EduCALC

Catalog #72

HP 200LX
Palmtop PC

NEW!
6 MB RAM
CONVERSION

Palmtop PC - 2MB RAM

HEWLETT PACKARD 200LX

see page 12

MOTOROLA

MOTOROLA
envoy

see
page 9

2-WAY
COMMUNICATION
BUILT-IN

envoy
WIRELESS COMMUNICATOR

ARDIS

pilot

AT LAST,
the Organizer
with an Automatic Link to your PC

see page 6

CELEBRATING
20 YEARS
1976   1996
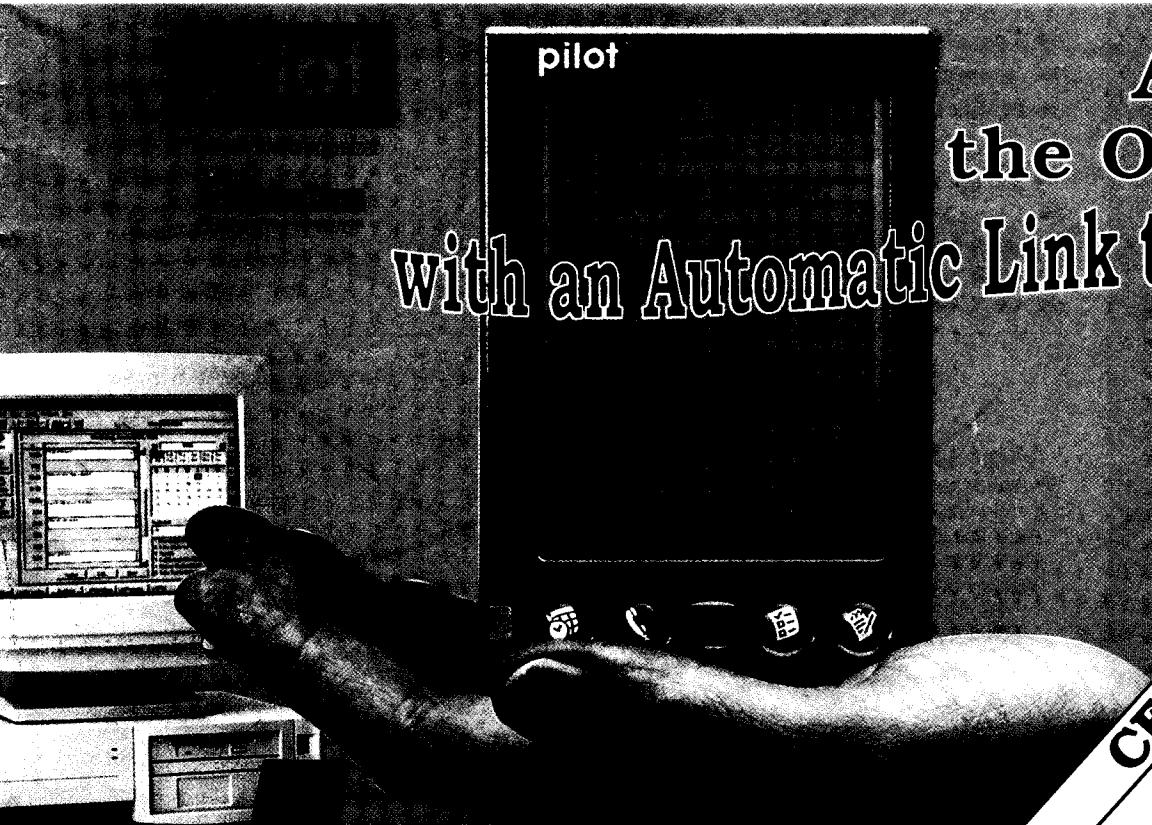
Do you require the finest notebook PC?

➥ Powerful Pentium processor
➥ blazing 133, 120, or 100MHz
➥ huge, 2, 1.35 or .810GB hard drive
➥ 16 or 8MB RAM (add up to 64MB)

➥ Soundblaster 2-speaker multimedia
➥ up to 12.1" TFT or DSTN display
➥ up to 3-yr warranty

HEWLETT PACKARD

Stock #F1320A [5/133, 2GB/16MB, 12.1" TFT]..............................$6099
Stock #F1321A [5/133, 1.35GB/16MB, 12.1" TFT]........................$5629
Stock #F1322A [5/120, 1.35GB/16MB, 12.1" TFT]........................$5419
Stock #F1324A [5/120, 1.35GB/16MB, 10.4" TFT]........................$4529
Stock #F1325A [5/120, 1.35GB/16MB, 11.3" DSTN].....................$4299
Stock #F1326A [5/100, 1.35GB/16MB, 11.3" DSTN].....................$3879
Stock #F1329A [5/100, 810MB/8MB, 11.3" DSTN].......................$3099

See page 27 for complete specs and accesories.

HP OmniBook 5500 $3099

OmniBook 5500 notebook pc

Calculators, Palmtops & Laptops

Hewlett-Packard
HP 10B	32
HP 12C	33
HP 17BII	35
HP 19BII	37
HP 20S	43
HP 22S	43
HP 32SII	43
HP 38G	39
HP 48G/GX	45
HP 200LX	12
HP 1000CX	14
HP OmniBk 5500	27
HP OmniGo	10
HP O/H Display	38
Outdated HP Calcs	62
Used HP Calcs	62

Texas Instruments
TI OH Display Calcs	38
TI School Calculators	38
TI-30X/30XaSE	43
TI-80	41
TI-81 Graphic Calc	41
TI-82 Graphic Calc	41
TI-83 Graphic Calc	41
TI-85 Graphic Calc	41
TI-81/82/85 View Screen	38
TI-92 Graphic Calc	40
CBL	41

Apple
Newton MessagePad 130	8

Calculated Industries
Construction Master IV	5
Construction Master III Trig+	5
Digital SCALE Measure	5
RE MAster IIx	5

Digitool Inch-Mate +
	5

Instant Tech PTV-30
	26

Motorola Envoy
	9

Psion Series 3a
	9

Seiko
Spell Check Calc	5
Wordfinder Calc	5
Span-Eng Calc	5

Sharp
Zaurus 5000 & 5000FX	7
Zaurus ZR-5700	6
Zaurus ZR5800/ZR5800FX	6

U.S. Robotics
Pilot 1000/5000	6

Univex Business Memo
	4

Printer • Fax Copier • Scanner

HEWLETT PACKARD

HP OfficeJet $599

➥ 3 ppm, 600 x 300 dpi
➥ automated plain paper fax
➥ PC-fax send and receive
➥ 300 dpi copier, reduces to 70%
➥ 300 dpi scanner (OCR with Model 350)
➥ 1 year Express Exchange warranty

Stock #C4661A [HP OfficeJet 330].............................$599
Stock #C4663A [HP OfficeJet 330].............................CALL
Stock #C4661A [HP Support Pak]...............................$135
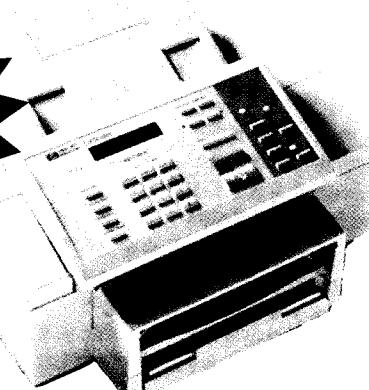
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We're located right here in Orange County, California, near the intersection of Interstate 5 and Crown Valley Parkway (across the freeway from Mission Viejo Mall).

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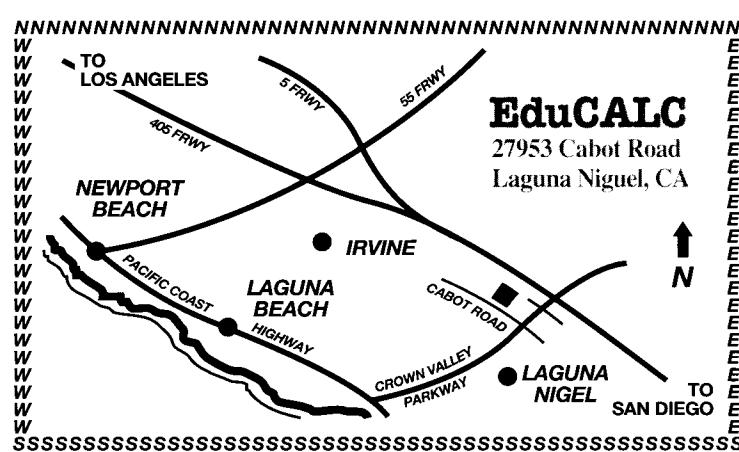
EduCALC
27953 Cabot Road
Laguna Niguel, CA

TO LOS ANGELES — 405 FRWY — 5 FRWY — 55 FRWY
NEWPORT BEACH
IRVINE
PACIFIC COAST HIGHWAY
LAGUNA BEACH
CABOT ROAD
CROWN VALLEY PARKWAY
LAGUNA NIGEL
TO SAN DIEGO
N

Jim

Lachelle

Brent
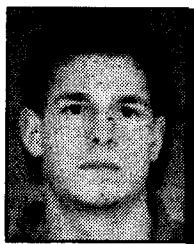
Ryan

Karie
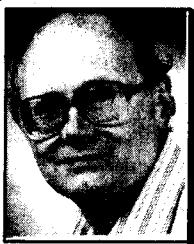
Richard

Tammy

Beckie
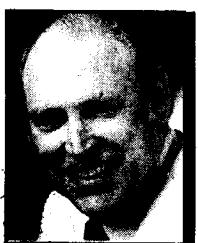
Jim

Beth

Marta

Kaycee, EduCALC's Official Greeter

Here's who you'll talk to at EduCALC

EduCALC
27593 Cabot Road
Laguna Niguel, CA 92677

Summer, '96

Dear Reader,

You get an **iffy** letter this time—
If you like to shop on-line, drop in and visit our WEB site—you'll get the latest low prices and up-dated product news, plus Information Request and Order forms. This will be fun—we're at http://www.educalc.com.
If you aren't yet satisfied with an organizer or PDA, your search ends now, with the new Pilot, pictured on our front cover. It's by far the easiest to use, tiny, and the price is right. It comes with a docking cradle, so you drop it into its slot like a floppy disk and press a button to instantly synchronize it with your desktop PC. The Pilot weighs less than 6 ounces and fits into *any* pocket or purse. And, loaded with PIM software, it costs only $299.
If you want to keep in the loop even when you're on the run, use the ENVOY wireless communicator (picture on cover). Motorola pioneered such technology years ago, building a unit for IBM so technicians could get instant facts and help while repairing mainframes. This new sophisticated version for the busy executive is loaded with PIM and communications software. Now you can respond to your email while you're in line at the deli!
If you delight in using your HP 200LX but you need more memory for your work, be sure to check out our new upgrading service—we can add a whopping 4 megs of RAM for you, yet leave your card slot open. See page 15.

Sincerely,

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.

table of contents

Prices Effective July 15, 1996

Are you a math buff? (or do you have one in your family?)

Get set for many hours of brain fun with one, two or three of these profusely illustrated new books from Cambridge University Press

New
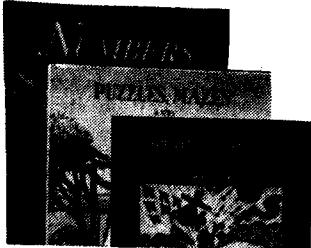
Puzzles, Mazes and Numbers
by Snape/Scott

From ancient Babylonian riddles to the Rubik cube —explore the math mansion, investigate the Chinese Triangle, crack the secret-message code, design a maze . . .

Anyone from age 10 upwards can enjoy this; many of the drawings and cartoons are in color. 128p hardbound.
Stock #3405, Puzzles, Mazes & Numbers . $19.95

Numbers
facts, figures and fictions
by Richard Phillips

Ever wonder how 7-up got its name? How many Christmas presents, in the song, were sent in all 12 days? Did you know that 96 is the seventh number that stays the same when written upside down?
Facts, problems and anecdotes about each and every lovable number from 1 to 156, plus brief comments from 157 to 999 and more. Browse, study or devour compulsively—abundant pictures and drawings, all in color. 96p hardbound.
Stock # 3406, Numbers $19.95

A Mathematical Jamboree
by Brian Bolt

114 puzzles and activities to challenge all ages—plus commentary, solutions and explanations, together with the occasional follow-up problem.
This is the author's fifth puzzle book, sure to be another smash hit. No prerequisites. 111p softbound.
Stock #3407, Math Jamboree...................... $17.95

Conquering Mathematics from Arithmetic to Calculus
by Motz/Weaver

"a feast for the intellect" —*Publishers Weekly*
"a must for those who want to find what Mathematics is about"—*Marcelo Alonso (Professor, Florida Inst. of Technology)*
"allows us to arrive painlessly at Higher Math"—*Hugh Downs (Host of ABC's 20/20)*
After two wonderful books explaining physics, Motz and Weaver return to demystify math. Straightforward and accessible, they lead even fearful readers through the fundamentals of practical arithmetic—even to transfinite and imaginary numbers.
Always practical, they explain the derivative with Newtonian physics, algebra with continued fractions. 305p, hardbound.
Stock #2543, Conquering Math $23.50
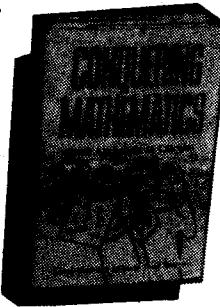
Fuzzy Thinking
by Bart Kosko

Find out how this revolutionary new way of thinking is designing smart air conditioners, washing machines and cameras that serve us better.
It's easy now, with this popular new anti-science book. Professor Kosko of USC has degrees in philosophy, economics, mathematics and electrical engineering. With his diagrams, not equations, and with quotes from Einstein to Buddha, Aristotole to Freud, you'll broaden your science, your philosophy, your horizons, and maybe your job skills. 318p, softbound.
Stock #3234, Fuzzy Thinking $11.95

Design Paradigms
by Henry Petroski

■ practicing engineers
■ engineering students
These case histories of error and judgment in engineering are some of the greatest engineering successes and failures of all time.
Find out how Galileo's good idea for supporting a marble column went wrong—how John Roebling learned from others' errors so he could design his masterpiece, the Brooklyn Bridge.
Jargon and equations are all but eliminated in this book, so it's accessible to everyone who wants to learn about the process of design. 209p, softbound.
Stock #3269, Design Paradigms $17.95

A Guide to HP Handheld Calculators and Computers 2ⁿᵈ edition
by Wlodek Mier-Jedrzejowicz

Is this a history book or a collector's catalog?
Yes. For example, the index will tell you to look for 'turnip' on page 23, where you'll find that this was the code name given to the HP-22 during its development—this business calculator was introduced on August 1, 1975, but upstaged by the HP 27 only 5 months later. 'Collectors pay about $100 for it because of its relative rarity.'
Most people don't care much for such information, but if you are one who does, *Boy, Oh, Boy, is this your book!* It covers 70 products, from the HP-35 (Feb, '72) to the HP 38G (Apr, '95), in 66 dense pages of delicious details plus 14 fine color photos.
Stock #3358, HP Handhelds, 100+p sftbnd . $19.95

Dead Reckoning
calculating without instruments
by Ronald Doerfler

If you appreciate numbers and their interrelationships, you can get much personal satisfaction and recreation from the ability to perform mental calculations.
Working in an engineering lab, the author needed the value of sin 28° to check a test result. Soon after, he required an estimate of the square root of 39. This book is the result of his interest. It shows you useful methods for rapidly and mentally finding products, quotients, roots, trig values and log and exponential values—all to 3 digits and more if desired. 182p, softbound.
"Even if you have no interest in competing with computers you'll learn a great deal about number theory and the art of efficient computer programming"— *Martin Gardner*
Stock #3243, Dead Reckoning $17.95

Business Memo

Univex

ever forget
an appointment?
an important
phone number?
a good idea?

Your reliable memory aid—stores up to 400 messages in a whopping 1 MB memory. 12 minutes of run time
Easily fits in your pocket. Has well-labeled intuitive keyboard that you can use with one hand, even while driving. You scan all your notes quickly to find or hear or delete any message.
Capture your best ideas, on the run!
**Stock #3381 [Business Memo] $89.95**
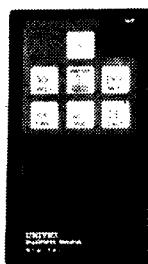
How do you check a calculator's IQ?

Are these "Smarter than the Average Calculator?"

SEIKO
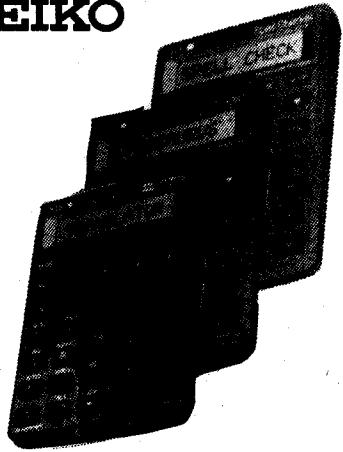
All 3 models include a 12-digit calculator with memory, 26 metric conversions, currency conversions, plus *AutoPrompt* to make Metric, Margin, Mark-up and Discount calculations easy.

All 3 have big keys, folding kick stand and angled display for desktop use, yet are a portable 5.75 × 4.5", manual in English & Spanish plus jiffy instructions glued on back; 1-yr warranty and toll-free number for assistance.

Spell Checker model corrects 80,000 words; great for crossword puzzles and other word games.

Wordfinder Thesaurus model spell-checks 95,000 words, finds 660,000 synonyms and defines 55,000 words.

Berlitz Spanish-English model gives 40,000 translations, showing all accent marks, parts of speech and gender.

Stock #SC1150 [Spell-Ck Calc] $19.95
Stock #SC1650 [Wordfinder Calc] $29.95
Stock #SC2250 [Span-Eng Calc] $28.95

INCH MATE+
The affordable Foot/ Inch/ Fraction +Triangle Calculator

Digitool

Indispensable if you use a tape-measure! Instant and accurate.

+, -, ´, :, square or square root, in Ft/In/Fraction to 1/16", or Decimal Feet or meters—convert back and forth! Finds diagonal, run, slope, 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+ [Calc] List $50 .... $39.95

Construction Master IV
feet-inch pocket calculator with BIG keys, BIG display

Calculated Industries®

Figures with fractions! Just punch in dimensions — including fractions — and get accurate results immediately.

Accurate! You solve building problems directly in feet, inches and fractions up to 1/64". Enter dimensions right off the tape—or off plans, diagrams and prints.

Save valuable time. Solve complicated calculations such as rise, run, slope, and pitch problems in seconds! Built-in program solves right angle problems with 100% accuracy.

Get lengths instantly for custom stairs and rafters (common, hip and valley, jack).

Eliminate costly errors caused by inaccurate decimal conversions. Instantly converts between all dimension formats: feet-inch-fraction, decimal, yards, and meters—and determines square and cubic dimensions.

Make fast, accurate lumber estimates in board feet and dollars—for single boards, multiple pieces or the entire project. Wallet included.

Stock #CMIV [Calc] List $80 .... $66.95

Construction Master III *Trig Plus*
Most of the functions of CMIV plus full trig functions, including precise angles down to minutes and seconds. List $100.

Stock #CMIIITP [CMIII Trig Plus] $78.95

Scale Master II

CALCULATED INDUSTRIES INC.
"We Put Answers at Your Fingertips."

digital plan measure for architects and engineers, construction pros and estimators

- **built-in scales**—50 feet-inch and 41 metric
- **91 user-definable custom scales**—perfect for scaling plans that have been reduced, enlarged or faxed
- **exclusive new Auto Count feature**—automatically counts and totals any spacing-based items (studs, piers, outlets, etc.) while you roll
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- **works in more dimensional units**—select decimal feet, feet-inches, dec. inches, yards, miles, nautical miles, acres (sq. only), millimeters, meters, kilometers (including square and cubic formats)
- **exclusive METRIC mode switch**

Comes with User's Guide, lithium batteries, Auto Shut-Off, Case; 1-yr warranty.

Stock #CISMII [Scale Master II] $99.95

the all-new Real Estate Master IIx

CALCULATED INDUSTRIES INC.
"We Put Answers at Your Fingertips."

the world's easiest-to-use calculator for residential real estate professionals and the price is low, low!

New
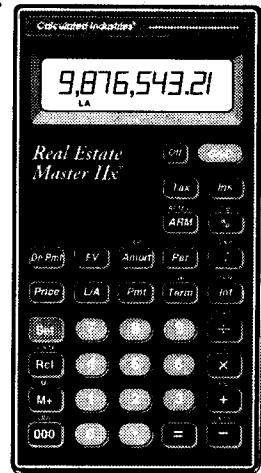
☞ **solutions for every day financing problems**— payments • terms • interest rates • balloon payments • remaining balances • APR and total finance charges • PITI • appreciation and depreciation • biweekly loans • future values • and more!

☞ **Automatic Sales Price and Down Payment Keys**—you play 'what-if' with price, down and loan-amount financing options to close your deals.

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- **new!** 'rent or buy' solutions
- **new!** simplify complex ARMs with lifetime 'Cap'
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- **new!** time-related features, triple-zero key

Works as regular calculator, auto shut-off, User's Guide, vinyl case, lithium battery; full 1-year warranty.

Stock #3376 [RE Master IIx] List $40........ $34.95

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EduCALC

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http://www.educalc.com

pilot

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The one touch organizer

Brand New

At last—the tiny organizer you Hot-Sync with your PC—then pop in your shirt pocket or purse.

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- ToDos—sort by priority or due date,

- Notes—jot on the road, then drag and drop into programs on your computer.

    Calculator and Find, too, at a touch.

4.7 X 3.2 X 0.7 inches, and only 5.7 ounces! Pilot 1000 holds over 1000 records, Pilot 5000 over 5000; 8 to 12 weeks on 2 AAA batteries, included.
   Comes complete with PC organizer software, docking cradle with cable and adapter, stylus, carry pouch, User's Guides and Quick Start Card; 1 yr warranty.
Stock #P1000 [Pilot 1000 Organizer] $299
Stock #P5000 [Pilot 5000 Organizer] $399
Stock #3117 [1MB memory upgrade, Pilot 1000]..........................$159

Brand New

pilot

The pocket-size organizer that's always in touch with your PC.

Zaurus ZR-5700

SHARP.

keyboard enhanced PDA
with new built-in Spreadsheet and
Communications Applications

New

- Excel-compatible Spreadsheet application
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- AT&T Mail—send/receive Email while away from your PC
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  CE-FM4 Fax/Modem or PC card required for communications applications, plus
  PC pager card and pager service for pages.)
Stock #ZR5700 [Zaurus] List $599 ...., $549
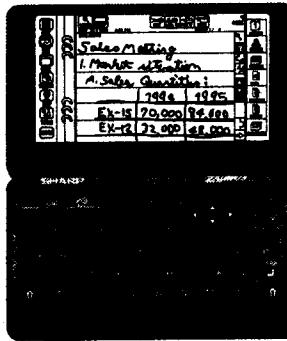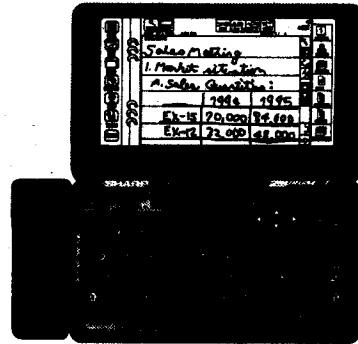
# Zaurus ZR-5800/ZR5800FX

keyboard enhanced PDA with new
Backlight Illuminated Display
and 2 MB Memory (1.6 MB user area)

New

- Plus all the powerful features of the ZR-5700. Dimensions:
6.7" X 3.9" X .9". Weight: 14 oz.
Stock #ZR5800 [Zaurus] List $699 .... $649
Stock #ZR5800FX [Zaurus + Fax/Modem] List $799 .... $729

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KEYBOARD enhanced PERSONAL DIGITAL ASSISTANT (K-PDA)

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A new DFSTN LCD
320 × 240 dot display
(up to approximately
65 chars. by 20 lines).

Extra Tools:
On screen folders,
clocks, calculator,
help, and more.

1 MB Memory:
(750K user storage)
programs:

Fast 16 bit CPU:
New CPU provides
instant access to your
information

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Modem option:**
Ultra-compact CE-FM4
9600 bps/2400bps
Fax/Modem option
attaches directly to
the side of the Zaurus.

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Large and wide
spaced keyboard
allows for easy
text entry

Productivity Software:
A complete suite of highly
integrated personal produc-
tivity applications. Includes
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new Word Processor with
spell checker, graphics sup-
port, auto letter generator
& more. New linking feature
relates information to Con-
tacts or DataFiles.

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Now multiple programs can
be loaded to the internal
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Just touch an icon to launch
an add-on program

PCMCIA Type II Slot:
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slot provides the ability to
add on I/O devices like
PCMCIA Fax/Modems,
Pager cards, FLASH
memory, and more. Even
share these peripherals with
a Notebook PC. Drivers for
many popular cards are built
into the Zaurus. See Palmtop
section for SRAM and Flash

Serial Port (15 pin):
PC-Link, Fax/Modem

Infrared beaming:
Connect to a PC, Macintosh®, PC Printer, or
even another Zaurus without wires/cables.

ZR-5000

PC and Macintosh transfer utility software
included in purchase price (coupon included
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Built-in Messaging software:
Allows small work groups (in conjunction with optional Sharp PC
mail software) to exchange messages using a PC as an electronic
post office. Includes remoter access of messages and PC files.
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*You'll have the best of both worlds—sure-touch keyboard in-
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You'll have multi-window applications so you view your notes
and use the word processor at the same time, to type reports fast
and easy.

Your letter generator will automatically format for you, insert
your client's header, even add your signature. Then you can Fax,
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'airphone'.

You get a *full-function calendar* with To-Dos and Alarms, *3
Contact Files* and *3 Data Files* (all linkable, all with graphic
field capability.

Now finish all your business before you even get home!
Stock #ZR5000 [Zaurus] List $449 .... $399
Stock #ZR5000FX [Zaurus + Fax/Modem] List $549 .... $499

Stock #CEIR1 [Wireless Interface for Printer] $145
Stock #CEIR4 [IRDA Wireless Interface for PC] $144.95
Stock #CEBK1 [Battery Pack, Rechargable] List $150 .... $129
Stock #EA23E [AC Adapter for Zaurus] $7.95
Stock #ZR5C01 [AT&T Mail Software] $69
Stock #EA11E [AC Adapter for CEIR1] $7.95
Stock #2767 [512K Epson SRAM Card] $119
Stock #2768 [1 MB Epson SRAM Card] $169
Stock #2517A (Intellilink, 3.5") List $100 .... $94.95

Serial and Parallel Interface Kit
for Zaurus or Wizard   *New*

Aegis

Access PCs, modems, printers, etc. directly—Wizard PC transfer requires software:
contact Sharp.
Stock #3383 [Sharp Interface Kit] List $90 .... $69.95

Newton MessagePad 130

new backlit, non-glare screen

now with 2.5MB RAM
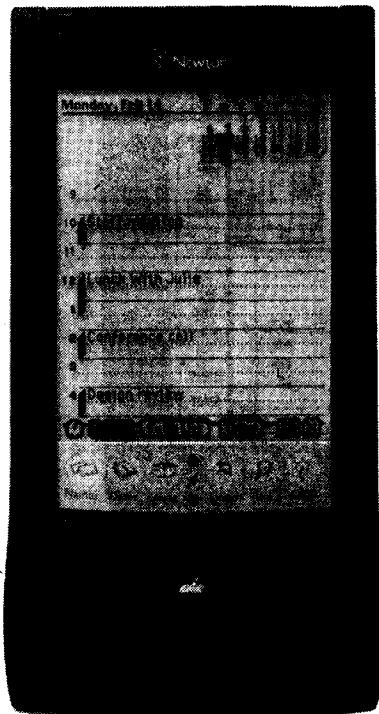
The Newton MessagePad 130 puts easy-to-use communications, productivity, and desktop connectivity solutions in the palm of your hand so you can work away from your office.

Yet you'll find it far more useful than paper or electronic organizers because while it has built-in **notepad, to-do list, datebook,** and **address file** for organizing personal and business affairs, with a modem it can also send **faxes** and gives you access to **email** and **on-line services.**

The Newton MessagePad 130 can **receive pages** as well as electronic mail. And its built-in **infrared communications** allow you to instantly exchange information with other Newton devices.

It lets you share and exchange information with either Windows-based or Macintosh computers.

Pen-based navigation and data entry make finding information easy and fast. And it allows you to capture and organize information in many forms: notes, sketches, schedules, lists, and letters. It also **lets you enter information in many ways: digital ink, printed text, graphics, on-screen keyboard, or a combination.**

The Newton MessagePad 130 has **printing capabilities** that make it simple to print your information the way it appears on its crisp, easy-to-read screen, or as full-page formatted letters.

Its built-in **recognition software** can even transform your written handwriting into typed text letter by letter or word by word.

But best of all—unlike paper and electronic organizers—your Newton MessagePad 130 can be expanded with software titles as well as accessories and on-line services that can keep you organized, efficient, and very well informe ·

Includes a 24/96 external send-fax/modem, Notion 1.1 software, is compatible with all 110 software, and has one Type II PC-card slot. Dimensions: 8"× 4" × 1"; weight: 19 oz.

Stock #MP130 [MessagePad] List $850 .... **$819**

PSION SERIES *3a*

- **award winning** - **top ranked** - **best selling**

The world's favorite palmtop—for word-processing and for programming.

Big 80 character by 17 line, full-page screen has sharp CGA graphics and a Windows-like interface. Built-in Solitaire game.

