

VIC-20 The Friendly Computer

With Color and Music

\$2.00



1982/83 Wholesale Price List

Cable: "OLYRAV" LSA
Telex: 67 34 77

Olympic Sales Company

P. O. Box 74545 • 216 So Oxford Ave • Los Angeles, CA 90004

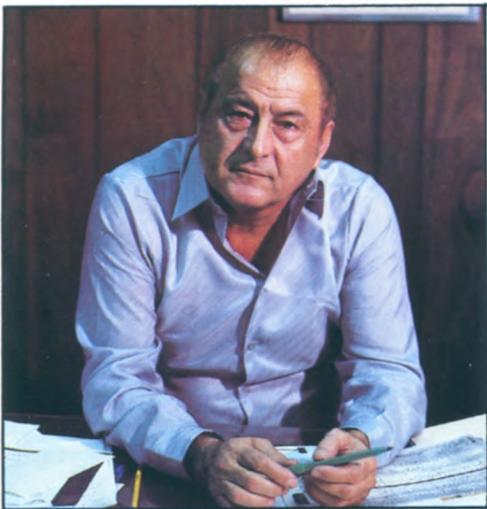
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Francis Ravel, President, Olympic Sales Co.

Dear Friend,

Do you know of a little boy or girl growing up without ever hearing mom and dad, the bark of the dog, or the sound of the teacher's voice? Or, can you imagine growing old, and growing deaf, imprisoned behind a wall of silence, cut off from communication with family and friends, wondering if you're senile just because you no longer can hear and understand them?

There are more than two million Americans, young and old, who are deaf or profoundly hard of hearing. Some 20 million of us—nearly one in every 10—have some degree of hearing loss.

As a nation we're spending more than 13 billion dollars every year for special schools and educational programs, medical care, vocational rehabilitation, and compensation. We're losing at least that much more in diminished effectiveness and productivity of these people. And no price tag can be placed on the personal suffering and emotional problems stemming from the isolation inherent in loss of hearing. And what are we doing about it? Disgracefully little.

We're spending less than 30 million dollars—less than one-tenth of one percent of the cost—on research on the cause, treatment, and prevention of the problems of hearing. Meanwhile, that bill of 25 to 30 billion dollars goes on, each and every year. It isn't good business—and it certainly is not in line with our feeling of compassion, perhaps that is because deafness is a hurt that doesn't show.

As I become more and more familiar with the work of the doctors and scientists at the House Ear Institute I'm amazed at how much modern science can accomplish with so little—and wonder what they could do with more.

They are restoring a sense of hearing to the totally deaf. And they are giving deaf children a chance to grow and learn in a normal hearing world. They are developing new hearing aids which should help the many elderly people with nerve deafness. And, they are on the track of preventing many of the hearing problems which come with age.

I was just plain lucky to have crossed the path of Dr. William F. House and the Institute in 1963, after some tests and observation indicated I had an acoustic neuroma. I never knew the gravity of my case. Dr. House operated on me in 1964 (Friday the 13th was the only open date). The operation was successful, with eleven doctors from all over the world watching and learning new methods. Since that time I have led a very active life, working six days per week about 10 to 12 hours per day and enjoying every minute of it.

By then I had learned an acoustic neuroma, or tumor, is a benign growth on the balance and hearing nerve near the brain. It was first recognized in 1777. Yet, still today, it presents special, extraordinary dangerous problems for both the patient and the physician.

In the years before these tumors were treated, they always caused death. Dying was tortuous, grotesque and lengthy. During the early 1900s, neurosurgeons performed more and more operations on acoustic tumors, but with fearfully high mortality rates, between 72 and 82 percent. The mortality rate decreased in the following years, but the patient who survived suffered gruesome complications of surgery, including almost inevitable facial paralysis.

In 1962, Dr. William F. House, a neuro-otologist, developed a different surgical approach to the tumor, through the inner ear rather than through the back of the brain. In 1964 he reported sixty acoustic tumor surgeries using these methods. There were two deaths, but the last 47 of these tumors were operated on without a fatality. This was an extraordinary and unsurpassed record for a tumor whose operative mortality in competent neurosurgical hands had been rarely lower than twenty percent. Not only did Dr. William House's surgical innovations save more lives, they also improved the quality of those lives, and mine was one of them.

