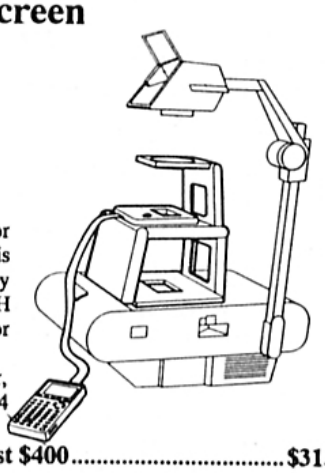
Excite and motivate your students—just lay your Educator on the stage of a standard overhead projector. It's transparent, so your whole class will see every keystroke, every result.

ELEMENTARY model emulates TI Math Mate, BASIC model emulates TI–108, INTERMEDIATE model emulates TI Math Explorer, SCIENTIFIC model emulates TI–30. Solar powered; comes with vinyl case.

Stock #2572 [Educator ELEMENTARY Calculator].....$39.95
Stock #2195 [Educator BASIC Calculator].....$39.95
Stock #2196 [Educator INTERMEDIATE Calculator].....$79.95
Stock #2197 [Educator SCIENTIFIC Calculator].....$79.95
Stock #2325 [Educator TI–34 Calculator].....$79.95

TI–81 or TI–85 ViewScreen

TEXAS INSTRUMENTS



All features and functions of the TI–81 or TI–85 in a hand–held control unit that is connected by a 10–foot cable to its display unit which will fit on top of most any OH projector (not for high–intensity or reflective–type projectors).

Package includes Overhead Enlarger, Thermal Absorption Device, Guidebook, 4 AAA batteries and a rigid case for it all.

Stock #2328 [TI–81 ViewScreen] List $400.....$315
Stock #2733 [TI–85 ViewScreen].....$449

Overhead–Projector Display for the HP 48SX

Firmware

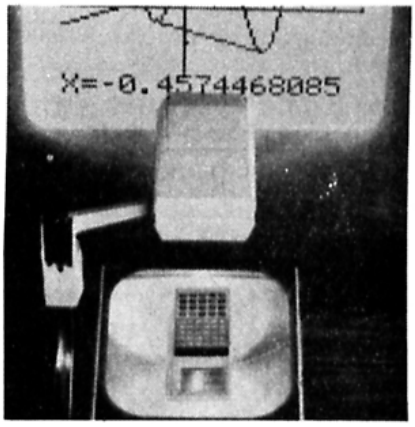
Show your work to everyone—any function, formula, equation or graphic image from Hewlett Packard's most powerful calculator — displayed on any standard overhead projector. (Picture above includes #2413A magnifier.)

The 48SX display unit is attached to a 37–inch cable that plugs into your 48SX (calculator not included). Everything visible on your 48's LCD is displayed overhead except the iconic annunciators.

Stock #2268 [HP 48SX OH Display] List $500.....$449.95

Overhead Projectable Model

Casio



All features of the fx–7000G or the fx–7700G plus a transparent screen.

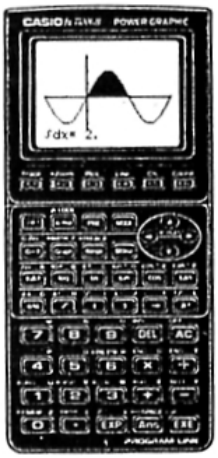
Stock #OH7000G [Overhead Projectable Display].....$274.95
Stock #OH7700G [Overhead Projectable Display].....$274.95

For Sharp EL–9200C/9300C, see page 41

Graphics Calculators

The Nat'l Council of Teachers of Math recommends that ALL students use calculators

Casio Graphic Computer fx-7000GA, fx-7700G and fx-8700G
for Science and Business



New fx-7700GB has computer-link capability, too!

Now with hi-contrast LCD

- ☐ analyze data or formulas with graphic clarity
- ☐ plot trends and analyze characteristics
- ☐ graphically compare values, with ZOOM
- ☐ New! Nothing like it before

192 usual functions including Scientific and 2-Variable Statistical ones, Logical Operations and Base Conversions/ Calculations. Perfect entry system, including ALPHA—check back replay function.

Graphic functions including Graph Composition, Trace, Plot, Line, Enlargement/Reduction, Coordinate Range Designation, Overwrite, Statistical Graph.

Up to 422 Programming Steps or 78 Memories.

Comes complete with manual, three CR2032 batteries, Applications Book.

Power-graphic fx-7700G has up to 4164 steps.

Power Link fx-7700GB is the same, except that it has a port—with it and an optional SB-60 cable you can transfer programs and data from unit to unit. This way a teacher can download lesson materials to a student's unit; homework can be uploaded, too, for later grading.

Top-of-the-line fx-8700G has memory, memory, memory—8260 steps or 1060 data memories.

Stock #FX7000GA [Graphic Computer] List $90.....$74.95
Stock #FX7700G [Power-Graphic Cmptr] List $110.....$92.95
Stock #FX7700GB [Power Link Cmptr] List $120.....$99.95
Stock #SB60 [Unit-Unit Cable] List $13.....$11.95
Stock #FX8700G [Mega Graphics] List $150.....$124.95

Lo-lo-price Graphics Calculator
for High School Students

Casio

You'll have both scientific and statistical graphs — with trace, plot, line, zoom, scroll functions for graph analysis, base calculations and logical operations. Does standard deviations and regression analysis. Instant replay function, fractions, trig; 400-step program memory.

Comes with protective sliding case and manual; 1 yr warranty.

Stock #FX6300G [Casio Graphics Calculator] List $55.....$43.95

Calculator stands, cases & batteries: see pp 29-31
OH projector models: see p 40.

TI-81
Graphics Calculator

TEXAS INSTRUMENTS

Best Buy

Superior interactive graphing features — so you'll have the power to easily analyze the behavior of several functions at once and solve equations graphically.

Pull-down display menus — so you'll quickly access more than 300 advanced scientific functions.

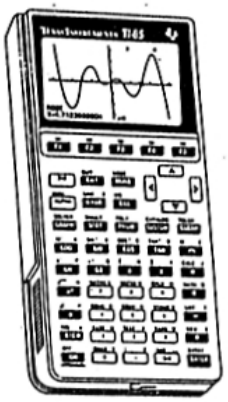
8 line by 16 character display—so you'll view the entire expression as you enter it, as well as see the results you've calculated.

Big Constant Memory—so you can save up to 37 programs totalling 2400 bytes, using up to 27 stored variables.

Manual, protective slide-on cover, batteries included; 1 year warranty.

Stock #TI81 [Graphics Scientific Calculator] List $110.....$79.95
Stock #PC81 (Emulator Software for PC, 5¼") $45.95

TI-85
Graphics Calculator



TEXAS INSTRUMENTS

✓ professionals ✓ students

Your powerful visual tool for advanced math, science and engineering — now you can store, graph and analyze up to 99 functions, parametric equations and polar functions, plus differential equations.

Solve for any variable in an equation, or 30 equations simultaneously—find roots of polynomials up to degree 30. Solve calculus problems both numerically and graphically.

Programmable with branching and looping; 32K bytes RAM

BIG screen shows 8 lines of 21 characters text or 64 × 128-pixel graphs—2 levels of display menus. Main and back-up batteries included; 30" cable and I/O port for data sharing between two TI-85s; 352-page guide book; slide-on cover; 1 yr warranty.

Stock #TI85 [Graphics Calculator] List $130 .....$109.95

Graphing Calculators EL-9200C/9300C

SHARP
FROM SHARP MINDS COME SHARP PRODUCTS™

- ■ Algebra 1 through beginning Calculus
- ■ user-friendly statistics
- ■ Graphing and visual exploration
- ■ 14-digit internal precision of multiple functions
- ■ numeric integrals and derivatives
- ■ an interactive programming language
- ■ dual equation solver (EL-9300 only)
- ■ matrices, determinants, transposes
- ■ high-contrast super-twist display

Zoom in on 4 live equations and 99 stored equations—**box**, in, out factor; **autorange** and 18 default ranges; **jump**, intersect; **trace** x, y, dx/dy. 99 titled programs with BASIC-style commands.

EL-9300C **solves** 99 stored equations by Algebraic, Newton or Graphic methods—plus has **communications port** for unit to unit or overhead or printer or cassette.

EL-9200C and EL-9300C are almost identical in functions, so they can be used in the same classroom without any confusion.

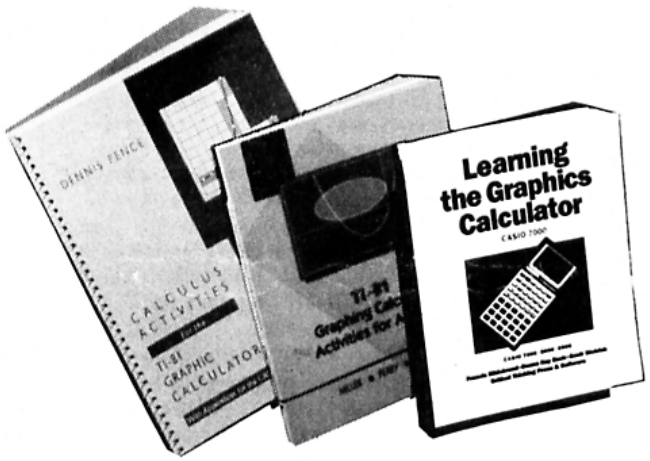
Stock #EL9200C [Graphing Calculator] List $120 .....$99.95
Stock #EL9300C [Graph/Solve/Port Calculator] List $150...$129.95

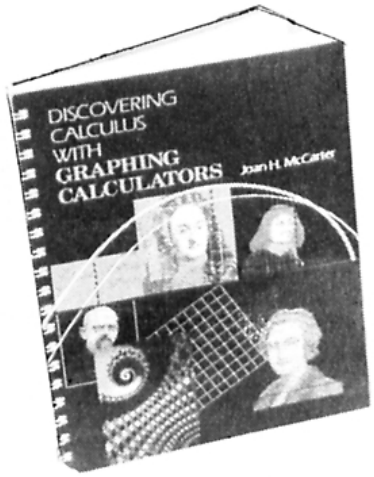
Graphics Calculators

Need help graphing?

Get it right with a book – that's the easy way!

Learn about the calculator, learn about the course – study with a class or work by yourself.





Learning the Graphics Calculator
Casio 7000 • 8000 • 8500

by Hildebrand/Buck/Dietrich

For self–study, for pleasure, for mastery—calculator in hand, you'll learn step–by–step to operate and to program your Casio Graphic Calculator.

The left hand of each page shows pictures of the keyboard, graphs, diagrams, etc., while the right side gives simple written instructions—so this book itself is very graphic!

Stock #2661, Learning Graphics/Casio, 209p softbound.....$19.95

Graphing Calculator Activities

by Lund/Anderson

Let your calculator teach you Algebra I and II—covers from linear equations through exponential, logarithmic and trigonometric functions.

You can use any graphing machine here, but quick reference tips are provided for the TI–81 and Casio fx–7000G, fx–7700G.

Stock #2605, Graphing Calculator Activities, 84p softbound ..$12.95

Solving Algebra & Trigonometry Problems
with the aid of graphing calculator

by James Angelos

Acquaints you with graphics calculators and their use in precalculus math. Focuses on the features of the Casio and TI–81 machines.

All topics are specifically keyed to Stanley Grossman's course texts, *Algebra and Trigonometry*, *College Algebra* and *College Trigonometry* (all *2nd edns*)—you can easily find these topics in similar texts.

Stock #2861, Solving Alg & Trig Probs, 283p softbound $7.95

Explorations with the Texas Instruments TI–85

by Harvey/Kenelly (eds.)

Tells you exactly how you can use the TI–85 in each of eight undergraduate math courses. The chapters, of an average 42 pages for each course, are independent, so you can study one of them without working through any other.

The courses are Precalculus, Business Math, Prob/Statistics, Calculus I and II, Linear Algebra, DEs and Advanced Engineering Math.

Stock #2829, Explorations with TI–85, 360p softbound.....$32.50

Explorations in Algebra, Precalculus, Statistics
a manual for the TI–81 or any Casio, Sharp, TI or HP graphing calculator

by Iris Fetta

Not a text— this book shows you exactly how to use graphs to visualize concepts, explore, experiment, estimate, generalize and check solutions.

These techniques solve meaningful problems—so you'll think about the math in a new, effective way.

Stock #2860, Explore Alg, Precalc, Stats, 416p softbound..... $10.95

Discovering Calculus with Graphing Calculators

by Joan McCarter

"A picture is worth a thousand words." Here's your picture of first–year calculus, given by **graphs, the best pictures of functions.**

50 projects, each with examples, exercises and problems — these are independent, so your can start wherever you want in the standard topics (through series). Only basic operations are used, with minimal programming, so differences in calculators are equalized. Example graphs are printed for the Casio fx 8000G and the HP 48SX, and an appendix explains operation of current models: 6 from Casio, 3 from HP, 3 from Sharp and 2 from TI.

Stock #2858, Calculus with Graphing Calcs, 167p spiralbnd..$19.95

Calculus Activities
for the TI–81 Graphics Calculator

by Dennis Pence

How to use your graphics calculator to enrich first–year calculus—with Appendices for Casio fx–7700G and TI–85.

Covers the standard topics through series and differential equations — has many worked–out examples and exercises.

Stock #2830, Calculus with TI–81, 252p softbound..... $20.95

We guarantee everything we sell. You may return it to us in new condition within 30 days for a full refund, no questions asked.

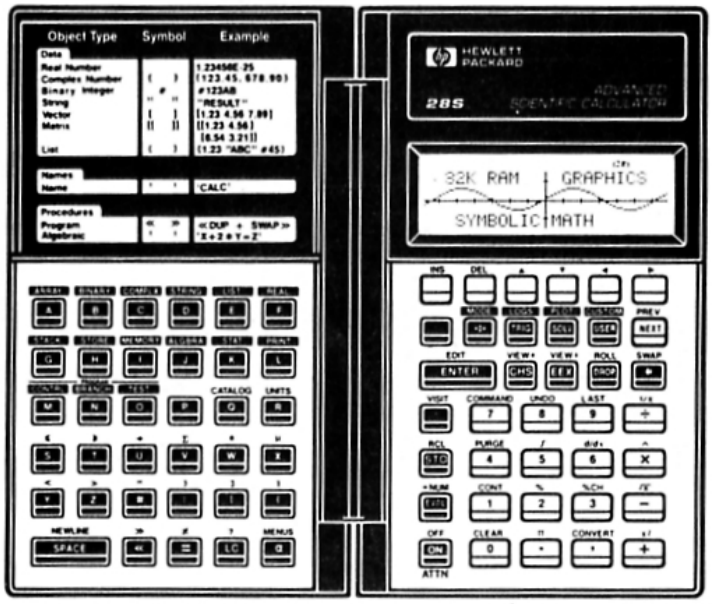
HP 28S Scientific Calculator

HP 28S
Scientific Calculator

HEWLETT PACKARD

WARNING

Hewlett-Packard discontinued the manufacture of the HP 28S in 1992. You are in luck, however; EduCALC has used units at great savings—now.



- Six months warranty on used machines
- Separate keyboards, the right hand one for numbers and the left for letters. You fold it up to pop it in your shirt pocket
- On-screen menus and softkeys, just like a PC
- Graphics—function graphs two at a time, SOLVE, plus statistical plots
- Symbolic algebra and calculus, with all real and complex number functions
- Statistics including regression, plus normal, Students t, F and chi-square distributions
- Programmability, including number bases and logical operators
- InfraRed Printer Interface
- Original list price was $195

Stock #HP28SU [Used HP 28S].....$89.95

Calculator stands, cases & batteries: see pp 29-31
OH projector models: p 40; InfraRed Printer: p 52

Advanced Circuit Analysis with the HP 28S

by Robert Boyd

Programs with listings, examples and discussions show you **how to analyze circuits with the full power of your HP 28S.**

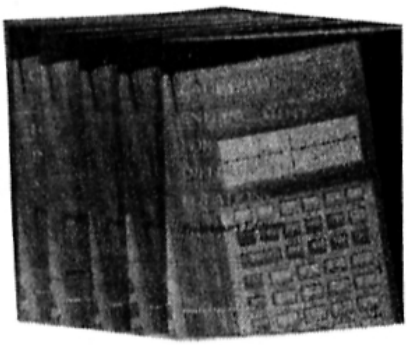
Boyd's unique new method handles higher order or non-linear problems and circuits with dependent sources, even when the coefficient matrices are not symmetric. Some of the programs here will work on the HP 42S, the HP 41/Advantage Pac and HP 71/Math Pac, as well as other computers that handle complex matrices with double precision.

Stock #2063S, 28 Circuit Analysis, 47p sftbnd.....$9.95

Calculator Enhancements —

workbooks that use your graphing calculator to help study university math

Clemson University Calculator Project



Here's how your friendly calculator can help you learn math—with programs, tips, tricks, explanations and exercises.

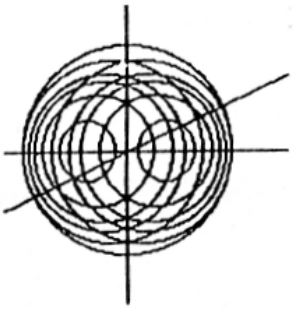
- Single-Variable Calculus
- Introductory Statistics
- Multivariate Calculus
- Linear Algebra
- Differential Equations

All have programs written for the HP 28S (except for the Sharp EL-5200, Stock #2722, in Statistics), but most of them will run on the HP 48 as well, just as they stand. Some instructions are given for editing programs to take advantage of the HP 48's powers.

Stock #2719, Enhance Single Var Calc, 99p softbound.....$9.95
Stock #2720, Enhance Multivariate Calc, 94p softbound $9.95
Stock #2721, Enhance Differential Eqns, 105p softbound $9.95
Stock #2722, Enhance Intro Statistics, 160p softbound.....$11.95
Stock #2723, Enhance Linear Algebra, 130p softbound $9.95

Advanced Graphing for the HP 28S

by Brian Maguire



Don't get this book until you understand the manual!

But if you want your HP 28S to draw fractals, 3-D graphs or animated displays, you'll get plenty of how-to information and explicit program listings here.

Covers simpler stuff, too, like polar graphs and drawing shapes. Gives lots of examples.

Stock #2247, Advanced Graphing, 304p combbound.....$19.95

An Easy Course Using the HP 28S

GRAPEVINE PUBLICATIONS, INC.