Easy-to-type QWERTY keyboard, yet it weighs only 11 oz and folds to pop into your pocket, 6 × 2 1/2 × 3/4 inches. Two AA batteries last months.

A single key switches you between functions:
- **word processor**—fonts, styles, password, built-in spell checker/thesaurus
- **spread sheet**—shows entire 12 months at once, 1-2-3 compatible
- **programming language**—like BASIC, with compiler
- **personal info management**—addresses, calendar and To-Do with alarms
- **database**—fully customizable and extendible
- **scientific calculator**   · **auto dialer**   · **world time**

Built-in microphone and digital audio system so you can record reminders. Speaker doubles to auto-dial tones with any phone. Two proprietary card-slots for software or memory; 1-yr warranty.

Stock #3310 [Psion 3a 1 MB] List $595 .... **$494**
Stock #3311 [Psion 3a 2 MB] List $695 .... **$589**
Stock #2626 [128K Flash, card] List $65 .... **$54.95**
Stock #2629 [1MB Flash, card] List $195 .... **$149.95**
Stock #3079 [2MB Flash, card] List $295 .... **$224.95**
Stock #3098 [Psi Win Link + Cable] List $120 .... **$89.95**
Stock #3077 [Mac Serial Link + Cable] List $120 .... **$89.95**
Stock #2967 [Serial/Printer Link] **$24.95**
Stock #2966 [Parallel/Printer Link] **$49.95**
Stock #3093 [3FAX (out)/Modem (in, out)] List $295 .... **$224.95**
Stock #2970 [Spell Checker/Thesaurus, card] List $100 .... **$79.95**
Stock #3089 [Games 3a, card] List $ **$79.95**
Stock #3313 [AC Adapter] **$19**
Stock #3368 [Vinyl Case] **$20**
Stock #2763 [Deluxe Leather Organizer] List $90 .... **$57.95**
Stock #2517A (IntelliLink, 3.5") List $100 .... **$94.95**

Quicken-compatible Personal Finance Software
Designed for the American 3a user. 125-p Owner's Manual, 3.5" disk.
Stock #3409 (Banker 2.0) List $120 .... **$99.95**

ACT! for Psion
Contact Manager similar to ACT! for Windows (see p 24 for full description).
Stock #3410 (ACT! for Psion, card) List $120 .... **$99.95**

MS Automap plans your route
Going on a trip? Take your Psion—simply tell it where you are and where you want to go. Your 3a will tell you the most direct, least expensive way to get there.

Road Atlas spans 150,000 cities and towns in the US, plus 423,000 miles of road. Selects Interstate or divided highways, or else secondary roads. Allows for stops on the way, gives you graphic overviews, table views, split-screen, and lists every turn you take; then it plots your progress.

Comes on solid-state card, runs on Series 3a, all memory versions.
Stock #3401 (Road Atlas, card) List $120 .... **$99.95**

Envoy 150
wireless communicator

No wires
No limits
Fits in your palm

Brand New

(M) MOTOROLA

Receive and send email in the middle of an all-day meeting, send a fax from the back of a cab, or check stock prices while waiting for your next appointment.

Communicate wirelessly with any fax machine in the US, or computer with a fax modem. Reach anyone with an Internet address including people using AOL, Compuserve, Prodigy and LAN-based email systems with Internet gateways. 9600/2400 fax baud; 4800 wireless.

It is a giant-screen organizer, too—use a serial cable (optional) to print files through your PC or download data to/from Macintosh or Windows based applications, including the entire contents of your Lotus Organizer.

Comes complete with software, including communications via AT&T, RadioMail, OAG and AOL. Ardis Personal Messaging available for 2-way wireless service covering 10,000 cities and towns with fully automatic roaming. Pocket Quicken is a bonus.

The unit is the size of a paperback book, weighs less than 2 pounds, and a simple touch-sensitive screen makes it easy to enter and retrieve information. Two PCMCIA slots, type II; Motorola reliability with a 1-yr warranty.

Make the most of every minute of every day. Get ahead by staying ahead.
Stock #3447 [Envoy 150]..**$1295**
Stock #3448 [System Carry Case] **$39**
Stock #3449 [Travel Charger, for auto]..**$39**

OMNIGO
Organizer Plus ☞ Organizer functions

$50 Rebate — buy your OmniGo 100 between June 6 & October 15 '96 — coupon in box

landscape

☞ You chose: Pen input *and* Keyboard input

☞ You fold it over 360° — for convenient screen use
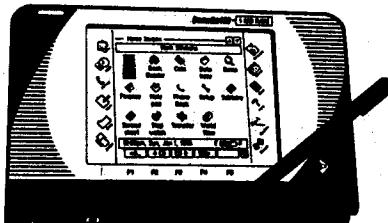
New

☞ Unequalled *financial capabilities*—you'll have the familiar *HP 12C* emulated on your screen, plus TVM, cash flows and the HP Solver

## Very Aggressively Priced for you at $324
($274 after rebate)

☞ With *Free Pocket Quicken*—you can instantly organize your finance—connect to PC *Quicken* and *ExpensAble*

On a plane, at a trade show, even on the beach—

Check your *calendar*, make *to-do* lists, look up *phone numbers* and access a *database*. Use an *electronic notepad* to organize by drag and drop, then store notes. *Worldtime* with alarms and stopwatch. You can even play *Solitaire* or view electronic content using *Geoworks Book Reader*. You can add memory, connect to printers, PCs and more with optional HP and 3rd party accessories.

You can input with the keypad or use Graffiti, the easy-to-learn pen method that's really reliable, for data entry.

Hardware Platform
■ 80186 running at 16 MHz
■ 1 MB SRDRAM
■ 3 MB ROM
■ 1 PCMCIA Type II card slot accepts RAM, not most Flash
■ 1 RS232C serial interface
■ GEOS Operating System
■ 2 AA & 1 lithium batteries
■ 11 ounces, pocket size
■ Dimensions: 6" × 3.7" × 1"
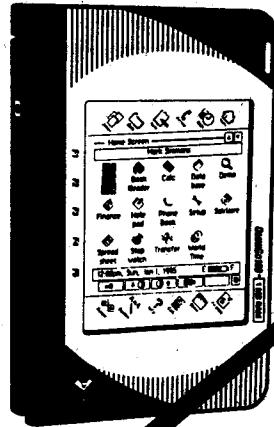
portrait

You'll have *TVM* for loan amortization and interest rate calculations; *Cash Flow* for interest rate, PV, FV and period calculations with variable payments or deposits; *Business Percentage* for markup, margin and percent change; *Conversions* you use for currency, length, area, mass, volume and temperature; *Spreadsheets*; *Statistics* in 1 and 2-variables to fit a curve or graph data. All this plus a complete *HP 12C Calculator* emulated on your OmniGo 100 (manual optional).

Stock #F1310A [OmniGo 100] List $429 .... **$324**
Stock #718, HP 12C Owner's Manual **$14.95**
Stock #F1314A [extra Pens, 3 pack] **$10**
Stock #H5465A [HP Support Pack] **$85**

Need one of these for your OmniGo?
• RAM memory cards, portable printers, leather cases, etc.—see Palmtop section, pages 15-22.
• HP 12C how-to books and training guides— see pages 33,34

Connectivity Pack
for HP OmniGo 100   **HEWLETT PACKARD**

Backup and download with any Windows PC. Synchronize ApptBk, Phonebk and Notepad data in 1 step—desktop PIM is included.

Easy data entry using PC keyboard — data import/export using CSV, TSV or dBASE file formats, even from Casio, Sharp and Psion organizers, or import from 100/200LX. Win 95 compatible.

Comes on 3.5" diskettes with serial null-modem cable, 9- to 25-pin serial cable adapter, User's Guide. Cable only also available.

Stock #F1311A (Connectivity Pack) List $120 .... **$99.95**
Stock #F1015A [48/Palmtop to 9-pin Serial Cable, 6'] **$24.95**

Clip and Go
software utility
for OmniGo 100

HEWLETT PACKARD
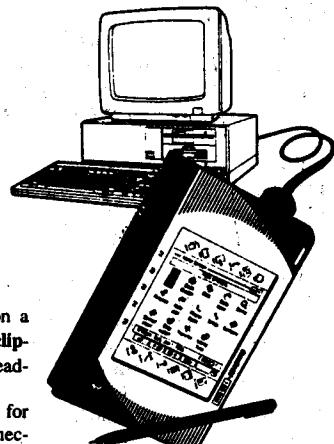
You can dynamically link the clipboard on a Windows PC to your **OmniGo 100 clipboard**—transfer text, graphics (ink) and spreadsheet (1-2-3, Excel, QtrPro data).

This easy-way transfer and synchronization for small chunks of data complements the Connectivity Pack's macro-level transfers. Win 95 comp.

Stock #F1312A (Clip and Go, 3.5") **$64.95**

Link-A-Printer II
serial-to-parallel converter
for OmniGo 100, HP 100/200LX

Brand New

Greenwich Instruments

Plug one end into your palmtop and the other into any parallel printer. Off/On switch, fast 9600 BAUD.
Stock #3373 [Link-A-Printer II] List $79 .... $69.95

Strategy Games
for OmniGo 100

HEWLETT PACKARD

Tiles, a version of Mahjong • Uki, a version of the animated stones game • Black Box, player finds hidden atoms with lasers • Decode, a twist on Mastermind • HiHo, a multi-level version of Go • Four in a Row, a multi-dimensional tic-tac-toe.
Comes on diskette, download to install.
Stock #F1313A (Strategy Games, 3.5") $49.95

Flash Memory Cards

Brand New

Magic Ram

high capacity plug-in memory for your OmniGo
No back-up required—this is a backup—no batteries, super reliable. Fast, low power, durable, with lifetime warranty.
Stock #3432 [2MB Flash Memory Card].....................................$169
Stock #3433 [4MB Flash Memory Card].....................................$249
Stock #3434 [8MB Flash Memory Card].....................................$379
Stock #3435 [10MB Flash Memory Card]...................................$449
Stock #3436 [20MB Flash Memory Card]...................................$759
Stock #3437 [40MB Flash Memory Card]...................................$1399

Plug-in SRAM Cards
for Palmtop or OmniGo 100

■ access data super fast
■ store giant spreadsheets
■ run huge programs
  Each card has its own long-lasting battery—
t can be stored or mailed without losing the data or programs you've filed on it.
  These cards satisfy PCMCIA specifications.

PreMax

PreMax
2MB
SRAM CARD

PreMax
Dual lithium batteries that beep you when they're low. 3 yr warranty.
Stock #2987 [512K PreMax SRAM Card] $99
Stock #2988 [1 MB PreMax SRAM Card] $139
Stock #2989 [2 MB PreMax SRAM Card] $229

Subscribe now and save 25%
Brand New
HP OmniGo World
Thaddeus Computing

Every quarterly issue will bring you tips, tricks and tutorials you can use right away—plus free software—plus reviews of commercial software and peripherals for your OmniGo—plus news and tech support from Hewlett-Packard.
  Subscribe now ¾ you'll save 25%, and you'll get 3 valuable bonus reports:
    • Most-frequently Asked OmniGo Questions
    • Graffiti Shortcuts (and macros)
    • 12 Important Things Every OmniGo User Should Know
Stock #3379, one year of *HP OmniGo World* $29.97
Stock #3380, two years of *HP OmniGo World* $57.97

You have a Free Disk of Pocket Quicken coming to you—there's a coupon in the box with your newOmniGo 100. But, if you want to automatically send your transactions to Quicken or ExpensAble on the desktop PC, you'll want a copy of Pocket Quicken Connect too.
  Never fall behind again in your expense accounting—get into control with Pocket Quicken Connect. Order now and we'll include your free copy of Pocket Quicken (requires 386 running Windows).
Stock #3378 (Pocket Quicken Connect, 3.5") $29.95

Pen/Stylus combo—Black/Gold elegance

WriteWare
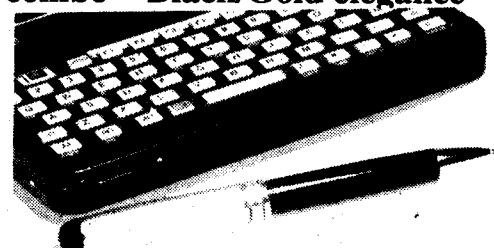
It impresses with looks alone, but when you flick it back and forth, pen to stylus back to pen, well . . . !
  Stylus operates all PDA screens.
Stock #3377 [Pen/Stylus II Deluxe] $22.95

the Leather Desk
our best organizer
for the executive's
OmniGo 100

EduCALC

Sumptuous black napa leather coddles your Omni Go 100, with extra padding for instrument protection. Software and memory cards fit into 6 slots, 2 pockets hold notes and diary. There's a second compartment for important documents and a loop for your pen.
  It feels soft and rich in your hand, but there's a detachable carry strap, too. 8 1/4 × 5 × 1 3/4 inches outside.
Stock #2763A [OmniGo 100 Leather Desk] $57.95

Rich and Elegant
Black Leather
Carry Case
for your
OmniGo 100

EduCALC

Brand New

hi-touch safety for your hi-tech investment
Slim, trim and impressive, yet this formfit beauty protects your OmniGo from all those inevitable spills, scratches, knocks and drops.
  Pocket in flap holds PC card or business cards; velcro closure.
Stock #3125 [Leather Carry Case] List $40 .... $27.95
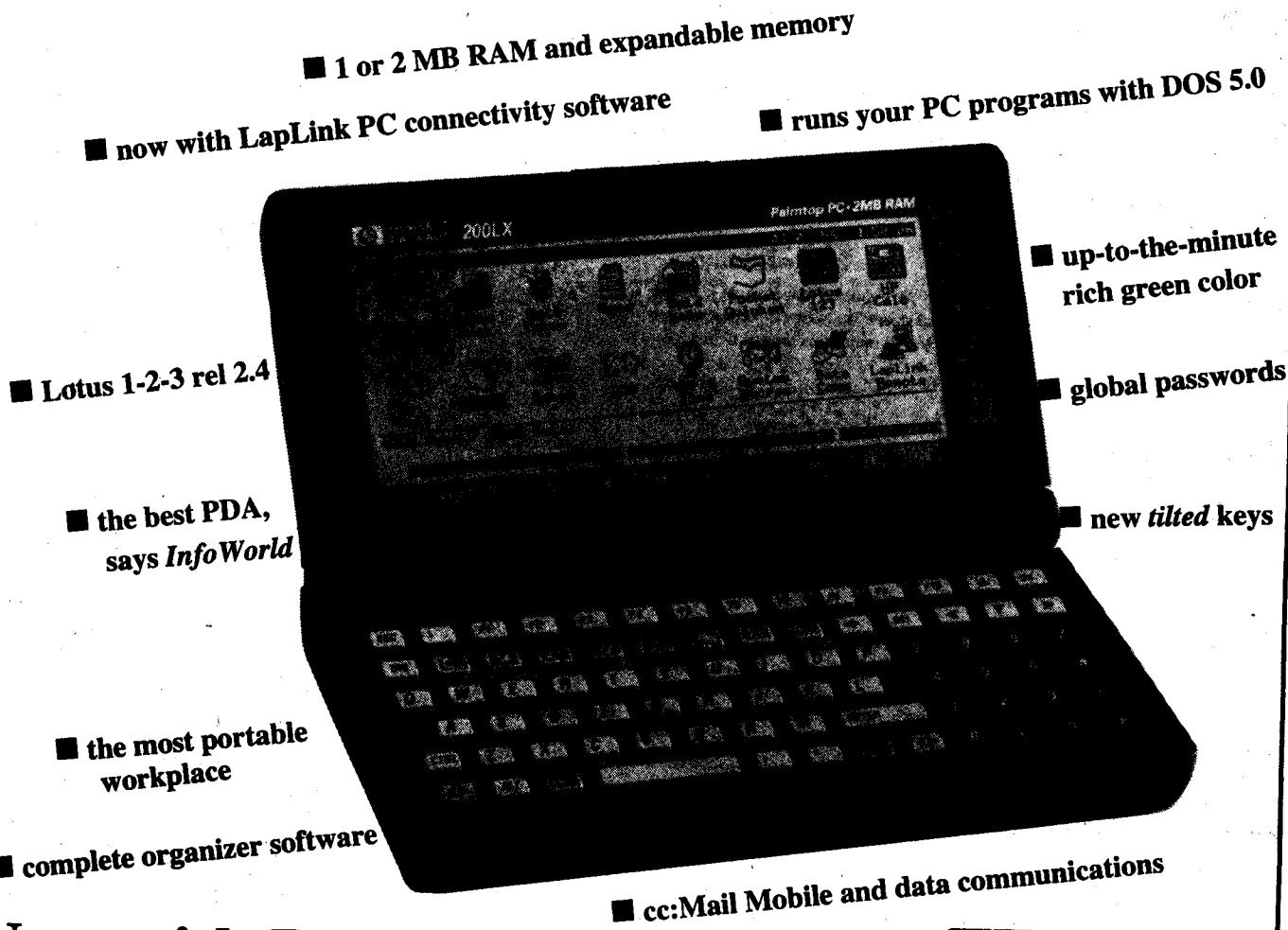
HP 200LX—the specs

HP 200LX Palmtop PC includes:
· User's Guide
· Quick Start Guide
· Two AA and one CR2032 batteries
· Engravable personal nameplate

Software built into ROM
· Pocket Quicken
· cc:Mail Mobile
· Data Communications
· Lotus 1-2-3 Release 2.4
· MS-DOS 5.0 · LapLink
· Appointment Book · Phone Book
· HP financial calculator
· Memo editor with outliner
· Notetaker · Database · Filer
· World time and Stopwatch
· Application manager
· System macros
· Setup utility

Physical Specifications
· 16 ´ 8.64 ´ 2.54 cm (6.3 ´ 3.4 ´ 1 in)
· 312 g (11 oz) with batteries

Optional PC-compatible Software
· · The HP 200LX will run a wide variety of DOS software. (Software must be DOS-based, CGA screen compatible, and fit available memory.)

Memory
· 3-MB ROM · 1 or 2 MB RAM
· PCMCIA version 2.0, Type II

Industry-standard PC Architecture and Central Processing Unit (CPU)
· IBM PC architecture
· Intel 80C186 CPU running at 7.91 MHz

Display
· CGA-compatible FTN liquid crystal
· 80 columns by 25 rows; 640 ´ 200 pixels
· Zoom feature

Keyboard Layout
· Familiar typewriter-like QWERTY layout
· Separate numeric keypad
· 10 function keys
· 8 application access keys

Input/Output
· Built-in 9-wire serial interface for connection to RS-232 devices
· Built-in infrared transmitter/receiver up to 115K bps for HP 200LX to HP 200LX and other wireless communication
· Built-in printer drivers supporting these serial printer types: HP LaserJet, Epson FX-80, IBM ProPrinter
· PCMCIA version 2.0, Type II plug-in card slot for running PC software and expanding I/O memory; optional HP 5 MB, 10 MB and 20 MB flash disk cards available
· Optional HP F1021B Connectivity Pack for file transfer between an HP 200LX and a DOS-compatible PC

Power
· Two 1.5-V AA main batteries
· One 3-V CR2032 coin cell backup battery
· Optional 1.5-V AA rechargeable batteries
· Optional adapter: HP F1011A available in worldwide configurations for powering unit and recharging NiCd batteries

Manage your world with the world's most powerful palmtop PC! Carry your critical business and personal information as easily as you carry your wallet. The software you already know comes built-in with the only pocket PC that's fully DOS compatible.

Use PC power to organize your personal and business expenses on the go. Check your calendar, or let the appointment book keep you on schedule. Graph your latest sales figures or edit a quick memo. Open built-in DOS applications with a single keystroke, or add your favorite DOS programs from your desktop PC.

Advanced communication features keep you in touch everywhere. Plug in your HP StarLink card to pick up notification of phone and fax messages from home or the office.

You'll stay in charge with the most complete personal information management software on the market.

You simply touch one of 8 special keys to access this software—then switch to another program with one key-touch. *These 8 special keys will make the HP 200LX your favorite computer at any size! at any price!*

Stay in control of personal and business finances anywhere with Pocket Quicken. Enter transactions from checking, savings, credit card, and cash accounts using convenient on-screen forms. *Keep on top of current balances* and reconcile accounts with your bank statements. You can even *organize expenses* by category and create summaries for business reimbursements or tax records. *Manage your finances* with Quicken all these ways:

· Enter and edit transactions in checking, savings, credit card, and cash accounts
· Review account balances and registers
· Create and print financial reports
· Share data with desktop versions of Quicken
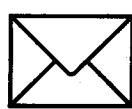
It's a portable electronic mailbox. You'll *keep in touch* with a built-in cc:Mail Mobile for the HP 200LX. With a modem, check your cc:Mail post office and *exchange messages* with any cc:Mail user in the world. Handle messages with cc:Mail Remote Inbox, Outbox and Saved Message folders. *Receive news, weather, and stock reports automatically.* Using HP 200LX terminal emulation, built-in data communications software, and a modem, *access email* and information services such as Compuserve.

With HP 200LX communications accessories, connect with devices like the Skystream wireless messaging receiver, modems, and global positioning systems. Here's how you'll use built-in cc:Mail and Data Communications:

· Transfer messages or files via a modem
· VT-100, ANSI and tty terminal emulation
· Kermit, ASCII text, and X, Y, & Z MODEM file transfer capability
· File capture capability saves data from information services

Don't leave the office without it! Now you can *download* spreadsheets from the big PC to your HP 200LX. 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 2.4 of Lotus:

· Large worksheets — cells available from 1 to 256 columns and 1 to 8,192 rows
· Graphics   · Database commands
· Macro creation and execution
· File linkage
· @ functions from @ABS to @YEAR

Sure, your HP 200LX will do the same timely chores that a Wizard or a BOSS will . . . to help you with appointments, schedules and priorities.
But the HP 200LX 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. Set repeating appointments 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; *search* for it.
Here's how you use your appointment book:
· Week-at-a-glance, month-at-a-glance, and six-month calendar
· Daily schedule with appointment alarms
· Daily, weekly, monthly, and yearly repeating appointments and events
· To-do list with automatic carryover of past-due items
· Archive feature for appointments and lists
· Local and worldwide time for over 450 cities
· World map and custom city list
· Timer and stopwatch

Your HP 200LX will have *all the goodies* that go with a big PC Phone Book and Database program done by Lotus, plus *its giant RAM memory capacity.*
Here's what you can do with it:
· Alphabetical list of names and numbers
· Contact information cards
· Search and sort on any field
· Custom database capability
· Create multiple or subset phone books

You won't want to type a book into your HP 200LX—that's what desk PC's and secretaries are for. But you could *edit* a book on your 200, 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:
· Text entry and editing including block cut/copy/paste, search and replace, bold, and underline
· ASCII file format for reading and editing
· Basic outliner with promote and demote

Do simple arithmetic simply —either Algebraic or RPN style —you decide.
But your HP 200LX 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 variiable 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:
· General and technical math functions
· Time-value-of-money calculations
· HP Solve equation-writing capability plus equation plotting
· Links to Lotus 1-2-3 including:
  Backsolve to a desired result
  Store/recall numbers to a worksheet
  Send amortization schedule to a worksheet
· Currency and unit conversions
· Choice of algebraic or RPN data entry
· Cash flow analyzes (IRR, NPV) and statistics functions, both with plotting capability

Here's the quick power that touching the Filer button gets you:
· Create, rename, copy, view, and move files and directories
· RAM-disk backup
· Plug-in RAM card formatting
· DOS program execution
· Split-screen file transfer feature

That's what the 8 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 8 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 Help from any application by pressing F1
· 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
· Read and write to flash disk cards

There's more powerful, built-in software, and it's easy to access with a single keystroke:
Notetaker
· Create, save and edit short notes
· Database of notes, indexed by title
· Title, categorize, and search capabilities
Database
· Create and modify database templates
· Add, delete, and edit records
· Search by field or text
World Time and Stopwatch
· Local and worldwide time for over 450 cities
· World map custom city list
· Timer and stopwatch
Application Manager
· Manage all HP 200LX system applications, whether built-in, plug-in, or RAM-based
· Application key assignment, application RAM use, status, current drive, and files
Setup Utility
· Display contrast, memory allocation, and beeper volume
· Printer and comm port configuration
· Battery status and NiCd recharging

When being on the move is part of being on the job, carry all your critical information with you as conveniently as you carry your wallet.

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 MS-DOS, so it's fully PC-compatible. Quicken will manage your finances. cc:Mail Mobile is built-in, so you can carry your electronic mailbox wherever you go. 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
- Phone book
- Memo editor
- Appointment book
- 3.7 times faster than an XT
- HP financial calculator
- Quicken
- Datacomm
- Filer
- 1 or 2 MB RAM
- MS-DOS 5.0

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 80 column × 25-row display
- Serial and infrared interfaces
- Familiar QWERTY keyboard
- Industry-standard card slot
- Separate numeric keypad
- Protective clamshell design
- One-key access to applications
- Easy-to-carry size and weight

Is that why you have decided to get yourself an HP 200LX, now? This is exactly the way you've always known HP computers should be. So it's no wonder that the HP 200LX 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
- calculate loan payments
- convert currencies
- check the time around the globe
- edit your letters and reports · 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 200LX 1MB and the HP 200LX 2MB. There's just one difference, but it's a big one—one has 1MB of RAM memory, while the other has a full 2 Megabytes of internal RAM. Having the extra memory is like having a second card slot with a 1MB RAM card permanently installed in it (and everyone seems to want more memory).

You'll have EduCALC's 30-day warranty, for a no-questions credit or refund. You can try out your HP 200 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.

Live technical support is available 5 am - 5 pm (Pacific time) Monday - Friday. You pay only for the call. (503)715-2004.

Express Exchange Coverage for 1 year—so if your 200 fails you merely call for a replacement, which arrives next day! Then just send back the old unit (full 3-yr coverage optional, order Support Pack).

Offer includes PC, Quick Start Guide, User's Guide, nameplate and alkaline batteries; 1 yr Express Exchange warranty.

Stock #HP200LX1MB [P-top PC] $499
Stock #HP200LX2MB [P-top PC] $679
Stock #H5465A [3 yr HP Support Pack] $85

HP 1000CX
Hewlett Packard

stripped for action— no built-in software!

If you want a palmtop DOS PC to run your own programs ONLY, here's your hot deal!

This special model has no PIM software, no Quicken, no Lotus 1-2-3, no cc: Mail Mobile. It *does* have MS-DOS 5.0, Laplink, 1MB RAM, and a low price—in fact *the lowest price.*
Stock #HP1000CX [Palmtop PC] $399

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 palmtop. Just return the nameplate included with your palmtop and order Stock #95CNP. You'll be limited to 24 characters and your imagination.
Stock #95CNP [Nameplate] .... Free

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accessories 15
cables / interfaces 18
peripherals 19
software 23
wireless modems 20
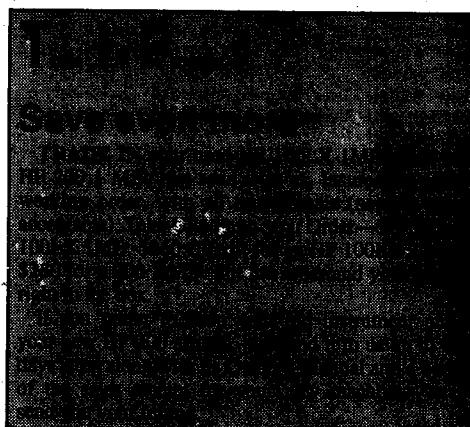
Subscribe now to The HP Palmtop Paper
for HP 95/100/200

Thaddeus Computing

THE HP Palmtop Paper
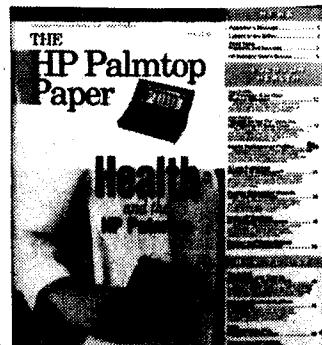
- Be an insider
- Be an expert
- Be fully up-to-date

You'll find out about the hidden features of your 95/100/200—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 95/100/200—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—focused right where you want it, on your HP 95/100/200.

BONUS Disk . . . each year's subscription comes with a copy of the Subscriber PowerDisk loaded with the best programs, games and utilities that can be found. Many subscribers say that the PowerDisk alone is worth far more than the cost of a subscription.

BONUS Issues . . . Best Palmtop Tips contains everything you could ever want to know about your Palmtop. Maximize your productivity with this collection of the most useful tips, tricks, shortcuts and hidden features.

PC Card Review is a special report with all of the information you need to make sense of the many types of PCMCIA cards becoming available: SRAM - Flash - Fax/Modem - Network - Wireless—and much more.
(Allow 4 to 6 weeks for your subscription to start.)

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

Plug-in *Flash* Cards
the hot new high-capacity memory for your palmtop, laptop & desktop

---

FlashNews . . . US Navy now uses Flash Cards to simulation test their MARK 48 ADCAP torpedo—tape couldn't meet the specs for speed plus shock and vibration resistance.

Better than a hard disk on a card—with flash memory chips and a built-in solid-state controller. It slides into the PCMCIA Type II slot of your instrument and is 100% MS-DOS compatible.

You can store many really big programs in one, and plenty of data, just like a hard disk. But you can remove it when you're done—lock it up for security, give it to a friend for use in his PCMCIA-equipped computer, or mail it back to your office.

No back-up is require—**this is a back-up!** Flash memory is non-volatile so there are **no batteries**. This means no replacements for you. It also means **super reliability**—up to 100 years!