Since that time, Dr. William F. House and his group have operated on and saved the lives of more than fifteen hundred (1,500) acoustic neuroma patients who are now leading normal lives instead of being either dead or disfigured for the rest of their lives.

Prior to that time, his associates had developed or perfected many surgical procedures which restored hearing in the middle ear where three tiny bones transmit and magnify sounds. There is little reason today that anyone with such a conductive loss should live with a severe hearing impairment.

Leading the way into the inner ear, where the hearing, balance, and facial nerves are located next to the brain, the people at the Institute found ways to treat Meniere's disease, a condition characterized by recurring attacks of vertigo, hearing loss, and tinnitus (head noise). In the 40 percent of cases which don't yield to medical treatment, Dr. William House developed a surgical procedure effective on the majority of those cases. A notable patient is Alan Shepard, the astronaut. Grounded by recurring dizziness, the operation enabled him to resume his space career and go to the moon.

For the totally deaf, Dr. House developed an electronic device, in part implanted just behind the ear, which carries the electric signals of sound to the cochlea, or organ of hearing. These signals produce a sensation of sound by stimulating the remaining healthy fibers of the hearing nerve.

More than 200 adults have received this cochlear implant from Dr. House and more than 20 co-investigators at other medical centers around the country. That program is continuing and Dr. House is turning his attention to children.

In a pilot program, 17 children from 3 to 17 were

implanted. Here's what the father of the youngest patient had to say about the implant:

"Over this year we have had three little girls in Tracy. First, the normal, happy vivacious Tracy. Then Tracy who had lost her hearing from meningitis and was totally deaf. She had lost her speech. She couldn't understand us and we couldn't understand her. She was very frustrated and her behavior was totally different from the first Tracy we had known.

"And now, we have the third Tracy, a little girl with the cochlear implant. She can now hear her own voice. Her frustration level has been greatly reduced. Her speech is coming closer to the first Tracy."

They're planning now to send this totally deaf youngster to regular kindergarten class rather than to some school or class for the deaf. And the Institute is moving ahead with plans for a model center for deaf children. This will concentrate in one place all of the physical, diagnostic, psychologic evaluation, educational guidance, and parental counselling for parents and their deaf children, whether they can be helped with powerful, well-fitted hearing aids or require an implant.

No wonder that in its 37 years the House Ear Institute in Los Angeles has become known as the world center for attacking and solving people's problems of hearing and balance. It shares its findings with the 500 or more ear specialists from all over the world who visit the Institute or attend its courses each year to learn what's new in otology. And thousands of patients come from throughout the United States and elsewhere seeking relief for their problems.

The budget—two-thirds of which goes directly to research—exceeds \$2.5 million a year. All funds come from private sources: individuals, foundations, corporations, and civic groups. Only a small amount comes from tuition and fees for professionals. NO MONEY comes from the government.

The House Ear Institute needs your help. Join me by becoming a financial supporter through your own contribution. Ask friends to join you. Write or call for further information.

Please send your contribution to:

House Ear Institute
256 South Lake Street
Los Angeles, California 90057
(213) 483-4431

I am deeply grateful to the Institute, Dr. William F. House, and all its dedicated members for saving my life and the lives of so many. I am very privileged to be part of this great organization. Please help so all may hear, and live.

Francis Ravel
President
OLYMPIC SALES CO.



Dear Friends:

Olympic Sales Company has been in business for a great many years and up until January 13, 1982 was one of the largest Apple computer dealers in the nation. We were selling a great number of school districts, colleges, universities, educational institutions, a substantial number of the Fortune 1300 firms and many more, Apple products at substantial discounts.

On January 13, 1982, we received a letter signed by Mr. A. C. Markkula, President of Apple Computer Company. This letter was entitled "NOTICE OF TERMINATION" and was a notification from Apple Computer Company that Olympic Sales Company had been terminated as an Apple Computer Dealer because Olympic Sales Company had the audacity to sell Apple products through mail order.

On November 9, 1981, we did sign under protest a so-called "MODIFICATION OF AGREEMENT" which Apple Computer Company requested all its dealers to sign, for-bidding sales of Apple products by mail order or telephone order. Their require-ment was that the customer must come to the Apple dealer and have a "Face to Face" meeting.