Looking for a clear, straightforward explanation of the powerful HP 28S? This is your book! It carefully inspects all the wonderful features of this machine, giving you the pictures and practice you'll need to make the HP 28S your favorite calculating tool.

First, several chapters bring you up to speed on the mechanics of operation, and show you exactly which keys you need to control and command the display, the stack, and the menus. You'll get lots of practice problems and explanations designed to train your fingers for action.

Then you go straight to the heart of the machine, explore all the different information 'objects' and how you can manipulate them, combine them, name them and (best of all) think about them. You'll see how HP's well-known stack-oriented arithmetic becomes the engine behind all this math power, and soon you'll be harnessing it for yourself!

In brief separate discussions, this Easy Course touches upon specialized topics such as symbolic algebra and calculus, plotting, and programming.

It's all in Grapevine's familiar 'Easy Course' format, with Robert Bloch's illustrations—a book designed to let you work at your own speed (and your own speed will soon amaze you)! It's always a pleasant surprise that learning about a calculator can be this satisfying—it can be, when the right explanations transform a mysterious machine into a friendly and powerful tool.

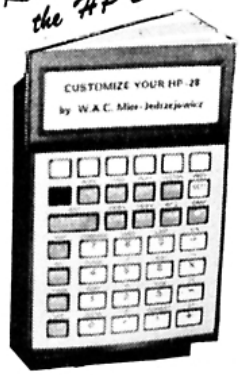
Stock #532D, HP 28S Easy Course, List $23.....$12.95

HP 28S & 42S Scientific Calculators

Customize your HP 28 2nd edn

by Wlodek Mier-Jedrzejowicz

Revised to include the HP 28S



Make your 28 behave exactly the way you want it to. Here you get information and ideas that are not in the manuals.

The first 2 chapters show you how to do some fairly simple things, like setting modes and creating variables. Chapter 3 gives ways to use the special instruction SYSEVAL.

You'll learn about **machine-language programming** in Chapter 4—so you can really take control. A final chapter shows you exactly how to customize by **modifying the hardware.** Appendices discuss differences between HP 28 models.

Now you'll be able to make your HP 28 act more like a FORTH computer or else more like an HP 41.

Stock #557A, Customize your HP 28, 100p softbound $9.95

Precalculus Activities for the HP 28S

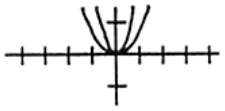
edited by
Musser & Dick

49 algebra, trig and pre-calculus activities, class-tested by O.S.U. and the Albany, Oregon, Public Schools.

Front of each activity sheet is a ready-to-use blackline master and the back has a complete solution key. Reference Section gives examples of needed keystroke sequences.

You can graph both of the parabolas $y = x^2$ and $y = 3x^2$ at the same time

'X^2=3*X^2 ENTER PLOT STEQ DRAW



Stock #2198, 28S Precalculus Activities, combbound $9.95

HP 28S Software Power Tools Electrical Circuits

GRAPEVINE PUBLICATIONS, INC.

Analyze steady-state AC circuits with your HP 28S complex-matrix-crunching power!

Do mesh or nodal analysis, constant general network and ladders, build friendly, easy-to-edit descriptions of your circuits. Then vary the source frequencies and plot results, either right on your display or with an IR printer.

It's easy—this book teaches you about your machine as it guides you through its powerful software—every routine is explained, every piece of program is documented (including memory diagrams).

Stock #2117, 28S Electrical Circuits, 256p spiralbnd $8.95

HP Step-by-Step Books for the HP 28S and HP 28C

HEWLETT PACKARD

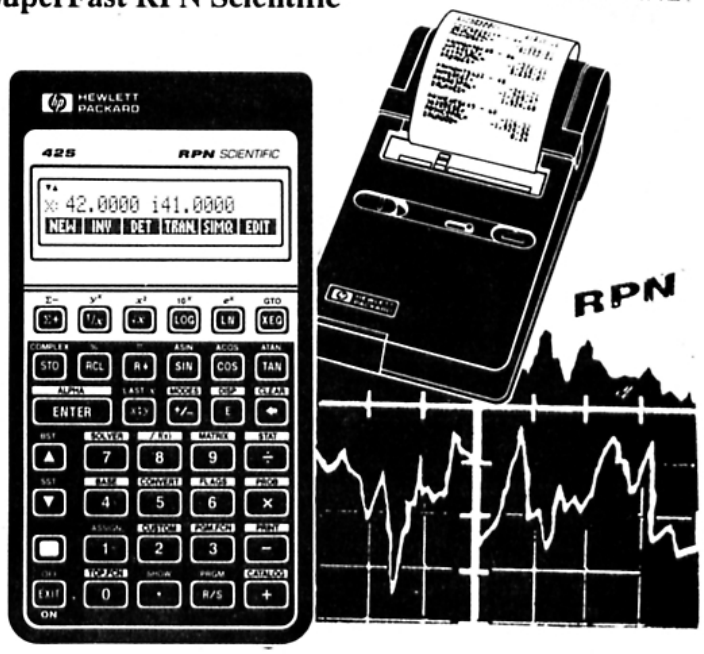
Let experts help you set up your calculations so you can work with them most easily. These professional references include practical routines and tips for getting the most from the Built-in Menus as well as setting up Personal Menus for your specific profession. Order the ones that fit your work:

Stock #603, Algebra & College Math 90101.....$9.95
Stock #604, Vectors & Matrices 90105.....$9.95
Stock #605, Calculus 90102.....$9.95
Stock #606, Probability & Stat 90104.....$9.95
Stock #607, Math Applications 90111.....$9.95

The New World Standard

Engineered for the Engineer
SuperFast RPN Scientific

HEWLETT PACKARD



- **Shirt-pocket power**—more than 600 functions built into 64K ROM, 7.2K of user's RAM, 2 line × 22 character display shows inputs or results right above English menus, prompts and label keys. 12-digit precision with exponents up to E499. Infrared signals to printer. 5.6 × 3 × 0.5 inches thick, 5 oz.
- **Exceptional matrix entry and editing**—with more matrix and vector operations than any other calculator. They are fast— to en-ter and edit, fast to run.
- **Complex and real numbers**—work together and interchangeably. This is the only calculator that labels the complex element, so you won't need to keep track of it.
- **Solves, integrates, converts bases** — and it gives polar answers directly, without converting to rectangular mode first.
- **Statistics and forecasting**—with 4 curve fits and automatic best fit. 2-variable list and cumulative statistics with weighted mean.
- **Full HP 41CV program compatibility**—every one of the thousands that are available may be keyed in to run as-is in your new calculator, but up to 10 times faster! Of course, you can enhance these programs to use the powerful features of the HP 42S, like softkeys and menus, and the HP SmartCatalog will file them in order and scroll them for you at a keystroke.
- **Traditional HP reliability**—with gold-plated PC-boards and rigorous test procedures . . . high performance engineering that will serve you for years. 1 year warranty transfers if you sell it or give it away.

Stock #HP42S [RPN Scientific Calculator] List $120..... $89.95

HP 42S Quick Reference Guide

by Dex Smith

POSA *Position in Alpha.*	**RCL** *Recall.*	**PRV** *Print variable.*
PRA *Print Alpha.*	**RCL+** *Recall add.*	**PRX** *Print X-register.*
PRLCD *Print LCD.*	**RCL-** *Recall subtract.*	**PRΣ** *Print summation registers.*
PROFF *Printing off.*	**RCL×** *Recall multiply.*	
PROMPT *Prompt.*	**RCL÷** *Recall divide.*	**PSE** *Pause.*
PRON *Printing on.*	**RCLEL** *Recall element.*	**PUTM** *Put matrix.*
PRP *Print program.*	**RCLIJ** *Recall IJ pointers.*	**PWRF** *Power fit.*
PRSTK *Print stack.*	**RDX,** *Radix comma.*	**QUIET** *Quiet mode.*
PRUSR *Print user (variables and labels).*	**RDX.** *Radix period.*	**RAD** *Radians mode.*
	REALRES *Real-results*	**RAN** *Random number.*

Super-concise summary that fits right in your instrument case—

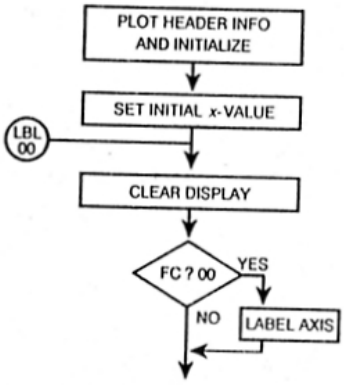
▸using menus	▸statistics	▸variables/registers
▸base conversions	▸data types	▸executing functions/programs
▸modes and flags	▸simple programming	▸using variable menus
▸matrix operations	▸numerical integration	▸the solver

Stock #2064, 42 Quick Ref, 20p softbound..... $4.95

HP 42S Scientific Calculator

Programming Examples and Techniques for the HP 42S

HEWLETT PACKARD



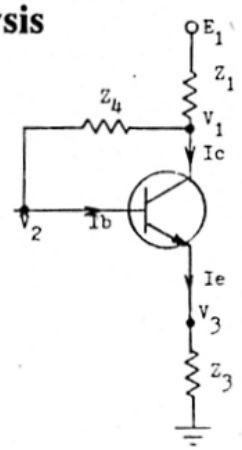
The serious programmer's option—examples to help you master many advanced uses of menus, labels, prompts and variables, so you can put them right to work in your own programs.

Lots of advanced techniques, too, so you can get the most out of your instrument's solver, integrator, matrix, statistics, plotting and graphics routines. Includes easy-to-load Time Value of Money routines that make it into a **menu-driven financial calculator!**

Stock #2065, Prgrmng Examples, 234p spiralbnd $9.95

Advanced Circuit Analysis with the HP 42S

by Robert Boyd



Programs with listings, examples and discussions show you **how to analyze circuits with the full power of your HP 42S.**

Boyd's unique new method handles higher order or non-linear problems and circuits with dependent sources, even when the coefficient matrices are not symmetric. Some of the programs here will work on the HP 28S, the HP 41/Advantage Pac and HP 71/Math Pac, as well as other computers that handle complex matrices with double precision.

Stock #2146, 42S Circuit Analysis, 57p softbound $9.95

Global Navigation on your HP 42S

by John Deranian

Developed by a US Navy pilot who needed a reliable back-up system in case his aircraft system failed in flight when he was 500 miles from the nearest land.

Great Circle Navigation between two points, **Dead Reckoning** to be used mainly with an INS or Omega or Loran, **Remote Navigation** for great circle navigation referencing Navaid to any other positions direct, **VOR Positioning** calculates aircraft's present position based on two VORs radials, and **Point to Point** gives course and distance to another radial and distance of a TACAN based on the current radial/DME as well as time to go based on an estimated ground speed. Manual has worked-out examples, complete program listing.

Stock #2570, 42 Global Navigation, 23p softbound $24.95

Triangle Solutions Booklet

from DZign

Your complete set of trangle solutions programs for the HP 42S—solves with any of these knowns: ASA SAA SAS SSA SSS Area-SS Area-AA Area-SA. If a problem has two possible solutions, you get both output.

Stock #2207, 42S Triangle Solutions Booklet $8.85

To get a FREE HP 41/71 Accessories Catalog, call (800)677-7001, ext 134.

An Easy Course in Using the HP 42S

GRAPEVINE PUBLICATIONS, INC.

Straightforward help! Easy to understand—even the type is oversize. You'll start with the basics of your HP 42S and work your way up to some of the most complex features. An ample supply of examples, diagrams and layman's language will keep up your interest as well as your understanding.

Stock #2181, Easy Course/HP 42S, 384p spiralbound $21.95

Solution Books for your HP 42S

Step-by-step examples and programs

Stock #2016, Electrical Engineering $9.95
Stock #2015, Mechanical Engineering $9.95

HP 41 Solution Books — work quite well with the HP 42 also — and the price is reduced!