Your flash card will be up to **20 times faster** than a hard disk drive, and it will consume **100 times less power**. It has no moving parts, so it's **extremely durable** and can take heavy shocks or vibration even while it's operating.

All flash cards come with built-in data-compression routines (Stacker LZS technology). These cards are marked for 2:1 compression ratios in our descriptions, but spreadsheet files may compress at a more than 3:1 ratio while some DOS files may have only a 1:1 ratio. This data compression is transparent to you—it's handled in real time, and flash cards are so fast that you probably won't notice any difference in speed. Note: all specified capacities will be reduced somewhat by formatting.

ATA-compatible cards work equally well with JEIDA, DOS, WIN, NEWTON, GEOS, PDAs, PIMs, digital cameras and cellular phones, giving superb data transportability.

An independent magazine test showed, *"Clearly, the IBM/ Toshiba NAND ATA card outperformed all the other card/ driver combinations."*

Solid State File Card *Brand New* **IBM**
for HP 200/OmniBook
The 3, 5, 10 and 20 MB IBM cards are Type I while the 30 and 40 MB cards are Type II.

Stock #3423 [3MB/6MB Flash card] $199
Stock #3424 [5MB/10MB Flash card] $259
Stock #3425 [10MB/20MB Flash card] $419
Stock #3426 [20MB/40MB Flash card] $739
Stock #3427 [30M/60MB Flash card] $999
Stock #3428 [40MB/80MB Flash card] $1239

for HP 95/100/200/OmniBook   **HEWLETT PACKARD**

ATA-compatible; for Type II or III slots, HP 100/200 or OmniBook. HP 95 requires a PC and connectivity kit for installation; 1-yr warranty.
Stock #F1024A [1.8MB/3.6MB compr Flash Card] $199
Stock #F1012B [5MB\10MB compr FlashCard] $364
Stock #F1013B [10MB\20MB compr FlashCard] $579
Stock #F1014B [20MB\40MB compr FlashCard] $959
Stock #F1211A [40MB/80MB compr Flash Card] $1499

EPSON°

Fits in Type II or III slots. Epson reliability, with 2 yr warranty. HP 95 requires a PC and Connectivity Pack for installation. ATA-compatible.
Stock #2917 [2.5 MB\5 MB compr Flash] $269
Stock #2918 [5 MB\10 MB compr Flash] $339
Stock #2919 [10 MB\20 MB compr Flash] $539
Stock #2920 [20 MB\40 MB compr Flash] $839
Stock #3034 [40 MB\80 MB compr Flash] $1329

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Monster Memory
EduCALC
Brand New
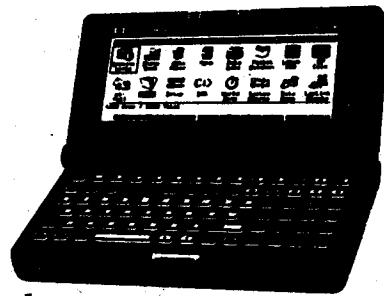
new HP 200LX
internal memory upgrade
Enjoy having an added 4MB of RAM in your C- drive—for many, many resident programs (great with Software Carousel), for room to spare while running data/comm software, for the greater speed of your C- drive instead of slower flash-card memory. EduCALC 1-yr warranty (not HP).
Stock #HP 200LX 5 MB   [Expanded Palmtop] $799
Stock #HP 200LX 6 MB.   [Expanded Palmtop] $989
Call us about upgrading your own HP 200LX.)

Plug-in SRAM Cards

**for Palmtop
or OmniBook**

- access data super fast
- 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, 100 or 200, the Poqet PC, the Sharp PC-3000 and the NEC Ultralite.

PreMax

Dual lithium batteries that beep you when they're low. 3 yr warranty.

Stock #2987 [512K PreMax SRAM Card] $99
Stock #2988 [1 MB PreMax SRAM Card] $139
Stock #2989 [2 MB PreMax SRAM Card] $229

EPSON°

· from the world's largest manufacturer of memory cards—these use latest low power CMOS SRAM and include a custom system power controller that automatically lowers power to 0.25 ma standby. Our Epson cards have a secondary lithium battery so you can replace the card battery while card is out of computer. 2-yr warranty. Use Stock #2767 or 2768 for Zaurus.

Stock #2767 [512K Epson SRAM Card] $119
Stock #2768 [1MB Epson SRAM Card] $169
Stock #2769 [2MB Epson SRAM Card] $239

Hot Key Overlay
for HP Palmtop

> Girard
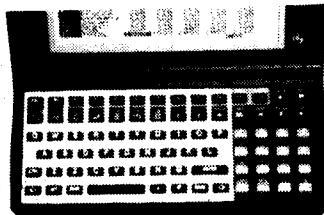
Label the keys the way you want them—you may even erase them later.

Stock #2921 [Hot Key Overlay] $3.95

Carrying Cases
for the HP Palmtop

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

Handy outside pocket plus inside pocket for IC cards, etc. Leather model is soft and elegant; has a belt clip. Nylon model is made of washable, waterproof fabric. Both are black.

Stock #2519 [Nylon Carry Case] List $25 .... $19.95
Stock #2520 [Leather Carry Case] List $40 .... $27.95
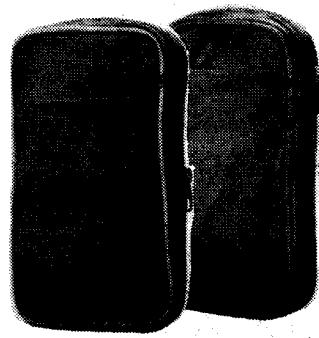
the Leather Desk
our best organizer
for the executive's
HP Palmtop

EduCALC

Sumptuous black napa leather coddles your palmtop, with extra padding for instrument protection. Software and memory cards fit into 6 slots, 2 pockets hold notes and diary. There's a compartment for important documents and a loop for your pen.

It feels soft and rich in your hand, but there's a detachable carry strap, too. Plastic tray (included) grips your computer; 8.25 × 5 × 1.75 inches outside.

Stock #2764 [HP Leather Desk] $64.95
Stock #LT1 [extra plastic tray] $7

Rich Black
Leather Case

EduCALC
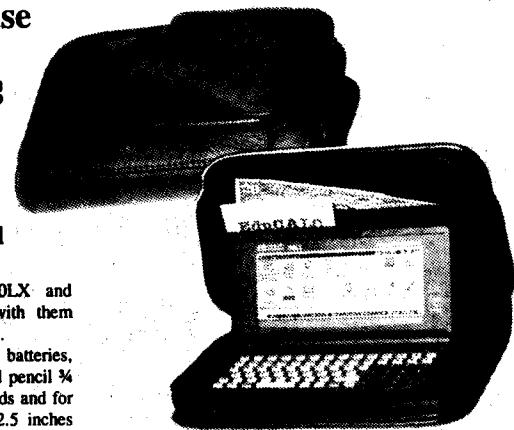
just-right size
for palmtop and
cellular phone

Hold your HP 200LX and phone steady—work with them right in this elegant case.

Has places for spare batteries, business cards, pen and pencil ¾ plus pockets for PC cards and for papers. 8.25 × 5 × 2.5 inches and superportable. Includes LT1 plastic tray.

Stock #2937 [Leather Case] List $90 .... $69.95

To find batteries and chargers
for your palmtop, see page 32

Show off your state-of-the art gear even while it's in this compact black

Executive Leather Case

EduCALC
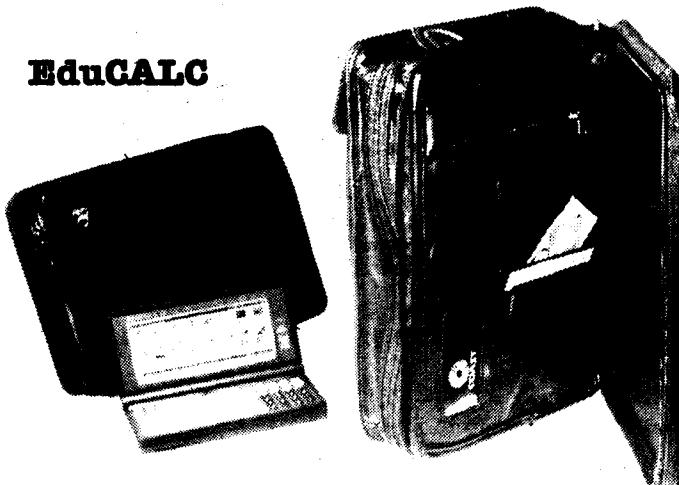
You'll have plenty of room—expandable quarters to zip in your palmtop with its gear, velcro outside pocket for your phone, two zipped compartments and three pouches for notes or pamphlets, six slots for business and-credit cards, plus a pen loop. You can take it with you.

Yet the hand-tanned black grain leather and executive size 7.4 × 10.1 × 2 inches (expandable to 3 in) show clearly that you have the latest miniature equipment. Detachable shoulder strap with pad; aged-patina brass hardware.
Stock #3112 [Executive's Leather Case] $69.95

The Pouch
for your HP 48 or Palmtop

| The Pouch |
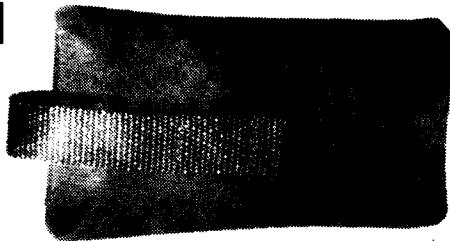
Are you a utilitarian? Here's a no-frills pouch for the simple life—made of bouncy neoprene foam and nylon, with belt-loop and velcro closure.
Stock #2736 [Instrument Pouch] $19.95

The Belt Holster
### for your HP 48
or HP Palmtop
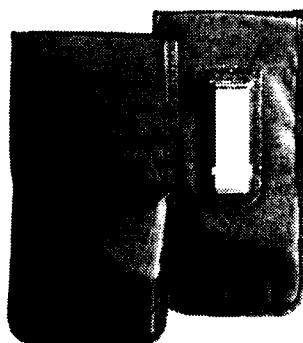
The very best belt clip we've ever seen, on a double-stitched black nylon holster with velcro closure, interior card pocket and foam padding—good design at the right price!
Stock #3000 [Belt Holster] $14.95

Cigarette-lighter Adapters
for the HP 95/100/OmniBook
### and portable printers

EduCALC
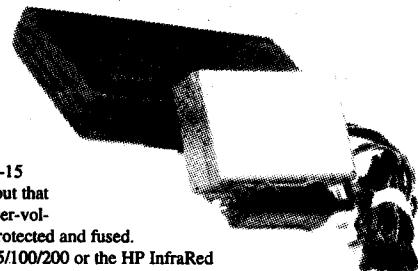
Just plug it in—standard auto motive plug accepts varying 11-15 VDC input. You'll have an output that is reverse-voltage protected, over-voltage protected, surge-voltage protected and fused.
Our #2783 powers the HP 95/100/200 or the HP InfraRed printer. #2862 powers HP 95/100/200, IR printer, or the Canon Bubble Jet/HP DeskJet printers. #3029 powers the OmniBook, #3030 for the HP 95/100/200 in an aircraft/marine 28VDC application.
Stock #2862 [Cigarette-lighter Adapter] List $45 .... $39.95
Stock #2783 [Cigarette-lighter Adapter] List $40 .... $34.95
Stock #3029 [Cigarette-lighter Recharger for OmniBook] $41.95
Stock #3030 [Cigarette-lighter Adapter for Aviators] $41.95

Econo Adapter
for HP 100/200 only
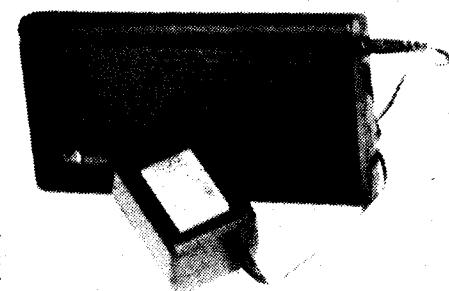
Smaller, lighter and lower cost than the HP version, but limited to use in the USA or other countries with 110 volt, 60 Hz input. UL and CSA listed with a 90 day warranty. Recharges NiCds in your HP 100/200.
Stock #3045 (AC Adapter) $15.95

AC Adapter
for your HP Palmtop

HEWLETT PACKARD
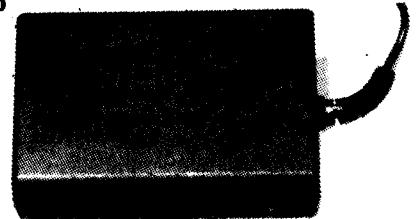
Input 100-240 VAC (except 82241A); output 12VDC, 0.75A. Power for HP 95, HP 100, HP 200 or HP 82240B Printer. Recharges NiCds in your HP 100/200.
Stock #F1011A [AC Adapter for USA, Canada] List $40 ...... $34.95
Stock #F1011ABB [AC Adapter for Europe] $34.95
Stock #F1011ABG [AC Adapter for Australia] $34.95
Stock #F1011ABU [AC Adapter for the U.K.] $34.95
Stock #F1011ABQ [AC Adapter for So. Africa] $34.95
Stock #82241A [AC Adapter for HP 95 only] $14.95

Nickel Cadmium Rechargeable

The HP 200 requires 2 AA batteries, and alkaline batteries come with it. If you replace them with NiCds, any one of HP's AC Adapters (#F1011A . . .) will act as a recharger. You'll get up to 1000 recharges on each set.
Stock #NAA [NiCd rechargeable 500 m AH, AA] $2.89
Stock #2784 [Hi-capacity NiCd 850 m AH, AA, qty 2] $6.95

## Infrared Connectivity Pack
for HP 100/200/OmniBook

litelink

Zap: you're backed up—
Zap: you're downloaded

The wireless solution—connect your palmtop/laptop to any PC running DOS/Win 3.1/Win 95.

Easy to use—simply line up the infrared window on your palmtop with this adapter that plugs into your PC serial port. It's super fast—the maximal port speed of 115200 bps.

It's also a cable replacement with the HP Connectivity Pack or PalmConnect Software. Compatible with built-in LapLink Remote Access application on your palmtop as well as TranXit, which is preloaded on many IrDA-compatible PCs. Small memory overhead (drive software included).

Stock #3102 [IR Connectivity Pack] List $99 .... $89.95
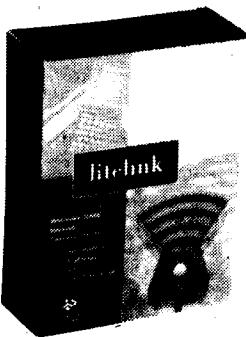
SmartDock
docking-station connectivity
for your HP 100 or HP 200

Sparcom

- quickly up/download to desk units
- easily FAX your memos
- conveniently send/receive email

When you click the Palmtop into your docking station's elegant contours, its 10-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 90day warranty).

- **Station 100 instantly connects your Palmtop to a PC** so you eliminate time-consuming hook-up procedures and prevent battery drain.
- **PrintStation 100 connects your Palmtop to any parallel printer,** as well as to a PC—has built-in series/parallel converter, comes with DOS/Windows connecting software on 3.5" disk.
- **MailStation 100 has it all!** Built-in 9600 baud modem accesses Internet, Compuserve, ATT-Mail, MCI Mail, Prodigy and other email services—PSILink and DOS/Windows connectivity software included on 3.5" disk. Connect to a PC with serial cable and Data Exchange software. Also, connect to a parallel printer with built-in series-parallel converter.

Station 100 is available with or without DataExchange software (DOS or Windows) included on 3.5" disk (same as for PrintStation100). Works with HP 100 or 200.

Stock #3022 [Station 100] List $80 .... $74.95
Stock #3021 [Station100 + software] List $100 .... $89.95
Stock #3023 [PrintStation100 + software] List $200 .... $169.95
Stock #3228 [MailStation100 + software] List $250 .... $229.95
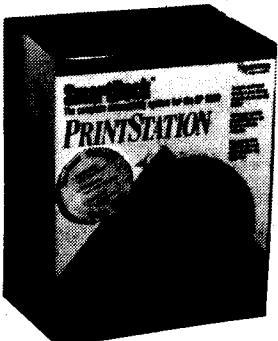
Keep your PC and palmtop in sync!
HP 95/100/200/Zaurus/Psion

Windows 95 Compatible

Intellilink
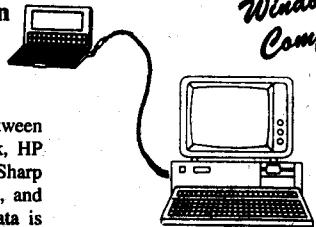
Intellilink for Windows transfers between the basic functions of the OmniBook, HP 95/100/200, Psion Series 3/3a, Sharp Zaurus, Casio Z-7000, Tandy Z-PDA, and Windows applications on the PC. Data is translated between formats and reconciled, allowing merging of new data with old. Schedule, Telephone, To-Do, and Memo are supported with the following PC applications:

ACT! for Windows 1.1	ECCO	Paradox 3.5/4.0/5.0
ASCII (CSV) file format	Excel 5.0	Sidekick 2.0
CaLANdar 2.55	Lotus Organizer 1.x	Windows Cardfile/Calendar
Commence 2.x	Microsoft Schedule+	Word for Windows 6.0
dBASE III/IV	PackRat 4.1	

Requires serial interface cable and PC running Windows 3.1.

Stock #2517A (IntelliLink 3.4.2, 3.5") List $100 .... $94.95

Connectivity Pack
HP100/200 to desktop PCs

HEWLETT PACKARD

Seamlessly transfer files and worksheets directly or via modem, with a convenient split-screen filer interface. Includes desktop PC versions of most of the built-in PIM applications of the 100/200 (and they are fast). Also has 3 other PC programs—one merges, synchronizes or translates Phone Book or Appointment Book files, and another lets your palmtop treat the PC's drives as its own. Now there is also LapLink, the popular PC connectivity soft-ware. You'll also have the ability to synchronize Pocket Quicken with desktop DOS or Windows Quicken data files.

Includes a cable and adapters to connect your HP 100/200 to a 9- or 25-pin PC serial port, a modem or a printer. PC must have 286 processor, DOS 3.31 or higher/Windows 3.1 and EGA or better; software will run as a DOS application under Windows.

Stock #F1021B [Connectivity Pack, 3.5"] List $125 .... $109.95
The following are included in Stock #F1021B
Stock #F1015A [48/Palmtop to 9- pin Serial Cable, 6'] $24.95
Stock #F1023A [Serial Cable Adapter Kit] $24.95

DB9 and DB25
Gender Changers   *New*

Does your modem, mouse or serial RS232 cable have the wrong-gender plug, so you have a male-to-male or female-to-female mismatch? Here's your quick fix!

Stock #3413 [DB9 Male-Male Adapter] $4.95
Stock #3414 [DB9 Female-Female Adapter] $4.95
Stock #3415 [DB25 Male-Male Adapter] $4.95
Stock #3416 [DB25 Female-Female Adapter] $4.95

Serial Cables   EduCALC

- Engineers ■ Instrument Makers ■ Hobbyists

Connect your HP 95/ 100/200 to anything you want! Six foot cable has 4-line serial connector (2601) or 10-line (3003) molded onto one end, with the other end unterminated.

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 - 95LX, 6'] $15.95
**Stock #3003 [Unterminated Serial Cable - 100/200LX, 6'] $16.95**
Stock #2609 [HP 95 to 9-pin Serial Cable, 6'] $22.95
Stock #2793 [HP 10 pin HP 100/200 to 9- pin Serial Cable] .. $22.95
Stock #2936 [HP 10 pin RJ 45 Cable, 9'] $20.95

Battery-powered HP 95/100/200 to Parallel Printer Data Converter

Greenwich Instruments
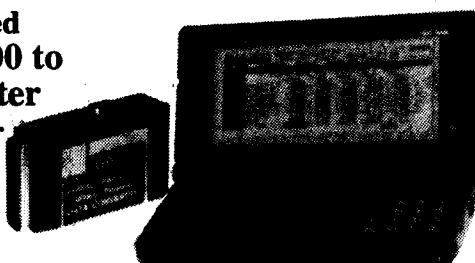
Get beautiful printout—now your HP 95/100/200 can drive a portable parallel printer (such as the Canon BJ-10e Bubblejet).

You connect this serial-to-parallel converter to any palmtop 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] $54.95
Stock #9V [Alkaline Battery] $2.80
Stock #F1015A [48/Palmtop to 9 pin Serial Cable] $24.95

Serial to Parallel Converter

connects HP 48/95/100/200 to parallel printer or peripheral
BYTE User's Choice Award 1992

Aegis

Just plug in this tiny (3 oz) converter to your serial cable — it's device-powered and bi-directional.
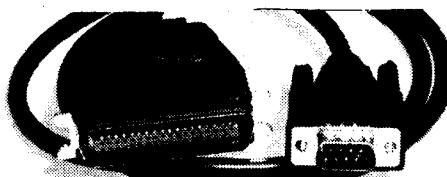
No switches, no configuration or software drivers, and no problems — compatible with any PC, application software, printer or hard drive. 9600 Baud to printer via 36-pin Centronics male connector. Requires serial cable.

Stock #2816B [Serial/Parallel Converter] $79.95
Stock #2609 [48/95 to 9- pin Serial Cable, 6'] $22.95
Stock #F1015A [48/Palmtop to 9- pin Serial Cable, 6'] $24.95
Stock #2793 [HP 10 pin HP 100/200 to 9- pin Serial Cable] ... $22.95

MacLinkPlus v 2.5
for the HP 95/100/200

DATAVIZ

Back up your palmtop to your Mac, automatically, with the click of a button (original directory structure is retained) — you need never worry again.

Transfer files between your HP 95/100/200 and any Mac Plus with 1 MB memory and System 7 or newer.

Translate files between popular word processors, spreadsheets, databases and PIM applications, including HP Phone and Appointment Books, ACT!, Memo and Lotus 1-2-3.

Includes serial cable, Mac and 95/100/200 software and Reference Manual.
Stock #3032 (MacLinkPlus, 3.5") List $129 .... $119.95
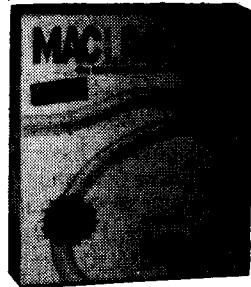
Connectivity Products
for HP 95

HEWLETT PACKARD

Stock #F1015A [48/Palmtop to 9 pin Serial, 6'] $24.95
Stock #F1023A [Serial Cable Adapter Kit] $24.95
Stock #F1016A [Mac/Apl to 95/100 Serial Cable only] $24.95
Stock #F1001AS [HP 95 Connectivity Pack, Spanish] $79.95
Stock #2609 [48/95 to 9-pin Serial Cable, 6'] $24.95

PN50 & PN60
portable 360 dpi plain-paper printers with color & battery options

CITIZEN

Small (10 × 2 × 1.85 inches) and light (1.1 lb, plus .4 lb optional battery). Prints 2 ppm on cut sheets, letterhead, even transparencies.

You'll get about 30 text pages on a black cartridge (included) or 3-5 pages with color (optional, PN60 only). Comes with parallel cable and also accepts RS-232C serial (cable optional). Accepts TrueType and other fonts, has 5 resident fonts; 64-100K bytes compressed buffer.

PN50 is black & white only. Comes with international power adapter, Windows driver, User Manual; 2-yr warranty. PN50 requires Serial/Parallel Converter.

Stock #PN50 [PN50 Printer] List $399................................... $249.95
Stock #PN60 [PN60 Printer] List $399 .... $349.95
Stock #3289 [Ni-Cad Battery] $79
Stock #3290 [Car Adapter] $44.95
Stock #3061 [Shier HP 100/200 PN60 Serial Cable] $34.95
Stock #3292 [2 Black Cartridges] $8.95
Stock #3293 [2 Color Cartridges] $13.95
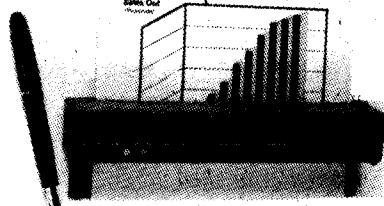
PocketJet
ultra-light, ultra compact 300 dpi thermal printer— the world's smallest!

PENTAX
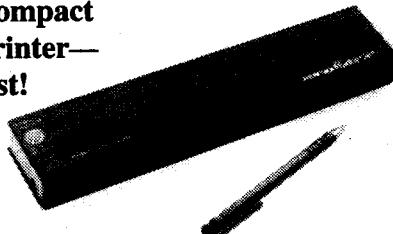
Up to 3 ppm on a nice flat thermal paper, yet it's only 2 lb with battery and adapter, a tiny 10.04 × 2.16 × 1.18 inches. Recharges in 70 minutes. LaserJet IIP (PCL4) emulation, with 7 HP internal fonts plus downloadable fonts.

Everything is included: parallel cable, AC adapter/ charger, battery, carrying case and 100 sheets of paper; DOS utility, User's Guide, & Quick Reference Card.

Stock #3294 [PocketJet] List $449 .... $399.95
Stock #3295 [100 sheets Thermal Paper] $7.95
Stock #3062 [Shier HP 100/200 Serial Cable] $29.95
Stock #3106 [Serial Interface Cable] $24.95

LAN PC card—
PCMCIA Ethernet adapter
for 100/200

Silicom
Connectivity Solutions
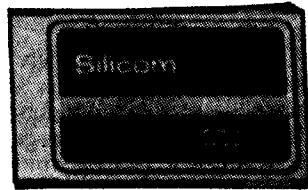
Now your palmtop can become a fully-functional node on the network—so you can direct-connect to download expense reports, exchange email, synchronize schedules, . . .

True plug-n-play installation—then it uses NO palmtop memory space. PCMCIA rel. 2.1, type II; Ethernet IEEE 802.3, 16-bit transfer; 10 Base-T. Includes RJ-45 connector for UTP cable, support driver for HP 100/200LX.

Stock #3066 [LAN PC card] List $219.. $169

R/F PalmStation Plus
for HP 100/200

EnBloc
WIRELESS AT WORK

New

free yourself from phone lines, external modems and cellular networks

That's right! Pop your HP Palmtop into this docking station to get an instant wireless connection from virtually anywhere. Whether you're in a high-rise, a delivery truck or a city park, you'll have access to the whole world.

R/F PalmStation Plus comes complete with a wireline modem, too—just plug it into any phone jack (cable inc) and you're on the Internet. Also has RS 232 serial I/O port to connect to a computer (cable inc). Operates 10 to 12 hours on a charge, so you can work the whole day through without recharge (wall adapter and automobile adapter inc). Does not use your 100/200 card slot.

Only weighs 1.7 lb without HP Palmtop; 8 × 4.5 × 2 inches; 3W transmission; manual. 1-yr warranty. Airtime Services Agreement form included in your box.
Stock #10020A [R/F PalmStation Plus] **$1495**

Experience the freedom and power of portable, wireless computing with

Personal Messenger
100D Wireless Modem Card
(M) *MOTOROLA*

New

Small, lightweight PCMCIA Type II format—works in most portable PCs, including HP 100/200LX, HP 600C/CT and the PTV-30.

Self-powered for stand alone operation—accepts rechargeable NiCd or standard 9v batteries, and can receive and store messages while not connected to computer.

Weighs only 155g (0.34 lb) with battery, 8kB RAM, 1W transmission; 1-year warranty. Airtime Services Agreement form included in your box.
Stock #3422 [Wireless Modem Card] **$689**

Wireless—you can reach anyone, anywhere, that has an Email address, fax machine or RF messaging device

Airtime Services—
2-way, nationwide, wireless communication

ARDIS RadioMail

· **Email** — interactive and virtually instantaneous two-way messaging to and from anyone with an Internet Email address, including users on Prodigy, Compuserve, America On-line, corporate Email systems and other on-line services. Your portable will have its own wireless Internet address.

Messages find you even if your device is turned off — full messages, like proposals or contracts. No logging in. No long distance or roaming charges across the U.S.

· **Faxes**—send messages to any fax machine in the world right from your portable ($1/page, cover page free, for domestic faxes).

· **Bulletins** —services like the latest news, sports scores, and business news/stock quotes are available.

· **Paging**—you·can have a voice to text messaging service with an 800-number that finds you anywhere (alphanumeric pages at $1.50/operator service call).

· **Stay in Control**—everywhere you go. The ARDIS network covers more than 10,700 U.S. cities and towns, which represents more than 90% of the nation's business activity (including AK and HI). There's incredible in-building coverage, so you'll have instant access to the whole world in a high-rise, a delivery truck or a city park.

· **Monthly charges** —most customers will want the 20KB/mo DataPak which is $29.95/mo for full ARDIS/RadioMail service. Larger usage rates are available, starting with 150KB/mo at $59.95. Incremental usage is at $0.54/KB; there is a one-time activation charge of $99/unit, and RadioMail has $.05/KB additional charge for all DataPak sizes. No long-distance or roaming charges across the U.S.

EduCALC will provide an ARDIS/RadioMail Airtime Services Agreement form in the box with each transmitter, so you can get started in a couple of days.

10 × 10 Cable
for fast data transfer, HP 200 to 200 HP 100 to 100

EduCALC
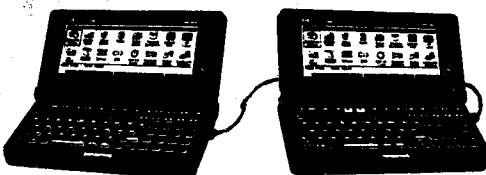
Works with two HP 200s or two HP 100s, at maximum speed. 2' cable has 10-pin serial connectors on both ends and is small enough to fit in a case with your instrument.
Stock #2624B [10 × 10 Cable] **$22.95**

Travel Floppy 144
take this 3.5" disk drive with you— connects to any PCMCIA type II slot
for HP 100/200

Accurite

Small (4 × 6.3 × .85 inches) and lightweight (18.9 oz)—so you can up- and download large amounts of data on the road.

You can hot-swap the type II PC-card controller so you can move files without exiting the software in use—for quick, simple and economical backups and transfers.

Controller card comes with its 18-inch cable—AC adapter included (required with HP 100/200); manual, software drivers and utility. Requires connectivity kit. Not for HP 95LX.
Stock #3051 [Travel Floppy 144] **$229**

PC Card Adapter
for type III+ device into type I & II slots

Greystone Peripherals
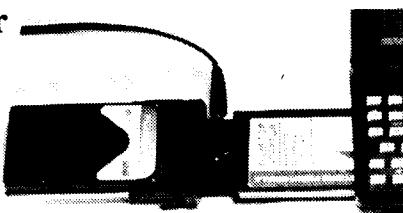
Now —add a hard drive or a GPS to your HP 100/200

Converts Type I & II PCMCIA slots so you can use Type III+ cards. In systems where a Type III device would block your use of a second (Type I or II) card, this adapter keeps the second slot free.

It can enable the simultaneous use of a fax/modem with a hard-drive card. Developers can get access to a card in adapter for testing.
Stock #3314 [PC Card Adapter] **$99.95**
Stock #3315 [AC Adapter] **$9.95**

External PC Card Drive

Databook

Read and write to cards at your PC! You merely plug this into your printer port (DOS or Windows—except Windows 95, Enhanced or Standard port) and plug the printer back into this—for pass-through operation.

Handles PCMCIA RAM and Flash cards plus ATAs and ExCAs, Types I, II, III. Self-installing software has quick and easy user interface. Parallel cable included.Not Windows95 compatible.
Stock #TMD650 [PC Card Drive] **$189**

External *Card-Link* Drive
(ok for HP 95/100/200/OmniBook)

SCT

Lo-cost convenience ¾ transfer files, programs and data between your palmtop and desktop PCs.

4 × 1 × 6 inches, 1 lb, transfers data at 80 KB/sec. Includes AC adapter, connects to parallel printer port on PC. Reads or writes to RAM or FLASH cards, Type I or II, 5 or 12 v (except Maxtor). Comes on 3.5" floppy to download (free exchange to 5.25" disk). Windows95 compatible
Stock #CL680 [SCT Card-Link] List $190 .... **$164**

Drive95 or Drive100/200
Portable 3.5" Disk Drive
for your HP 95, HP 100 or HP 200
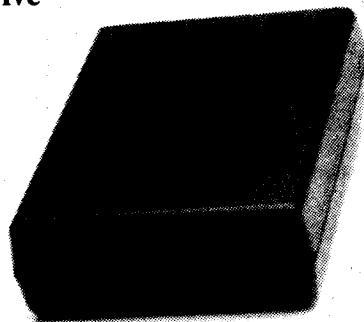
Sparcom CORPORATION

This lightweight, battery-operated disk drive features Sparcom's device driver software, engineered to read and write in MS-DOS format on standard 3.5" HD floppy disks.

This drive makes it affordable to store data, simplifies program execution from 3.5" 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 (7.25" ′ 5.25" ′ 2") and contoured to complement the HP instrument, the drive95 also interfaces with the HP 48S/SX/G/GX or most DOS based palmtop, laptop, or desktop computer, and supports 720K and 1.44MB capacity 3.5" disks.

Includes device-driver software, manual, serial cable and AC charger/adapter; 90 day warranty.
Stock #2602 [Drive95 for HP 95 & 48] List $360 .... **$323**
Stock #3024 [Drive100/200] List $360 .... **$323**

Fax/Modem & Memory
PCMCIA Type II card
professional communications for 100/200/OmniBook

Smart

APEX DATA

Combines 14.400/9600 bps fax send/ receive and 2400 bps modem with the memory ¾ 6MB ¾ that turns your HP portable into a real mobile communications center.

Features error correction, fallback for slower-speed modems, auto dial and answer. Prints incoming faxes on HP LaserJet & most other printers, schedules faxes for economical phone rates, faxes to multiple destinations. Has built-in phone-line interface, Auto Stand-by and Sleep modes (lowest power consumption), and is COM 1 or COM 2 configurable.

The 6MB Flash memory can be used to store Fax, data or other files. 5 yr warranty.
Stock #3054 [Fax/Modem & Mem Card, 6 MB] List $449 .... **$389**

Swap Box internal PC card drives
full PCMCIA compatibility for your desktop

SCM

Here's the bridge, between your PCMCIA-equipped palmtop and any desktop PC.

Now you can share the same set of function cards in both machines — save on the cost of peripherals like memory cards *and also* FAX/Modems, LAN adapters, etc. You'll maximize your computing investment dollars.

Each drive accepts all PCMCIA release 2.0 cards, types I, II and even big, fat type III. Each carries an unprecedented 5-year limited warranty, the hallmark of fine engineering and precision manufacturing. Each transfers data at 2MB/sec.

Entry-level drive #2977 has a single slot with access at the rear of your PC, #2978 has a single front-access slot, and power-user's #2979 has both slots (one front and one rear, for simultaneous use).

2-in-1 drive #3304 gives you 2 PC-card drives in a single front drive bay, while all-purpose #3305 has one PC-card slot and one 3.5" floppy slot, both in one drive bay.

Stock #2977 [Swap Box Lite] List $92 .... **$79.95**
Stock #2978 [Swap Box Classic] List $152 .... **$114.95**
Stock #2979 [Swap Box Premium] List $185 .... **$179.95**
Stock #3304 [Swap Box Classic × 2] List $155 .... **$134.95**
Stock #3305 [Swap Box Classic Combo] List $219 .... **$189.95**

PalmModem 2400/PalmFax
for HP 95 or for HP 100/200

New Media

Just plug this into your computer's card slot —you've got a modem or a send-only fax machine that's PCMCIA compatible!

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.

Stock #2680 [95 PalmModem] List $119 .... **$109.95**
Stock #2777 [100/200 PalmModem] List $119 .... **$109.95**

Telecoupler II
for HP 95/100/200/OmniBook

AR Industries

✓ pay phones
✓ foreign phones
✓ customer's phones
✓ hotel phones
✓ digital phones
✓ car phones
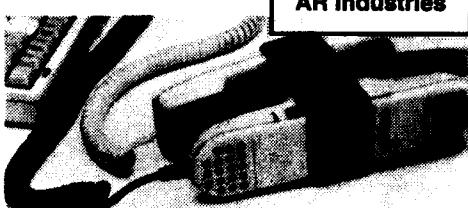
Works with virtually any telephone, and most modems—you won't have to search for an RJ-11 jack. Does not work with 'line-powered' modems. Transmits up to 14,400 bps for data and fax. Weighs only 9.5 oz and plugs into your modem (RJ-11).

Stock #3001 [Telecoupler II] List $160 .... **$139.95**

## ThinFax 144LXM Modem and Memory
for HP 100/200

EXP

■ 14.4K bps send/receive data/fax
■ 2, 4 or 8 MB built-in flash memory (optional)

Has the look and feel of the built-in HP 100/200 applications, and is HP System-Manager compliant—when you install this, the software loads an icon in your main menu, so you can choose that for execution.

Compatible with cc:Mail and Datacomm; automatically programmed to be COM2 by your HP 100/200. The faxes you receive can be stored in memory (optional) right on the card, so you get both functions in your one PCMCIA slot, memory and communications.

Error correction, data compression, auto-dial/answer.

Stock #3057 [ThinFax 144] List $329 .... **$229**
Stock #3058 [ThinFax 144, 2MB Flash] List $379 .... **$279**
Stock #3059 [ThinFax 144, 4MB Flash] List $429 .... **$339**
Stock #3108 [ThinFax 144, 8MB Flash] List $599 .... **$499**
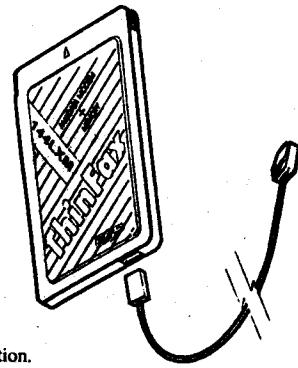
StarLink
wireless receiver card
**for 100/200/OmniBook**

HEWLETT PACKARD

■ News and Sports
■ Stocks and Company Reports
■ Messages from anyone with a telephone, anytime, anywhere
■ email from anyone with a modem, anytime, anywhere
■ update your appointment book

You just plug this into a PCMCIA Type II card slot—receiver card contains StarLink software.

Then choose coverage to match your needs—local, regional or nationwide—news and sports, stocks, or any of a whole list of options. Call 1-800-917-LINK for service pricing information or answers to technical questions.

StarLink card has a bulge outside your palmtop or laptop card slot—includes one AAA alkaline battery with approximately 21 days life, 128KB applications flash and 128KB message RAM memory. One year warranty with Express Exchange overnight replacement if you need it.

Stock #F1028A [StarLink Receiver, card] List $229 .... **$219**
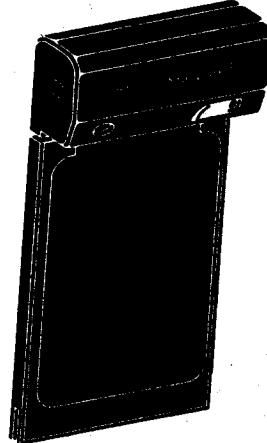
You can connect to those weird foreign phone jacks—easy!

AR Industries

Take along one of these International Telephone Adapter Plug Kits. Each Kit has the appropriate plugs for its region, plus 2 modular inline couplers (one regular and one special) and a carrying case.

Euro Kit has plugs for the UK, Belgium, the Netherlands (Holland), Italy, France, and 2 for Germany. The UK and French plugs also work in many colonies and ex-colonies.

Scandinavia Kit has plugs for Sweden, Finland/Norway and Denmark.
Eastern Euro Kit has plugs for Hungary and Poland/Russia.
Australia Kit has Australian plug which also works in many So. Pacific islands.
Far East Kit has UK, Japanese, and Australian plugs, US RJ-11 Doubler, and US Old 4-pin.

Stock #3099 [Euro Kit] **$69.95**
Stock #3100 [Scandinavia Kit] **$34.95**
Stock #3345 [Eastern Euro Kit] **$29.95**
Stock #3346 [Australia Kit] **$24.95**
Stock #3347 [Far East Kit] **$49.95**

acCIS CompuServe Automation Program
## for 95/100/200

- ■ Send Faxes
- ■ Get Stock Quotes
- ■ Read the Latest News
- ■ Send/Receive Electronic Mail
- ■ Communicate around the World
- ■ Download Software to your Palmtop

acCIS is the only CompuServe access program that is fully SYSMGR compliant and works on all HP palmtops.

Join the HP HAND forum and correspond with authors and experts.

Free DOS version of acCIS included for your desktop.

Stock #3255 (acCIS, 3.5") List $79 .... **$69.95**

GAMEcard volume 1
for HP 95/100/200

Plug a lot of fun into your HP Palmtop—here are 14 games on a single ROM card: Unscramble, Checkers, Meko, Qubic, Klondike, Mines, Solitaire, Tetris, Blackjack, Craps, Adventure, Reversi, Go and Poker.

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

QUICK/LX
typing aid for 100/200

Shier Systems & Software
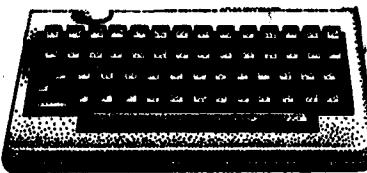
I'm a slow typist, and I'm impatient, so I was really delighted with this new software. It reduces typing time by suggesting the rest of a word you have partially typed.

For example, when you type **sop**, QUICK/LX displays **histicated** in a small window right next to the text you entered. If you press the right arrow key, you tell it to accept the word **sophisticated** for you. Or you can ignore it.

It really has reduced my keystrokes—plus it improves my spelling.

Stock #3355 (QUICK/LX) **$39.95**

Project KickStart
the 30-minute project organizer
for 100/200/OmniBook

Experience In Software

- ■ launch a product
- ■ start a business
- ■ plan a career move
- ■ develop a marketing campaign
- ■ increase team communication
- ■ organize an event or project

Not a project-management program (they're great for schedules and budgets)—Project KickStart starts where you do. Fast and easy, it uses 10 simple steps to help you create your own solid, up-front strategies. Within minutes you'll view or print out The Project Plan, an overall strategy and task-list. If you like, feed this into Lotus Agenda, MS Project, etc.

You get a 30-day guarantee of dramatic results—or your money back! Just one use will save more than its low cost—then it's free!

Stock #3244 (Project KickStart, 3.5") List $98 .... **$49.95**

Read our mail from New York—
"EduCALC is really the leader store in the sale of calculators and computer products. Keep up with your good work!"
Krishna Shukla, Buffalo

The fastest, easiest way to organize your finances, *wherever you go*

Pocket Quicken
for the HP 100LX

Track your finances easily on-the-go
Pocket Quicken is especially designed for HP Palmtops to work the way you work. Instantly and effortlessly update your checking, savings, credit card, even cash accounts using a traditional checkbook register format. Just enter transactions whenever you have a spare moment to keep your finances organized and up-to-date.

System Requirements:
TO INSTALL Pocket Quicken in the HP 100LX: requires HP Connectivity Pack (100LX or 200LX version). To TRANSFER data between Pocket Quicken and desktop Quicken: requires HP Connectivity Pack for the 200LX (version F1021B includes Quicken connectivity), Quicken for DOS 3.0 or higher or Quicken for Windows 2.0 or higher. 640K DOS RAM and at least 450K of free conventional DOS memory (required by HP Connectivity Pack).

Stock #3274 (100 Pocket Quicken) **$69**

Software Carousel
memory management software
for HP 200LX *Brand New*

SunShine SoftwareCompany
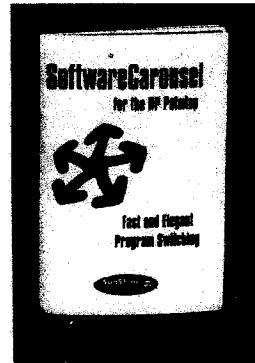
hot-key switching among up to 12 programs
If you are a power user, here's fast, easy, simple memory maximization.

3.5" disk, user's guide; 60-day replacement warranty. Phone, fax or email Sunshine tech support.

Stock #3431 (Software Carousel) List $90 .... **$79.95**

EduCALC Bulletin Board System

The EduCALC Bulletin Board System is another method of support from EduCALC! To better serve its customers, EduCALC has installed a dedicated, state-of-the-art, multi-line Bulletin Board System (BBS).

EduCALC customers can do all of the following free of charge:

- ➤ place a catalog order
- ➤ request help from technical support
- ➤ view/download current catalog information
- ➤ view general message areas
- ➤ read and respond to classified ads
- ➤ order and download selected software on-line
- ➤ download from general file areas

For a small subscription fee, EduCALC Bulletin Board Priority Customers will get all of the above *plus*:

- ➤ view/download the latest catalog before it's released
- ➤ place classified ads
- ➤ view weekly specials available only to priority customers
- ➤ special download file areas
- ➤ other valuable benefits

The EduCALC Bulletin Board System can be reached at (714)348-8115. Set your communications software to 8 bits, no parity, 1 stop bit (8-N-1). Baud rates up to 28.8K are supported.

EduCALC BBS (714)348-8115   8-N-1   Sys Op (714)458-1578
NEW SERVICE—CD-ROMs

Orders can now be placed through the EduCALC Bulletin Board System for pre-mastered CD-ROMs. A video-to-CD-ROM service is also available. Log on for full details!

Super palmtop PC with built-in Microsoft WORKS

at the right price!

INSTANT
T E C H
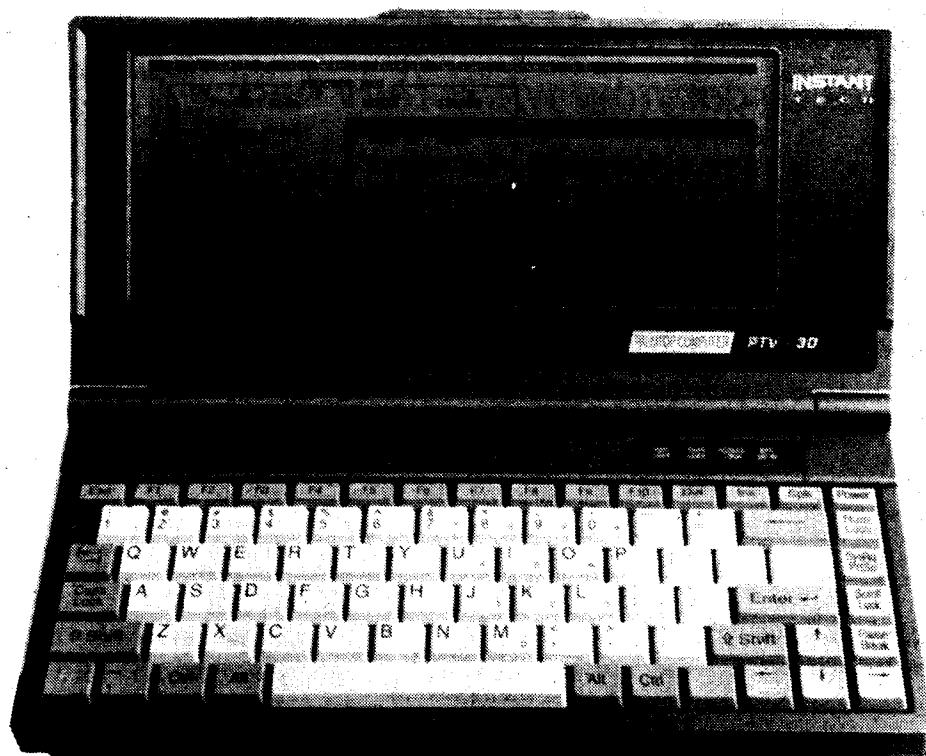
Here's the mid-size machine you've been looking for—big enough to type on (a superpalmtop) and small enough to carry like a book (a subnotebook).

Big yet small? It's 4.5 H × 9.25 W × 1.25 inches Thick—51.6 in^3. It weights 1.3 lb, including its 2 AA batteries (power enough for 25 hrs). There is also an AC adapter jack.

Is it typeable? About a half-hour with this 82-key QWERTY keyboard and you can expect to be touch typing at maybe three-quarters speed.

Can you read it? You bet—this black-and-white LCD is CGA-compatible with 640 × 200 pixel resolution. You'll see all your work in standard 80 columns × 25 rows. Contrast adjusts to fit any lighting.

What about power? You'll have a V30HL CPU running at a fast 7 MHz. The 1 MB ROM holds MS-DOS 5.0 (as well as WORKS 2.0), so you appreciate the instant-ON, no-boot way that it wakes up right where you left off. There are 2 models, with 1 or 2MB of RAM and it's all available to you since the BIOS and WORKS software is in the ROM.

How does it communicate? Easy. It has 1 parallel and 1 serial port, built in with standard connectors, so you can up and download or print with standard cables. There's built-in communications software (in WORKS) so you can exchange files with other computers, send/receive email, share programs, check on news and sports events or stock prices, shop electronically, and so on.

Does it have PCMCIA slots? Yes, two—PCMCIA 2.0 Type II, so you can add ROM programs, RAM or Flash memory, modems, whatever. It will modify or grow with your needs.

What exactly is WORKS? This is Microsoft's wonderful all-in-one office program—the 4 most-used applications, a Word Processor, Spreadsheet, Database and Communications applications. These 4 programs are designed for you to use them together—to a degree no separate programs could be. They are supported by several utilities including an Alarm Clock, Calculator, File Manager, automatic Phone Dialer and an extensive Help database. WORKS is preinstalled in ROM so it can never be accidentally erased, and so it uses no RAM to operate.

Any bells and whistles? Sure, there's a text-to-speech utility (included on disk) that will startle you. Just type in a sentence and touch the SPK key—your computer's voice will pronounce what you've written through the built-in speaker! I was amazed at just how good this electronic speech is, too. Plus, there's even an earphone jack.

Comes with complete User's Manual and 3.5" disk of downloading software. 90-day warranty. *And the price is right.*

Stock #PTV30 [Superpalmtop, 1MB RAM]..................................... $429
Stock #PTV30-2 [Superpalmtop, 2MB RAM] $529

Executive's Leather Case

Zip in your PTV-30; pouch for phone, plus eleven slots for everything else. Black, hand-tanned; shoulder strap. See picture in preceeding Palmtop section.
Stock #3112 [Executive's Leather Case] $79.95

Check our preceding Palmtop section for cases, PC cards, cables, peripherals, the PN 60 printer (palmtop section) and software for the PTV30.

Pentium power says all the right things about you
OmniBook 5500—see color picture inside front cover of this catalog

HEWLETT PACKARD

5500

Brand New
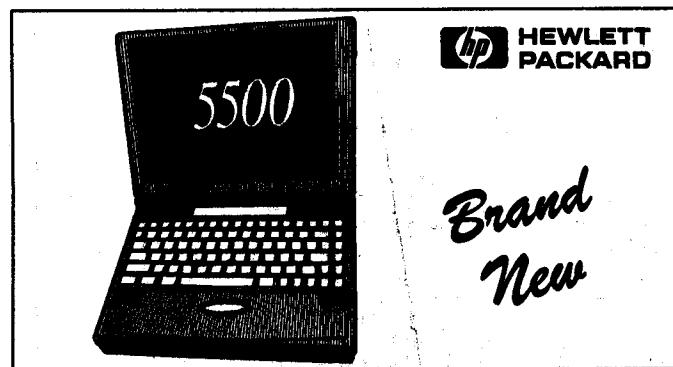
Pentium and Hewlett-Packard, together in the same notebook package—this is as good as things get.

That Pentium chip feeds a 32-bit PCI bus—so it's fast, fast, fast—you'll have eye-popping graphics, full-motion video, and split second screen refresh.

Your OmniBook 5500 will have NTSC/PAL video-out and MIDI joystick ports. Optional quad-speed CD-ROM and integrated 16-bit Sound Blaster stereo for multimedia. Or you can substitute an optional battery for the removable 3.5" floppy disk drive module when you want to double your battery life.

Instant-On is a real boon, if you're as impatient as I am—you go back to work with the touch of a finger, right where you left off, with no reboot. Plug & Play autoconfigures for peripherals. Infrared port for wireless printing and networking at a blazing 4MB per second.

Docking system (optional) connects you instantly (hot-docking) to desktop monitor and keyboard, peripherals and network.

It all works with HP reliability you can count on. Maybe that's why the 1239 business users of notebook computers that J.D. Power & Associates surveyed in 1995 rated HP highest in customer satisfaction. You won't regret buying your HP 5500.

The warranty on your 5500 calls for Express Pickup and Delivery (EPAD). It is for 3 years, except it is for 1 year on the Value Line models, #F1326A and #F1329A.

Specifications for the 5500 models are coded in their pricelines. For example, in the top line, for #F1320A, *5/133* means a Pentium CPU chip running at 133 MHz clock speed, *2GB/16MB* means a hard disk drive capacity of 2GB (or 2000MB) and 16MB of RAM, and *12.1"TFT* means a 12.1 inch display of type TFT.

Stock #F1320A [5/133, 2GB/16MB, 12.1" TFT] .... ~~6099~~ $6529
Stock #F1321A [5/133, 1.35GB/16MB, 12.1" TFT] .... ~~5669~~ $5999
Stock #F1322A [5/120, 1.35GB/16MB, 12.1" TFT] .... ~~5479~~ $5839
Stock #F1324A [5/120, 1.35GB/16MB, 10.4" TFT] .... ~~4529~~ $5329

Stock #F1325A [5/120, 1.35GB/16MB, 11.3" DSTN] .. ~~4299~~ $4839
Stock #F1326A [5/100, 1.35GB/16MB, 11.3" DSTN] .. ~~3879~~ $4489
Stock #F1329A [5/100, 810MB/8MB, 11.3" DSTN] .... ~~3099~~ $3599

Accessories for 5500 Series only
Stock #F1191A [810MB hard disk drive]...................................$1059
Stock #F1192A [1.35GB hard disk drive]..................................$1589
Stock #F1193A [Standard Lithium Ion battery pack]....................$239
Stock #F1194A [Enhanced Lithium Ion battery pack]..................$329
Stock #F1195A [3.5" Internal/External disk drive]......................$189
Stock #F1319A [Quad-speed CD-ROM drive]............................$389
Stock #F1338A [External battery charger]................................$159

Accessories for 5000 and 5500 Series
Stock #F1189B [Docking system, monitor stand/riser]................$649
Stock #F1181A [Y-adapter & MIDI/joystick adapter]....................$34
Stock #F1134A [8MB RAM expansion card]................................$359
Stock #F1135A [16MB RAM expansion card]..............................$679
Stock #F1136A [32MB RAM expansion card]............................$1359
Stock #F1044B [AC adapter] $94
Stock #F1064A [Automobile adapter]..$94

Accessories for 5000 Series only
Stock #F1138A [810MB hard disk drive]..................................$1179
Stock #F1139A [1.2GB hard disk drive]...................................$1499
Stock #F1137A [Lithium-Ion battery pack] $239
Stock #F1074A [External battery charger]...............................$142

Accessories for 600 Series Only
Stock #F1044B [extra AC Adapter] $94
Stock #F1058A [NiMH Battery Pack module] $94
Stock #F1121A [Lithium Ion Battery for C or CT] $129
Stock #F1063B [External Battery Charger] $49
Stock #F1064A [Automobile Adapter] $94
Stock #F1054A [4-MB RAM Expansion Card] $314
Stock #F1055B [8-MB RAM Expansion Card for C & CT] $559
Stock #F1123A [16-MB RAM Expansion Card for CT] $1099
Stock #F1124A [24-MB RAM Expansion Card for CT] $1649
Stock #F1071A [Port Replicator] $329
Stock #F1049A [extra OmniBook mouse] $45
Stock #F1059B [extra 3.5" external floppy drive] $186
Stock #F1068A [extra 170 MB Hard Drive] $449
Stock #F1069A [extra 260 MB Hard Drive] $529
Stock #F1070A [extra 340 MB Hard Drive]] $599
Stock #3035 [4-MB RAM, Simple Tech for 530/600] $249
Stock #3049 [4-MB RAM, Simple Tech for 300/425/430] $249
Stock #3050 [8-MB RAM, Simple Tech for 530/600] $479

Technical Specifications

Size Closed
- 29.5 × 22.6 × 4.9 cm (11.6 × 8.9 × 1.93 in.)

Weight
- 3.08-3.18 kg (6.8-7 lb)

Processor & Bus Architecture
- 133-MHz Intel Pentium®processor; all models include 256-KB external L2 cache
- 32-bit PCI bus

Display
- 12.1-inch diagonal SVGA TFT 800 × 600 × 65,636 colors
- PCI local bus video; 1MB video RAM

Power
- Rechargeable Lithium-Ion battery
- Battery recharges to high level in 4 hrs using PC adapter while PC is on or off
- 2-minute low-battery warning
- Instant-on maintains computer in ready-to-work state for days on a charge; returns you to your application or file instantly
- Battery life (approximate with one battery): 1.75 to 2.5 hrs
- AC adapter 100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3A output

Removable Modules
- Floppy disk drive (can be used both internally or externally and can be replaced with a 4X CD-ROM drive or a second battery for 150% increase in battery life)
- Hard disk drive
- RAM
- Battery

Environment
- Operating temperature: 0 to 35° C (32 to 95° F)
- Storage temperature: -40 to 65° C (-40 to 149 F°)

Mass Storage
- 1.35-GB hard disk initially

RAM
- RAM upgradable to 64 MB
- 8-, 16-, or 32-MB RAM cards

Audio
- 16-bit with Sound Blaster and MIDI support
- Stero sounds via two built-in speakers

Keyboard and Pointing Device
- 85-key touch-type keyboard
- Embedded numeric keypad
- 12 [Fn] keys
- Trackpoint III® — technology licensed by IBM®

Input/Output
- 9-pin, 115,000-b/s, RS-232 port
- 25-pin EPP and ECP parallel port
- SVGA-out (up to 1024 × 768 × 256); VGA-out (640 × 480 × 65.536 colors)
- 4-Mb/s. bidirectional infrared
- Expansion bus connector
- NTSC/PAL video-out (composite & S-Video ports)

- Keyboard/mouse port
- Headphone/stereo-out port
- Stereo-in and microphone ports
- MIDI/joystick port

Expandability
- One Type III PCMCIA slot (or use as two Type II slots) with 3.3- V or 5-V support
- Optional docking system with one ISA slot and one ISA/PCI slot, and parallel, serial, SVGA-out (up to 1024 × 768 × 256), keyboard, PS/2 mouse, MIDI/joystick audio, and SCSI-2 ports

Pre-installed Software
- Microsoft® Windows® 95 or Microsoft Windows for Workgroups 3.11
- MS-DOS® 6.22
- Plug and Play BIOS
- HP PIM

Security Features
- 2-level password protection
- Hard Drive password
- PC ID (tattooing)
- Kensington lock slots

Need one of these for your OmniBook?