HEWLETT PACKARD

```
24 *          33 STO 07  41 XEQ 01
25 RCL 06     34 GTO IND 42*LBL 00
26 X↑2        07         43 1/X
27 /          35*LBL 04  44 CHS
28 2          36 SF 02   45 GTO 05
29 -          37 XEQ 03  46*LBL 01
30 STO 12     38 GTO 00  47 RCL 05
31 "TYPE?"    39*LBL 02  48 RCL 01
32 PROMPT     40 SF 02   49 /
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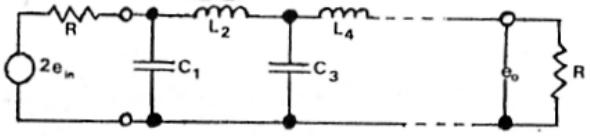

Step-by-step keystroke listings for specific problems in specific disciplines—with lots of programming details. Perfect if you want specific programming solutions, program modifications, or a program reference library.

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Stock #90094, Business Statistics/Marketing/Sales $13.95
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Stock #90100, Chemical Engineering $13.95
Stock #90102, Chemistry $13.95
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Stock #90099, Games $13.95
Stock #90443, Games II $13.95
Stock #90084, Geometry $13.95
Stock #90140, Heating, Ventilating & Air Conditng $13.95
Stock #90083, High-Level Math $13.95
Stock #90096, Home Construction Estimating $13.95
Stock #90086, Lending, Savings, & Leasing $13.95
Stock #90090, Mechanical Engineering $13.95
Stock #90144, Optometry II (Contact Lens) $13.95
Stock #90142, Physics $13.95
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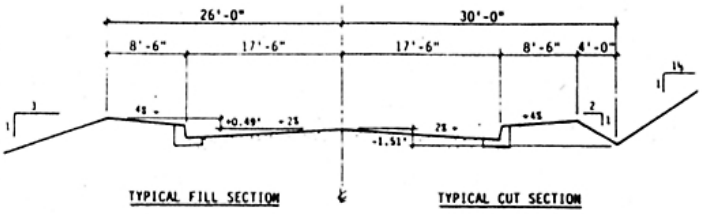
Stock #90082, Test Statistics $13.95
Stock #90395, Time Module Solutions I $13.95

HP 42S Scientific Calculator

HP 42S
Surveying Solutions

from D'Zign



■ You'll like these FRIENDLY programs—written just for the surveyor.
■ You'll access all of your HP 42S MEMORY and use all of its SPEED—with programs written just for it.

Point-storage traverse stores 200+ pairs of coordinates, handles sideshots and inverses and can interface to intersection solutions program. Run your traverse in any form—its all MENU-PROMPTED. Input is single-key, output can be azimuth or bearing.

Traverse adjustment by either COMPASS or TRANSIT method—also inverses between the points as it adjusts them for a complete listing of traverse.

Layout inversing for spraying in points .

No more decimal degrees—you add/sub/mult/divide or do trig functions in degrees/min/sec without converting.

Optional programs included for Coordinate Transformation, Predetermined Areas, Bearing/Azimuth and Azimuth/Bearing conversions.

You'll be able to dump your coordinate listings automatically, to an InfraRed printer.

Stock #2173, 42S Survey Solutions, 86p softbound.....$17.45

Booklets of Programs for the HP 42S

Surveyor's Vertical Curves

Calculates CONTINUOUS vertical alignment without changing back and forth between Grade and Curve routines. Also calculates vertical intersections, symmetrical or asymmetrical curves. Solves for station when the elevation is known, or the station can be given, to calculate the elevation.

Stock #2222, HP42S Vertical Curves Programs, Booklet ...$8.95

Surveyor's EDM Slope-Staking

Set up anywhere near an alignment and slope stake it. Sets slope stakes from the remote instrument location directly. Includes a three-point resection program for finding the instrument's location by either station-offset or coordinates. All data needed to mark the stake is output (or may be stored), and there is a subroutine for setting the reference stake.

Stock #2223, 42S EDM Slope-Staking Pgms, Booklet $8.95

Alignments/Offsets

Follow any alignment's circular curves and tangents, then calculate the coordinates or radial ties to any station or offset to a station.

Options include coordinate output, auto-inverse, or both. The instrument and backsight points do not have to be on the actual alignment. Stake grade, rights-of-way, pipe lines, etc. without have to establish the centerlines of the streets first.

Stock #2229, 42S Alignment/Offsets Programs, Booklet.....$8.95

Topography

Turn your 42S into a manual data collector, complete with a labeling system that you can customize to suit the type of topo work you do. Your instrument may be set up anywhere, and all of the work is done by the calculator.

All of the shots are stored as finished data, by shot number, for later output. The program also gives you the choice of 3-D coordinates or Station-Offset-Elevation for the output.

Stock #2231, 42S Topography Programs, Booklet.....$8.95

Surplus HP Gear—
Now you can afford a

HEWLETT PACKARD

■ **9114B HP-IL 3½ Disk Drive**
■ **2225B HP-IL ThinkJet Printer**
■ **HP 75D Package**

FREE HP 75D Package

I want to move these units out FAST! So, when you buy any one of these three, Disc Drive or Printer or HP 75D Pkg, I'll sell you the entire HP 75D Package (a $279 value) for only $90 more—just order your HP 75D Package as:

Stock #HP75DU1 [Used Computer Pkg] $50

—OR—

Buy any two of these items, Disc Drive and Printer or 2 Printers or . . . , and I'll give you a HP 75D Package FREE! Just add this line to your order:

Stock #HP75DU2 [Used Computer Pkg] .....FREE

Up to 90% Off!

Used, yes—but believe me, this industrial grade equipment is in excellent, near-new condition — perfect operating shape — and every unit comes with our 30-day guarantee. If your unit fails to operate properly in any way whatsoever, we'll replace it FREE.

This liquidation means you can have that IL Disk Drive or ThinkJet that you've wanted, and that full-memory HP 75 to experiment with—these units are really affordable! **But do not delay**—we must limit these fantastic savings to stock on hand. Let us know right away that you want one.

3½" Disk Drive — this is the latest model, and it comes with everything: rechargeable battery, recharger, HP-IL cable, manual. List price new is $695, so you buy this used unit at a **whopping 64% discount!**

Stock #9114BU [Used 3½" Disk Drive] $149

IL ThinkJet Printer—this is the latest production model that is so popular. List price new is $495, so you can have fast, quiet IL printing now at this **giant 68% discount!**

Stock #2225BU [Used ThinkJet Printer] $99

HP 75D Package—loaded with extras! You get the HP 75D computer, plus the 8K RAM Expansion Module that plugs into its battery compartment, plus the Expansion Pod that adds a modem, barcode decoders, and a huge 64K RAM disc full of super-fast memory, plus the Barcode Wand! That's a lot, so I'll display the list here for you (remember, you get the whole package)

1. (HP 75) Portable Computer
2. (HP 82700) 8K RAM Memory Module
3. (HP 82718B) Expansion Pod
4. (HP 92267B) Barcode Wand

HP 75D is 5 × 10 × 1¼ in, 26 oz, with 16K RAM built in. It has a card reader, wand interface and port, touch-type keyboard (the keyboards on these units have never been used). Comes with manual, battery pack and adapter/recharger, IL cables.

Expansion Pod fits as a cradle on your 75, has 300 baud, direct-connect modem and decoders for 3 of 9 Code and Code 11.

Barcode Wand is medium resolution (0.19 mm min width of narrow element) for code produced on dot-matrix printers.

The total list price for this gear new is $2715—so your cost is **discounted an unbelievable 90% ! ! !**

Stock #HP75DU [Used Computer Package] $199

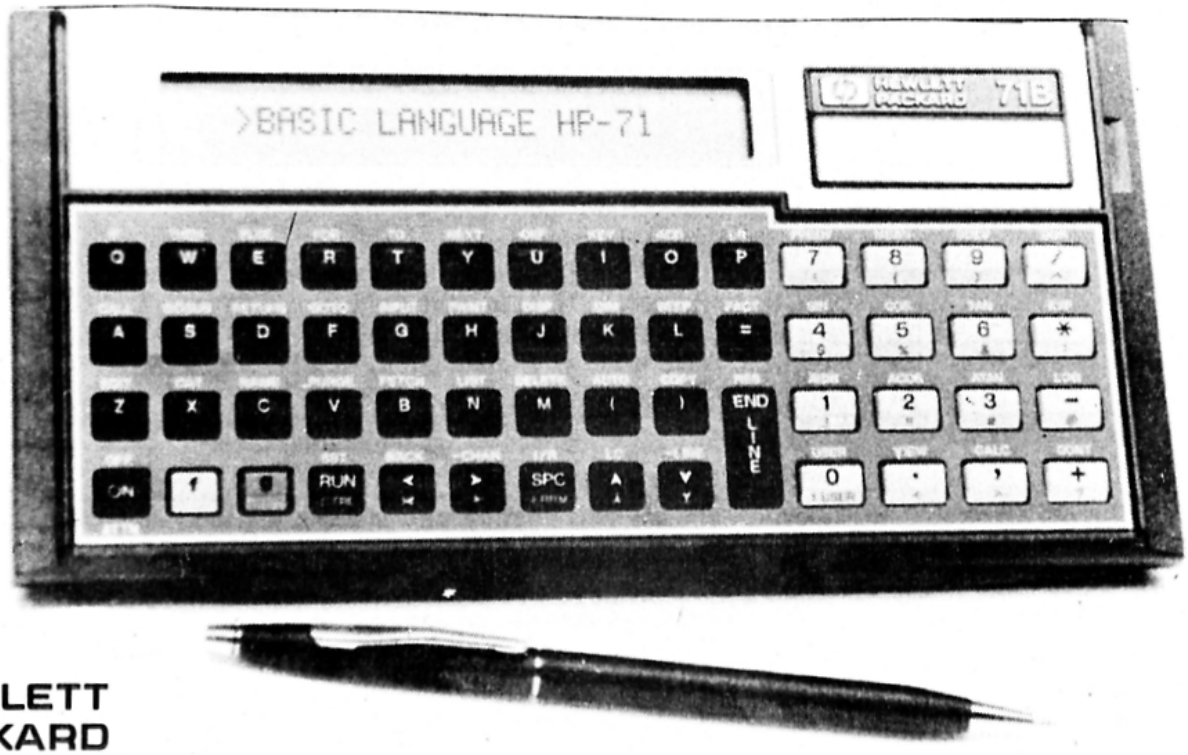
HP-71B Surplus

- **Palmtop computer—BASIC language, 240 instructions**
- **CALC mode—quick, easy calculations**
- **Statistics—15 independent variables**
- **Expandable—with software and with HP-IL (included)**
- **Every unit has our 1-year guarantee**

Limited Supply – act now!

We were lucky enough to find these at a large insurance company, and we have them in stock for you right now.

But—please act quickly—quantities are limited.



HEWLETT PACKARD

HP has discontinued making the HP-71B, although they continue to service and support it. But we now have surplus units for you—some are new and never used, while others have given service.

Either way, we warranty them to you to be in perfect operating condition—every unit has our 1-year guarantee. You are assured that if your unit does not operate properly in any way for a full year, we'll replace it free.

It speaks BASIC, with dynamically-declared variables and multi-line user defined functions. But it also has a CALC mode for quick, easy calculations, where you see intermediate results and recall them from a 5-level stack.

The rich programming language has more than 240 functions, statements, and operators, and it includes enhancements like statistics with 15 independent variables, trigonometry. and IEEE floating-point math standards (12-digit precision). Furthermore, variables are common to both modes, CALC and BASIC.

It has 17.5K memory, weighs only 340 g (12 oz.) and measures 7.5 × 3.8 × 0.5 inches.

It is fast, much faster even than the HP-41. Yet it excels at technical computations, has Continuous Memory (remembers programs and data while OFF), and sports a clock and a calendar.

It has a block QWERTY keyboard, with typing aids for program entry. And it has a 10-digit number pad, and the entire keyboard is redefinable.

The HP-IL plug-in option permits a variety of peripherals and instruments to be interfaced at 5,000 bytes/second — including printer, monitor, cassette drive, modem, plotter, or other computers. Hence, there's a wide world of configurations, all with HP support. Yet its LCD shows only 22 characters at a time from a scrollable 96 character line, and it runs for 60 hours on 4 disposable AAA batteries (AC adapter optional).

Stock #HP71BN [New HP Computer]	$159.95
Stock #HP71BU [Used HP Computer]	$89.95
Stock #875A, HP-71 Owner's Manual	$12.95
Stock #482, HP-71 IL Owner's Manual	$14.95
Stock #82400A [HP-71 Card Reader] List $165	$139.95
Stock #82059D [AC Adapter for HP-71]	$18.95
Stock #82420A [4K RAM Module for 71] List $75	$64.95
Stock #82482A (71 Finance Module) List $75	$69.95
Stock #82485A (71 Text Editor Module) List $75	$69.95
Stock #82481A (71 AC Circuit Module) List $75	$69.95
Stock #656 (32K Ram Module, CMT)	$149.95
Stock #82488A (Data Communications)	$84.95
Stock #82483A (Surveying)	$84.95
Stock #82402A (HP 71 Dual HP-IL)	$79.95
Stock #82440A (Software Development Utilities)	$29.95
Stock #82401A (HP IL Interface)	$105.95
Stock #82462A (Blank Overlays – 5)	$11.95
Stock #810 (HP 71 Touchpad)	$11.95

Used HP Calculators

Used HP calculators from our Trade-in Program—with manuals, warranted by EduCALC for 6 months. Call us at (800)677-7001 for availability.

Stock #HP17BU [Used HP Calculator] $49.95

HP 48SX Scientific Expandable

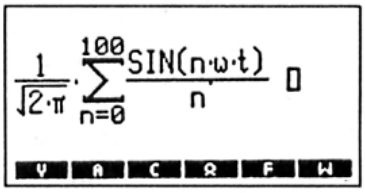
Here is exactly how the brand new HP 48SX will upgrade your professional life 7 ways—

1. You'll stand out. It has a distinctive size (3.2 × 7.1 in.), more keys (49) than any keyboard before and a wonderful, big LCD—so you'll be recognized the minute you walk in with it.

Then you'll fire it up and use HP Equation Writer to enter a function in the same form as it appears in a book—sigma notation, integral signs, radicals, fractions, . . .

For an encore, you'll plot several functions, then interact graphically—zoom in, find roots, intersections, slopes, local extremes, derivatives, areas, . . . If that isn't enough for them, you can draw boxes and circles on the graph to emphasize your work, or do a polar or a parametric plot.

This is the first calculator that enters equations in textbook style, and it's the first that does all these graphics. ***Will that get their attention?***

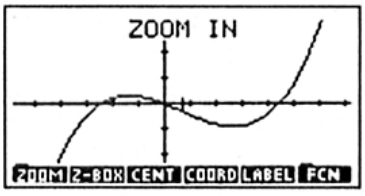


2. You'll have assurance. Solid power, right in your hand. You'll have the standard keys (SIN, LOG, √x, . . .) on this traditional keyboard, for quick hand calculations.

But, underneath, you'll have a giant 256K ROM of power, with 2,100 functions that you'll access with 59 user-friendly menus. It's customizable, too—you'll have 32K of RAM to store your own personalized menus in.

The X in SX means Expandable—it has two internal card slots. You'll be able to customize your HP 48SX with optional plug-in ROM cards, from HP and from others, for more math power, or statistics, or surveying, or . . . Also, you can increase your memory capacity with optional plug-in cards that add 32K or even a gigantic 128K of RAM.

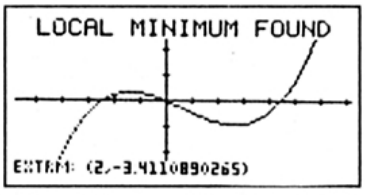
When you have all that, and know it will go on working with legendary Hewlett-Packard reliability, ***won't you have assurance?***



3. You'll communicate. You'll have 2-way InfraRed, so you can share programs and data with another HP 48SX. You can also squirt programs, data and graphics via InfraRed to an optional portable printer.

Kermit is built right into the HP 48SX so you can also wire-up to your PC or Macintosh with an optional Serial Interface Kit—then you can generate high-quality printouts and use your computer's disk drive to store data and programs. You can use the computer's keyboard to program your calculator, too, and you can operate all the HP 48SX routines like an excellent number-crunching software package on your computer (you save the software cost).

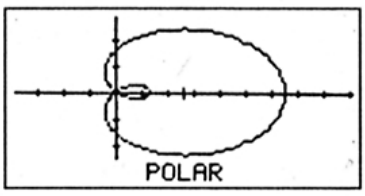
You'll have the world's best interactive calculator graphics. You'll have a beautifully-planned keyboard with well-engineered tactile feedback. ***Isn't all this the kind of I/O power you've needed?***



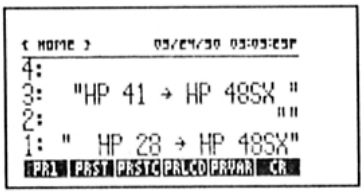
4. You'll be fast and timely. This baby is fast—fast at computations and fast writing to screen. Its heart beats at 2 MHz, so its throughput is 50% greater than for that old speed king, the HP 28S.

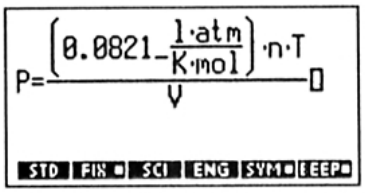
You'll have a Review mode, plus the ability to edit the stack, matrices, etc, so you'll have rapid, correct data and program entry.

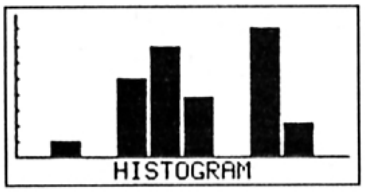
There's a calendar and a clock, and you can have them on your screen if you wish (there's date-arithmetic, too). You'll have two types of alarms: appointment and control. ***OK?***

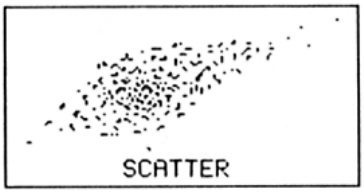


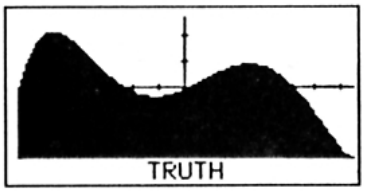
HP 48SX Scientific Expandable

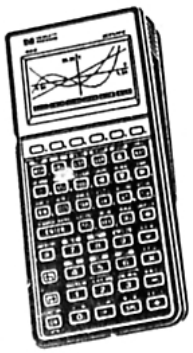












Serve yourself — get it — now!

5. You'll be accurate. You'll use 2,100 functions to manipulate numbers that are stored with 12-digit mantissas and 3-digit exponents (your machine calculates with 15-digit intermediate precision).

You can change coordinate systems, even using 3-dimensional polar or spherical coordinates. And you'll specify the precision you want in evaluating an integral or root.

Your big new boon to accuracy is going to be units management—your new HP 48SX will do measurement-unit conversions (Metric to English, etc). It will factor units by units (for example, 3.5 kg/s² factored with respect to Newtons, N, gives 3.5 N/m). It will perform math on unit objects (so 10 ft/s added to 10 mph gives 24.67 ft/s).

But there's more—if you enter the units for your calculations, right along with the numbers, your HP 48SX will keep track of the units throughout its arithmetic—so if you expect your result to be a temperature but its units are meters, you know something went wrong. This is like having a check-sum built into every calculation—and it also labels every number so you always know where you are in your work. There are 148 units built in, and you can add your own.

Here is the first calculator that converts units automatically, and it is a real pleasure to use—you can concentrate on applications of your problems, instead of looking for mistakes in unit conversions. ***Isn't that what you've wanted?***

6. You'll have new smarts. If you have used the SOLVE function on a calculator, you know how useful it can be, and how much programming it can save you. But this one is something else. On the HP 48SX you can link several equations for simultaneous solutions. Or you can "solve a program" by using the SOLVR to invert a function. Or you can PLOT both sides of your equation, move the cursor near an intersection, and have the SOLVR find your root.

You'll have a built-in, high-level programming language to work with, too—conditional expressions and looping structures, 64 system flags and 64 more for the user, improved DBUG and SST functions, error trapping, . . .

This is a student's best friend, an engineer's powerhouse and a programmer's dream machine, all in one!