Flash and RAM Cards	see page	15, 16
Cigarette Lighter Adapter		17
External Card-Link Drive		21
FAX & Data Modems		21, 22

Rich Leather Carry Case
for your HP 600
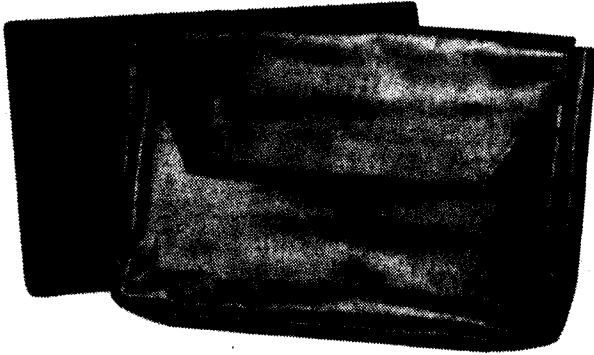
EduCALC

hi-touch safety for your hi-tech investment

Slim, trim and impressive, yet this formfit beauty protects your 600 from all those inevitable spills, scratches, knocks and drops. Four pockets inside for PC cards or business cards, velcro closure. Handsome black.

Stock #3317 [Leather 600 Case] $29.95
Stock #3318 [Nylon 600 Case] $18.95

the leather *TakeItEasy* OmniBook mini-brief

ISIS
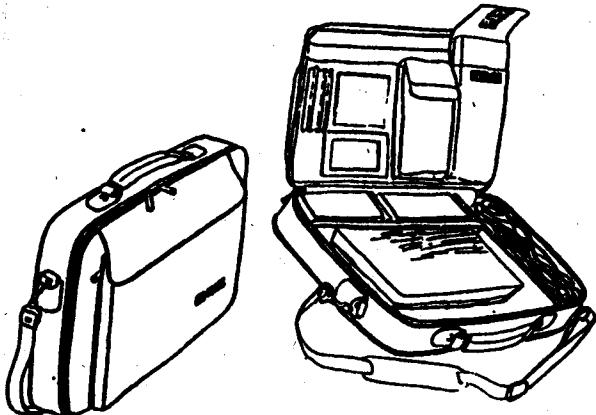
■ **Look smart** with softly rich, black leather—handsomely designed and meticulously constructed

■ **Act smart** with everything together where you need it—organized for instant readiness

■ **Be safe** with ultra-light padding, secure pockets and an adjustable, detachable shoulder strap

4 inside pockets plus space dividers and pen slots, with velcro-closed outside pocket—so your OmniBook can go in or out. Will also carry books and papers or catalogs, PCMCIA cards, a modem, a disk drive—everything you need! Approximately 10 × 15 × 2".

Stock #3200 [TakeItEasy Leather Case] $89.95
Stock #3037 [TakeItEasy Nylon Case] $59.95

P35B Floppy Drive
for OmniBook 425/430

PacRim
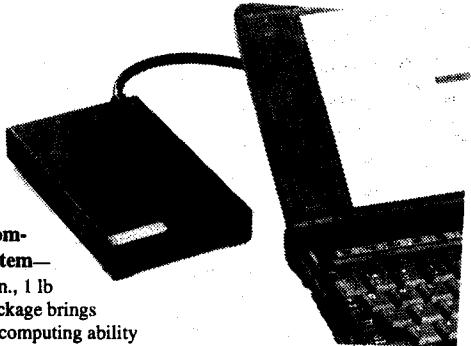
Transform your OmniBook into a complete computing system—this 3.5", 7.4 × 4 × 1 in., 1 lb pocket or briefcase package brings 3.5", 1.44MB/720KB computing ability along wherever you go (operates on 110 v AC).

Everything included for installation. Use with any DOS computer; connect or disconnect anytime without rebooting. Pass-through parallel port allows simultaneous use of a printer with the drive.

Stock #3063 [P35B Floppy Drive] $169.95

JetEye
wireless data transfer to any PC from OmniBook
(IRDA compatible)

Extended Systems
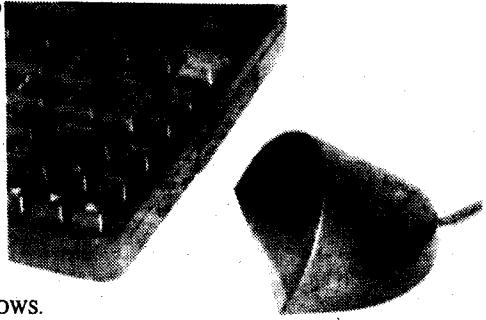
With JetEye you can transfer data at 115,200 baud between your OmniBook and any PC running DOS or WINDOWS.

JetEye is self-powered from the PC's serial port (9 or 25-pin)—you just line up your OmniBook's infrared port with JetEye and start your built-in LapLink Remote Access program. Networks are supported. 2 yr warranty; easy to install.

Stock #ESI9680A [JetEye 9680 PC] List $135 .... $109.95

Ethernet PC-Card
for Omnibook

PreMax

Now you can connect your notebook or palmtop to your network—just plug it in to Novell Netware, IBM's LAN Server, Banyan's VINES or MS Windows for Workgroups.

PCMCIA Type II (Rel. 2.1) card with RJ-45 connector for unshielded twisted pair (UTP) wiring and with BNC connector-for coaxial wiring. NE 2000 compatible.

Software drivers included (3.5") for easy installation, and intelligent 'enabler' recognizes any previously-installed card-services software, so it's highly compatible. Manual; 3 yr warranty.

Stock #3277 [Ethernet Card] List $189 .... $139

Cellular Fax Modem
makes your car a
mobile heaven

EPSON°

Imagine—a fax/modem/data card with a direct-connect cable to any Motorola data-ready cellular phone.

Get truly connected while you're on the road—use with any laptop with a PCMCIA Type II slot. Data transfers fast—14,400 bps —and error free with T-30 error correction built-in. Large files go via V:32 bis/42 bis at 57,600 bps, rapid yet accurate.

Comes complete with software (including QuickLink Mobile for Windows) and cable for land line and for Motorola Cellular; 2-yr warranty.
Stock #3053 (Cellular Fax/Modem) List $299 .... $199

LAN Card
PCMCIA Ethernet
Adapter

EPSON°

Plug your notebook into the network—Netware, LAN Manager, LAN Server, Vines, DEC Pathworks, or PC/TPC.

Fits Type II or III slots, supports both programmed I/O or shared memory, comes with DOS ODI and NDIS drives and 10Base-T connector. Toll-free tech support hotline; 2-yr warranty.
Stock #3285 [LAN Card] List $169 .... $139

WinMax LAN PC Cards *combine all your*
PCMCIA Type II card

DATA RACE
Connections for Computers°

● *Ethernet LAN*
Requires 386 running Windows 3.1 (and Windows for Workgroups 3.1) or more.
Stock #3321 [LAN only card] $99

Portable CD-ROM Player
quad speed
plugs into PC card slot—
battery or adapter-operated

Panasonic

Plays regular music CDs too; connects to desktop PC through SCSI2 interface; makes multimedia easy.

600KB/sec transfer, 295 ms access, 128 KB memory buffer; 14 oz, 5.52 × 1.4 × 8.16". Runs on 6 AA batteries or included AC adapter. 24-hour tech support; 2 yr warranty.
Stock #KXLD740 [Panasonic CD-ROM Player] List $399 .... $499

Montana and Mariner
fax/modem cards with cellular & (M) **MOTOROLA**
paging connectivity

Brand New
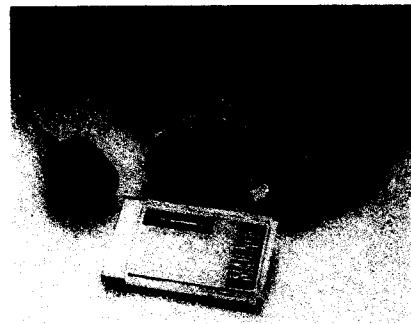
Send/receive data and faxes with 28 Kbps modem technology and 14 Kbps fax capability. ETC error correction protocol; compatible with phones from Motorola, AT&T, NEC and OKI.

Send alphanumeric messages to Motorola pagers. Download data ffrom your pager to your computer.

Transmit messages wirelessly —with a Tango pager you can send messages from your laptop to other two-way paging subscribers.

In addition to all these features, which it shares with Montana, the Mariner has both twisted pair and coax Ethernet LAN interface, for remote access to corporate networks.

Average installation time is only 3 minutes! Comes with cables for the LAN and modem, installation software, device drivers, CardWizard card and Socket Services, and Messaging Partner software for paging features. Fits Type II or III PCMCIA slot. 5-yr warranty.
Stock #3440 [Montana fax/modem] List $329 .... $299
Stock #3441 [Mariner fax/modem-LAN] List $515 .... $489

Viper
Hard Disk Card
goes into PC card slot Type III

| **Integral** |

Get yourself enough
memory room!
At last you can carry your own envir-onment in your shirt pocket—the software you are used to, configured the way you like it, plus all the files and documents you use daily, automatically updated.

It's all instantly ready to use, in your own computer or one you have never seen before—notebook, subnotebok, handheld or desktop—Pen-based, DOS or Windows— all it requires is a PCMCIA type III slot.

Perfect for primary or secondary data storage, the Viper has exclusive MicroGlide technology, with a polished disk to allow the heads to fly closer to surface yet never touch. You get 750G non-operating shock resistance, 300G in idle mode (where it uses only 100 ma). 12 ms average seek time. Weighs only 3 oz.
Stock #3395 [170 MB Hard Disk Card] $389
Stock #3396 [260 MB Hard Disk Card] $479
Stock #3397 [340 MB Hard Disk Card] $579

Read our mail from California—

"I wrote a letter asking several questions about some equipment I received from you for use with my HP 200LX. The phone message I received from one of your technicians explained just what I needed to know . . . Thank you again for your assistance."
Donald Patterson, Oakland

START HERE☛

find First your instrument in these lists, then check out the stands & cases that fit it. Buy your batteries from the list on page 32.

	Calculator	Battery No. × Size	Stands	Hard Leather Cases	Protective Cases	Vinyl Cases
A	HP10B, 14B, 17B(II), 20S, 21S, 22S, 27S, 32S(II), 42S	3 × A76	642, 2403 2127, 2326	2062		
B	HP18C, 19B(II), 28C, 28S	3 × N	769, 2025		92169D/E/F	
C	HP11C, 12C, 15C, 16C	3 × A76	629, 998		92169B	82174
D	HP41C, 41CV, 41CX	4 × N	3351, 642, 2127	511		
E	HP71B	4 × AAA				
F	HP48S, 48SX, 48G, 48GX	3 × AAA	3351, 2249, 2252	2225 2865, 3000	2736, 2763	82221A
G	HP 95LX HP 95LX1MB HP 100/200LX HP 95/100/200 RAM Card	2 × AA 1 × CR2032 1 × CR2025			2736, 2665, 2519, 2520 2764	

Manufacturer	Stock #	Battery No. × Size	Stands	Manufacturer	Stock #	Battery No. × Size	Stands
Apple Newton	3343/3344	4 × AA, 1 DL2032		Instant Tech	PTV30	2 × AA, 1 CR2025	2249, 2252
Aurora	3281 (P El)	2 × CR2032		Sharp	EL92/9300C	4 × AAA	2249, 22522
CI	CMIII/TP	1 × CR2430	642, 2127	Sharp	OZ9600/II	4 × AAA	
CI	CISM	2 × CR2430	642, 2127	Sharp	PC3000	2 × AA, 1 CR2016	
Casio	FX6300G	2 × CR2032	2249, 2252	Sharp	ZR5000/FX	2 × AA, 1 CR2032	642, 2127
Casio	FX7000G	4 × CR2032	2249, 2252	TI	TI30STAT	2 × A76	2249, 2252
Casio	FX7000GD	3 × CR2032	2249, 2252	TI	TI68	1 × CR2032	642, 2127
Casio	FX77/8700G/B	4 × CR2032	2249, 2252	TI	TI80	2 × CR2032	2249, 2252
Digitool	DCINCH/+	2 × A76		TI	TI81	4 × AAA	2249, 2252
Greenwich S/P	GA 935	1 × 9V		TI	TI82/85	4 × AAA, 1 CR1616	2249, 2252
HP IR Printer	82240A/B	4 × AA		TI	TI92	4 × AAA, 1 CR1616	
Psion (3a)	2963	2 × AA, 1 CR1620		Timex	3270 (Dta L)	1 × CR2025	

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

Get Instant Gratification—use our optional UPS Overnight Delivery!

Plastic folding stand—adjustable viewing angle, quickly collapses for your pocket. Its teal color complements your calculator. A *Best Buy*.
Stock #3351 [Plastic stand; 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

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. Dimensions: .375" × 2".

Stock #AWNP [Custom Nameplate: Chrome] $7.95

Catalog shopping is convenient—why suffer the mall?

		#92169B #92619D #92619E #92619F
#2225 #511 #2062	#3351	
#2763	#2736	#3000
#998 #2025 #2127 #2252	#2326	#629 #642 #769 #2249
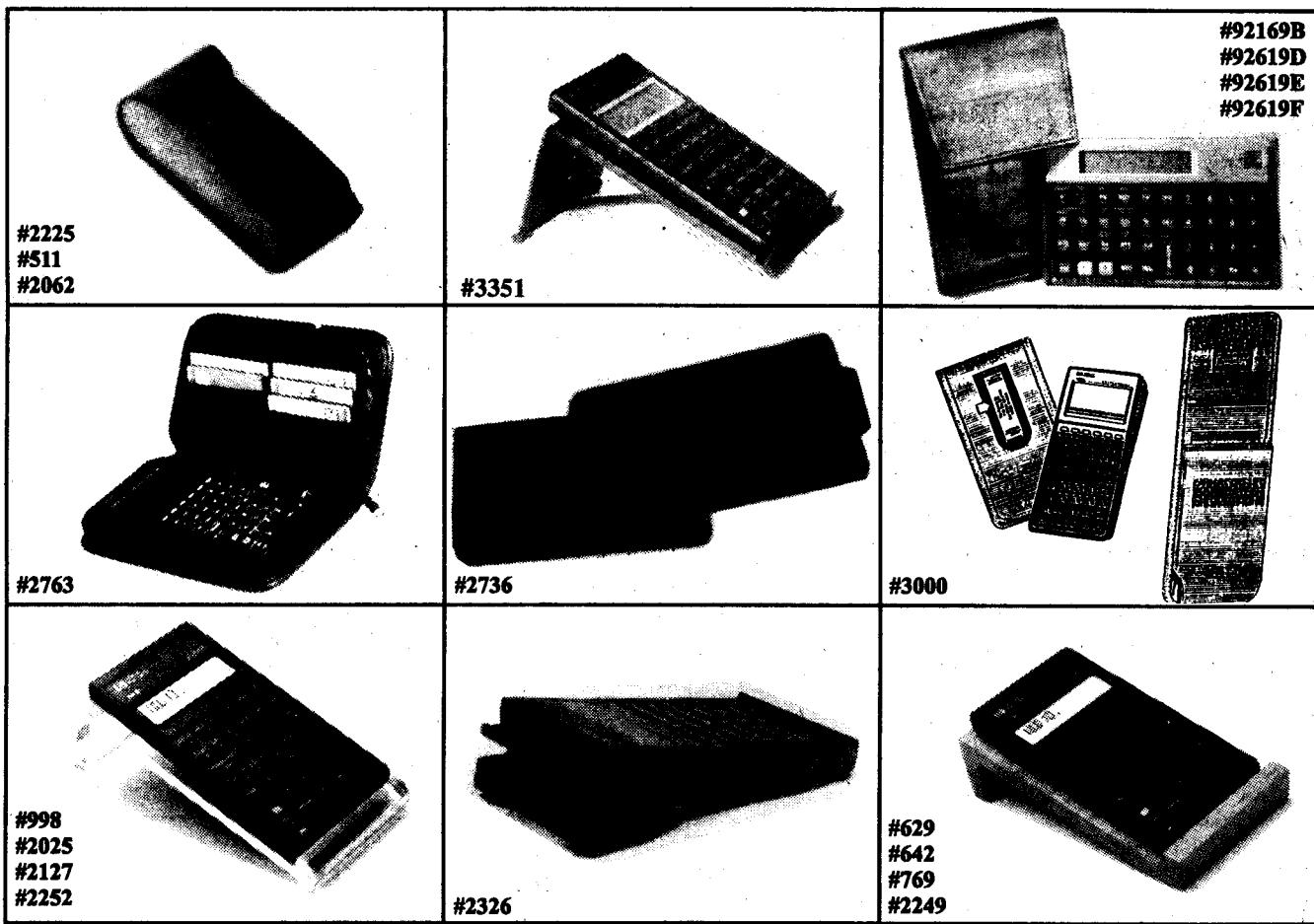
☛ Find out what fits your instrument on the preceding page

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 brown cowhide. Rugged, professional looking, with broad belt loop.
These cases are handcrafted.
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 #2225 [Hard Leather Case - 48SX, tan, size F] $42.95

The Pouch

A no-frills case made of bouncy neopreme foam and nylon, with belt loop and velcro closure.
Stock #2736 [Instrument Pouch] $19.95

Soft Vinyl Cases
for the HP 48

HEWLETT PACKARD

Just like the one that came with your instrument.
Stock #82221A [Vinyl case: Black, size F] $14.95

Belt Holster with belt clip
Stock #3000 [Belt Holster, Black sizes D, F, G] $14.95

Tuck-top wallet
with a second layer of pliant cowhide
Stock #92169D [HP wallet: Black, size B] List $19 .... $17.95
Stock #92169E [HP Wallet: Brown, size B] List $19 .... $17.95
Stock #92169F [HP Wallet: Burgundy, size B] List $19 .... $17.95
Stock #92169B [HP Wallet: Black, size C] List $14 .... $11.95

the Leather Desk

Sumptious black napa leather coddles your HP 48, Wizard or Psion 3 with extra padding for instrument protection. Software and memory cards fit into 6 slots, 2 pockets hold notes and diary. There's a second compartment for important documents and a loop for your pen.
It feels soft and rich in your hand, but there's a detachable carry strap, too. 8 1/4 x 5 x 1 3/4 inches outside.
Stock #2763 [HP 48 Leather Desk] $57.95

> *In a hurry? Use our UPS 2ND DAY AIR*
> *A big hurry? UPS OVERNITE AIR!*

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 page 27.

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 coin-cells listed below are used for memory back-up.

Stock #CR1620 [Lithium battery] $2.95
Stock #CR1616 [Lithium battery] $1.75
Stock #CR2016 [Lithium battery] $1.75
Stock #CR2025 [Lithium battery] $1.95
Stock #CR2032 [Lithium battery] $1.95
Stock #CR2325 [Lithium battery] $1.95
Stock #BR2325 [Lithium battery] $1.95

New—Rayovac *Rechargeable* Alkalines

'Renewal' brand, last up to 3 times longer per charge than NiCds, recharge 25 to 100 times, are ready to use new, hold their charge in storage, have no memory problem, and do no harm to environment. *You get lots more and pay a lot less!*

The portable wall unit PS1 will recharge up to 4 AA or AAA Renewal batteries, while the tabletop PS2 charges any combination of up to 8 D, C, AA or AAA cells. Renewal AA and AAA cells will charge in 3-5 hours, C and Ds overnight. No other type of cell can be charged in these units, and Renewal cells require them.

Stock #AARE [Renewal alkaline AA, Qty 4] $4.99
Stock #AAARE [Renewal alkaline AAA, Qty 4] $4.99
Stock #CRE [Renewal alkaline C, Qty 2] $4.99
Stock #DRE [Renewal alkaline D, Qty 2] $4.99
Stock #PS1 [Renewal Portable Charger] $13.99
Stock #PS2 [Renewal Tabletop Charger] $27.99

Nickel Cadmium Rechargeable

The HP 200 requires 2 AA batteries, and alkaline batteries come with it. If you replace them with NiCds, any one of HP's AC Adapters (#F1011A . . .) will act as a recharger. You'll get up to 1000 recharges on each set.

Stock #NAA [NiCd rechargeable 500 m AH, AA] $2.89
Stock #2784 [Hi-capacity NiCd 850 m AH, AA, qty 2] $6.95

HP 10B
Algebraic entry—
for Business Professionals
and Students
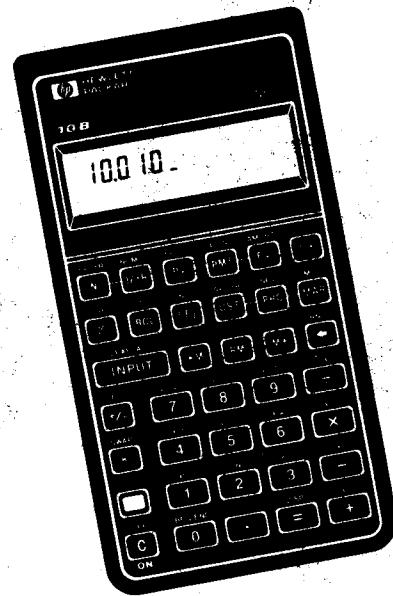
Now—traditional HP reliabilty is affordable
The HP 10B is the ONLY calculator under $40 that gives you ALL 3

HEWLETT PACKARD

1) **HP dependability**—molded keys, so the letters will never rub off and you'll never have to worry about sticking keys or double entries.

2) **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.

3) **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

Read our mail from Connecticut—

"As a first time customer, I want to tell you how impressed I was with your service . . . The order arrived in perfect condition and on the day I was told it would. How refreshing!!! ". . . Thank you again for the great service. David K. Stott, Middletown

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
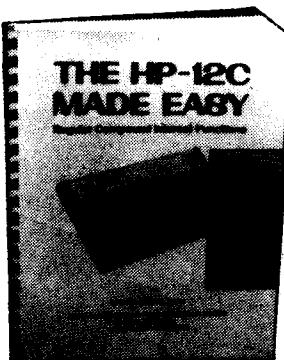
An Easy Course
in using the HP 12
by Coffin/Wadman

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.
Stock #260, Easy Course 12C, 256p wirebound $19.95
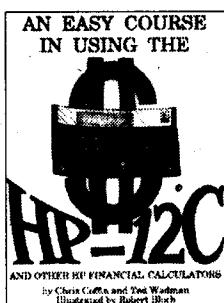
Professional Real Estate
## Problem Solving Using the HP 12C
by John Tirone

■ brokers   ■ investors
■ lenders   ■ attorneys

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 $27.95
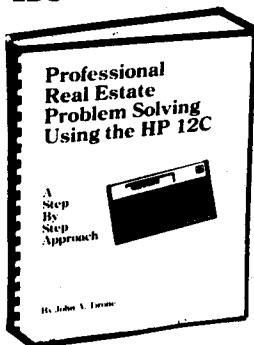
Cashflow Analysis
by Robert Donohue, CCIM

The evaluation of money transactions, from an after-tax analysis of income property to the leasing of your next car—*all made simple and understandable* even to a reader with little or no financial background.

Lots of worked-out examples of everyday financial situations with their solutions—either on a hand-held financial calculator like the HP-12C, or on a computer spreadsheet like Lotus 1-2-3 or Excel.
Stock #3354, Cashflow Analysis, 222p softbound $29.95
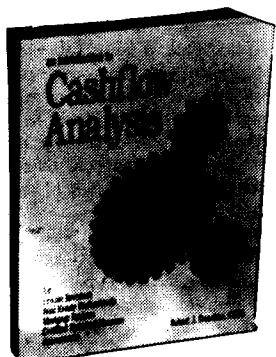
HP Applications Books

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 $16.95

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 $19.95

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 $6.95
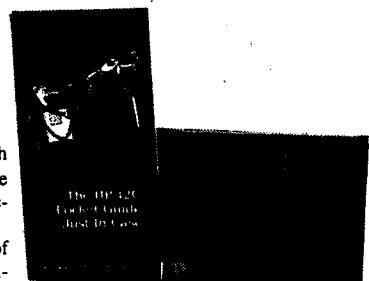
HP 12C
Video
Training
Program

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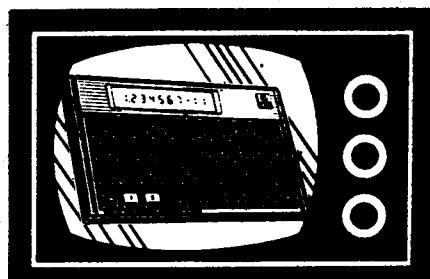
Infrared Printer
for your HP 17, 18, 19, 27, 28, 41 with IR Module, HP 42 or 48

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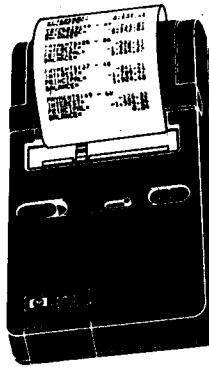
Printer connection cords have been replaced by an invisible infrared beam from your HP calculator. It's the only link required for your printing needs.

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 #F1011A [AC Adapter, compact for IR Printer] $34.95
Stock #82241A [AC Adapter for IR Printer] $14.95
Stock #82175A [2.25" Printer Paper, black, 6 rolls] $16.95
Stock #AA [Batteries, Printer uses 4] .... ea $.89
Stock #92169H [Cover, brown] $22.95
Stock #92169G [Cover, black] $22.95
    Foreign adapters available; see page 17 (palmtops section).

Ratios in Investment Real Estate
by Edric Cane
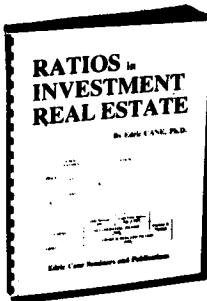
- Real Estate Investors
- Income Property Brokers   ■ Lawyers
- Income Property Lenders   ■ Accountants
- Property Managers   ■ Appraisers

Beginners may end up saying, "Hey, I didn't know I liked numbers." Part I here will bring you up to speed.

Seasoned investment professionals may get a better way of explaining a concept or presenting a choice to a client. Part II will give a clear understanding of the interconnecting grid of values and ratios — GRM and CAP. Rate, Loan Constant, Cash-on-Cash Return, Debt Coverage Ratio.

Requires calculator with HP Solve function, HP 17BII, 19BII, 48, 95/100/200.

Stock #3026, Ratios in Investment RE, 104p combbound $27.95

Not just Investors, but also Appraisers—Brokers, yes, and Bankers too ...

Professional Real Estate Problem Solving
using the HP 17BII
by John Tirone

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.

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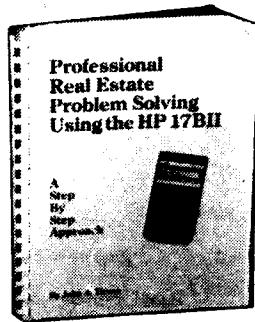
Step-by-Step Books for Business
Using the HP 17B, 19B and 27S
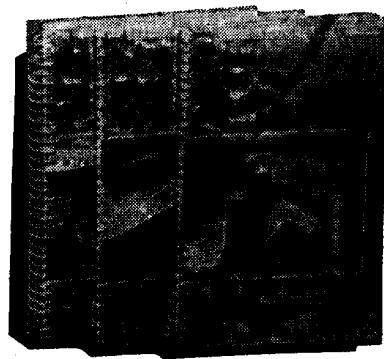
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Let experts help you set up your calculations so you can work with them most easily. These professional references include practical routines and tips for getting the most from the Built-in Menus as well as setting up Personal Menus for your specific profession. Order the ones that fit your work.

Stock #544, Real Estate, Banking, Leasing $14.95
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Stock #546, Marketing, Sales $14.95
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The HP 17B Pocket Guide
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Take these great little Pocket Guides wherever you take your HP 17B or HP 19BII! They're always ready to help with quick answers or convenient reminders at the flip of a page. The Pocket Guides are true companions, helping you out of tight calculation spots. They're filled with lots of examples, complete with keystroke procedures and explanations—the easy way to stay on top with your HP 17B or HP 19BII!

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> "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*

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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.

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The 17BII 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. 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

■ Time and Dates
- Appointments and alarms
- Clock, calendar

■ 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, $1/x$

HP 17BII
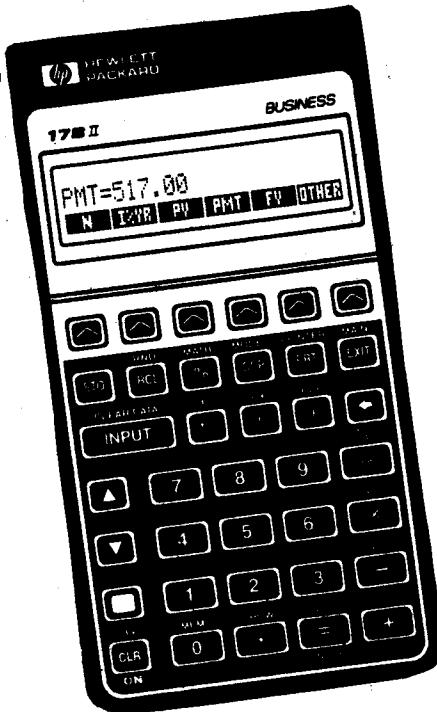
■ 6,500 bytes of Usable Memory

■ Algebraic Entry System with Menus and Softkeys for Easy-to-Use Power

(hp) HEWLETT PACKARD

■ 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

An Easy Course in Using the HP 17BII

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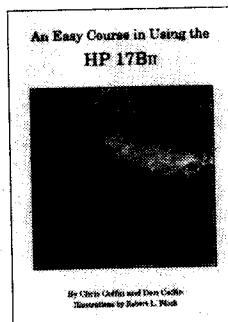
A clear, straightforward explanation of your HP 17BII. It's written in Grapevine's friendly style, so it's easy to understand, right from the first.

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, 17BII Easy Course, List $23 .... $19.95

Calculator stands, cases & batteries, see pp 30-32

John C. Dvorak of the *San Francisco Examiner* and *PC Magazine* calls the HP 19BII "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."

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Data-Saving and Sorting Power

Problem-Oriented Power

Time-Managing Power

Menu-Driven Power

RPN Algebraic

The HP 19BII Calculator 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.
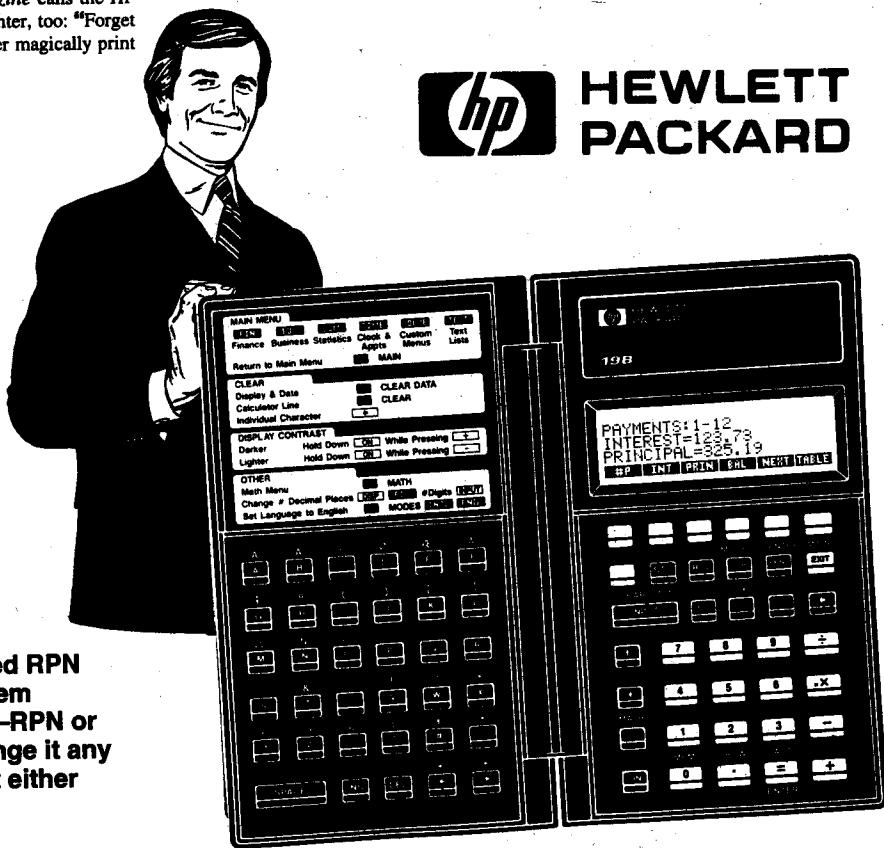
Solve your special problems WITHOUT PROGRAMMING!

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 HP 19BII 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 HP19BII 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 HP 19BII'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 HP 19B 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 HP 19BII CALCULATOR what the problem is!

- TIME-MANAGING POWER—the HP 19BII 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 HP 19BII 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 HP19BII business calculator 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 HP 19BII 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 Calculator II] List $175 .... $134.95

HP 19B Pocket Book
by James Donnelly

THE HP-19B POCKET BOOK
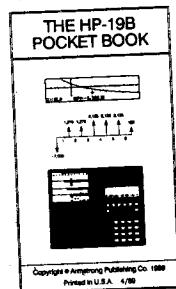
All the help and reference you'll want to have along with you—fits right in the optional case with your instrument.

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

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

Call our School Specialist, Brent Martin, at (800)677-7001, ext. 129 for your best wholesale price in large or small quantities (min. 10). We'll deliver them to you quickly.

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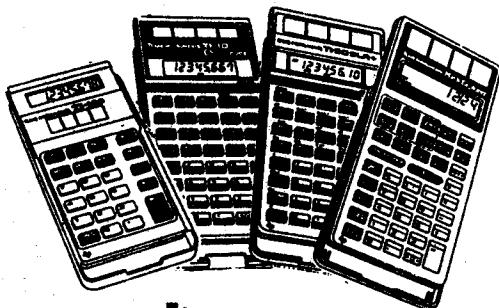
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Each model is *ANYLITE* solar-powered and has a big 8-digit LCD display. Each has its large keys color coded and arranged in 'zones' for easy, natural learning.

Each model is engineered for heavy use in schools—impact-resistant, with a clever slide-on case that can take a beating. These calculators are the same units we ship to schools and do not come in a fancy box. 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] List $7.50 .... $5.95

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] List $11 .... $7.95

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] List $19.90 .... $16.95

For middle schools: TI Explorer Plus
The first lo-cost calculator combining powerful fractions capabilities with a full range of scientific functions. Student input fractions as they are normally written. 2 Constant Operators, 1-variable statistics, logs and anti-logs, powers and roots, polar/rectangular, trip and inverse trig in deg/rad/ grad.
Stock #TIEP [Explorer Plus] List $24.95 .... $20.95

For grades 7 through 10: TI-30 Challenger
All basic math, trig and scientific functions, including logarithms, anti-logarithms, pi. Large color-coded keys speed calculations, minimize errors.
Stock #TI30C [Challenger 30] List $19.95 .... $15.95

For grades 9 through 11: TI-30XSLR & TI-34
TI-30 XSLR 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-30XSLR and also does hex/binary/ octal conversions, Boolean logic and fractions. 10-digit display.
Stock #TI30XSLR [Sci/Stat Calculator] List $24.95 .... $17.95
Stock #TI34 [Advanced Scientific] List $27.95 .... $20.95

Educator Overhead-Display Calculators

Stokes

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.

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Stock #2196 [Educator INTERMEDIATE Calculator] $79.95
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Stock #3356 [Educator, emulates TI-30XaSE] $79.95
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InVision 48
Overhead Display
for HP 48SX/GX

While supplies last

Firmware

Giant 7" LCD panel sits on OH projector stage — projects large, clear image without using an enlarger. Connects via card slot to calculator (not included). HP 38G cable included.
Stock #2778 [InVision OH Display] List $450 .... $214 ~~$389.95~~

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All features and functions of the TI-80, TI-81, TI-82, TI-85, or TI-92 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, calculator/display unit, 4 AAA batteries and a rigid case for it all.
Stock #3067 [TI-80 ViewScreen] $349
Stock #2328 [TI-81 ViewScreen] $315
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Stock #3119 [TI-83 View Screen] $349
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Overhead Projectable Model

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Price Reduced!

All features of the fx-7000G plus a transparent screen.
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HP 38G
Graphic Calculator

algebraic logic

- **Aplets** **Zoom**
- **Equation Solver**
- **Infrared**

HEWLETT PACKARD

You'll send data, equations, notes, even Aplets to friends and classmates. With the built-in infrared communications, you don't need extra wires or cables.

Your hard cover protects the display and keys. Just flip it over and slide it into place, easy as 1-2-3.

Aplets are those cool new electronic hand-outs — complete with variables labeled on pictures of the problem, equations, graphs and notes.

Here's your no-fear way to experiment and explore math concepts on your own at your pace. This way you'll understand and remember the math principles —it's easy and natural.

You can even create Aplets yourself—then zap them to other students via the Infrared—or you can zap to the overhead, right from your own HP 38G!

The **HP Equation Solver** will get you cyber-answers at the touch of a button. You'll also have **polynomial root-finding**, and your HP 38G handles complex-number arithmetic.

Your **programming capability** is limited only by the available memory—which is a whopping 32K RAM.

You can do **symbolic calculations** like variable isolation, quadratic-equation solving, variable substitution, and even Taylor series approximation.

15 **Zoom** features make your HP 38G come alive like a digital microscope! You'll **graph** up to 10 functions simultaneously, tracing them on a single graph — rectangular, parametric, polar-recursive sequences.

Matrix operations include determinants, eigenvectors and row operations.

Statistical analyses are list-based for one and two variables with 7 regression models, box-and-whisker plots, histograms, scatter diagrams, regressions equation graphs—the works!

Stock #HP38G [Graphic Calc]
List $109 .... **$84.95**

You access all the 38G's functions through easy-to-read menus. No more keystroke memorization.

You enter data in simple, algebraic notation that looks and works just like equations written on paper.

You see equations, formulas, graphs, notes and sketches. With 32K of built-in memory, it's amazingly powerful!

You can even see two displays side-by-side for comparisons!

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Call Brent Martin, ext. 129 for School Bids

Drive 95
portable 3.5" disk drive for the HP 38G
Sparcom

Send (copy) and receive items such as an aplet, matrix, list, program, or note you create from the Notepad function using the Drive 95 with your HP 38G.
See Stock #2602 on page 18 for full description. Version for HP 38G has special cable, adapter and instructions.
Stock #2602A [Drive 95 for 38G] List $360 .... **$323**

Connectivity Kits & Cables for PCs & Macs
for HP 38G   **HEWLETT PACKARD**

Wire-up your HP 38 to your computer—1.5 meter cable plugs into top of calculator (cable has 9-pin connector, and adapter 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 38 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).
DOS/Windows compatible. Comes with instructions, computer software on 3.5" disk.
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turns your HP 38/48 into a valuable image-display tool
- transfer images from your HP 38/48 to your PC running Windows—and from PC to calculator
- archive your HP 38/48 graphic images on your PC hard drive — save valuable calculator memory

Requires PC with Windows 3.1 or higher, 1MB disk space, EGA or better pointing device (mouse), serial port (for image transfer).
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**the *power* of a computer lab,
the *independence* of a calculator—
accessible for spontaneous use**

Familiar scientific calculator keys
like the TI-82.

Function keys F1-F8 operate the toolbox
to get pulldown menus.

Typewriter/computer QWERTY keyboard
for taking notes
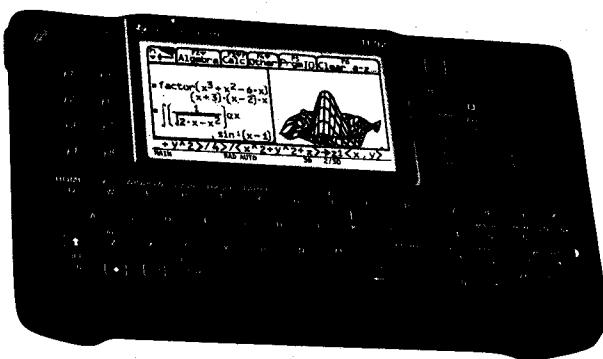
You get **3-dimensional graphing**
(either wire frame or hidden surface)
like this life-size picture
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70 K

You'll do list-based
**1- and 2-variable statis-
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and box plots (picture
reduced to 50%).

You'll have the **easy programming capabil-
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plus local and global variables. 70K RAM.
Connectivity: unit-to-unit link cable (in-
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You can also link to the (optional) CBL Sys-
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Your **symbolic manipulation** powers will
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polynomial factor and expand, and roots of
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tegrals, derivatives, limits, and Taylor poly-
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Interactive Euclidean, transformational and
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Split your screen, either left/right
or top/bottom, 1:2 or 1:1 or 2:1. You
can even have 2 separate graphing
environments, like function/paramet-
ric graphing.
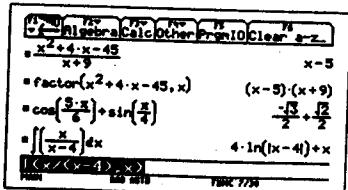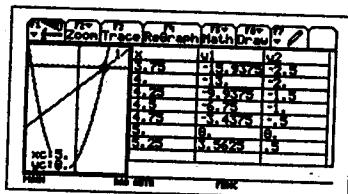
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text editor that can CUT, COPY,
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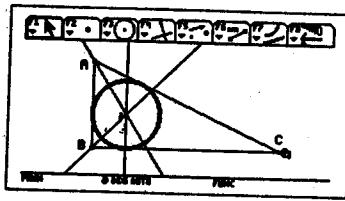
Impact-resistant case doubles as a
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TI-80
lo-cost graphics power

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Graphs, defines and saves up to 4 functions, 3 parametric equations, and 4 plot types. Easy-to-use pull-down menus. Last-entry buffer holds last 10 steps.

List-based **statistics** with 5 regression models, scatter plots, box-and-whisker plots, xylines and histograms. Function-value **tabulations**. Operations and manipulations with **fractions**. **Probability** with random numbers, permutations and combinations.

Programming with 7K bytes of memory. 8 line × 16 character LCD. Slide case. 1-yr warranty.
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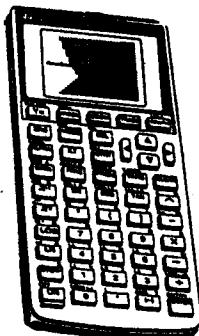
TI-81
Graphics Calculator

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Superior interactive graphing features — so you'll have the power to easily analyze the behavior of several functions at once and solve equations graphically. 7 Zoom functions.

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

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Big Constant Memory — so you can save up to 37 programs totaling 2400 bytes, using up to 27 stored variables. List-based statistics.

Manual, protective slide-on cover, batteries included; 1 year warranty.
Stock #TI81 [Graphics Scientific Calculator] List $115 .... **$79.95**
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TI-82
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Most Popular!

The **new way to go through calculus and statistics** — special powers like cobweb graphs, function tables, split screens and box/whisker plots.

All the popular features of the TI-81 — almost all the TI-81 keys are in the same places, so you can pick the 82 up and use it instantly!

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Best of all, you can link to other 82s with included cable and to PCs and MACs with optional Graph Link. Guidebook, slide-on cover, cable, batteries; 1 yr warranty.
Stock #TI82 [Graphics Calculator] List $125........................... **$89.95**
Stock #2792B [TI-Graph Link, cable] List $70 .... **$61.95**

A Weird Gift
Buy your TI-82 and #2792 cable by Sept 30 and you'll get a weird pen bent in the shape of Texas. Free!

TI-83
Graphing Calculator

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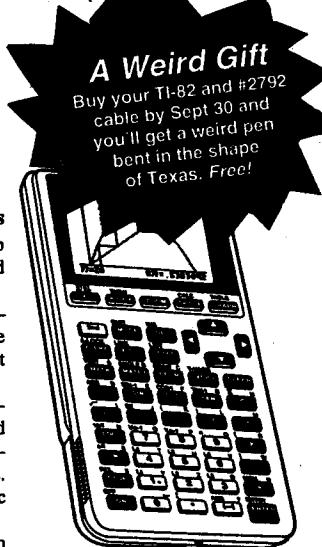
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New graphing styles, advanced statistics and TVM business features—plus every function of the popular TI-82.

You can tell your curves apart with 7 different graph styles and display expressions. You can test hypotheses and compute confidence intervals. Calculate time-value-of-money, cash flows and amortization. Use complex numbers. Solve simultaneous equations and interact with the equation solver.

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TI-85
Graphics Calculator

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✓ 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. 5 redefinable menu keys.

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. Complex numbers.

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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.

TI-Graph Link lets you transfer programs and data between a TI-85 calculator (or a TI-82) and your computer. You can save and print screen images for use in word processing, graphics, etc. Mac and Win versions also let you create, save, edit and print programs from your computer, plus transfer programs, data and images to other applications using the clipboard. Product includes cable and software for DOS, Mac and Windows.
Stock #TI85 [Graphics Calculator] List $135 .... **$99.95**
Stock #2792B [TI-Graph Link, cable] **$61.95**

CBL Calculator-Based Laboratory
data-acquisiton for your TI-82/83/85/92

TEXAS INSTRUMENTS

CBL is a handheld, battery operated, portable date-collection device for 'real-world' data.

Your data can then be directly downloaded to the TI-82, TI-85 or TI 92 graphics calculator for analysis. With the CBL system you can measure motion, temperature, light, sound, pH, force, and more.

You get 3 probes (or 'sensors') with your CBL system, for temperature, light intensity and voltage. Plus you can use an adapter (optional) with existing third-party probes to sense force or pH, or to detect motion ultrasonically.

The CBL has 5 input channels, 3 Analog, one Ultrasonic Motion Detector and one Digital. There's one Digital Output channel. Data can be collected from all 5 inputs simultaneously, at up to 512 points per second per channel, with single channel rates up to 12,500 points per second.

CBL connects to your TI-82, 83, 85 or 92 via the I/O cable that comes with the calculator. Both calculators and Viewscreens that we are now selling will support CBL. Comes with User Guide, Workbook of math, chemistry and physics experiments, and a hard-sided, impact-resistant case. Additional probes will be offered later.
Stock #3250 [Calculator-Based Laboratory] List $225 .... **$199.95**
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Need help graphing?
Get it right with a book - that's the easy way!

Numerical Integration

Time series for SBWIN and SBLOSE.

$$w'' + 36w = \cos 4t.$$

Q1

Expl Calc

Explorations i Probability

Learn about the calculator, learn about the course— study with a class or work by yourself.

Investigating Mathematics
with the TI-81
by Williams/Scott

A source-book for this, the most popular graphing calculator—so you can use it to investigate algebra, geometry and advanced topics in secondary math.

Contains a beginning section on the features of the TI-81, then 40 activity topics (each from 1 to 4 pages; all may be copied for students), plus teacher notes for each topic.

Stock #3352, Math with the TI-81, 78p softbound $14.94

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TI-81 and TI-82 Calculators
by Stuart Ball

70 complete programs that are useful in secondary math classes from prealgebra to calculus.

Each program is given in two versions, for the TI-81 and TI-82. Each has a description plus directions for finding the commands. These programs are not minimal or confusing; rather they are written to be easy to follow and understand.

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on the TI-81/82/85

TEXAS INSTRUMENTS

Learn both general programming concepts and specific implementation on your own instrument.

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Build your understanding of calculus concepts through graphs and numbers—explore applications with this easy-to-use manual.

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'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.

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Closeout Sale!

easy-to-use algebraic logic in a powerful scientific-technical calculator
- you use friendly SOLVE button on equations—16 in a built-in library, plus add your own—instead of programming
- you have menus, alphanumeric display and more annunciators to simplify and speed your work
- you get 200+ scientific and statistical functions and conversions—16K ROM with 371 bytes of RAM power.
  Brand new HP 22S includes 194 page spiralbound Manual and vinyl case; lacks original box.
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HP 20S

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

This HP 20S is the ONLY calculator for under $40 that gives you BOTH

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

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.

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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.
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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.
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HP 32SII

- **Real Programmability**
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- **Algebraic HP Solve Application**
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Still with full RPN Still only $56.95
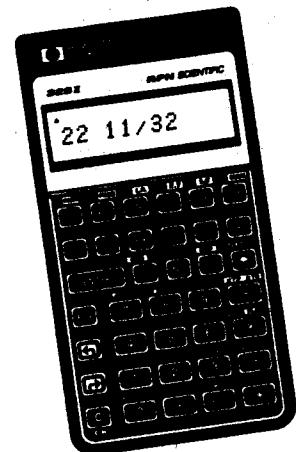
- Over 180 functions, including all from HP 11C
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There's no guesswork with the HP 32SII — prompts, menu labels, and short messages help you know where you are every step of the way.
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Manual, batteries, soft case included. 1 yr warranty.
Stock #HP32SII [Scientific Calculator] List $70 .... $56.95

TI-30X Scientific Calculator

Your Best Buy for learning to calculate!
For general math and science — statistics, trigs, logs, powers and roots, plus 3 memories that persist when it's OFF.
It's loaded, with fractions and fraction/ decimal conversions, hyperbolic trigs, natural and base 10 logs, and factorials. Does polar/rectangular conversions as well as degrees, minutes, seconds/decimal degrees conversions. Combinations, permutations.
10 digits with 2-digit exponent. Automatic Power Down. Durable Slide Case, Manual and Quick Reference Card included; 1 yr warranty.
Version SE is ruggedized for field or classroom use.
Stock #TI30X [Calculator] List $18 .... $14.95
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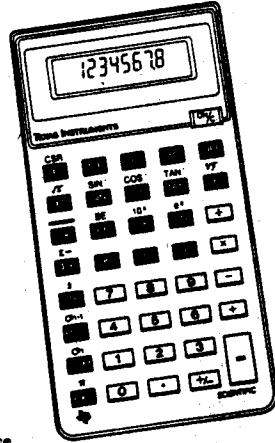
HP 42S

Engineered for the Engineer
SuperFast RPN Scientific

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- **Shirt-pocket power**—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. 12digit precision with exponents up to E499. Infrared signals to printer. 5.6 × 3 x 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 enter and edit, fast to run.
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- **Statistics and forecasting**—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 [Calc] List $120.. $89.95

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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:

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HP 41 Solution Books —
work quite well with the HP 42

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HP 42S Surveying Solutions

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 de-grees/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 $24.95

Booklets of Programs for the HP 42S

Surveyor's Vertical Alignment
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 Alignment, Booklet $9.95

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 $9.95

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 $9.95

Triangle Solutions Booklet
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 $9.95

Solution Books
for your HP 42S

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In Equation	Description	In Program	
I_T	Terminal current (amps).	I.T	$I_1 = \frac{Z_1 I_T}{Z_1 + Z_2}$
I_1	Current in impedance Z_2.	I2	
Z_1	Impedance, (ohms).	Z1	
Z_2	Impedance, (ohms).	Z2	
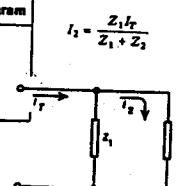
Step-by-step examples
and programs

Stock #2016, Electrical Engineering $9.95
Stock #2015, Mechanical Engineering $9.95

Everything! **All the functions and features of other graphic calculators, plus. It's that simple — it's the new generation.**

More, too! **More memory. More functions. More graphics.**

New Stuff! **Input forms. Dialog boxes. Plotting enhancements. 3-D graphics. Built-in equations. Matrix operations.**

Here are the 7 professional advantages you get with your HP 48G/GX —

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1. You'll stand out. It has new, friendly colors and shares with the HP 48S/SX a distinctive size (3.2 × 7.1 in.) and a wonderful, big LCD — so you'll be recognized the minute you walk in with it.

When you fire it up, you'll be surprised at how easy and intuitive its command structure is — so you'll get satisfying results immediately. Most applications have a new input form, so you just fill in the blanks.

Just for fun, try the new TEACH function — instant demos of 21 functions and displays. Right out of the box, you'll even be able to do an animated display!

Next, 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, . . . at the press of a key. 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 512K ROM of power, with more than 2300 functions that you'll access with 117 user-friendly menus. It's customizable, too — you'll have 128K of RAM to store your own personalized menus in (32K in the HP 48G).

You'll use the cursor keys to browse through a new library of 315 equations for geometry, stress analysis. electrical engineering, fluid flow, heat transfer, and more. Given your known values, solve for the unknown values with the equation solver.

The X in GX means Expandable — it has two internal card slots. You'll be able to customize your HP 48GX 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 — it's expandable up to 4.1MB.

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 48. You can also squirt programs, data and graphics via Infrared to an optional portable printer.

Kermit is built right into the HP 48G/GX 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 48G/GX 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 nearly 4 MHz, so its overall throughput is 40% greater than for that old speed king, the HP 48SX.

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 clock which you can have on your screen if you wish (there's date-arithmetic, too). You'll have two types of alarms: appointment and control. *OK?*

HP 48 Graphic Calculator

$$\frac{1}{\sqrt{2\cdot\pi}}\cdot\sum_{n=0}^{100}\frac{SIN(n\cdot\omega\cdot t)}{n}$$

ZOOM IN

LOCAL MINIMUM FOUND

EXTRM: (2,-3.41110530265)

"HP 41 → HP 48SX "
" HP 28 → HP 48SX"

POLAR

HISTOGRAM

SCATTER

TRUTH

$$P=\frac{\left(0.0821\frac{l\cdot atm}{K\cdot mol}\right)\cdot n\cdot T}{V}$$

STD | FIX | SCI | ENG | SYM | EEPD

EXTRM: (1.92,-15.08)

```
< NO | Send to HP 48...
4:   | Get from HP 48
3:   | Print display
2:   | Print...
1:   | Transfer...        ↓
```

```
SOLVE Y'(T)=F(T,Y)
F:    '1/(1+t^2)-2*y^2'
INDEP: t  INIT: 0    FINAL: 6.5
SOLN:  y  INIT: 1    FINAL:
STEP:  Dflt TOL: .001  _STIFF
ENTER INITIAL SOLUTION VAR VALUE
EXIT |        | INIT | SOLVE
```

```
< NO | Integrate...
4:   | Differentiate...
3:   | Taylor poly...
2:   | Isolate var...
1:   | Solve quad...     ↓
```

5. You'll be accurate.
You'll use more than 2300 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 48G/GX will do measurement-unit conversions (Metric to English, etc). It will factor units by units (for example, 3.5 kg/s^2 factored with respect to Newtons, N, gives 3.5 N/m). It will perform math on unit objects (so 10 mph added to 10 ft/s gives 24.67 ft/s).

But there's more—if you enter the units for your calculations, right along with the numbers, your HP 48G/GX 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 48G/GX 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.

SOLVE differential equations (with initial values), polynomials, or linear systems of equations, too!

You'll have a built-in, high-level programming language to work with, too—structured and object-oriented, with 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.

The HP 48G/GX does the Fast Fourier Transform and its inverse. There is even list processing.

Your PLOTR will find roots, intersections, local extremes, derivatives and 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!

Impressive new plot types include 3-D, wire form and grid map, plus you can ZOOM (15 ways).

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.

Matrix Writer lets you easily 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?*

What's the difference between these two machines? There are only two differences—memory and card slots. The Graphic Expandable HP 48GX has 128K RAM and 2 card slots, whereas the Graphic HP 48G has 32K RAM and no card slot. Each comes with User's Guide, brushed nylon case and batteries; 1-yr warranty.

How do these new HP 48G/GX machines relate to the HP 48S/SX? These new machines will do more—bigger memory, more port memory, more commands, better plotting, new and improved input form, expanded list processing, built-in equations. But they will run almost all the software designed for the HP 48S/SX as well, and any user code program you have developed for the HP 48S/SX will run just fine in your new HP48G/GX.

Memory Expansion Cards
for HP 48SX/GX

TDS
THE WAY TO GO

256 or 512K in one card! You can copy these huge amounts of data from one RAM card to another right in your HP 48GX. Battery-backed.
Stock #2475A [256K RAM card for 48GX] List $160 .... $149.95
Stock #2476A [512K RAM card for 48GX] List $240 .... $219.95

Special on 128K cards—these won't last long.
Stock #2365 [128K RAM card for 48SX/GX] $99.95

Memory Expansion Cards
for your HP 48SX/GX

EduCALC

Add more memory to your HP 48SX/GX at this great low price. Battery backed.
Stock #3126 [64K RAM card, 48SX/GX] $54.95
Stock #3127 [256K RAM card, 48GX] $139.95
Stock #3128 [512K RAM card, 48GX] $199.95

Extras for your HP 48
like those that came with the product

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Stock #2787, HP 48G/GX User's Guide $24.95
Stock #2250, HP 48S/SX Owner's Manual $34.95
Stock #2251, Equation Library Owner's Manual $9.95
Stock #82221A [HP Soft Case] $14.95
Stock #AAA [Alkaline Battery] uses 3 .... ea $.89

Overlay Kit
for S/SX/G/GX

HEWLETT PACKARD

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 for 48S/SX.
Stock #82220A [48 Keyboard Overlay Kit] $14.95

Trade In Program
Save even more—

HEWLETT PACKARD

TRADE IN your used HP 41CV/CX or HP 48G. Just send it to us, insured, in working order, with all its Manuals. Take CRedit on your Or-der—$45 CRedit for a 48G, $45 for a 41CV or $60 for a 41CX—and put the order and your check right in the box.
If you prefer to keep your old instrument until your new one arrives, just send it to us up to 45 days later, along with its Owner's Manual and a copy of the sales receipt for your new machine—we'll send you your refund.

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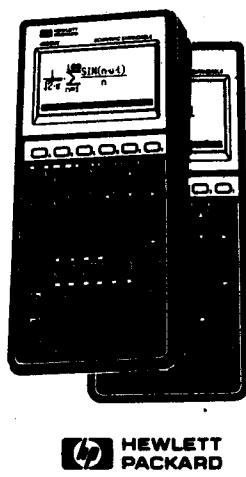
accessories

Memory Expansion Cards
for SX/GX

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Develop large programs and store more data in your HP 48SX/GX—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/GX, 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, 128K and 1MB, and your machine can hold up to 2 of them. 1-year warranty.
Stock #82215A [128K Mem Exp card] List $150 .... $124.95
Stock #82216A [1MB Exp cd for 48GX only] List $399 .... $324.95

Memory Expansion Card
for HP 48GX only

Sparcom

Powered by long-life battery that saves pro grams and data even when card is out of calculator.
Stock #2951 [256K RAM card for HP 48GX] List $170 .... $149.95

Protective Bag
for S/SX/G/GX

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

TDS 148
Environmental Case
for S/SX/G/GX

TDS TRIPOD DATA SYSTEMS, INC.

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 allows communication with other HP 48s.

Optional Total Station Cable gives you a direct connection.

Stock #2950 [TDS 148 Environmental Case] List $130 .... $114.95
Stock #2427 [Computer Cable, 9 to 9-pin] $34.95
Stock #2428 [Computer Cable, 9 to 25-pin] $34.95
Stock #2332 [TDS 148 Cable, Sokkia/Topcon] List $80 .... $74.95
Stock #2333 [TDS 148 Cable, Nikon/Top Gun] List $80 .... $74.95
Stock #2334 [TDS 148 Cable, Zeiss] List $80 .... $74.95
Stock #2335 [TDS 148 Cable, Pentax] List $80 .... $74.95
Stock #2336 [TDS 148 Cable, Kern] List $80 .... $74.95
Stock #2337 [TDS 148 Cable, Wild] List $80 .... $74.95
Stock #2338 [TDS 148 Cable, Geodimeter] List $100 .... $89.95
Stock #2261 [TDS Tripod Bracket] List $80 .... $69.95
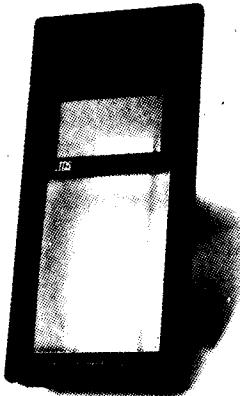
the Leather Desk
our best organizer
for the executive's
S/SX/G/GX

EduCALC

Sumptuous black napa leather coddles your 48, with extra padding for instrument protection. Software and memory cards fit into 6 slots, 2 pockets hold notes and diary. There's a compartment for important documents and a loop for your pen.