7. You'll be up to the minute. This machine does calculus—it can even find symbolic integrals (indefinite integrals)! It finds symbolic derivatives, too, and does lots of algebraic operations on symbolic expressions—simplify, expand product, collect like terms, distribute, factor common terms, . . . , and then it will evaluate.

Your PLOTR will find slopes for you, or find areas under curves, so you get calculus applications too. For approximations, it will find Taylor Polynomials, then superpose them successively on their function to give an animated display!

Statistics routines include curve-fitting with 4 models—linear, logarithmic, exponential and power — as well as upper-tail probabilities (normal, chi-square, F, Student's t) and a random-number generator.

You'll be able to do arithmetic with matrices and vectors that have real or complex number entries. That includes vector cross-products, dot-products, and lengths. It includes matrix inverses, determinants, Frobenius and row and column norms, transposes and Hermitian adjoints. There's even a command that improves a numerical solution to a system of equations by iterating with extended precision. ***Do you need this machine?***

Stock #HP48SX [Scientific Expandable Calc] List $350 ..$274.95

SAVE even MORE—if you won't require an expansion-card slot on your 48, there's a special slotless model available, with every other feature and function including InfraRed and Serial Interfaces.

Stock #HP48S [Scientific Calculator] List $199.....$154.95

Comes with Manual, Quick Refernce Guide, Brushed Nylon Case and batteries; 1 yr warranty.

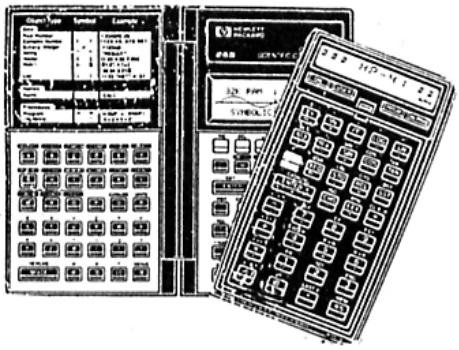
HP 48SX Scientific Expandable

Here's where you find...

Accessories	50
Cables/Interfaces	51
Peripherals	52
Software	53
Programming Aids	58
Bookware	60

Trade **I**n **P**rogram — HEWLETT PACKARD

Save even more—



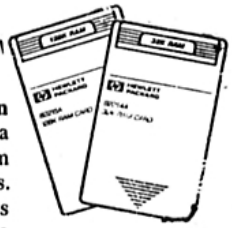
TRADE IN your used HP 41CX or HP 28S. Just send it to us, insured, in working order, with all its Manuals. Take CRedit on your Order — $60 CRedit for a 41CX, $45 CRedit for a 41CV or $60 CRedit for a 28S — and put k the order and your check right in the box.

If you prefer to keep your old instrument until your new HP 48SX arrives, just send it to us later, along with its Owner's Manual and a copy of the sales receipt for your new machine—we'll send you your refund right away.

Accessories

Battery-backed RAM cards

HEWLETT PACKARD



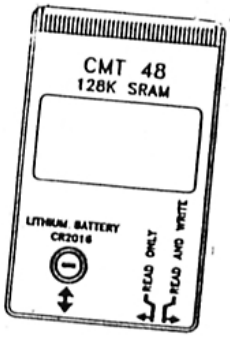
Develop large programs and store more data in your HP 48SX — You can configure this extra memory either to add to your instrument's main memory or to use it as an electronic disk for backups.

It plugs in inside your HP 48SX, and it has its own long-lasting battery so you save your information even if you take it out to store it or mail it to a friend. Comes in 2 sizes, 32K and 128K, and your machine can hold up to 2 of them. 1-year warranty.

Stock #82214A [32K RAM card] List $60 ..... $49.95
Stock #82215A [128K RAM card] List $150 ..... $124.95

Battery-backed 128K RAM Card for your HP 48SX

CMT



Special Write-Protect Switch guards against accidental erasure. Built-in tranzorbs protect from electrostatic discharge. CR 2016 battery included (2-3 year life). 1-year warranty.

Stock #2422 [48 RAM, 128K card] List $95 ..... $85.95

HP 48 RAM Cards

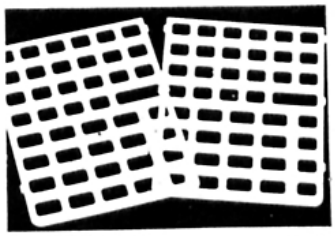
TDS

FREE Software — all TDS RAM Cards come with 5¼" PC disk containing both KERMIT transfer software and the TDS Financial Functions Library ($95 value!)—ready to download via Serial Interface.

256 or 512K in one card! Includes software "bank-switches" so you get huge data capacity without card-switching. Also, with this software you can copy thse huge amounts of data from one RAM card to another right in your HP 48SX. Battery-backed.

Stock #2365 [128K RAM card] List $115 ..... $99.95
Stock #2475 [256K RAM card] List $210 ..... $187.95
Stock #2476 [512K RAM card] List $375 ..... $329.95

Overlay Kit for HP 48S



7 plastic keyboard overlays slip into place—3 transparent, 3 opaque (you can write key labels on these), and 1 with standard alpha keyboard markings.

Stock #82220A [48 Keyboard Overlay Kit] $14.95

Protective Bag for HP 48

COMP-U-BAG

Zip out dirt and moisture—you can use your calculator right in the oil field (or the pillow fight) if it's in one of these flexible, transparent bags (not sealed against pressure); used daily, each bag will last a couple months. Fits into leather field cases, with easy access to plug-in ports.

Stock #543X [Standard Comp-U-Bag] $2.50
Stock #543XT [10 Std Comp-U-Bags] $19.95
Stock #543U [Anti-Static Comp-U-Bag] $2.75
Stock #543UT [10 Anti-Static Comp-U-Bags] $21.95

Extras for your HP 48SX—

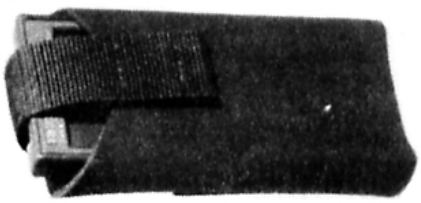
like those that come with the product

Stock #2250, HP 48SX Owner's Manual vol I & II $24.95
Stock #2251, Equation Library Owner's Manual $9.95
Stock #82221A [HP Soft Case] $14.95
Stock #AAA [Alkaline Battery] uses 3 ..... ea $.89

The Pouch for your HP 48 or HP 95

The Pouch

Brand New



Are you a utilitarian? Here's a no-frills pouch for the simple life—made of bouncy neoprene foam and nylon, with belt-loop and velcro closure.

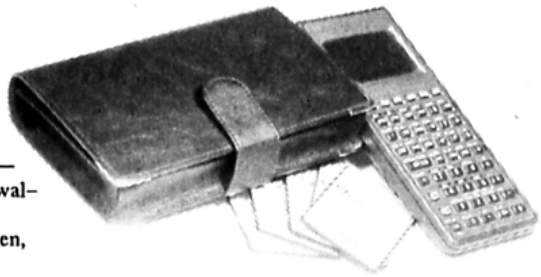
Stock #2736 [Instrument Pouch] $19.95

HP 48SX Scientific Expandable

Accessories continued

black leather Wallet for your HP 48

EduCALC



- **impress softly**— with premium wallet leather
- **hold it all**—a pen, cards, notes and checks as well as your 95
- **protect and cushion**—you'll even have shiny brass corner guards

Half the fun of having a palmtop! Pocket for notes or checkbook. 6 slots organize your software or memory cards and business or credit cards. Velcro strap adjusts to hold the load snug.

Stock #2638 [Leather Wallet, black] List $70 ..... $43.95

TDS 480 Survival Case for your HP 48

TDS

Survival counts, where your 48 is concerned. This dust, shock and water-resistant case may be ugly—BUT, put your 48 into it, snap the cover down onto the O-ring, and your 48 is safe. You key in your data directly through a clear, flexible membrane.

There is a 9-pin port molded in—you can use a standard (serial) computer cable with a 9 or 25-pin connector on the other end for your PC. Port also accepts connector to recharger for case's built-in NiCd batteries.

TDS 480 Basic Configuration consists of case, rechargeable NiCd batteries, recharger and cloth carrying case.

TDS 480 Memory Enhanced Configuration consists of basic configuration with 384K RAM memory and TDS 48 Survey Card (Stock #2239) built in.

Optional Cold Case goes on over Environmental Case to keep your 48 warm for up to 6 hours in below-freezing weather.

Optional Total Station Cable gives you a direct connection.

Stock #2424 [TDS 480 Basic Configuration] List $145 ..... $134.95
Stock #2426 [Cold Case] List $110 ..... $99.95
Stock #2427 [Computer Cable, 9 to 9-pin] $46.95
Stock #2428 [Computer Cable, 9 to 25-pin] $46.95
Stock #2332 [TDS 480 Cable, Leitz/Topcon] List $75 ..... $69.95
Stock #2333 [TDS 480 Cable, Nikon/Top Gun] List $75 ..... $69.95
Stock #2334 [TDS 480 Cable, Zeiss] List $75 ..... $69.95
Stock #2335 [TDS 480 Cable, Pentax] List $75 ..... $69.95
Stock #2336 [TDS 480 Cable, Kern] List $75 ..... $69.95
Stock #2337 [TDS 480 Cable, Wild] List $75 ..... $69.95
Stock #2338 [TDS 480 Cable, Geodimeter] List $75 ..... $69.95
Stock #2261 [TDS Tripod Bracket] List $75 ..... $69.95

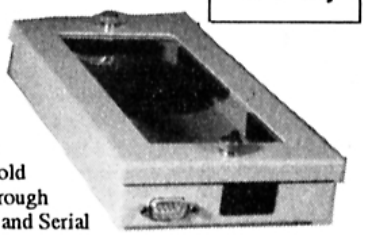
HP 48SX Accessories—

Stock #2249 [Solid Oak Stand] $16.95
Stock #2252 [Clear Acrylic Stand] $11.95
Stock #2225 [Hard Leather Case]* $42.95

*May require a long delivery time

Protect your 48 in a Hostile Environment

Intelechy



- Moisture
- Liquids
- Corrosives
- Dust
- Gases
- Shock

Rigid metal box has screw down gasket seal—foam shock mounts hold instrument. You operate buttons through flex-membrane; InfraRed window and Serial Port allow communication. Four screw holes for tripod mounting.

Stock #2473 [Metal 48 Case] $99.95

Black Leather Carrying Case for your HP 48

- looks rich
- feels sumptuous
- padded for protection

Stock #2579 [HP Leather Case] $34.95

Cables/Interfaces

Dual-Purpose HP 48 Serial Cable

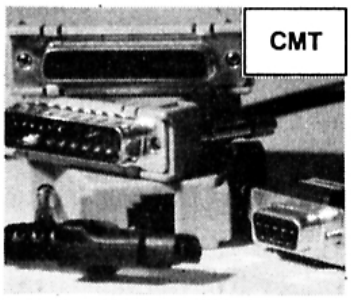
EduCALC

Switches so it can connect to computer or to printer—eliminates adapter and NULL modem. Elegant, light weight, 6' long.

Stock #2449 [Dual Purpose Cable] $36.95

Serial Interface Kit for HP 48

CMT



Avoid connector misfits! This 6' cable fits HP 48 Serial Port on one end and its other end is a phone jack. Cable is shielded and has strain relief.

4 adapters are included that accept the cable's phone jack — a 9- and a 25-pin female to fit PCs, a 25-pin male for a modem, and a 25-pin male for a printer.

Kermit communication program for PCs is included on disk, along with brief directions for its use.

Stock #2342 [Serial Interface Kit, 5¼"] $36.95

Need fast data transfer from one 48 to another? See the 4 × 4 Cable from EduCALC on page 16.

Experimenter's Serial Cables

EduCALC

- Engineers
- Instrument Makers
- Hobbyists

Connect your HP 48 to anything you want! Six foot cable has 4-line serial connector molded onto one end, with the other end unterminated (just 4 wires for you to solder).

You can also order this cable terminated with a female 9-pin (computer RS-232) connector and built-in strain relief.

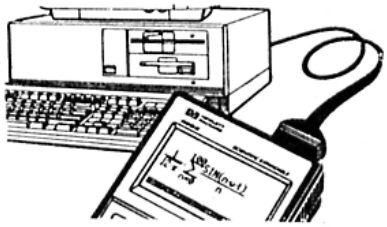
Stock #2601 [Unterminated Serial Cable, 6'] $12.95
Stock #2609 [4- to 9-pin Serial Cable, 6'] $22.95

HP 48SX Scientific Expandable

Cables/Interfaces cont.

Serial Interfaces— Kits & Cables—for PCs and Macs

HEWLETT PACKARD



Wire-up your HP 48SX to your computer — 1.5-meter cable plugs into top of calculator (cable has 9-pin connector, and kit for PC contains a 25-pin adapter in case you need it).

You can store your data and programs on your computer's disc drive. You can use the computer's big keyboard to enter HP 48SX commands — the Interface sends them to the calculator and returns results to computer screen for easy viewing (so you get excellent math software as a bonus).

Use your favorite computer text editor with the HP 48SX. Write and edit big programs, or enter large matrices and statistical data in a familiar way.

Comes with Instructions and computer software (3½" and 5¼" discs for PC; 3½" disc for Macintosh).

Stock #82208A [PC Serial Interface Kit] List $60 ..... $49.95
Stock #82222A [PC Serial Cable only] List $35 ..... $29.95
Stock #82209A [Mac Serial Interface Kit] List $60 ..... $49.95
Stock #82223A [Mac Serial Cable only] List $35 ..... $29.95
Stock #82224A [Serial Cable Adapter Kit] $14.95

Peripherals

Program Development Link HP 48 to PCs

HEWLETT PACKARD

Turn your PC into an HP 48 program development system — **pull-down menu-driven editor** includes

- 1 or 2 edit windows
- Copy, cut, paste, undo
- Search and replace
- Automatic comment formatting
- Easy access to HP 48 special characters

This editor is integrated with data communications, so you transfer applications you've written to your 48 with one keystroke. It keeps track of what changes you make, and saves you time by transferring only changed variables.

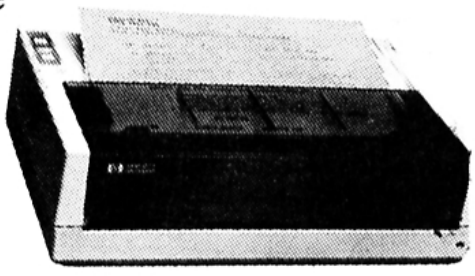
On-line *HP 48 Programmer's Reference Manual*—click your mouse on any HP 48 command to see appropriate page of ***Manual***, including stack diagrams, usage, flags affected, related commands, and an example if appropriate. Paper copy of ***Manual*** also comes in box.

Includes all transfer and execution utilities, 1.5m cable, instructions. Requires DOS 3.0, hard disk, 640K, 9 or 25-pin serial port.

Stock #82208B [Program Dev Link, 5¼" & 3½"] List $120 .... $99.95

HP ThinkJet PC Printer AC or Portable

HEWLETT PACKARD



AC versions for all PC/Compatibles. Portable version for your Laptop. Centronics parallel interface, battery-powered (200 pages per charge). Quiet and robust enough for public use in university libraries.

Stock #2225P [ThinkJet, Parallel, Batt] List $495 ..... $399.95
Stock #2225C [TnkJ Cntrnics Parallel, AC] List $495 ..... $399.95
Stock #2225D [TnkJ, RS-232 Serial, AC] List $495 ..... $399.95
Stock #92219Z [Cable for 2225P] List $52 ..... $45.95

Everything you want, at the best price!

InfraRed Printer for your HP 48

HEWLETT PACKARD

Get hard copies of all your graphics, data, programs or calculations. This silent thermal printer operates on four AA alkaline batteries (included) for go-anywhere portability—a set of batteries prints about 6000 lines, or there is an optional AC Adapter.

Printer connection cords have been replaced by an invisible infrared beam from the HP 48SX. It's the only link required for your printing needs.

You have plenty of leeway—up to a foot and a half—to put the printer where it's most convenient for you. Just point your calculator at it and push [PRINT]. No cords to tangle with.

Print speed with fully-charged batteries is just a shade over a half second per 24-character line. You can print out a complete record of the numbers you've used in your calculations, as well as your results. Or print selectively and provide clients with copies of quotes, amortization tables or itemized lists.

Stock #82240B [Portable InfraRed Printer] List $135 ..... $115.95
Stock #82241A [AC Adapter for IR Printer] $14.95
Stock #82175A [2¼" Printer Paper, black, 6 rolls] $9.95
Stock #AA [Batteries, Printer uses 4] ..... ea $.89
Stock #92169G [Cover, black] $22.95

Foreign adapters available—see p. 14, HP 95LX section.

Diconix 180si Portable Printer

Kodak

- Create new overheads in an instant
- Customize your proposals on the spot
- See your letters in final form right away
- Respond to clients while you're on the road
- Make last minute revisions to your presentations

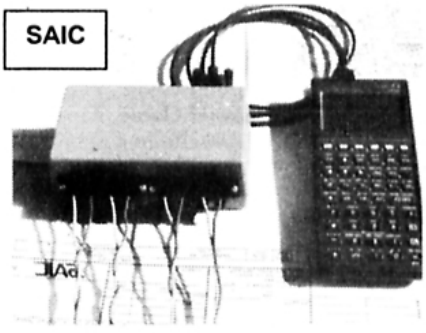
Only 2 × 6.5 × 10.8 inches, and it weighs just 2.9 lbs (3.5 lbs with optional batteries); RS232C serial interface; prints on sheet or tractor plain paper or transparency. Multiple fonts and print modes in 96 × 96 dpi Draft or 192 × 192 dpi Quality resolution. Quiet; just 45 dB.

HP ink-jet print head is user-replaceable. Can recharge its batteries even while printing. 1 yr warranty.

Stock #K180SI [Diconix Printer] List $399 ..... $339
Stock #CN [NiCd C Cell] (requires 5) ..... ea $4.49
Stock #2351 [Kodak Print Head] $13.95
Stock #51604A [HP InkJet Print Head] $8.95

A/D Converter for the HP 48SX

SAIC



Automated, remote, passive monitoring in the

- laboratory
- environment
- machinery
- factory
- structure
- power system

A versatile, self-contained data-acquisition system with analysis capability and PC or Macintosh-compatible data files. Low cost.

Two 16-bit input channels, 0–10 vdc, scans as fast as 1 per second. Low cost.

Comes with manual and complete HP 48 software listings; requires HP 48SX with PC or Mac Serial Cable, plus a 9v battery (not included). Low cost.

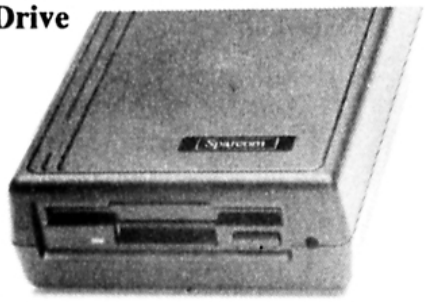
Stock #2304 [A/D Converter] List $450 ..... $399.95
Stock #9V [Alkaline battery] uses 1 ..... $2.80

HP 48SX Scientific Expandable

Peripherals cont.

Drive95
Portable 3 1/2" Disk Drive for your HP 48

Sparcom CORPORATION



This lightweight, battery-operated disk drive features File Manager software, a screen-based program that makes file transfers, calculator back-up, and directory management a simple point-and-click operation.

Designed for remote operation, the drive has an intelligent cache which extends battery life up to 15 hours on a single charge. Compact (7¼" × 5¼" × 2") and contoured to complement the HP 48SX, Drive95 also interfaces with the HP 95LX or any DOS based palmtop, laptop, or desktop computer, and supports formatted 720Kb and 1.44Mb capacity 3½" disks.

Includes File Manager software, manual, Kermit, serial cable and AC charger/adaptor; 1 year warranty.

Stock #2602 [Drive95] List $330.....$284.95
Stock #2327 [Formatted 3½" disk] ..... each $2.50

Software

HP Solve–Equation Library Application Card

HEWLETT PACKARD

Plug in over 300 science and engineering equations— you'll use the HP 48SX cursor keys to select from equation topics such as columns and beams, electricity and fluid flow. Then touch a key to see a set of related equations. Choose your equation — the HP 48SX displays it, gives you a picture of the physical system (if appropriate) and lists the descriptions of each variable in the equation.