It feels soft and rich in your hand, but there's a detachable carry strap, too. 8.25 × 5 × 1.75 inches outside.

Stock #2763 [HP 48 Leather Desk] $57.95
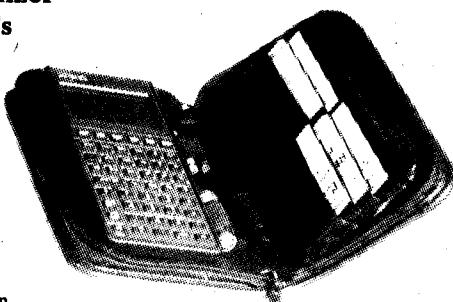
Handsome black leather
HP 48 Card Case

EduCALC
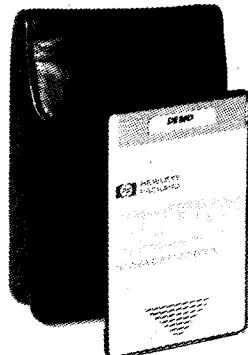
Look smart as you keep your hi-tech gear safe.

Durable leather coddles 8 cards. Safety velcro flap closure; clear plastic pocket on back holds your business card.

Stock #3273A [Leather HP 48 Card Case] $9.95

The Pouch
for your
HP 48S/SX/G/GX

RIPOFFS

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

Your Name in Silver
on your HP 48G/GX

Personalize your calculator with this black-background, self-adhesive nameplate—it installs quickly in the recess on the back of your instrument.

A big plus is, now your borrowers will know where to return your HP 48. Just tell us the up-to-24 standard characters to engrave for you, and allow 2 weeks for delivery. Indicate whether all caps or upper/lower case.

Stock #2786 [HP 48 Personalization] $4.95

The Belt Holster
for your HP 48 or HP 95/100
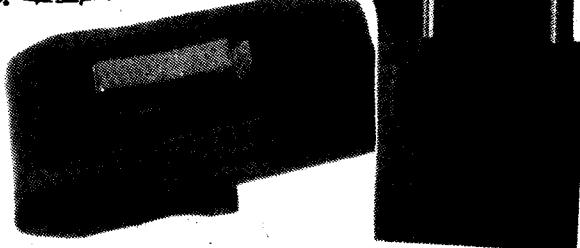
RIPOFFS

The very best belt clip we've ever seen, on a double-stitched black nylon holster with velcro closure and foam padding—good design at the right price!

Stock #3000 [Belt Holster] $14.95

Attention: Club Secretaries!
Let us know what your calculator club is doing — EduCALC will spread the word! Call (800)677-7001 and ask for Richard Nelson.

audacious orange
Protective Case

for your HP 48
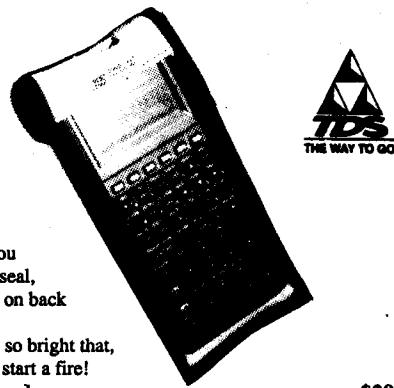
Thick nylon cloth with heavy stitching (sheds water) has clear plastic front cover membrane (you can key right through it), velcro seal, and cable port on lid; hand strap on back doubles as belt loop.

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

HP 48 Accessories

for S/SX/G/GX

Stock #2249 [Solid Oak Stand] $16.95
Stock #2252 [Clear Acrylic Stand] $11.95
Stock #2225 [Hard Leather Case] $42.95

cables/interfaces

Serial Interfaces—
Kits & Cables—
for PCs and Macs

to S/SX/G/GX
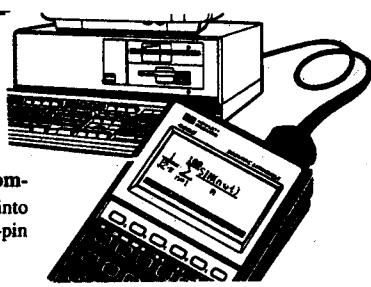
Wire-up your HP 48 to your computer — 1.5-meter cable plugs into top of calculator (cable has 9-pin connector.

You can store your data and programs on your computer's disc drive. You can use the computer's big key-board to enter HP 48 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).

HEWLETT PACKARD

Use your favorite computer text editor with the HP 48. Write and edit big programs, or enter large matrices and statistical data in a familiar way. DOS and Windows compatible. Comes with instructions, computer software on 3.5" disk.

Stock #F1207A [PC Serial Interface Kit] List $53 .... $44.95
Stock #F1015A [48/95/100/200 to DB9 Cable, 6'] List $35 ..... $24.95
Stock #F1023A [Serial Cable Adapter Kit] $24.95
Stock #F1016A [Mac Serial Cable only] List $35 .... $24.95

Experimenter's Serial Cables

for S/SX/G/GX

EduCALC

■ Engineers   ■ Hobbyists
■ Instrument Makers

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'] $15.95
Stock #2609 [4- to 9-pin Serial Cable, 6'] $22.95
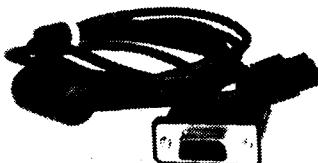
CalcWare Link

for the PC & Mac

Sparcom

Upload, download and backup files from your HP 48 S/SX/G/GX to a DOS/ Windows or Mac computer— here's your connectivity software.

Create documents, analyze results, prepare examples and design curricula quickly with Screen Capture and Remote commands.

Comes with a library of essential math functions—so you can derive solutions or solve equations in math, science and engineering. Incl. serial cable, 3.5" disk. Requires EGA or better. Windows 95 compatible.

Stock #2953 [DOS/WIN CalcWare] List $55 ...... ~~$49.95~~ *44.95*
Stock #2954 [Mac CalcWare] List $55 .... ~~$49.95~~ *44.95*
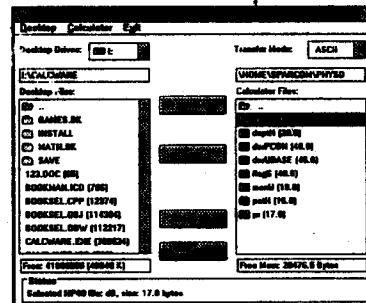
See page 57 for special software offer

InfraRed Printer

for your HP 48
S/SX/G/GX
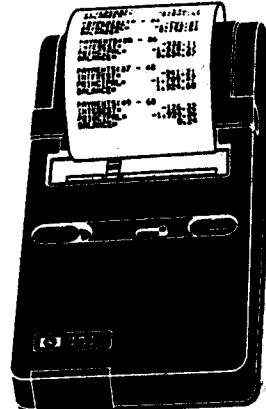
HEWLETT PACKARD

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 48. 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, US] $14.95

#82241A works with HP 95 or IR printer; twice the physical size of the #F1011A. While supplies last.

Stock #F1011A [AC Adapter for IR Printer, compact size] ... $34.95
Stock #82175A [2.25" Printer Paper, black, 6 rolls] $9.95
Stock #AA [Batteries, Printer uses 4] ....ea $.89
Stock #92169H [Cover, brown] $22.95
Stock #92169G [Cover, black] $22.95

Foreign adapters available—see page 15, palmtops section.

Drive95
Portable 3 1/2" Disk Drive
### for your HP 48S/SX/G/GX

Sparcom

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.
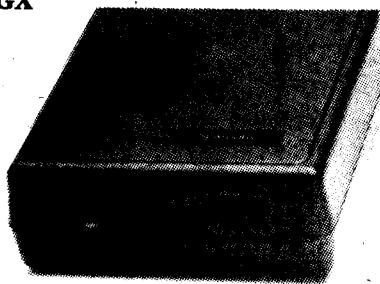
Designed for remote operation, the drive has an intelligent cache which extends battery life up to 15 hours on a single charge. Compact (7.25" × 5.25" × 2") and contoured to complement the HP 48, Drive95 also interfaces with the HP 95LX or any DOS based palmtop, laptop, or desktop computer, and supports formatted 720Kb and 1.44Mb capacity 3.5" disks.

Includes File Manager software, manual, Kermit, serial cable and AC charger/adaptor; 90 day warranty.

Stock #2602 [Drive95] List $360 .... $323
Stock #2327 [Formatted 3.5" disk, 1.44 MB] .... each $2.50

software

Are you an investor? Track or chart your stocks, funds and entire portfolio, all on your 48GX

Steve Lunstrum

INCOME FUND
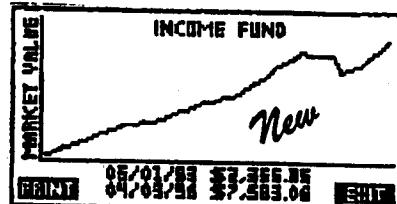
Three performance analysis tools—unrealized gains figures, graphics over any time frame and annualized growth rates.

User-friendly, Menu-driven program takes full advantage of your large 48GX screen and 128K built-in RAM.

Password protection, 14 currency selections, and various fraction, time and date formats; 3 types of reports printed, with IR printer support; 132-p Manual; 1-yr warranty.

Stock #3114 (Library SMKT, card) $129.95

HP Solve-Equation Library Application Card for SX

HEWLETT PACKARD   *Sale*

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 yours — 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! Equations and Constants built into HP 48G/GX.

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, ROM card that plugs into one of the two compartments inside your HP 48SX, and Tetris.

Stock #82211B [Equation Library] $29.95

The HP 48 Database
for S/SX/G/GX

Donnelly
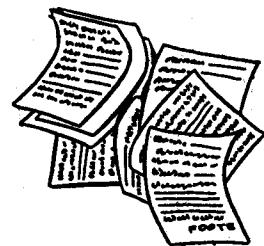
A compact, powerful, easy-to-use database engine for the HP 48—supports eight different data types, including number, text, time, date, remote file all lookups, calculations fields.

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.Requires 24K.

Stock #2648 (Database, PC disk, 3.5") $24.95
Stock #2649 (Database, Mac disk) $24.95

A game card for your HP 48GX

Parsec Technologies

PARSEC TECNOLOGIES™
LECTUREBLASTERSERIES
P H O E N I X
H A P A M A N
T E T R I S
S N A K E
FOUR GAMES BY DAVOR JADRIJEVIC
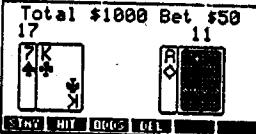
Phoenix II & Time Cutters

Fast-paced like arcade games — with bit-mapped graphics and lots of real time action *plus sound!*

Phoenix II is a version of a popular arcade game—you enter secret codes to modify play.

Hapaman is a Pac-man clone. Tetris.

Snake — as he eats food his tail gets longer. You play head to head via IR on two calculators!

Stock #3095 (LBS Arcade Games, card) $59.95

Games48 for SX/GX

Sparcom

Total $1000 Bet $50
17   11

- Poker
- Blackjack
- Skunk
- Roulette
- Diamonds
- Sokoban
- Vaders
- Keno
- Reversi
- Slots

Take a break! Test your reflexes with Diamonds. Solve strategic puzzles in Sokoban. Transform your HP 48SX/GX into a pocket arcade! Includes software on ROM card and manual; 1-yr warranty.

Stock #2757 (Games 48, card) List $80 .... *64.95* ~~$69.95~~

Personal Information Manager

Sparcom

Application Card instantly makes your HP 48SX/GX 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/GX screen, a file, an IR printer, a PC or another HP 48.

Stock #2323 (Personal Information Mgr, card) List $100 ...... $79.95

HP 48SX/GX
Engineering Mathematics Library
including MATHLIB, a ROM card
with 715 new commands
by John Holland

| Academic Press |

**Our most complete
math package**

✓ 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
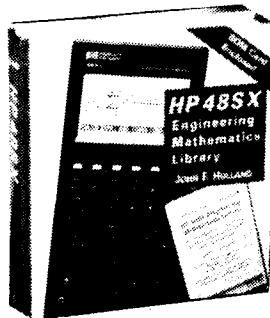
General Application Programs
for Engineering Math Library

Requires Stock #2694

Stock #2902 (HP 48 Application Programs, 3.5") $59.95
Stock #2903 (HP 48 Application Programs, card) $99.95

Hang the HP 48 on your
tripod, boat or wall

| Dowling |
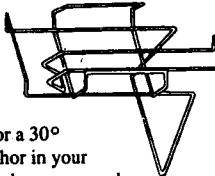
Snap your calculator into this coated-wire frame for a 30° desktop holder that you can hang on your tripod, anchor in your boat or hang from the wall. You'll have your 48 just where you need it when you need it.

Stock #3101 [48 Holder] $19.95

Calculus Pac for HP 48SX/GX
complete with Vector Analysis

■ 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, 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 .... $79.95 ~~$89.95~~

HYDRAtools   RAMSS

solves pipe-flow problems for S/SX/G/GX

Easy-to-use full screen menu driven software application. Provides quick solutions to full and part-full PIPE flow problems, performs calculations for the hydraulic design and analysis of channels having TRAPEZOIDAL, TRIANGULAR, RECTANGULAR or PARABOLIC cross sections; computes the capacity and depth of GUTTER flows for inlet design, and solves the equations for ORIFICE and WEIR flows. Comes on a 3.5" disk or card with a reference manual. Requires serial cable and 18K of memory.

Stock #2904 (HYDRAtools, 3.5") $49
Stock #2904A (HYDRAtools, card) $99

NAVCOM 48SX/GX
Marine Navigation
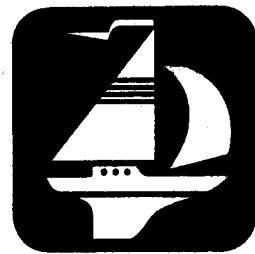
The most advanced celestial computer available — bar none! Over 50 integrated functions to meet your professional or recreational navigation needs. Tested and refined for over 2 years and 30,000 miles at sea. 128K ROM card does not lose programs even if batteries fail. Completely menu-driven, the interactive personal computer style screen makes NAVCOM simple to use. All Prompts, answers, and help screens are displayed in plain English.

Piloting Features
■ Electronic, Celestial, Radar, and Visual Fixes
■ Maintains Continuous Dead Reckoning Position
■ Distance-to-Go/Heading to Steer/ETA/Speed Required to a Waypoint
Route Planning Features
■ Complete Voyage Plans from Custom Voyage/Waypoint Catalog
■ Rhumbline/Great Circle/Composite track planning
■ Automated track plotting to charts
Celestial Features
■ Almanac: Sun, Moon, Plants, Aries, 58 Nav Stars
■ Automatic Sight Timing (internal chronometer)
■ Automatic Sextant Corrections
■ Finds/Solves Known or Unknown Celestial Sights
■ Plots Celestial Fixes on screen or to a Printer
■ Computes Lat/Lon Fix from sights ■ Precomputes Best Stars
■ Local Apparent Noon/Time of Rise/Set of any Celestial Body

Stock #2772 [NAVCOM 48, card] List $160 .... $149

HP 48 File Manager
for S/SX/G/GX

| Donnelly |
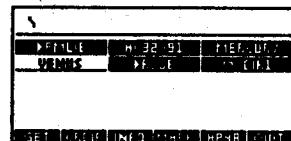
Superconvenient file exchange program eases data transfer between the HP 48 and your PC. The File Manager lets you browse through the directories right in the HP 48 display! Push a menu key to transfer one or more files or archive your HP 48. Other menu commands let you create directories, rename files, 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, 3. 5"] $15.95

HS/College Math Pac 1
for your HP 48SX/GX

Sale Price Reduced

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) .... ~~$59.95~~ $99.95

Geometry/Survey Pac 1
for your HP 48SX/GX

Analytic Geometry — even finds equations of the circle through 3 points or tangents from points outside circle or ellipse. Distances. Areas. Coordinate transformations.

Surveying — coordinates, polygons, error estimates, triangulations, areas, altimetry.

Triangle Solutions—solves where 2 or 3 angles are given, or 2 or 3 sides.

Practical Surveyors' Routines — Slope reduction (horizontal dist.), Excentric station (unknown point), Polar measurement (unknown point), Distance and direction.

Stock #2908 (Geometry/Survey Pac 1, card) $109.95

University Math Pac
with the Symbolic Matrix Writer
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 for SX only, card) $99.95
Stock #2795 (Math II for GX only, card) $99.95

Professional Extension Math Pac
with the Symbolic Matrix Writer
for Probability/Statistics and
advanced Linear Algebra courses

■ **includes everything in Stock #2697/2795 plus SmartROM**

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 for SX only, card) $114.95
Stock #2794 (Prof. Extension Math II for GX only, card) ... $114.95

Business Pac for your HP 48SX/GX

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

Flight Navigation System for SX/GX

Dead Reckoning on a card for your HP 48SX/GX—weight and balance calculations plus flight plans that are easy to edit (with change of parameters) and reversible. Flight plans may be printed.

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 such as a stop watch accessible during flight. Interface for use with GPS receivers using NEMA protocol 0183-GGA via RS-232.

Stock #2831 (Flight Navigation, card) $119.95

HP 48SX/GX Application Cards
for ME, EE, Gen Chem, and Math

Sparcom
CORPORATION

Back To School Pricing
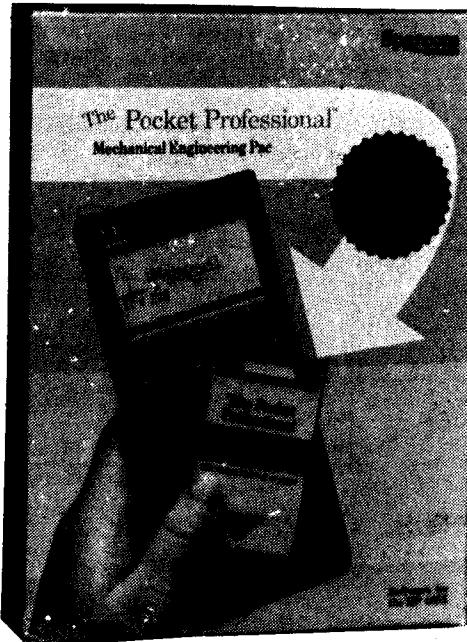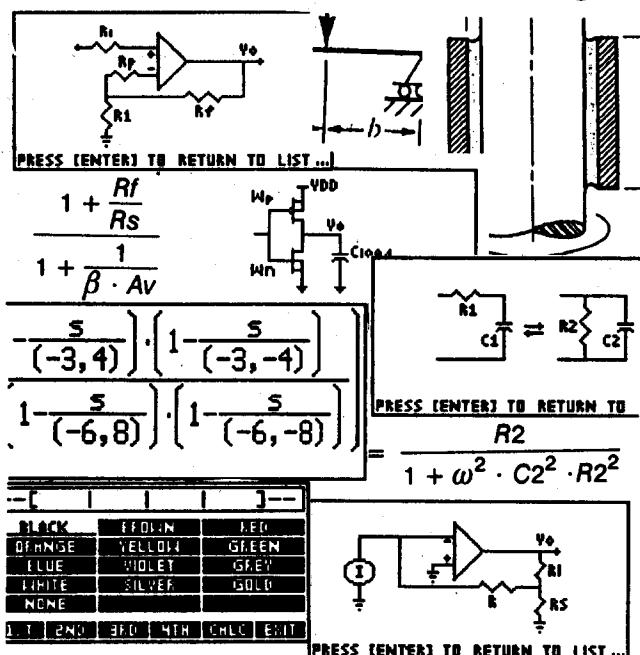

There are two types of these 'Pocket Professional' software cards for each field. **The Applications Pacs are designed for undergraduate students**—each contains hundreds of equations with diagrams, charts and tables, analyses and reference tables in easy-to-use menu-driven format. No need to program, 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 .... ~~$79.95~~ $89.95
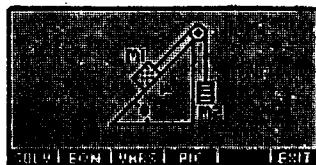
ME Reference Library—over 3000 entries from nine subject areas; including properties of solids and liquids, composition of metals, refrigerants, fuels and combustion, thermal properties, saturated gas properties and more. ~~$79.95~~
Stock #2291 (ME Reference, card) List $100 .... ~~$89.95~~ $89.95

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, dielectric and magnetic properties, thermal conductivity and resistance, current capacity.
**Stock #2293 (EE Reference, card) List $100** .... ~~$79.95~~ $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 .... ~~$79.95~~ $89.95
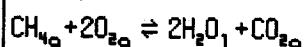
Chem Reference Library—over 3000 entries in eleven subject areas; elements, solids, acids/bases, thermodynamics, complexes, solubilities, electrochemistry, water and bonds.
**Stock #2295 (Chem Reference, card) List $100** .... ~~$79.95~~ $89.95

Close-out Sale!   *While they last!*

Application and Reference Cards for the *HP 48SX only*. These are the same programs as in our regular cards above, but they will not perform properly in an HP 48GX.

Stock #2290SX (ME Applications, card) List $100 .... $49.95
Stock #2291SX (ME Reference, card) List $100 .... $49.95
Stock #2292SX (EE Applications, card) List $100 .... $49.95
Stock #2293SX (EE Reference, card) List $100 .... $49.95
Stock #2294SX (Chem Applications, card) List $100 .... $49.95
Stock #2295SX (Chem Reference, card) List $100 .... $49.95
Stock #2323SX (PIM Card) List $100 .... $49.95

Pocket Professional Software
for the HP 48SX/GX

Sparcom
CORPORATION

(Screen images showing: V-Source Element menu, General Triangle diagram, Statistics menu, Histogram and Ogive, Transient plots, Grouping/Column Minimum/Maximum/Bin Width/No. Bins menu, INTEGRALS menu (0: User-Defined, 1: Elementary, 2: A+BX, 3: A+BX,C+DX, 4: A+BX^N, 5: C^2±X^2, X^2-C^2), Zone and Segment of 2 Bases diagram, DC Model circuit, Hypothesis Testing screens)
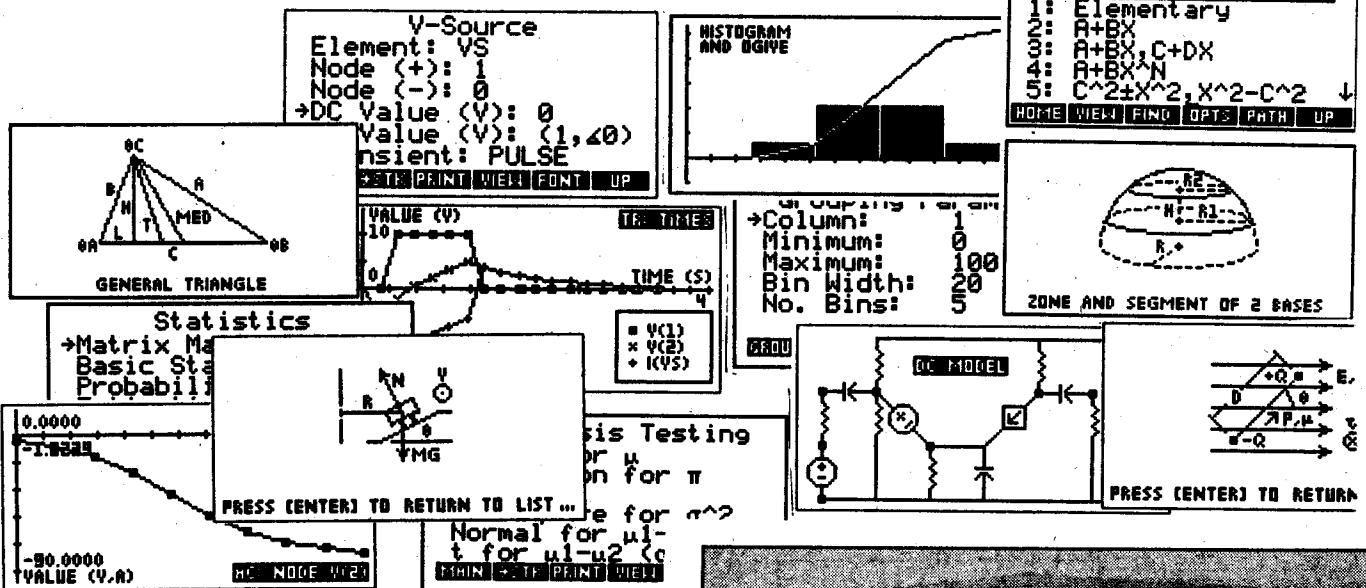
Spice48

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 .... ~$79.95~ **$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~
~$79.95~

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 .... ~$79.95~ **$89.95**

Math·*Pro*

Here's the way you can instantly transform your HP 48 SX/GX into a technical-information powerhouse!

For professionals and students in engineering, math and the physical sciences. Menu-driven so it's easy to use, for preprogrammed equations and formulae, electronic reference data and one-step unit entry and conversion. Fast, with on-line HELP.

Over 1000 equations, routines and tables for arithmetic, algebra, geometry, trig, hyperbolics, calculus, curve-fitting, transforms, quadric surfaces, partial-fractions. Valuable routines like Simpson's rule and the general triangle solution.

Stock #2960 (Math-Pro, card) List $110 .... **$99.95**
~$89.95~

EE·*Pro*

Transfer your HP 48SX/GX into an ultra-fast, easy-to-use electronic handbook — high-speed problem-solving for EE professionals and students.

Over 1000 equations and analysis routines with reference data — includes Bridge, RL, RC, RLC, AC, Polyphase, OpAmp and Linear Amplifier Circuits; Meters, Resonance, Solid State Devices.

Functions from HP's famous 16C computer-engineering calculator are built in, including integer arithmetic, base conversion and bit manipulation. Also has on-line help text, font options and customizable scrolling-speed settings.

You'll compare, solve, plot and analyze equations without tedious programming or searching through handbooks.

Stock #3025 (EE · Pro, card) List $110 .... ~$89.95~ **$99.95**

Structural Engineering Program Card
for the HP 48SX/GX

SMI
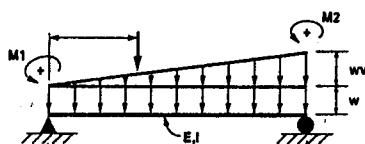
Aids and tools for your design work—8 user-interactive programs and a database (for 415 AISC 9th edn shapes).

Programs analyze beams and columns, column base plates, single-span beams, rigid rectangular spread foundations, cantilever retaining walls, pile groups for rigid pile caps, rectangular concrete beams, rectangular concrete columns.
Stock #2875 (HP 48 Structural Eng Programs, card) $134.95

Structural Engineering Equation Card
for the HP 48SX/GX

SMI
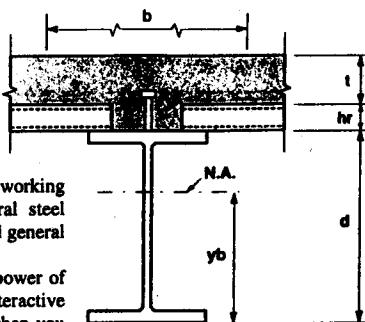
Analysis and design tools for the working engineer — covers topics in structural steel design, reinforced concrete design and general structural analysis.

Equations for each topic, plus the power of the HP SOLVE function, give you interactive solutions for any unknown variable when you have the other data.
Stock #2876 (HP 48 Structural Eng Equations, card) $134.95

## Structural Engineering Program Card 2
for the HP 48SX/GX

SMI *Brand New*

More aids and tools for your design work—programs analyze section properties, continuous beams, bolt groups, weld groups, sheet piling walls, round concrete columns.

Includes structural steel and reinforcing bar data tables plus feet/inch/ fraction/metric conversion utilities.
Stock #3418 (HP 48 Structural Eng Programs 2, card) $134.95
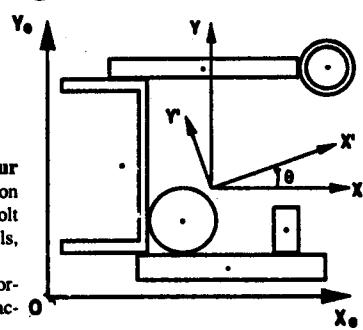
Petroleum Engineering Application Package
on ROM card for SX/GX

Petroleum Application Systems
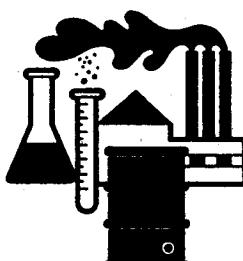
Increase your productivity by decreasing the time spent for 'quick' hand calculations.

Menu-driven for Fluid Correlations (oil, gas, water), Economics (petroleum cashflow, exponential decline), Logging (shaly and clean sand analyses, water resistivity), plus a large Equation Catalog and Miscellaneous Applications (pipe displacement and capacity, frictional pressure drop, gas well bottomhole pressure).
Stock #2998 (Petroleum Eng Apps, card) List $112 .... $99.95

HP 48 Regression Analysis Package
for S/SX/G/GX

Monosmith

- Nonlinear regresion fits data to an arbitrary function
- One or two dimensional multiple linear regression
- Implements statistical and instrumental data weighting
- Calculates probable errors for solution coefficients
- Plots both data and the solution function
- Solves for up to 16 fit parameters
- Number of Data points limited only by available RAM

The most powerful curve fit package available for any calculator, and runs in only 11K. Also included: a library of 124 physical, astronomical and mathematical constants and a Time Value of Money program.
Stock #2774 (Regression Analysis, 3.5") $39.95

VERBB Circuit Analysis Software
for the HP 48SX/GX

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.