Physical Constants Library — if your equation requires constants, like gravity or the speed of light, the HP 48SX will place them where you want them — no more cumbersome reference tables!

Periodic Table of Elements — you will press a key to view atomic weights, numbers and densities — you may never have to find tables in a book again!

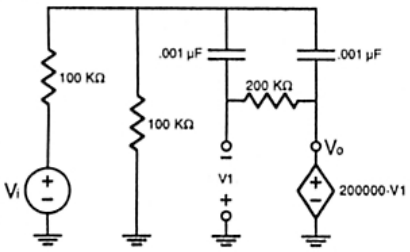
Includes Owner's Manual and ROM card that plugs into one of the two compartments inside your HP 48SX.

Stock #82211B [Equation Library ROM card] List $100 .....$79.95

VERBB
Circuit Analysis Software for the HP 48SX

MicroNation

Analyze any arbitrary linear circuit. Enter circuits by drawing them directly onto the HP 48SX screen using the cursor and menu keys. This makes entering circuits easy—you won't waste time making Spice-like net lists.



An active filter Op-amp circuit.

Quickly derive exact s-domain transfer functions from any linear circuit. Solve for the AC or DC response. Derive input or output impedance equations. Perform frequency analysis—plot up to ten decades of both magnitude and phase Bode plots. Plot time domain response of circuits to seven different input functions with eleven variable parameters. Plot to screen or send data to a larger computer.

Uses about 40 bytes of memory per component, so you can analyze fairly large circuits with only 32K of RAM.

VERBB comes on a 128K ROM card. The instruction manual contains many tutorial examples and a quick reference card that fits the calculator's case.

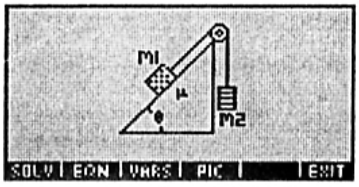
Stock #2693 (VERBB, ROM card) List $135 .....$124.95

HP 48SX Application Cards for ME, EE, Gen Chem, and Math

Sparcom

There are two types of these "Pocket Professionnal" software cards for each field. **The Applications Pacs are designed for undergraduate students**—each contains hundreds of equations with diagrams, charts and tables, analyses and reference tables in easy-to-use menu-driven format. No need to program, manage units or find constants—the solutions are built in, ready for use in class or lab, office or field.

The Reference Pacs have thousands of data entries, so you have calculator and handbook combined, with no programming needed!

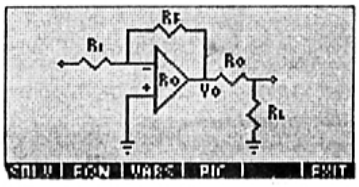


ME Applications Pac — over 350 equations from fluid mechanics, heat transfer, gases, beams, stress analysis, machine design and more. Analysis sections include inclined plane. steam tables and thermocouples. Uses SI units.

Stock #2290 (ME Applications, card) List $100.....$89.95

ME Reference Library—over 3000 entries from nine subject areas; including properties of solids and liquids, composition of metals, refrigerants, fuels and combustion, thermal properties, saturated gas properties and more.

Stock #2291 (ME Reference, Card) List $100.....$89.95



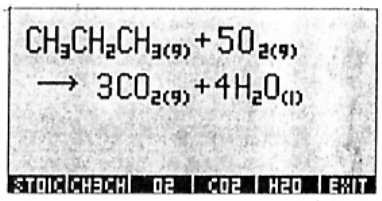
EE Applications Pac — over 300 equations in circuit elements, DC circuits, RL and RC circuits. RLC circuits, OpAmp circuits, solid state devices and more. Analysis sections include simple AC circuits, Fourier and Laplace transforms, ladder network analysis and two-port networks.

Stock #2292 (EE Applications, card) List $100.....$89.95

EE Reference Library—over 3000 entries from seven subject areas; covering properties of Silicon, digital specifications, properties of lasers, III-V and II-VI compounds, standard component values, wire gauge, and dielectric and magnetic properties.

Stock #2293 (EE Reference, card) List $100.....$89.95

General Chemistry Applications Pac—over 150 equations from kinetics, acids/bases, gases, precipitation and more. Plot pH titration curves and radial functions. Periodic Table includes 14 properties of each element. A chemical-equation writer that calculates theoretical yields, limiting reagents, and checks balance. Molecular weight calculator.



Stock #2294 (Chem Applications, card) List $100.....$89.95

Chem Reference Library—over 3000 entries in eleven subject areas; elements, solids, acids/bases, thermodynamics, complexes, solubilities, electrochemistry, water and bonds.

Stock #2295 (Chem Reference, card) List $100 .....$89.95

Mathematics Applications Pac — easy access to algebraic utilities: cubic/quartic solver, combinations/permutations, base conversions, LCM/GCD/prime factors. Trig includes graphs and definitions for trig and hyperbolic functions plus equations and identities. Calculus: derivative and integral tables with electronic search, vector analysis and Laplacian in polar, rectangular and spherical coordinates. Fourier, Laplace and Z transforms.

Stock #2324 (Math Applications, card) List $100.....$89.95

HP 48SX Scientific Expandable

Software continued

HP 48SX
Engineering Mathematics Library
including MATHLIB, a ROM card with 715 new commands
by John Holland

Academic Press

✓ **quick analyses for the professional**
✓ **worked examples for students**

Complete, with statistics, linear algebra and digital signal and data processing. Over 300 tabulations of complex math functions, most to 10-digit accuracy.

Single-button plotting of all HP 48, MATHLIB, and all real and complex user-defined functions stored in the VAR directory—linear, semi-log and log-log plots with titles and labeled axes. 36 user-friendly menus. Vector and matrix language, so you can manipulate arrays without dealing with the elements. Over 100 statistical operations and tests. Over 50 statistical probability distributions and their inverses. Over 100 data and signal processing operations.

Series, rational, polynomial and least-squares approximations. Over 200 vector and matrix commands plus 50 symbolic commands. Evaluation of complex contour integrals, residues, symbolic inverse Laplace and Z transforms. Runge-Kutta numerical and symbolic solutions for scalar, vector and simultaneous DEs.

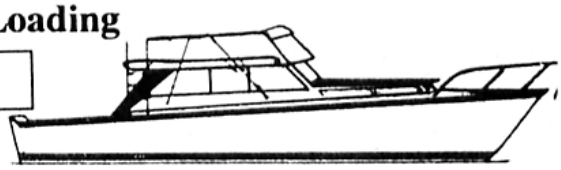
Symbolic and numerical solutions of state space matrix differential and difference equations. Over 200 algebra operations, including 3 powerful complex-coefficient polynomial root-solvers. Over 50 data editing, sorting, windowing, clipping, and peak and valley analysis commands. Numerical differentiation and integration.

Believe this: it solves a 40 × 40 system of linear equations in under 4 minutes!

Stock #2694 (Eng/Math Lib, 632 p hrdbnd hndbk & crd).....$139.95

Navigation Pac
with Ship Loading

Bringslid



Sailing Great Circles on Rhumb Lines, Composite and Combined Sailing, Spherical Trigonometry, 24-hour Sailing.

Mercator Sailing with observations, and Observations of Sun and Stars. Ship Loading and Unloading.

Stock #2698 (Navigation Pac, card) $109.95

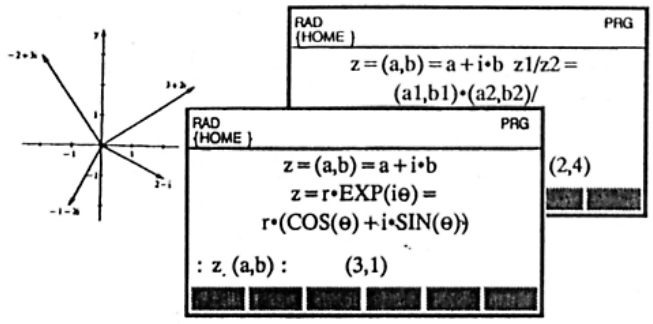
Calculus Pac
complete with Vector Analysis

Sparcom CORPORATION

■ Professionals get handsome, accurate results
■ Students get easy, quick help for better grades

✓ Functions Library, with curve-fitting routines (even cubic splines), polynomial interpolation, and root-finding (any degree).
✓ Integration by left, right and midpoint of rectangles, trapezoids, Simpson's rule.
✓ Integral Tables with over 100 entries, plus you can add your own.
✓ Limit analysis checks your function, sequence, series or recursion for convergence/divergence while you watch the digits change.
✓ Graphics include 2D and 3D plots, including hidden-line removal.
✓ Symbolic Vectors manipulated with cross and dot products, gradient, divergence and curl.

Stock #2691 (Calculus Pac, card) List $100.....$89.95



HS/College Math Pac
for your HP 48

Bringslid

powerful symbolic integration for your Calculus course

Algebra, including functions of 1 or several variables and graphs, complex numbers and linear equations with parameters.

Definite integrals. Symbolic integration by partial fractions, by parts, by substitution. Improper integrals.

Differential equations and initial-value problems and separable equations. First-order DEs; second-order DEs by undetermined coefficients and Lagrange method.

Binomial, power and geometric series. Convergence by ratio, Leibnitz and integral tests.

Stock #2670 (Math I, card).....$99.95

University Math Pac
for your Linear Algebra course

Linear Algebra, including matrices, transformations and systems of equations, eigenvalues and eigenvectors.

Linear programming, Laplace Transforms, Fourier Series, Statistics, Numerical Methods.

Stock #2697 (Math II, card) $109.95

Professional Extension Math Pac
for Probability/Statistics and advanced Linear Algebra courses

■ **includes SmartROM (see description in Programming Aids)**

Extended matrix manipulations with symbolic elements, extended string & list & stack manipulations, plus new graphic possibilities.

LaPlace transforms and symbolic Fourier series. Linear programming.

Probability with hypergeometric, binomial, Pascal, normal, Poisson distributions. Statistics with chi-square and Student's t, confidence intervals, curve fitting and description of samples.

Stock #2734 (Prof. Extension Math II, card) $124.95

Business Pac
for your HP 48

Just plug this in to transform your 48 into a Business Consultant!

TVM including payments and amortization tables plus interest conversion. Cashflow calculations with NPV, IRR—plus plot NPV by IRR and visualize cashflow by profile plot.

Bond calculations for US Treasury Bonds and Notes, Federal Agency instruments, State and Local Governments.

Option Valuation by Black-Scholes for American and European options.

Probability Distribution including Normal, Student's t, Chi Square, Fischer, Gamma, Binomial, Poisson. Multiple Regression Analysis and ANOVA. Also does Currency Conversion and Depreciation (5 methods).

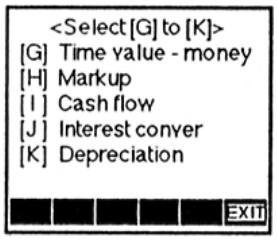
Stock #2669 (48 Business Pac, card).....$96.95

HP 48SX Scientific Expandable

Software continued

TDS 48
Financial Functions Library

TDS



Pop this card in the slot and turn your 48 into a powerful HP financial calculator.

Time Value of Money, Mark-up, Cash Flow, Interest Rate Conversions, Depreciation.

Stock #2482 (Financial Functions, 48 Card) List $95.....$79.95

Structural Analysis Card for the HP 48SX

TDS

Structural Engineers and their students find these menu and screen-driven plug-in programs easy to learn, easy to use.

General Beam, Plane Frame, Concrete Column, and Steel Column and Beam Analysis programs. User's Manual includes sample problems and a short list of references with each program.

Stock #2487 (Structural Analysis, 48 card) List $125.....$109.95

TFR48
File Transfer and Conversion Software

Transfer raw data, point lists and coordinate files back and forth from your office PC to and from your HP 48SX with Survey Card—edit your raw data in the PC, process new coordinates from the edited data, and convert the data format to be compatible with any one of two dozen other surveying and CAD based software packages.

For example, back in your office you discover that your rod man changed the rod height during the job, but neglected to make the change in the 48, so elevations are all wrong from that point on. No problem—you can edit in your PC using TFR48! Context-sensitive HELP is always available at the touch of a key.

You'll need a PC or AT running DOS 2.11 or greater, 512K RAM, plus the 48-to-PC Serial Cable (#82222A).

Stock #2233 (TFR48 PC Program, 5¼") List $250.....$224.95
Stock #2278 (TFR48 PC Program, 3½") List $250.....$224.95

TDS-48 PC Software Program

Completely emulates all TDS Survey Card menus, screens, and functions—so they look and work on your office PC just as they would in an HP 48 SX. Also contains other functions from the TDS-500 Surveying Field Computer, like spiral curve routines, earthwork computations, control files, and offsets.

Powerful interactive graphics allow you to draw any operation of the Survey Card on the PC screen, then send graph to plotter with one keystroke.

Requires an AT with 640K and a hard disk; supports Hercules graphic display and will use color on CGA/VGA/EGA. You will need the TFR48 program if you wish to transfer data files from your 48/Survey Card to this program. Adaptable for English or Metric units.

Stock #2279 (TDS-48 PC Program, 5¼") List $495.....$429.95
Stock #2280 (TDS-48 PC Program, 3½") List $495.....$429.95

TDS-PC Plus Software Program

Contains every program of #2279/80 above, plus: Contouring, 2 new Curve Functions and Street Intersection Layout. Also includes TFR File Transfer and Conversion programs and communicates directly to your Total Station. Take this to the field in your laptop!

Stock #2477 (TDS-PC Plus, 5¼") List $745 .....$629.95
Stock #2478 (TDS-PC Plus, 3½") List $745 .....$629.95

Pocket Professional Software
for the HP 48SX
may now be used on the FE Exam in most states

Sparcom CORPORATION

Spice48

A self-contained circuit analysis tool used to calculate and view the complete response of linear circuits—you'll describe your circuit easily with a menu-driven browser format. The size of the circuit that you can analyze is determined by available memory, number of circuit elements, and nodes. You can store files in your desktop computer.

When you've entered your circuit, you can analyze quiescent operating points, steady-state small signal response, transfer function at any two nodes, do a circuit response to a frequency sweep, or transient response.

Spice48 is an adaptation of the work carried out by the CAD group at the University of California. In the past 15 years SPICE has become the standard circuit simulation tool around the world.

Stock #2589 (Spice48, card) List $100.....$89.95

Physics Pac

Equation library with over 300 equations in Angular Mechanics, Electricity, Forces/Energy/Work, Gravitation, Linear Mechanics, Magnetism, Optics, Oscillatory Motion, Special Relativity, and Waves.

Special functions section includes binomial and Taylor function definitions, coefficients, and expansions.

Vector Analysis programmable functions, including dot, cross, del, gradient, divergence, curl, and Laplacian.

Integral table, Polynomial Solver, and Linear Algebra section are included. You'll quickly access reference data and formulas along with a whole library of constants.

Stock #2599 (Physics Pac, card) List $100 ..... $89.95

Statistics Pac

All the stats tools students and professionals want close at hand, with Sparcom's easy-to-use interface—Central Tendency, Standard Error, 14 Probability Distributions, Regression Analysis and 5 different plotting functions.

Perform 8 kinds of Hypothesis Tests. Supply raw data and specific population parameters such as μ, σ and α to get z, $z_{\alpha/2}$ and P-values. Run 7 different Confidence Interval Tests. Estimate Sample Size needed before an experiment begins.

Enter and store raw data with Matrix Manager, then transform it to grouped data with a few keystrokes. Move large data sets from PC to calculator and back to PC with automatic translation.

Stock #2743 (Statistics Pac, card) List $100.....$89.95

Solid State Electronics Pac

Over 200 equations commonly used by students and professionals in solid state electronics. Categories covered include Physics, PN Junctions, MOS electronics and devices, JN transistors, microwave devices, and IC technology.

Use this Pac to compute Fermi level, Hall effect voltage, Franz-Keldysh effect, MOS device properties and inverter delay, step junction capacitance, short channel effect on threshold voltage, reduce bipolar transistor data to a small signal model, rf power of Read or Gunn diode, thickness of SiO_2 grown in 60 minutes, or temperature effects on device performance parameters.

Find the total number of complete die on a wafer, or find the product yield based on Murphy's defect density model.

Get quick reference access to properties of Silicon including donor and acceptor levels. GaAs, many common III-V and II-VI compounds, properties of silicon dioxide and silicon nitride films.

Stock #2590 (Solid State Electronics, card) List $100 ..... $89.95

HP 48SX Scientific Expandable

Software continued

OptionTrader

Mycroft

Make your HP 48 into a financial number-cruncher you can pop in your pocket!

A complete, menu-driven library of financial formulas — integrated and automated so you can make decisions on-the-go.

Evaluates dividend-adjusted American or European Black-Scholes call and put values for 1 × 1 (1 exercise at 1 contract expiration), or 3 × 3, or both. Computes delta, gamma, kappa and theta risk measurements for calls and puts, 1 × 1, 3 × 3, or both.

Computes Market Implied Volatility (MIV) and historical volatilities (daily, weekly, monthly, yearly) by Extreme Value Method. Constructs spread, hedge or combination positions for 2 to 6 securities and then monitors exposure and status. Computes delta or gamma neutral position adjustment.

Automatically enters your position data, computes and enters expiration months, days to expiration or ex-dividend, etc.

Larry McMillan, reviewing it in his *Option Strategist* newsletter, says, *Overall, I found this to be an excellent product . . . especially if portability is a consideration.*

Stock #2692 (OptionTrader, 128K ROM card) List $295 ..... $274.95

Personal Information Manager

Sparcom

Application Card instantly makes your HP 48SX into a Business Informator

- **Interactive calendar** serves as your entry point for all functions.
- **Appointment book** allows you to enter appointments, meetings, or birthdays; set reminder alarms; and create reports of any or all entries.
- **Notepad** allows you to list any type of data as memos, including to-do lists.
- **Phone directory** permits you to store, sort and retrieve up to nine fields of information for each entry, including name, company, address, home phone, business phone, and fax numbers.
- **Expense accountant** permits you to enter, describe and compile expenses under customizable account names.
- **Time clock** documents time spent working on projects or accounts.
- **Report generator** compiles itemized lists from the data stored by each function. Reports may be sent to the HP 48SX screen, a file, an IR printer, a PC or another HP 48.

Stock #2323 (Personal Information Mgr, card) List $100 ..... $89.95

The HP 48 Database

Donnelly

A compact, powerful, easy-to-use database engine for the HP 48 — supports eight different data types, including number, text, time, date, remote file all lookups, calculations fields.

The HP 48 Database is easily customizable. Searching, selecting, sorting, reporting, and data import/export features allow you to get the most out of your stored data. Written in highly efficient machine code with commands that let you access database information from your own programs.

The manual clearly documents how everything works with examples. Comes on a disk for either the PC or the Mac, so you'll need a serial cable to download the code to your HP 48.

Stock #2648 (Database, PC disk, 3½") $49.95
Stock #2649 (Database, Mac disk) $49.95

Surveyor's Software ROM Cards for the HP 48

SMI

Basic Coordinate Geometry Surveying Card stores up to 1200 points by point number, easy field book entry, curves, intersection, translate, rotate. Comes with keyboard overlay and manual.

Stock #2296 (Basic COGO, card) List $105 ..... $91.95

Standard Coordinate Geometry Surveying Card contains all features of #2296 plus sunshot, elevations, stake program; will give GO and COME, CUT and FILL, predetermined area.

Stock #2298 (Standard COGO, card) List $330 ..... $269.95

Advanced COGO Surveying Card contains all features of #2296 and 2298; store any size point description; send data to PC in various formats. Includes two point resection, offset from a series of lines, CRIS compass rule (including side shots) and perpendicular offset (determines perpendicular distance of a point from a line). Comes with overlay and manuals.

Stock #2299 (Advanced COGO, card) List $550 ..... $469.95

Data Collection plus Advanced COGO Card — all features of #2296, #2298 and #2299, plus manual and electronic data collection.

Automatically collects data from Leitz, Nikon Top Gun, Topcon, Wild and Zeiss Electronic Total Stations. Cable not included.

Stock #2470 [Data Collection & COGO, card). List $1100.... $895.00

Civil Engineering Card includes vertical curves, horizontal curve layout, earthworks, hydrology programs for designing various open-channel ditches, pipe sizes for storm and sanitary sewer.

Stock #2297 ((Civil Engineering, card) List $105 ..... $91.95

State Plane & UTM Coordinate System plus Geodetic Forward & Inverse based on C&G Survey Publication 62-4 and on papers by T. Vincenty, as adapted to take advantage of the computing power of your HP 48SX.

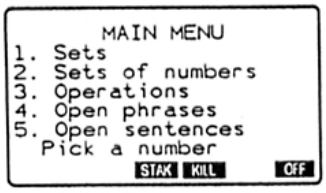
Stock #2645 (48 State Plane, card) List $150 ..... $129.95

Construction 1 works with manual or automatic total stations in field-construction operations to do slopestaking, cross sectioning and stakeout based on station and offset configurations. Use for highways, dams, pipelines, topographic surveys, etc.

Stock #2646 (Construction 1, card) List $350 ..... $289.95

E.Z. Math HP 48SX Application Card

E. Z. Software



- **Students** ■ **Teachers**
- **Bankers** ■ **Business Men**

Throw away your HP Manual—with this card your HP 48SX becomes simple, straightforward and intuitive—E.Z.!

You'll have E.Z. graphical analysis of nearly 200 families of equations, covering HS algebra through college calculus.

You get E.Z. time-value-of-money functions, to figure out loan payments, rates, etc., as well as repeated deposits into a savings account.

You'll have E.Z. arithmetic of fractions, plus LCMs, GCDs, prime factorizations and binomial coefficients.

In every problem, all of your original input is repeated along with the answer, so you can be sure. Comes with 150-page manual of its own.

Stock #2443 (E.Z. Math, 128K ROM card) List $130 ..... $109.95

E. Z. Algebra

Comprehensive 9th grade course and high school or college remedial algebra course, builds solid foundation for higher math.

Stock #2575 (E.Z. Algebra, 128K ROM card) List $130 ..... $109.95

E. Z. Arithmetic

Basic elementary-school or remedial course—strongly reinforces computational skills to make arithmetic a snap.

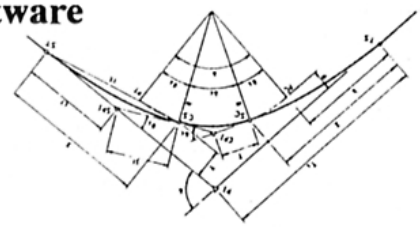
Stock #2576 (E.Z. Arithmetic, 128K ROM card) List $130 ... $109.95

HP 48SX Scientific Expandable

Software continued

Lo-Cost Surveying Software for the HP 48

D'Zign



All D'Zign software features **free** updates and unlimited **free** support for users. You may program as many calculators as you like with it—merely buy additional manuals at about $20 each to register for the freebies (and to conform to U.S. copyright law, and to give the workman his due).

Each program package comes to you on both 5¼" and 3½" PC disks—so you'll need a PC and a #82222A Serial Cable to download programs to your HP 48 (this way, you save memory space by downloading only the programs you need to use). Each package includes Owner's Manual.

HP 48SX Surveying Packet #1 version 3.0

Full Coordinate Geometry, including rotation, predetermined areas, intersections and inverse traverse by point numbers for areas. Field layout programs include the best version of our Alignment/Offset programs to date and fast radial inversing. Also has Triangle and Circular Curve solutions and an easy-to-use file system.

Leveling Field Book with 3-wire and trig-leveling options is something new to handhelds. Use the calculator as a field book and print out or automatically adjust the level run later.

New version 3.0 has spiral curves, resection, A.L.T.A. remote slope staking, topographic pickup, end area volumes, and foot-inch/fraction conversion. Manual included.

Requires HP 48SX with 128K RAM Card installed.

Stock #2606 (48 Survey Pack #1 v 3.0, 5¼" & 3½").....$275

HP 48S Student Pak ver. 2.0 . . . Lo-lo-cost COGO!

Contains complete coordinate geometry with rotation, compass adjustment and predetermined area, plus the triangle and circular curve routines. Uses a single file of up to 500 points and fits into the HP 48S (or 48SX without RAM card).

Stock #2339 (D'Zign 48S Stu Pak, v 2.0 5¼" & 3½").....$39.95

HP 48S Route Pak

All of the programs for route location and design, either in the field or in the office. Alignment/offset spirals, vertical curves, remote slope staking and -D coordinate geometry. Fits into HP 48S (or 48SX without RAM card). Can be used with Student Pak and RAM card.

Stock #2341 (D'Zign 48S Route Pak, 5¼" & 3½").....$39.95

HP 48S Construction Pak

Store your building grid line coordinates and call them up by grid line to do calculations for radial inversing. Specify the grid point and the size of a footing and the program automatically calculates the radials to directly set the corners, or offsets to the corners. Calculates the intersection of a grid line with a curved side, angled line, etc. All calculations can be made with foot/each-fraction input. Output may be either decimal feet or feet and inches.

Fits into HP 48S (or 48SX without RAM card).

Stock #2340 (D'Zign 48S Construction Pak, 5¼" & 3½") $39.95

Calculator Bulletin Board System

This is an HP service where users and developers can exchange software and information. It operates at 300/1200/2400 baud, full duplex, no parity, 8 bits, 1 stop bit; the phone number is (503)750-4448. This service is FREE; you pay only the long-distance telephone charge. The HP BBS is the best source for programs.

HP 48 Goodies Disks
Public-Domain Software Programs

EduCALC

- **High Density Disks for PCs; 1.2M 5¼" or 1.44M 3½" (sorry, there are no Apple or Mac versions as yet)**
- **Lo-Lo-Cost, Donated Progams — provided *as is*, without support from EduCALC, HP or anyone else**

Each disk comes with descriptive notes. These may also be ordered separately — see Index on page 4 for our 'Technical Notes'.

No. 1: We have Joseph K. Horn to thank for this: 272 files and 989,337 bytes on one high-density PC disk, mostly downloaded from HP's Corvallis BBS.

Running analog clock, Finds hex address of any object, Picture of Alfred E. Newman, Intro to 48 assembly language, the game of Blackjack ("21"), HP 48 bugs & version fixes, Graphic calendar maker w/alarms, Differential Equation solvers, HP 41CV Emulator comments, Animated rotating world globe, Play real music w/samples, All about the hidden directory, Tetris video game, much more.

No. 2: We have Derek S. Nickel to thank for this: it contains Voyager V1.0-6, which will allow you to interactively disassemble the contents of the HP 48SX ROM and other 48 programs. There are also HP 48SX Internals, Voyager Reference Manual and Saturn Instruction Set.

No. 3: A continuation of No. 1, also from Joe Horn: 1,012,072 bytes in 264 files—games, utilities, programming hints and aids, fractals and other graphics, numerical routines, hardware secrets, etc.

No. 4: Prepared by HP *but not supported or warranted by them:* tools for use by a System Level RPL programmer on a PC platform to create HP 48 applications, with documentation. Includes approx. 2000 supported (frozen addresses) system objects.

No. 5: Joe Horn has done it again: many new video games with hi-quality graphics; a TV IR Remote learning program, latest Hacker Tools, Flight Planning, Black Body Emmissions, Internal Messages, Planetary Positions, more.

No. 6: More animation! Boy, Man, Horse, Eye, Bouncing ball, Life "Game", tank battle. Video Games; Pac Man, Chess, Tetris, Space Invaders. Program Search & Replace, cut redundant RPL, Least Squares, and exact Polynomial Curve Fit, all factors of x, Quick Editor, Turbo IR, Pocket Planetarium, Address Book, 3D Graphing Suite.

Stock #GD1A (HP 48 Goodies disk, No. 1, 5¼" HD).....$4.95
Stock #GD2A (HP 48 Goodies disk, No. 2, 5¼" HD).....$4.95
Stock #GD3A (HP 48 Goodies disk, No. 3, 5¼" HD).....$4.95
Stock #GD4A (HP 48 Goodies disk, No. 4, 5¼" HD).....$4.95
Stock #GD5A (HP 48 Goodies disk, No. 5, 5¼" HD).....$4.95
Stock #GD6A (HP 48 Goodies disk, No. 6, 5¼" HD).....$4.95
Stock #GD7A (HP 48 Goodies disk, No. 7, 5¼" HD).....$4.95
Stock #GD8A (HP 48 Goodies disk, No. 8, 5¼" HD).....$4.95
Stock #GD1B (HP 48 Goodies disk, No. 1, 3½" HD).....$4.95
Stock #GD2B (HP 48 Goodies disk, No. 2, 3½" HD).....$4.95
Stock #GD3B (HP 48 Goodies disk, No. 3, 3½" HD).....$4.95
Stock #GD4B (HP 48 Goodies disk, No. 4, 3½" HD).....$4.95
Stock #GD5B (HP 48 Goodies disk, No. 5, 3½" HD).....$4.95
Stock #GD6B (HP 48 Goodies disk, No. 6, 3½" HD).....$4.95
Stock #GD7B (HP 48 Goodies disk, No. 7, 3½" HD).....$4.95
Stock #GD8B (HP 48 Goodies disk, No. 8, 3½" HD).....$4.95

ASTRO*CARD

Brand New

Computes accurate astronomic azimuth. Contains extremely accurate internal ephemeris generation for Sun and Polaris observation through the year 2010.

Stock #2749 (ASTRO*CARD).....$174.95

HP 48SX Scientific Expandable

Software continued

HP 48SX
Survey Card

TDS

■ easy to use ■ quick to learn

A plug-in software card for Data Collection, Stakeout, COGO, Curves, and much more—displays curves graphically.

Uses full HP 48SX capability—you move around the screen with cursor keys, use menus and softkeys for quick access to surveying functions. With RAM card installed you can collect field data up to 12,000 points, including Northing, Easting, elevation and 16 character point descriptors. InfraRed Interface squirts data to printer or to another HP 48SX.

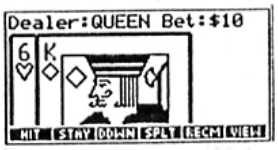
You can develop a descriptor code table and designate control files. The points or lines of an active job can be displayed on the screen of your 48.

Optional spring-clip Tripod Bracket holds your HP 48SX as you work. Optional cable will connect the HP 48SX to your Leitz/Topcon, Nikon/Topgun, Zeiss or Geodimeter electronic total station. Optional Cable Adapter connects the HP 48SX to Pentax, Kern or Wild total station and requires HP's PC Serial Cable (our #82222A). Choose correct cable or adapter to fit your brand of total station.

Stock #2239 [TDS Surveying Card] List $495.....$429.95
Stock #2261 [TDS Tripod Bracket] List $75.....$69.95
Stock #2253A [TDS Cable, Lietz/Topcon] List $75.....$69.95
Stock #2254A [TDS Cable, Nikon/Top Gun] List $75.....$69.95
Stock #2255A [TDS Cable, Zeiss] List $75.....$69.95
Stock #2256 [TDS Cable Adapter, Pentax] List $50.....$46.95
Stock #2257A [TDS Cable, Geodimeter] List $75.....$69.95
Stock #2258 [TDS Cable Adapter, Kern] List $50.....$46.95
Stock #2260 [TDS Cable Adapter, Wild] List $50.....$46.95
Stock #2266 [TDS CoGo only, card] List $125.....$109.95
Stock #2269 [Surveying Card Demo, 3½" disk] deposit.....$35.00

Casino 48
Application Card

Preston Brown Labs



Get all your favorite casino games with great graphics and animation: you'll walk over to a playing table and start the fun.

At the Blackjack table you get the usual choices to hit, stay, double down or split pairs. Plus Casino 48 will make you a blackjack expert; just press the recommend key and the 48 will analyze your situation and recommend the best strategy—and provide the rule you should remember. There is also advice on splitting and doubling down. Back in the Casino you can walk over to the animated Slot machine, Roulette table or the Video Poker machine.

As an added bonus you can create your own card games with commands for drawing cards on the screen. Slide this card into a slot in your HP 48SX and enjoy.

Stock #2259 (Casino 48, card) List $65.....$56.95

Celestial Navigation Pac for the HP 48SX

Sparcom CORPORATION

Become an expert celestial navigator—and enjoy it!

Route Planning — Great circle course, distance, and position; even calculate way points along the way! Rhumb-line course, distance, and position.

Almanac—Access the perpetual almanac to find position of the sun, planets, or the stars. Even choose between a short or long list of stars.

More goodies—sight reduction, dead reckoning, time of fix, running fix, accuracy of fix, plotting line of position. Messier objects, sextant error, height of eye, atmospheric conditions, time zone and watch error.

Comes on a ROM card; includes manual with examples.

Stock #2636 (Celestial Navigation Pac, card) List $100.....$89.95

Flight Navigation System

Helgesen

Dead Reckoning on a card for your HP 48SX—weight and balance calculations plus flight plans that are easy to edit (with change of parameters) and reversible.

Landing Pattern has Magnetic Headings and timing for help during touch-and-go training, Procedure Turns with Mag Heading and Tracks for more accurate flying, View The Route plotted into a grid chart before flight, plus useful options accessible during flight,

Stock #2831 (Flight Navigation, card) $119.95

HP 48 File Manager