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

Are you an engineer? Are you going to take the EIT or PE Examination?

Chotkeh

Use your trusty HP 48 to ace that exam—these ROM cards plug right into your 48 and give you everything you need.

You'll study with a *Manual* that contains all the fundamental/applied equations plus full directions. Then you'll have exam-review problems with calculator-assisted solutions in your *Problems and Solutions Book*.

There are examples of numeric keyboard calculations, built-in functions and start-up solved problems, too.
- self-contained study units   • easy-to-use reference
- help with design calculations   • how to really utilize your 48
- tools for field inspection/verification

EIT-FE Examination Review Card
Over 650 equations and 301 problems and solutions in dynamics, electricity, engineering economics, fluid mechanics, gas properties, math, mechanics of materials and thermodynamics.
Stock #3103 (Engineering Fundamentals Review Card) $99

PE-ME Examination Review Card
Over 750 equations and 370 problems and solutions in all subjects covered under EIT-FE plus combustion, cooling, ducts, fans, gears, heating, heat transfer, screws, springs, and welding. Over 250 equations involving air and steam tables, and psychometric chart.
Stock #3104 (Mechanical Engineering Review Card) $99

PE-EE Examination Review Card
Over 310 equations and 135 problems and solutions in fundamentals, circuits, power factor and PF correction, motors, power transmission lines, transformers, transients, voltage drop and conductor sizing, and engineering economics.
Stock #3105 (Electrical Engineering Review Card) $99

PE-CE Examination Review Card
Over 310 equations and 170 problems and solutions in concrete, hydraulics, sanitation engineering, soil mechanics, surveying, traffic engineering, applied electricity, and engineering economics.
Stock #3411 (Civil Engineering Review Card) $99

TDS Survey Pro
Hot new tool from TDS!
for the most demanding users.

TDS' most powerful surveying program yet for the HP-48GX. Turns your 48 into a powerful electronic or manual data collector and field computer containing all the functionality of the TDS Survey Card plus a wide range of functions for use in construction layout operations. Requires 128K extra memory (approximately 1500 points).

- Calc coordinates with each topo or traverse shot, store Raw Data.
- Radially stakeout offsets (by station and offset) or slope stakes from horizontal and vertical alignments.
- Solve horizontal, vertical, and straight grade curves, solve for Elevation at un-known Station or the reverse; layout by deflection angle from PI or PC, tangent offsets or chord offsets.
- Enter direction, distance, angle by PT# - PT# (- PT#).
- Learn your way around with Menu and Screen interface.
- Expert users jump from screen to screen with HOT KEYs.
- Popup description table.
- Adjustments and Solars.
- Coordinate Geometry calculations: inverse, intersections, resections, predetermined area, area and more.
- Traverse with Angle Right or Azimuth. User defined traverse and stakeout error traps.
- Control File (two jobs simultaneously interactive!!)
- Supports almost all total and semi-automatic total stations (even robotics). Use any digital electronic level (or manual three wire entry) for level loops or staking. Even Criterion Laser.
- Topo by Station and Offset.
- Layout Building Pads, Automated Cross Section Survey for volumes.
- Work in FEET or METERS.
- Compatible with all the leading engineering software.

Stock #3326 [Survey Pro Card for 48GX] List $995.....................$799

TDS48-GX Survey Card
TDS' best selling data
collector software

This is the stalwart of TDS' data collection programs. For users who do not need to collect data from a digital level, do not need the Survey Pro's cross section topo by station and offset, and building pad layout, do not use an alphabetized Pop-Up description table, or define road centerlines with horizontal and vertical alignments, this card is for you. All the curve solutions, all the off center shot options, all the multiple repetition options for Traverse shots. Stake by station and offset from a Point-List which defines the centerline. Or slope stake offsets from the centerline. Use the Direct Record mode for topo without touching the data collector. Also has Direct Function Access Keys. Requires 128K extra memory.

Stock #2775 [Survey Card for 48GX] List $595.....................$459.95
Stock #2239 [Survey Card for 48SX] List $550.....................$459.95

TDS Contractor Card

new tool specifically for construction applications

This card is designed specifically for contractors and construction workers who don't need the full surveying functionality, but need to layout their construction sites or add to the surveyors' work. Supports almost all total and semi-automatic total stations (even robotics). Use any digital electronic level (or manual three wire entry), even Criterion Laser, for Level Loops or Staking. Topo by Station and Offset. Layout building pads. Automated Cross Section survey for volumes. The Contractor Card also includes many basic surveying functions. Compatible with all the leading engineering software.

Stock #3327 [Contractor Card for 48GX] List $750.....................$599

TDS COGO Card

A full function Coordinate Geometry card. Has Traverse / Sideshot, full curve solutions including horizontal, vertical and straight grade. Triangle solutions, Area, Pre-Determined Area, Point Stake, Intersections, Inverse by points, coordinates or line, Resections, Corner Angles, Remote Elevation, Earth Work including Average End Area, and Survey adjustments are all included.

You won't find a more power packed COGO card at this price, anywhere!

Stock #2266 [COGO Card for 48SX/GX] List $155 .... $124.95

TDS Accessories used with TDS Survey Pro, Contractor, and Survey Cards:
Stock #2261 [Tripod Bracket] List $75.....................~~69.95~~...~~$89.95~~
Stock #2253A [Cable, Sokkia/Topcon] List $100.....................$89.95
Stock #2254A [Cable, Nikon Topgun] List $100.....................$89.95
Stock #2255A [Cable, Zeiss] List $100.....................$89.95
Stock #2256 [Cable, Pentax] List $100.....................$89.95
Stock #2257A [Cable, Geodimeter] List $100.....................$89.95
Stock #2258 [Cable, Kern] List $100.....................$89.95
Stock #2260 [Cable, Wild/Leica] List $100.....................$89.95

Structural Analysis Card
for the HP-48SX/GX

General Beams, 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 [Struct Analysis, card] List $125 .... $109.95

New version 6.0
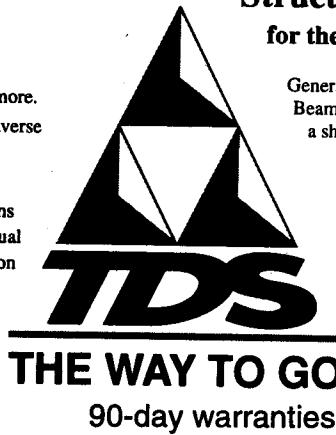
PC Software from TDS
TDS Easy Survey Plus
a powerful program for
field and office work

Use virtually the same menus, screens and functions on your office PC as you use in the field with TDS Cards.

Includes all data collection functions, extended COGO, Street Intersection Layouts, Contour Mapping, Advanced Road Layout, Least Squares Adjustment and Plotting. All these functions are displayed in VGA color graphics for ease of use.

Contains a powerful, easy to use Auto Line-Work function; with a few codes entered in the field, you can select your line-work and later automatically create the plat with Easy Survey Plus.

Easy Survey Plus comes with TDS TFR File Transfer and Conversion Software.

Stock #2932 [Easy Survey Plus, 3.5"] List $1275 ....$959
Stock #3123 (Easy Survey Demo Disk).....................FREE

TFR Map

lo-cost PC software utility
- File transfer to and from the data collector
- Coordinate file conversion to other formats
- File editing and management capabilities
- Plot points and lines
- Auto Linework
- Basic COGO
- Output to plotters and printers

Brand New

Suppose that, back in your office, you discover that your rod man has changed the rod height during the job, but neglected to make the change in the 48, so elevations are wrong from that point on. No problem—you can edit it in the PC using TFR and re-calculate the points elevations automatically!

You'll need the 48-to-PC Serial Cable (#F1015A).

Stock #3120 (TFR MAP) List $250.....................$224.95

TDS   **THE WAY TO GO**
90-day warranties

Lo-Cost
Surveying Software
for the HP 48SX/GX

D'Zign

New Rev 2.0
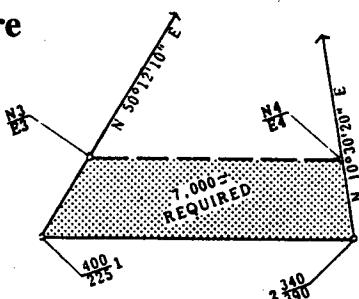
HP 48 Surveying Pac
Complete lo-cost ROM-card software for your SX or GX

Remember the HP 41 Survey Pac? This modern program upgrades that 41 classic. Transit Adjustment is omitted here (it's not used much) in favor of Multiple Offsets and Automatic Bearing Recall (which will be real time-savers for you). Plus whole sets of Radial Stakeout programs (with super-fast come-and-go) and Triangle Solutions routines.

You'll do any miscellaneous calculations without leaving whichever program you're using, so you won't lose your place. Angles are entered directly in deg/min/sec. There are no overlays—you'll use your softkeys instead.
Stock #2973 (HP 48 Surveying Pac, card) **$135**

Alignment Pac (32K ROM card, piggyback for #2973) Stake out any station, or an offset to any station, along an alignment from *any* known point without precalculating the coordinates; US or metric. Card goes in second port with #2973 in first.
Stock #3324 (Alignment Pac, card) **$95**

Angle Right Radial Stakeout (supplement to #2973) a version of SPRAY program that outputs in angle right instead of azimuth. Requires Kermit, PC and serial cable to install.
Stock #3323 (Angle Rt. Rad. Stakeout, 3.5") **$9.95**

Transfer—software to communicate to/from a PC
Kermit, automated file transfer and conversion programs so you can upload files to your PC surveying program, or download from it to your 48. Requires serial cable between PC and 48.
Stock #2958 (Transfer, 5.25" and 3.5") **$49**

Surveying Packet #1   *Rev 4.0*

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 has spiral curves, resection, A.L.T.A. remote slope staking, topographic pickup, end area volumes, and foot-inch/fraction conversion.

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 $40 each to register for the freebies (and to conform to U.S. copyright law, and to give the workman his due).

Program package comes to you on both 5.25" and 3.5" PC disks—so you'll need a PC and a #F1015A Serial Cable to download programs to your HP 48 (this way, you save memory space by downloading only the programs you need to use). Package includes Owner's Manual and transfer software.

Requires HP 48GX, or 48SX with 128K RAM Card installed.
Stock #2606 (48 Survey Pack #1, 5.25" & 3.5") **$275**

Surveyor's Software
## ROM Cards
for the HP 48SX/GX   **SMI**

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**

Coordinate Geometry Enhanced
survey software cards
to slide into your HP 48GX

SMI   *Save $$*
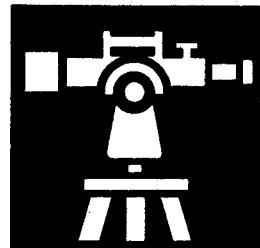
48BCE—Basic COGO power, yet affordable and easy-to-use
Inverse, traverse and side shot, computing areas, perimeters and closure. Stores 100s of points in your 48GX without additional memory, so you do several jobs at the same time. Includes vertical curves, triangle solutions and compass rule adjustment.   *$99*
Stock #2980 (48BCE, card) List $150 .... **$119**

48SCE—Standard COGO power second to none
All features of the 48BCE plus 3D surveying earth curvature and refraction, sunshot with its own ephemeris. Inverse by coordinates or by point number, multiple angles, screen plot and south azimuth. Stakeout; COGO functions like perpendicular offset, trig leveling and angle windings.   *$239*
Stock #2981 (48 SCE, card) List $300 .... **$259**

48 ACE—Advanced COGO powers at your fingertips
Every feature and function of the 48 BCE and 48 SCE, plus it stores and codes. Notes, codes or elevations can be turned off or on any time. Angle adjustment program handles traverse while holding the angles to the side shots constant. Compass rule program adjusts side shots as well as traverse points. Two-point resection. Transfer elevations from benchmarks to instrument. Trig leveling and mean reciprocal leveling. Offset program.   *$479*
Stock #2982 (48 ACE, card) List $600 .... **$519**

SURVcalc v. 2.5
surveying software
for HP 48 SX/GX   **Cartesian Systems**

Free – PC-to-SURVcalc file conversion utility on disk

Now in *manual data entry* or *total station* format (works with most RS 232 models of Geodimeter/Geodolite [400 & newer], Leica/Wild, Nikon/Top Gun, Pentax, Sokkia/Leitz, and Topcon).

Both formats contain well-designed COGO routines combined with *continuous* horizontal and vertical alignment routines. The total station format will also do electronic data collection, coordinate layouts, alignment (station/offset) layouts, 2-print resection and clearances.

Requires PC or Mac 7.x with Apple File Exchange, serial interface cable, HP 48SX with min 128K RAM card or HP 48GX. User's Manual and free Tech Support (on toll phone line) included.
Stock #3331 (SURVcalc Manual Entry) **$134.95**
Stock #3332 (SURVcalc Total Station) **$219.95**

STaK
surveying software
for the HP 48S/SX/G/GX
by Troy Jorgenson

Brand New

Your **lo-cost alternative to ROM-card programs**—fits into 32K with room to store 130 point numbers. Especially for the construction surveyor.

Full traverse, horizontal curve, vertical curve, intersection, and slope stake routines, plus some miscellaneous utilities.

17-page manual; phone and on-line support. Comes on disk to download to your HP 48.
Stock #3446 STaK, 3.5") **$44.95**

If you need help in Physics and Math
CalcWare 3.5" disk-based software
### for HP 48G/GX
Sparcom CORPORATION

Get yourself new power for your classes—solve problems the easy way with HP 48 software.

All the capabilities of Sparcom's card-based software are here — analysis and reference sections along with all the same equations. Simply download the routines, equations and data you want—no programming necessary.

Downloading requires a serial cable and connectivity software — if you need software, consider the courses below that are bundled with FREE Link, Sparcom's brand for DOS/Windows. Every program is menu-driven, includes help text, comes on 3.5" diskette.

■ **Mechanics & Thermodynamics**—Angular/Fluid/Linear Mechanics, Friction and Drag Forces, Gravitation.

■ **Electricity & Magnetism**—Circuit Elements, R/L/C Circuits, Electric Fields, Magnetism, Vectors.

■ **Optics, Waves & Relativity**—Astronomy, Electromagnetic Waves, Optics, Oscillations, Quantum Mechanics.

■ **PreCalculus**—Algebra, Arithmetic, Geometry, Trig, Triangle, Polygons, Spheres, Circles

■ **Calculus**—Integrals, Hyperbolics, Series, Vectors, Derivatives, Transforms, Coordinate Systems, Special Functions.

Stock #3299 (Mechanics & Thermo) $44.95
Stock #3300 (Mechanics & Thermo + Link) $44.95
Stock #3301 (Electricity & Magnetism) $44.95
Stock #3302 (Optics, Waves & Relativity) $44.95
Stock #3266 (PreCalculus) $44.95
Stock #3303 (PreCalculus + Link) $44.95
Stock #3267 (Calculus) $44.95

EQuation Xpert
for S/SX/G/GX

▼vectorSoft
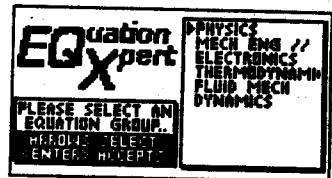
Create your own custom equation directory—here's your graphic interface software.

You simply store your equations by category and subject—EQuation Xpert does the rest. You'll have the option to add equation-related information, graphics objects and AutoVARS.

Then you can select equations by description, scroll, expand your windows, drop an equation to stack or to SOLVER. You can view equation-list, equation and user information on screen all at once.

Includes Manual; comes on ROM card or on disk for downloading from PC.
Stock #2947 (EQuation Xpert, 3.5" disk) **$29.95**
Stock #2948 (EQuation Xpert, card) **$59.95**

Keep this catalog for future reference, or pass it on to a friend. Most items will be available in the future.

HP 48 Goodies Disks
Public-Domain Software Programs

■ **High Density Disks for PCs; 1.2M 5.25" or 1.44M 3.5" (sorry, there are no Apple or Mac versions as yet)**
■ **Lo-Lo-Cost, Donated Programs—provided as is, without support from EduCALC, HP or anyone else; about half of these programs work on the HP 48G/GX (but that may not be stated)**

Each disk comes with descriptive notes. These may also be ordered separately—see p. 00 for our 'Technical Notes'. Cumulative Index see TN 53.

No. 1: We have Joseph K. Horn to thank for this: 272 files and 989K bytes on a 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 Emissions, Internal Messages, Planetary Positions.

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.

No. 7: New! Complete index of GD1 - GD7 and a Global File-Finder by name, keyword, or author (FETCH). Tetris, HP Unassembler, Pacman, Tiny Biorythm, 6 color Mastermind, Super fast FFT, Super fast Poly Roots, 3-D Surface Plotter, 7 Level stack, To-Do List, X & Y Modem, Bonds.

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programming aids

Advanced User's Reference Manual
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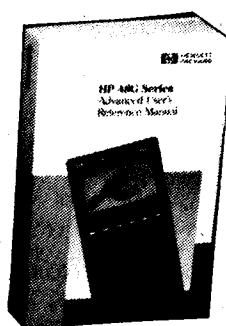
Called AUR in your Owner's Manual — has programming examples, covers Commands, Error & Status Messages, Units, Flags, List Processing.
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48 Insights, Part I
for S/SX or G/GX

by William Wickes
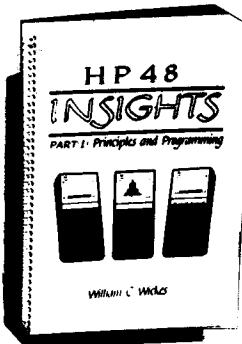
If you do serious programming on the HP 48, this book is for you

Part I, Principles and Programming.

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Look at these chapter titles:

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3. Objects and Execution	7. Customization	11.	Arrays and Lists
4. The HP 48 Stack	8. Problem Solving	12.	Program Development

Part II, Problem-Solving Resources, covers the applications: SOLVE, PLOT, ALGEBRA, TIME, STAT & UNITS with the same thorough 'insights' as Part I.

Dr. Wickes has written 2 versions of Part I, one for HP S/SX and one for HP G/GX, so you'll have a perfect fit with your instrument. However, either version is mostly directly applicable to the other models as well.

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HP 48S/SX Machine Language

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HP 48S/SX Machine Language

by Paul Courbis & Sebastien Lalande
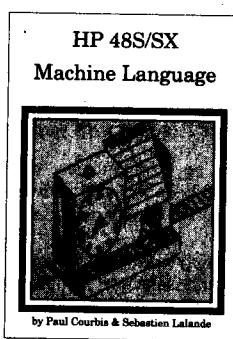
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An Easy Course in Using & Programming the HP 48G/GX

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An Easy Course in Using and Programming the HP 48G/GX
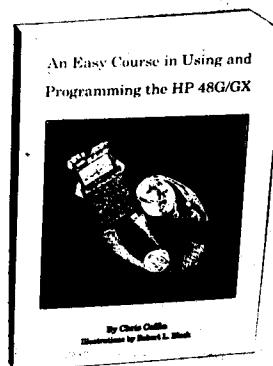
By Chris Coffin
Illustrations by Robert L. Bloch

Here is an *Easy Course* in true Grapevine style—examples, illustrations, and clear, simple explanations give you a real feel for the machine and how its many features work together.

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The HP 48 Handbook 2nd Edition
The ultimate programmer's how-to and reference book
for S/SX/G/GX
by James Donnelly *Covers System Programming*
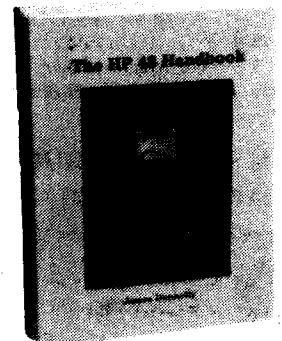
If you intend to make your 48 dance and sing, this is for you. It condenses over 1400 pages of HP manuals into a portable collection of concise, convenient tables, tips and facts. More than example programs illustrate the power of the HP 48G/GX with an emphasis on interactive programming and graphics.

The HP 48 Handbook covers objects/constants/names, memory organization, graphics, statistics, data transfer, menus, user keys, programming, printer control, units, message tables, character codes, flags.

A huge new chapter on System Programming provides a superb introduction to the internals of the HP 48—objects you can use with SYSEVAL! HP manuals don't tell you what's 'under the hood', but this chapter does! Any HP 48 owner can get a lot more from his machine with a little knowledge about System Programming!

An expanded Command Reference (over 85 pages) lists the complete stack diagrams for all commands and functions, including notes, related flags, and keystroke access.
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The HP 48 Programmers Toolkit
for S/SX/G/GX

James Donnelly
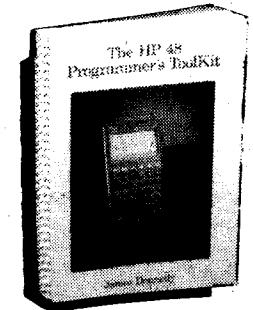
Turbo charge your own programs with this library of machine-code subroutines —more than 60 new commands for high-speed stack operations, list and string utilities, sorting, graphics, data calculations, meta-object utilities and directory searching — for example, create a 10K character string in one second, 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, 3.5") $24.95
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An Introduction to HP 48G/GX System RPL and Assembly Language Programming

by James Donnelly

Nibble	Bit 3	Bit 2
12		
11	©	D
10	PRG	CST
9	NXT	STO
8	▼	►
7	/x	◢
6	+/-	EEX
5	Q	SIN
4	9	+
3	4	5
2	►	A
1	3	−
0	.	SPC

the ultimate insider's guide

Once you've mastered the HP 48 from the outside, it's time to learn how the calculator works from the inside. This book introduces System RPL (the internal language of the HP 48) and HP 48 assembly language programming.

Filled with exciting chapters that begin with the basics and work toward advanced topics—each chapter contains example programs that illustrate the concepts being discussed. You'll learn how to write your own applications using all the HP 48 graphic user interface resources, including Choose boxes and InputForms. You'll learn how to write your own code objects in assembly language. Write to the display, scan the keyboard, and generate new sounds on the speaker!

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HP 48 Programmer's Reference Manual

for S/SX

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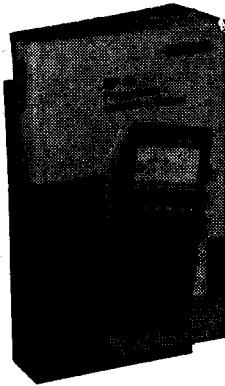
A 'must have', for reference and for study

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. (Photocopied from HP.)

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Graphics on the HP 48G/GX

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Graphics on the
HP 48G/GX

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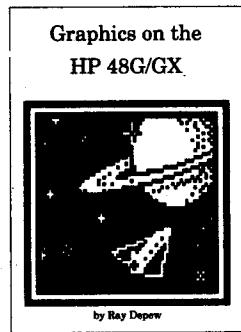
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How to use your HP 48G/GX in an engineering math course—

```
2:
1: '3*X^2+6*(2*X)+11=X^
   3+6*X^2+11*X+6'
```
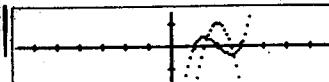
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Reinforces key topics, provides activity sets with solutions for many exercises. "Getting started" section gives friendly introduction to keyboard, data entry, RPN and memory management.

DOS programs require 386 or higher with 4MB RAM, plus Serial Interface Kit to download to HP 48.

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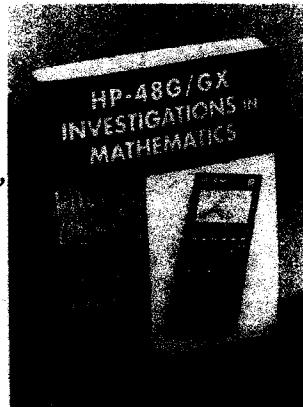
Calculus Companion
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by Mathews/Eidswick

A rich collection of examples, exercises and projects that resemble real problems and make use of the power of the HP 48—intended to supplement an 'average' calculus text and be a companion to a student or someone reviewing and refreshing his study.

There are 3 levels of exercises here—the A level is about the same as the examples, B exercises ask you to go beyond the content and level of the worked-out examples and may include some programming, while C exercises are more ambitious and may explore topics like error analysis.

Although written with the 48G in mind, most calculations can be done on the HP 48S as well, and many on the HP 28S.

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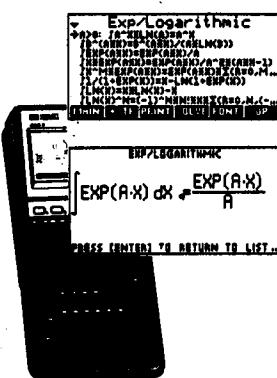
Mastering the HP 48G/GX
by Thomas Adams

A step-by-step (really!), easy-to-read (really!) introduction (really!) to operating and programming the 48G/GX.

Many, many examples will guide you. Adams anticipates the problems you have and shows you the way in an easy-to-follow sequence of instruction.

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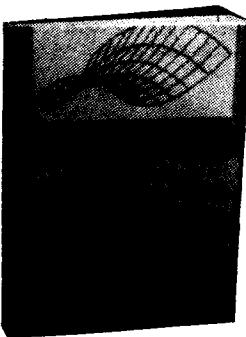
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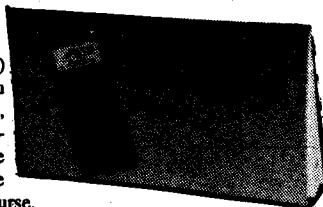
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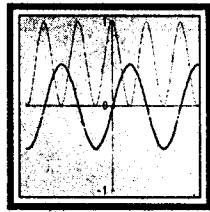
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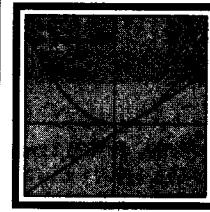
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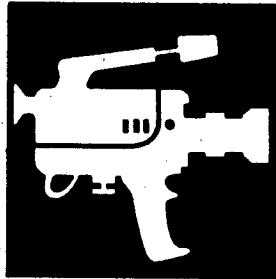
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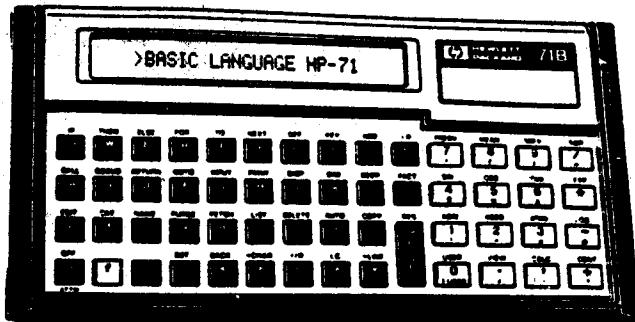
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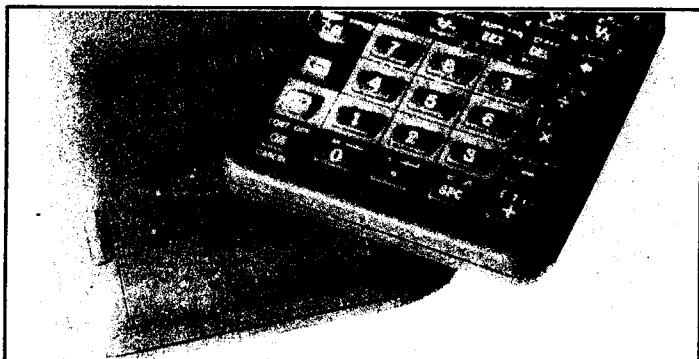
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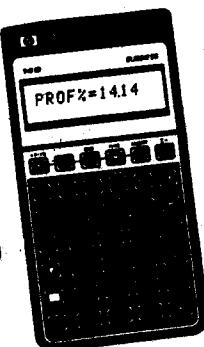
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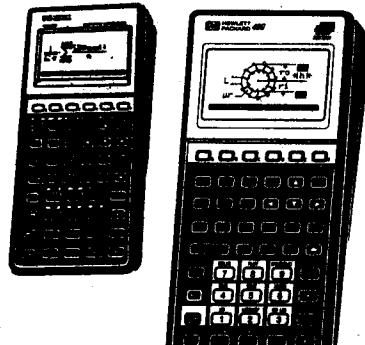
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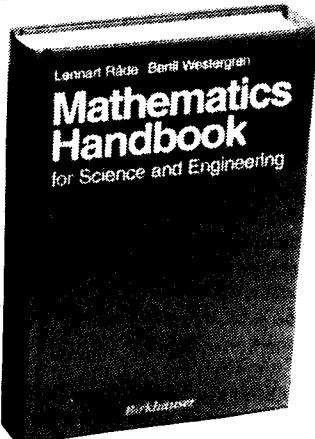
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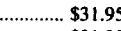
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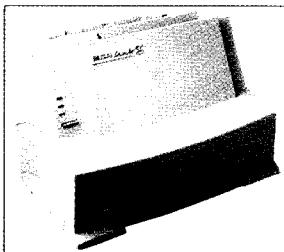
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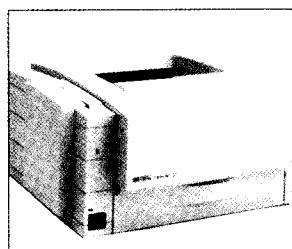
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