Donnelly

Superconvenient file exchange program eases data transfer between the HP 48 and your PC. The File Manager lets you browse through the directories right in the HP 48 display! Push a menu key to transfer one or more files or archive your HP 48. Other menu commands let you create directories, rename files, purge files, and much more. This efficient machine-language utility is a must for anyone who saves HP 48 programs and data on a PC. Manual included; does NOT work with Macintosh or with CMT disk drive.

Stock #2474 [HP 48 File Manager, 5¼"] $15.95

HP 48 SX Overhead Display

Stock # 2268 [HP 48SX Overhead Display] List $500.....$449.95

See page 40

Programming Aids

SmartRom for HP 48SX

FORCALC

$$\begin{bmatrix} n & \Sigma x_i & \Sigma y_i & \Sigma z_i \\ \Sigma x_i & \Sigma (x_i)^2 & \Sigma x_i y_i & \Sigma x_i z_i \\ \Sigma y_i & \Sigma y_i x_i & \Sigma (y_i)^2 & \Sigma y_i z_i \\ \Sigma z_i & \Sigma z_i x_i & \Sigma z_i y_i & \Sigma (z_i)^2 \end{bmatrix} \begin{bmatrix} a \\ b \\ c \\ d \end{bmatrix} = \begin{bmatrix} \Sigma t_i \\ \Sigma x_i t_i \\ \Sigma y_i t_i \\ \Sigma z_i t_i \end{bmatrix}$$

130 new commands for symbolic matrix handling, data sorting/searching/replacing, easier editing of programs, enhanced string and list manipulation, graphics management, meta-object and stack handling, and system access.

Comes on 32K ROM card. Package also contains a PC disk of application routines like fast Fourier transform, perpetual calendar, cross reference generator, user-defined font manager for handling custom characters, BARPLOT program using shaded patterns, effective compiler/decompiler for RPL internal language, more. 200-page User's Manual included.

Stock #2574 (SmartROM for 48) $119.95

Port your HP 41 applications to the HP 48SX and see them run *faster*!

Greplite's GL41X emulator for the HP 48SX is an expansion of HP's 82210A HP 41CV emulator designed specifically for the porting of ROM module and EPROM-based HP 41 applications to HP 48SX PROM cards.

Your HP 41 applications are loaded on the same PROM card as the emulator with pre-complied XEQs and GTOs for *full speed* operations and negligible RAM overhead!

Any HP 41 application (other than one using HP-IL, the Barcode Wand or the Card Reader) can be ported. This includes applications using HP 41CX extended functions and even custom HP 41 Mcode functions!

Write today for your *free* copy of the GL 41X fact sheet and find out about Greplite's *low cost* porting service.

Stock #2532 (GL 41X fact sheet).....NO CHARGE

HP 48SX Scientific Expandable

Programming Aids cont.

HP 48 MLDL– Machine Language Development Library ROM Card

Jan Brittenson

A set of commands helpful to professional developers of HP 48 machine language programs and to a student of the machine's assembler and system ROM.

Contains a disassembler which permits you to print and examine both your own and system ROM machine language programs.

There is also a debugger so you can single–step programs, examine memory and registers and set break points. You can work locally on your HP 48 or remotely over the serial line, using either a dumb ASCII terminal or emulator. Support is built in for running debugger as a slave from an intelligent front–end, using windowing systems and symbol data from the assembler.

Though the MLDL programs are also available on our Goodies Disks #3, this ROM card has none of the limitations of the RAM library. Comes with extensive 106–page manual full of specs, examples and reference tables.

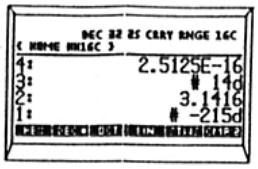
Stock #2359 (MLDL, ROM card) $89.95

HP 16C Emulator Library

Schwartz–Greveile

Brand New

Available April '93



makes your 48 into a

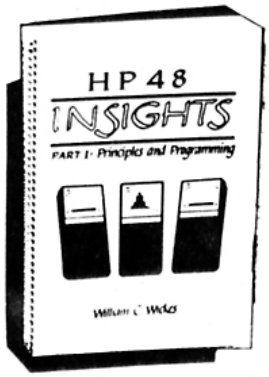
Computer Scientist

Over 50 functions of integer arithmetic, base conversion and bit manipulation. This is a complete and beautiful emulation, with many functions positioned on the same keys as on the original HP 16C keyboard and no emulator functions more than 2 keystrokes away.

Comes on 3½" disks for downloading, with keyboard overlay and comprehensive user manual.

Stock #2870 (16C Emulator for HP 48) $39.95

48 Insights, Part I
Principles and Programming
by William Wickes



If you do serious programming on the HP 48, this book is for you

We are in luck, for sure—the world–expert on the HP 48 , Dr. Wickes, is also an excellent expositor. He writes clear and complete explanations that you can quickly understand and put right into your own programming.

Look at these chapter titles:

1. Introduction
2. Understanding RPN
3. Objects and Execution
4. The HP 48 Stack
5. Storing Objects
6. Methods
7. Customization
8. Problem Solving
9. Programming
10. Display Oprtns/Graphics
11. Arrays and Lists
12. Program Development

Part II covers the applications: SOLVE, PLOT, ALGEGRA, TIME, STAT and UNITS with the same thorough "insights" as Part I.

Stock #2322, 48 Insights, Part I, 381p wirebound $25.95
Stock #2358, 48 Insights, Part II, 340p $24.95

The HP 48 Programmers Toolkit

James Donnelly

Turbo charge your own programs with this library of machine–code subroutines—more than 60 new commands for high–speed stack operations, list and string utilities, sorting, graphics, data calculations, meta–object utilities and directory searching—for example, create a 10K character string in one second, or reverse the order of 1000 stack items in two seconds.

Two browser engines provide a front end for your application program (they do the hard work yet leave the fun part for you). Includes editor for building menu–label graphics (for your custom menus).

Everything is clearly documented with examples in the Manual. Comes on disk for PC or Mac, so you'll need an HP Interface Cable to download these programs to your 48.

Stock #2283A (Toolkit, PC Pgms, 3½") $49.95
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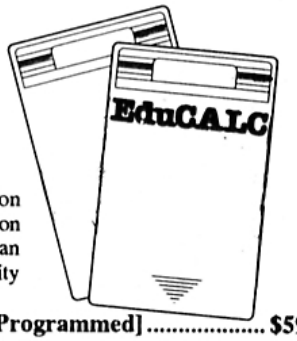
EduCALC



Let us make your own 48SX Application Cards for you—just send us your program on a RAM card, and we will duplicate it on an OTP card. Select stock # for quantity pricing. Prices per each card.

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Use the 82242A InfraRed Module to copy programs or data from an HP 41 to your HP 48, or type HP 41 programs or data into the HP 48 (keyboard overlay included).

Those programs will now run on your HP 48; you can even invoke 41 programs from 48 programs or 48 programs from 41 programs, or exchange data between these two environments.

Card does not support HP–IL, graphic printer or HP 41CX Extended or Time functions (although you will have some alternatives).

Stock #82210A [41/48 Emulator, card] List $100 ..... $79.95

HP 48SX Scientific Expandable

Programming Aids cont.

HP 48 Programmer's Reference Manual

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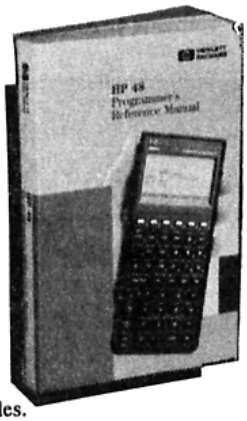

A "must have", for reference and for study

The Command Dictionary for every serious HP 48 user — summarizes each programmable operation, one page per function. Gives usage, syntax in a stack diagram, flags affected, related commands and helpful remarks.

Appendices contain Tables of Error and Status Messages, Units, System Flags, and Reserved Variables.

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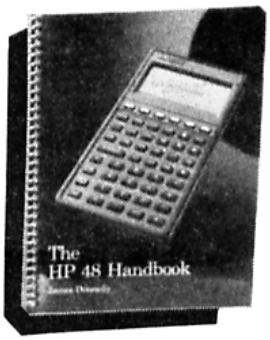
The HP 48 Handbook

The programmer's how-to and reference book

by James Donnelly



If you intend to make your 48 dance and sing, this is for you. It condenses the 1400 pages of Owner's and Programmer's Reference Manuals into 198 pages of concise, convenient tables, tips and facts. There's also a chapter on the Solve Equation Library — functions, commands, applications.

Covers objects/names/constants, memory organization, graphics, statistics, data transfer, menus, user keys, programming, system operations, printer control, units, message tables, character codes, flags, alpha keyboard.

Complete index of commands and functions, with a bonus (54 pages!) of stack diagrams for all commands and functions.

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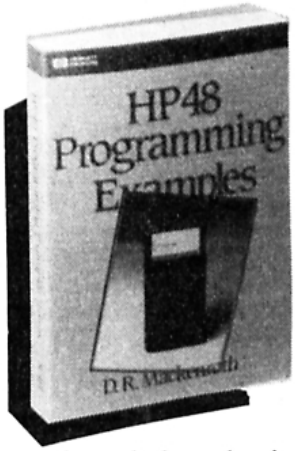
HP 48 Programming Examples

by D.R. Mackenroth



- requires no expertise
- fun programs—music, games, health
- detailed step-by-step procedures
- applications for calculus, statistics, business
- hints, tips and in-depth explanations
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150 usable example programs with enough details so anyone with an HP 48 can easily understand them. Complete program listings and comprehensive discussions so experienced programmers can readily modify programs.

Written by a former HP Learning Products Engineer who has authored numerous owner's and service manuals for HP calculators.

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by William Wickes

Shows you how the HP 41 evolved logically into the HP 48 and how many of the 48's actions are natural extensions and enhancements of familiar 41 operations—**so you'll see just how to adapt your HP 41 procedures and methods to the HP 48SX,** including stack manipulations, storing and retrieving data, programming, and program conversions.

Dr. Wickes is the author of two other widely-used standard works, *HP 28 Insights* and *Synthetic Programming on the HP 41C.*

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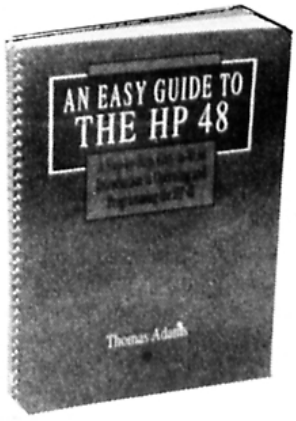
Bookware

An Easy Guide to the HP 48

by Thomas Adams

Brand New



For non-mathematicians, not-statisticians, non-computer scientists — here's the help that will get you through those first difficult hours after you open the box—and into a comfortable competence.

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Learning about the HP 48 a 100 minute Official VIDEO GUIDE

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Bookware continued

Mastering Your HP 48:
Vol. 2: Programming & Applications

by Jean-Michel Ferrard

Translated from the best-selling French book of ready-to-run math programs (Vol. 1 has not been translated). There's a lot here—if you key them all in they take up 42K. Each program is given with details and diagrams plus an example with run time. The style is easy to copy and to understand.

Program Directories useful to everyone include Arithmetic, Real or Complex Numbers, Polynomials, Fractions, Finite Series and Matrices. Businessmen and students preparing for exams will find Probabilities and Statistics Directories essential. Analysis Techniques and Differential Geometry will be useful in preparing for engineering school exams. Other programs cover Geometry, Graphs, Large Integers and Databases.

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Using MS-DOS Kermit, 2nd edn

by Christine Gianone

How to connect your HP 48 to the World, step-by-step

Say *hello* to Compuserve, Dow Jones, MCI Mail, BBS, DIALOG, Telenet, TYMNET—***hello* to your desk PC, to your corporate mainframe.**

"Now MS-DOS Kermit has the book it deserves . . . for the average PC user—a person who doesn't care how Kermit works, but who simply needs results...Useful examples appear on nearly every page, so you can build your confidence and skill . . . Once the material is mastered, the book remains a thoughtfully organized and valuable reference . . . the tables alone are worth the price of the book." Frank da Cruz, *Columbia University*.

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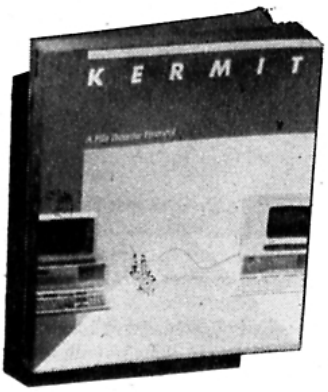
Did you know that Kermit, in addition to naming a TV frog, is the Celtic word for "free" (which this program is)?

Kermit

by Frank da Cruz



Learn about the file-transfer protocol that's built into your HP 48SX—here's the definitive book, written by one of the original codesigners, published by DEC, with a Forward by Donald Knuth.

Covers everything from History of Kermit and an explanation of what a file transfer protocol does, plus detailed instructions for its use, to an informal description of the protocol itself (in C). Case studies guide you in coping with your own computer and data.

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Introduction to RPL

by Namir Shammas

The HP48SX Data Types

11	Overview
11	Name That Type
11	Real Numbers
12	Complex Numbers
14	Strings
15	Real Arrays
18	Complex Arrays
19	Lists
20	Global and Local Names
21	Program Objects
21	Algebraic Objects
21	Binary Integers
23	Graphic Objects
23	Unit Objects
24	Tagged Objects
25	Directory Objects
25	Other Objects

Is this an *introduction*? When Chapter 9 shows you how to turn your HP 48 into a pocket database that stores phone numbers and addresses?

Yes, but with a difference—this is by the Shammas who writes all those books that teach computer languages, BASIC and Pascal and C. He assumes you're familiar with either the HP 41C or BASIC, and he skillfully assists you in becoming comfortable programming in RPL.

Contains abundant examples of programs, plus tips, tricks, hints, etc., just where you need them.

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on Hewlett-Packard's 28 and 48

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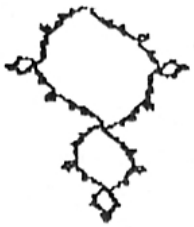

Make math come alive with Julia sets and von Koch snowflakes on your HP 28 or 48! Everything you'll need is here, right up to suggestions for undergraduate research projects.

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by Lynn Garner

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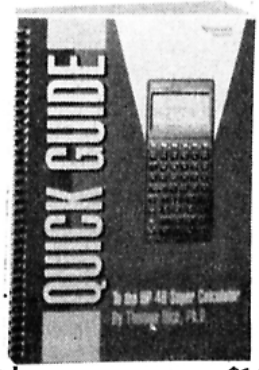
by Thomas Dick



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HP 48SX Scientific Expandable

Bookware continued

An Easy Course in Using the HP 48SX

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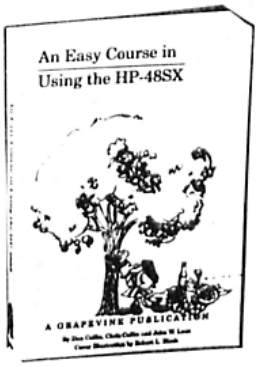

Your *fast, easy* way to get up-to-speed on the 48!

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- Algebraic Objects
- Units
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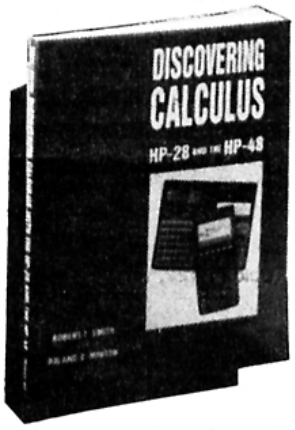
by Smith/Minton



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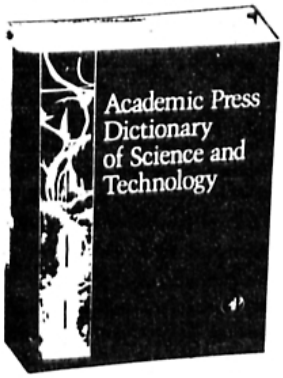

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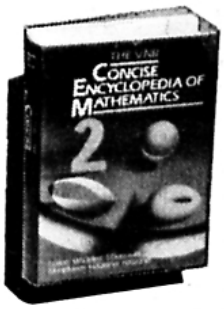

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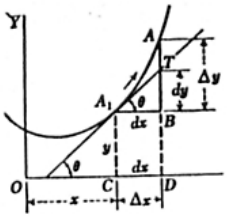

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TCI

$$iB_r\left[\bar{a}^n_{kl}\right] \equiv \frac{1}{2}(h_{n-1}+h_n)\int_0^R 2\pi r\, dr\left[\rho^{n*}_k(r)\right]\frac{d}{dr}\left[\Psi^n_l(r)\right],$$

$$\left[D^n_{r,kl}\right]^{-1} \equiv \int_0^R 2\pi r\, dr \int_{z_n-\frac{1}{2}h_{n-1}}^{z_n+\frac{1}{2}h_n}\left[\rho^{n*}_k(r)\right]\left[D^{-1}(r,z)\right]\left[\rho^n_l(r)\right],$$

$$\psi = -\frac{\kappa\varpi\varpi'}{4\pi}\int_0^{2\pi}\frac{\cos(\theta-\theta')d\theta}{\sqrt{\{(x-x')^2+\varpi^2+\varpi'^2-2\varpi\varpi'\cos(\theta-\theta')\}}}$$

Special (limited quantity at this price)

$$1/f(x) = \frac{1}{c_0}\left[\frac{1}{1+\left(\sum_1^{\infty}+\sum_{-\infty}^{-1}\right)\frac{c_n}{c_0}e^{inx}}\right]$$

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Math Software & Bookware

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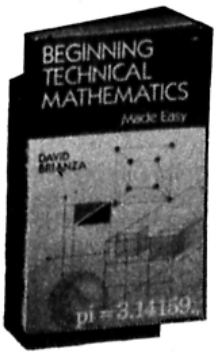

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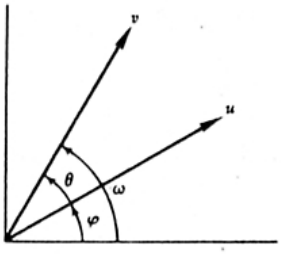

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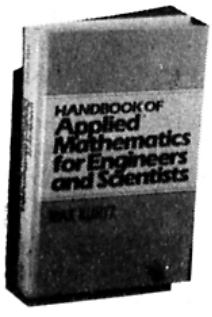

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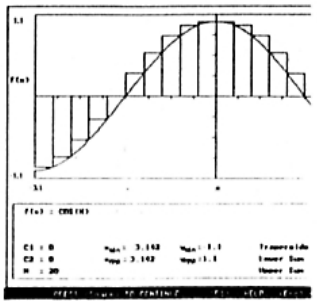
The Calculus Explorer

Academic Press



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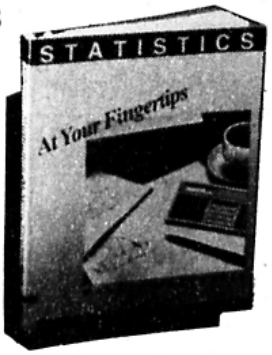

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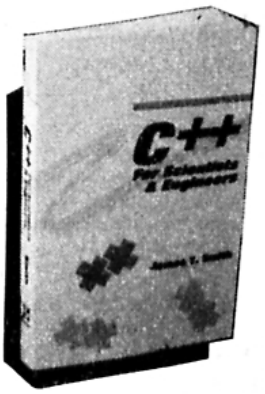

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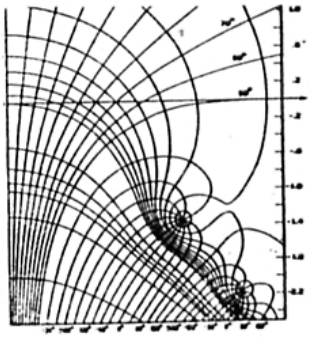

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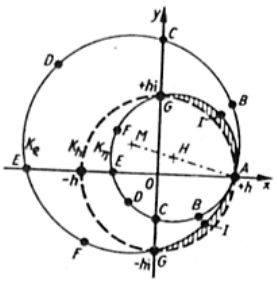

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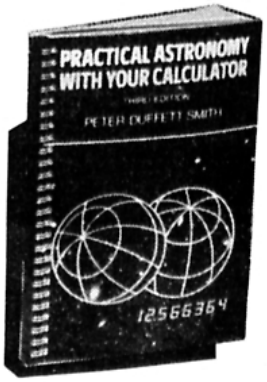

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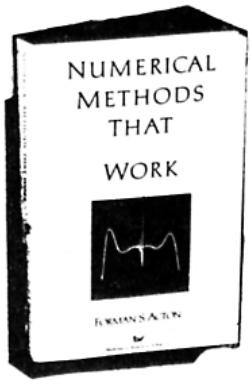

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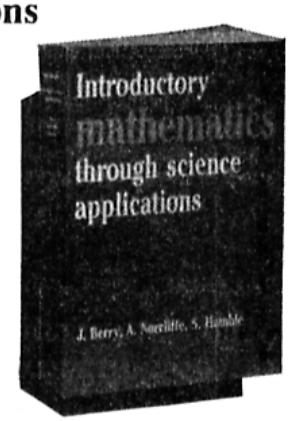

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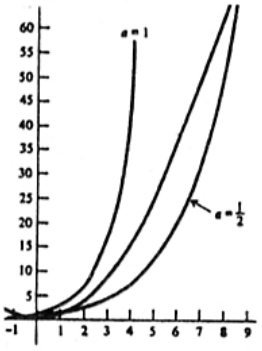

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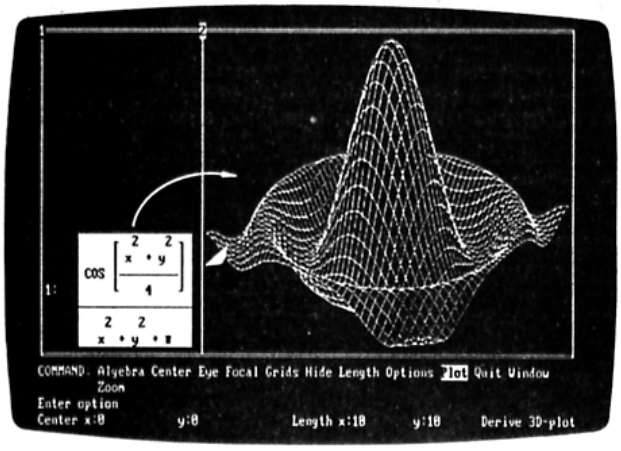

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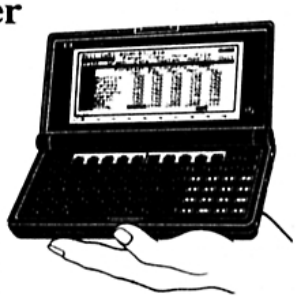

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Multi-color, 5 pen package				
#17743T	#17744T	#17843P	#17844P	Red-Violet
#17745T	#17746T	#17845P	#17846P	Bl/R/B/G/Y
#17747T	#17748T	#17847P	#17848P	Bl/B/A/G/Y
#17749T	#17750T	#17849P	#17850P	R/O/Br/Y/Rv

Media and pen compatibility

Use the guide below to select the right type of plotter pen for your application.

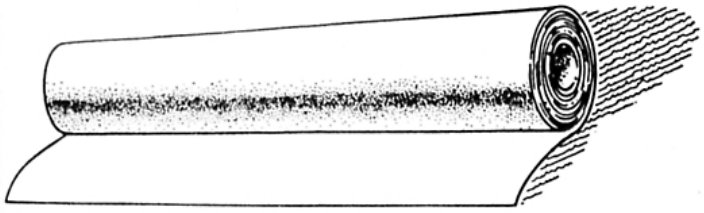
Media type	Fiber-tip pens: Paper	Fiber-tip pens: Transparency	Drafting pens: Refillable	Drafting pens: Disposable	Rollerball pens
Plotter paper	•			•	•
Transparency film		•			
Glossy paper	•	•			
Tracing bond					•
Vellum			•	•	
Polyester film			•	•	

Disposable Drafting Pens for vellum or paper

Find your size and color in chart below—you'll see 2 stock numbers in the corresponding box. The upper, 6-character stock number is correct for the newer SurePlot version; both pen versions come 4 to a package at the same price—please fill in your order blank like the sample here:

Stock #xxxx-xxxx [Drafting Pens, (size & color); 4 in pkg] List $22 .....$13.95

Color	0.25mm	fine .35mm	med .50mm	wide .7mm
Black	#17762V #5061-7619	#17763V #5061-7562	#17764V #5061-7620	#17765V #5061-7572
Blu/R/G/Blk	#17932V #5062-1557	#17933V #5061-7566	#17934V #5062-1571	#17935V #5061-7576
Or/Ye/Br/Vi	#17942V #5062-1558	#17943V #5062-1559	#17944V #5062-1572	#17945V #5062-1573
Single Color Packages of 4 available in 0.35mm only		Blue #17773V #5061-7563	Green #17783V #5061-7564	Red #17793V #5061-7565
Multi-width Package of 4, available in Black only		0.25/0.35/0.50/0.70		#17760V #5062-1556



Plotter Paper and Film — Glossy Paper: use with HP-7220, 7221, 7225, 7470, 7475, 7550, Color-Pro printers & with transparency pens

Stock **#17900G** [A-size, 8½" × 11"; 100 sheets] List $16 .....$13.45
Stock **#17902G** [B-size, 11" × 17"; 100 sheets] List $28 .....$22.95

Non-Glossy Paper: for all HP plotters; use paper pens.

Stock **#17800P** [A-size, 8½" × 11"; 50 sheets] List $5.50.....$4.50
Stock **#17801P** [A-size, 8½" × 11"; 250 sheets] List $13.....$9.95
Stock **#17803P** [A4 Metric size; 250 sheets] List $13.....$9.95
Stock **#17804P** [B-size, 11" × 17"; 50 sheets] List $10.....$7.95
Stock **#17805P** [B-size, 11" × 17"; 250 sheets] List $26.....$18.95

Transparency Film — A-size, 8½" × 11", 50 sheets, for plotter listed below

Stock **#17700T** [HP-7470, ColorPro Plotters] List $50 .....$33.95
Stock **#17702T** [7220, 7221, 7225, 7475, 7550, 9872] List $50 .....$33.95

Vellum, 100% rag with coated surface

Stock **#9280-0602** [B-size 11" × 17"; 150 sheets] List $30 .....$21.95

Polyester Film, 3-mil coated translucent media

Stock **#9280-0607** [B-size 11" × 17"; 50 sheets] List $32 .....$22.95

Disposable Drafting Pens for polyester film, 2 pens in pkg

Stock **#5062-1592** [0.25mm, Black] List $22 .....$15.95
Stock **#5062-1593** [0.35mm, Black] List $22 .....$15.95
Stock **#5062-1594** [0.5mm, Black] List $22 .....$15.95
Stock **#5062-1595** [0.7mm, Black] List $22 .....$15.95
Stock **#5061-7578** [Disposable-Pen Adapters & Caps, 4 in pkg] List $8.....$6.50

Rollerball Pens, 0.3mm (narrow), 4 pens in package

Stock **#5061-5033** [Rollerball Pens, Black, 0.3mm] List $14.....$9.95
Stock **#5061-5034** [Roller Pens, Red, 0.3mm] List $14.....$9.95
Stock **#5061-5035** [Roller Pens, Green, 0.3mm] List $14 .....$9.95
Stock **#5061-5036** [Roller Pens, Blue, 0.3mm] List $14 .....$9.95
Stock **#5061-5037** [Roller Pens, R/G/B/Bl, 0.3mm] List $14.....$9.95

Refillable Drafting Pens — long body, points

Stock **#9260-0579** [0.7mm] List $25.....$17.95
Stock **#9260-0588** [0.35mm] List $25.....$17.95
Stock **#9260-0741** [0.25mm] List $29.....$21.95
Stock **#9260-0742** [0.18mm] List $32.....$21.95
Stock **#9260-0743** [1.0mm] List $25.....$17.95
Stock **#9260-0744** [0.5mm] List $25.....$17.95
Stock **#07580-60025** [Pen, long body, adapter & cap] List $10.50 .....$7.95

Refillable Drafting Pens — short body, points

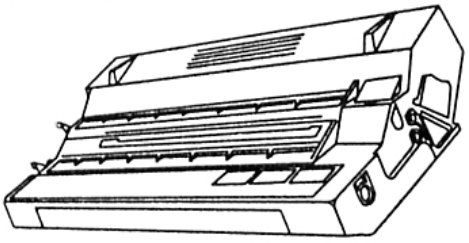
Stock **#9300-0956** [0.25mm] List $29.....$24.50
Stock **#9300-0957** [0.35mm] List $25.....$19.95
Stock **#9300-0958** [0.50mm] List $25.....$19.95
Stock **#9300-0959** [0.70mm] List $25.....$19.95
Stock **#5061-8119** [Drafting Pen, short body, adapter & cap] List $18.....$12.95

Pen Organizers, Acrylic — save desk space

Stock **#92177T** [Short Organizer, 30-60 pens] List $43.75 .....$28.50
Stock **#92177U** [Long Organizer, 30-60 pens] List $46.75 .....$29.95
Stock **#92177V** [Personal Organizer, 33 pens] List $34.75 .....$22.95

HP Calculator/Computer/Plotter Supplies

HEWLETT PACKARD



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LaserJet Toner Cartridges

Stock #92285A [LJ Ser. I Toner, black] List $125 ..... $91.95
Stock #92285G [LJ Ser. I Toner, brown] List $149 ..... $119.95
Stock #92295A [LJ Ser. II, III, IID & IIID Toner, black] List $125 ..... $91.95
Stock #92275A {LJ Ser. IIP Toner, black] List $95 ..... $69.95
Stock #92291A [LJ III Si Toner, black] List $169 ..... $124.95
Stock #92282A [LJ 2000 Toner, 1 kg] List $93 ..... $64.95

LaserJet Memory

Stock #33474B [1MB board; LJ IIP, III, IIIP/D] List $230 ..... $154.95
Stock #33475B [2MB board; LJ IIP, III, IIIP/D] List $390 ..... $289.95
Stock #C2063A [1MB SIMM, LJ IIISi] List $169 ..... $124.95
Stock #C2065A [4MB SIMM, LJ IIISi] List $499 ..... $333.95

LJ Scalable Typefaces—Disk Coll. & Indiv., 3½" & 5¼"

Stock #C2050A#D80 [Distinctive Documents I] List $159 ..... $109.95
Stock #C2050A#D82 [Brilliant Presentations I] List $159 ..... $109.95
Stock #C2050A#D84 [Decorative Words I] List $159 ..... $109.95
Stock #C2050A#D03 [Decorative I] List $99 ..... $67.95
Stock #C2050A#D05 [ITC Zapf Dingbats] List $99 ..... $67.95
Stock #C2050A#D06 [CG Century Schoolbook] List $99 ..... $67.95
Stock #C2050A#D08 [ITC Avant Garde Gothic] List $99 ..... $67.95

LaserJet Transparencies and Labels

Stock #92296T [LJ Transparencies, 50 each] List $25 ..... $19.95
Stock #92296A [LJ Labels 1" × 2-5/8", 3000 each] List $32 ..... $27.95
Stock #92296B [LJ Labels 1-1/3" × 4", 1400 each] List $32 ..... $27.95
Stock #92296C [LJ Labels 1" × 4", 2000 each] List $32 ..... $27.95
Stock #92296F [LJ Labels 1-1/2" × 1-3/4", 8000 each] List $32 ..... $27.95
Stock #92296J [LJ Labels 1-1/2" × 4", 1200 each] List $44 ..... $37.95

LaserJet Bitmapped Font Cartridges

Stock #92286T [LJ Font Cart; Tax 1] List $195 ..... $169.95
Stock #92286PC [LJ Font Cart; Pro Collection, 65 fonts] List $300 ..... $208.00
Stock #92286IC [LJ Font Cart; International Collection] List $325 ..... $225.00
Stock #C2053A#C01 [LJ Font Cart; Word Perfect] List $195 ..... $169.95
Stock #C2053A#C02 [LJ Font Cart; Microsoft] List $195 ..... $169.95
Stock #C2053A#C03 [LJ Font Cart; Polished Worksheets] List $195 ..... $169.95
Stock #C2053A#C04 [LJ Font Cart; Persuasive Presentations] List $195. $169.95
Stock #C2053A#C05 [LJ Font Cart; Forms, Etc.] List $195 ..... $169.95
Stock #C2053A#C06 [LJ Font Cart; Bar Codes & More] List $195 ..... $169.95
Stock #C2053A#C07 [LJ Font Cart; Text Eqns, Mth Symbls] List $195 .. $169.95
Stock #C2053A#C08 [LJ Font Cart; Global Text, Int'l Chrctrs] List $195 $169.95
Stock #C2053A#C09 [LJ Font Cart; Pretty Faces] List $195 ..... $169.95

LaserJet Soft Fonts

Stock #33412DC [Presentation/Letter Gothic, 5¼"] List $200 ..... $174.95
Stock #33412EA [Prestige Elite Family, 5¼"] List $200 ..... $124.95

In a hurrry? Use our UPS 2ND DAY AIR

Thermal Paper

Stock #82931A [Blue, box of 2; for HP 85] $39.95
Stock #82954A [Black, box of 3; for HP 85] $39.95

LaserJet Paper Trays and Feeders—U.S. Sizes

Stock #92285B [LJ I Letter Paper Tray, 100 sheets] List $59 ..... $40.50
Stock #92285C [LJ I Legal Paper Tray, 100 sheets] List $59 ..... $41.95
Stock #92295C [LJ II Legal Paper Tray, 200 sheets] List $79 ..... $52.95
Stock #92275B [LJ IIP Letter Paper Tray, 250 sheets] List $69 ..... $46.95
Stock #92275F [LJ IIP Envelope Feeder, 20 envelopes] List $89 ..... $59.95
Stock #92291B [LJ III Si Letter Paper Tray, 500 sheets] List $129 ..... $79.95
Stock #92291C [LJ III Si Legal Paper Tray, 200 sheets] List $129 ..... $79.95
Stock #92297B [LJ II,IID,III, IIID Letter Tray, 200 sheets] List $69 ..... $43.95
Stock #92297C [LJ II,IID,III, IIID Legal Tray, 200 sheets] List $79 ..... $43.95
Stock #92297F [LJ II,IID,III, IIID Env Tray, 15 envelopes] List $89 ..... $43.95
Stock #92211Z [LJ fax stand, all II, all III] List $94 ..... $62.95
Stock #33472A [LJ IIP, IIIP Lower Cassette, 250 sheets] List $195 ..... $137.95

PaintJet & PaintWriter Supplies

Stock #51606A [PJ Ink Cartridge, black] List $30 ..... $24.95
Stock #51606C [PJ Ink Cart., red/grn/blue] List $35 ..... $28.95
Stock #51630P [PJ Fanfold Paper, 250 sheets] $21 ..... $17.95
Stock #51630Q [PJ film w/sleeves, 50 sheets] $65 ..... $48.95
Stock #51630Y [PJ Cut Paper, 200 sheets] $21 ..... $17.95
Stock #51606B [PJ/PW XL Cyan Ink Cartridge] List $30 ..... $24.95
Stock #51606R [PJ/PW XL Magenta Ink Cartridge] List $30 ..... $24.95
Stock #51606Y [PJ/PW XL Yellow Ink Cartridge] List $30 ..... $24.95

ThinkJet Supplies

Stock #92261A [TJ Printhead Cartridge] List $11 ..... $8.95
Stock #51604A [TJ Printhead Cartridge, Plain Paper] List $11 ..... $8.95
Stock #51605B [TJ Printhead Cartridge, Blue] List $13 ..... $9.95
Stock #51605G [TJ Printhead Cartridge, Green] List $13 ..... $9.95
Stock #51605R [TJ Printhead Cartridge, Red] List $13 ..... $9.95
Stock #92261N [TJ Paper, 2500 sheets] List $75 ..... $65.00
Stock #51630A [Jetpaper, Z-fold, 500 sheets] List $22 ..... $17.95
Stock #51630D [Jetpaper, Wide Z-fold, 2500 sheets] List $90 ..... $64.95
Stock #92250V [TJ Dust Cover] List $19 ..... $13.95

DeskJet, DJ PLUS, DJ500 & DeskWriter Supplies

Stock #51608A [DJ Ink Cartridge, black] List $20 ..... $16.95
Stock #51626A [DJ Ink Cartirdge, high top] List $32 ..... $28.95
Stock #51625A [DJ Tri Color Ink Cartridge] List $35 ..... $31.95
Stock #22706B [DJ Prestige Elite Font] List $79 ..... $59.95
Stock #22706C [DJ Letter Gothic] List $75 ..... $59.95
Stock #22706M [DJ Presentations (ASCII) Font Card] List $79 ..... $59.50
Stock #22706R [DJ Times Rom Font Cart] List $89 ..... $66.50
Stock #22706T [DJ Helvetica Font Cart] List $89 ..... $66.50
Stock #22706W [DJ WordPerfect Carts (2)] List $140 ..... $99.95
Stock #22707B [DJ 256K RAM Cartridge] List $175 ..... $129.95
Stock #22707F [DJ PLUS/500 Epson Emulation Cart] List $79 ..... $59.95
Stock #22707L [DJ Landscape Letter Gothic Font Cart] List $79 ..... $59.95
Stock #22708C [DJ Times Rom ASCII] List $79 ..... $59.95
Stock #22709A [DW Soft Font Collection] List $195 ..... $139.95
Stock #C2109B [DJ 500 Global Text Font Cart] List $79 ..... $59.95
Stock #C2109C [DJ 500 Garamond Text Font Cart] List $79 ..... $59.95

Impact Printer Supplies—inc. Rugged Writer 2235A/B/C/D

Stock #92154B [Print Head for 293X Printer] List $175 ..... $108.00
Stock #92156S [RW Ribbon, 3 in box] List $41 ..... $32.95
Stock #12235A [RW Font Cartridge] List $150 ..... $106.00
(Fonts are Prestige Elite, Letter Gothic, TMS Roman PS. Helv. 10 & 16K RAM)

Printer Ribbons (black, for printers listed below)

Stock #92155A [for 2631A/B, 2635A/B, 2639A; box of 3] List $56 ..... $43.95
Stock #92155B [for 2631G; box of 3] List $57 ..... $47.50
Stock #92155L [for 2932/33/34A; box of 3] List $66 ..... $51.95
Stock #92156A [for 82905A/B, 82906A; box of 2] List $15 ..... $10.50
Stock #92162A [for 2608A/S; box of 3] List $69 ..... $49.50
Stock #92162M [for 2562C; box of 3] List $70 ..... $42.50

A Big Hurry? UPS OVERNITE AIR!

HP Plain Paper Fax Machines

HEWLETT PACKARD

Why didn't you get one in the first place?

Are you tired of curly, greasy faxes now?

What if you could get a plain-paper fax machine for $999?

I mean real HP quality, with rock-solid specs plus goodies like auto-feeding.

These new Hewlett-Packard machines use the unique HP inkjet printing system, the same technology as in the DeskJet and DeskWriter printers—so your faxes are dark, crisp and readable, and so your machine is extraordinarily reliable. So reliable, in fact, that it carries a 1-year warranty, something you'll be hard-pressed to find in other fax products (that's the kind of protection you deserve—the kind you expect from HP).

There are two models, the power-user's top-of-the-line HP FAX-310 and the beauty-on-a-budget HP FAX-200. They both have a 1-year warranty with overnight exchange, can share a line with telephone and answering machine and receive with a 12-page out-of-paper memory (28 pages expandable for the 310).

They both broadcast sequentially to 50 locations (100 for the 310), auto-dial and redial and delayed-dial and speed-dial, plus they have one-touch dial keys.

Both models feature automatic document reduction, copier function, and 20-page automatic document feeding.

They both have 32 levels of greyscale, accept letter or legal or A4 paper, require 120 V AC-60 Hz power, measure 20 × 15 × 9 inches, transmit at 12 sec/page, at 9600/7200/4800/2400 bps with auto-fallback.

The two big differences in these models are memory and transmission resolution. The 200 has 256K standard memory, while the 310 has 512K and is expandable. Both can transmit at standard and at fine, 200 dpi resolutions, and both receive full 300 dpi images as well. But the FAX-310 can also transmit at 300 dpi, so the world can play catch-up to your technology for a while.

Do you want fuzzy, floppy, fading faxes? Or faxes you can actually read, write on and work with? Here's your solution—at this breakthrough price you can't afford not to have one.

Stock #C2135A [HP FAX-200] List $1500.....$999
Stock #C2136A [HP FAX-310] List $2000.....$1399

Why plain-paper faxes?

- ✔ **plain paper *lies flat***—no curls, no tubes
- ✔ **plain paper *loads easily***—just drop a hundred sheets of paper into the front tray; no threading of rolls
- ✔ **plain paper is *permanent***—printed with water-resistant ink that doesn't break down and fade
- ✔ **plain paper is *signature ready***—document quality, for contracts, orders, reports
- ✔ **plain paper is *writeable***—you can make notes or highlights on it; pens and pencils don't slide around on it and colors don't change as you write
- ✔ **plain paper is *readable***—black text and graphics pop off of bright white paper, so you won't have to squint, angle the paper just right or call the sender to read you the fax
- ✔ **plain paper is *colorful***—you can use blue, buff, etc., stock paper to color code your faxes.

Can this machine pay for itself?

Sure. The cost of plain-paper faxes is about 4 cents a page, for both paper and ink cartridge. Thermal paper costs you maybe 7 cents a page, for a 3 cent difference. Furthermore, many offices routinely put thermal faxes through the copier before they are delivered to their addressee or to a file.

Let's suppose you receive 100 faxes a day (the numbers seem to increase steadily) and that you copy half of them. Then you will save $3 on thermal paper plus another $2 for not copying 50 pages at 4 cents. That's $5 every day, and there are 250 business days in a year. This projects to $1250 savings, just during your 1-year warranty. That's enough to pay for your HP fax machine right there—you'll show a profit every future year, and the convenience and the good looks will be free!

FREE!

HP 95 MUG

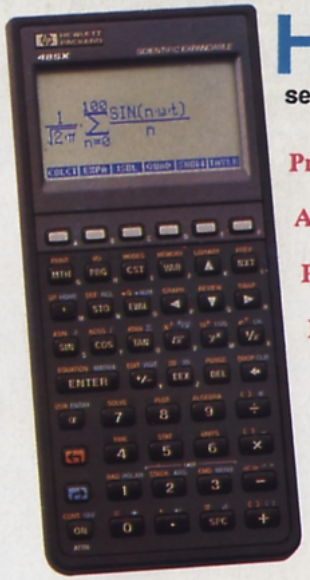
Free! The perfect accessory for your HP 95—think of it as the coffee-slot! Elegant gold on black; microwaveable. And it's free when you order any two items from our HP 95 section (pages 10 to 26).

Add the following line to your order.

Stock #2837 [95 Mug] .....Free

Want a spare or one for a friend?

Stock #2838 [95 Mug] $6.95



HP 48

see pages 48 – 61

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Optional 2nd day UPS AIR Shipment—to 48 states for only $6.75 additional.

UPS NEXT DAY AIR 2ND DAY AIR.

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_____Signature

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Address of cardholder if not same as above

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Optional Shipping	
Credit	CR
Total Enclosed	

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