I am taking the opportunity of placing on this page for your inspection a copy of the "MODIFICATION OF AGREEMENT" and a copy of the "NOTICE OF TERMINATION." Both of these documents are self-explanatory.

For your information, if I was still an Authorized Apple Computer dealer today, I would sell to all School Districts, Colleges, Universities, High Schools, Ele-mentary Schools, Faculty Members and other Educational Institutions Apple products at the following prices:

Model	Description	Suggested Retail	Your Cost
A2S1048	48K Plus Computer	\$1,530.00	\$ 989.95
A2M0044	Disc Drive with Controller	645.00	479.95
A2M0003	Disc Drive 2 (Drive only)	525.00	389.95
A2P2048	Family System	2,495.00	1,639.95
A2P0005	Apple II System Package	1,995.00	1,599.95
A3S0128	Apple III 128K including System Software	3,495.00	2,269.95
A3S0256	Apple III 256K including System Software	4,295.00	2,787.95

These figures will give you an idea of what prices I would have charged you for Apple products. Now, if you review your records and discover that you have been paying much more than these prices for Apple products, I will be convinced that you have been paying too much for Apple products.

FRANCIS RAVEL, PRESIDENT
 OLYMPIC SALES COMPANY

apple computer inc.
 10260 Bandley Drive
 Cupertino, California 95014
 (408) 996-1010
 January 13, 1982

Mr. Francis Ravel
 Olympic Sales Company, Inc.
 216 S. Oxford Avenue
 P.O. Box 74545
 Los Angeles, CA 90004

NOTICE OF TERMINATION

Dear Mr. Ravel:

This is to notify you that effective immediately Apple Computer, Inc. hereby terminates its Authorized Apple Dealer Agreement with Olympic Sales Company, Inc. pursuant to subparagraph 3(g)(iv) of that Agreement. You have been terminated for engaging in the mail order sale of Apple products in violation of the Agreement Modification which you signed on November 9, 1981, and which became effective on November 12, 1981. Your Level I Service Center Authorization is also revoked effective immediately.

Please refer to Sections (8) and (10) of the Dealer Sales Agreement respecting the cessation of your use of Apple trade names and marks and be advised that Apple is prepared to take the appropriate steps to prevent their misuse to mislead or deceive the consuming public as to your continued status as an authorized Apple dealer or Service Center.

Very truly yours,

A.C. Markkula
 A.C. Markkula
 President

MONEY IS TIGHT, HARD TIMES ARE HERE AND EVERY ONE WANTS TO GET THE MOST FOR WHAT HE'S GOT!

Look into your past and present Apple purchases, if you find you have been paying too much for Apple products please call or write and tell us about your experiences.

We believe that restraint of competition is wrong and causes you, the consumer, to pay more.

Write and tell us about your experiences and thoughts on this!

MODIFICATION OF

AUTHORIZED APPLE DEALER SALES AGREEMENT

Authorized Apple Dealer Sales Agreement between Apple Computer, Inc. and Olympic Sales Company, Inc. is hereby amended to add subparagraph 3(g)(iv) as follows:

v) Dealer and Apple recognize that because of the special, technical nature of Apple Products, customers purchasing them can be properly served only if they have the benefit of pre- and post-sale education, orientation and support, specifically including in-person contact with the selling dealer, in order that each customer's needs may be properly assessed and the features, benefits, operation and applications of the Apple Products being purchased may be demonstrated and fully explained to them by knowledgeable sales personnel. Accordingly, Dealer shall not engage in telephone or mail order sales of Apple Products and shall sell Apple Products only in a manner insuring that Dealer maintains such direct in-person contact with the customer. Violation of the provisions of this paragraph will result in immediate termination of the Agreement, notwithstanding Paragraph 10 thereof.

IN WITNESS WHEREOF, the parties hereto have executed this Modification of Agreement the date and the year written by Apple below.

APPLE COMPUTER, INC.

DEALER

By: *Gene Plaster*

By: *[Signature]*

PRESIDENT

Dated: 11/12/81

Dated: NOV 9, 1981

Subscribed to and sworn to before me this 9th day of November, 1981.

Dealership Name:
 Olympic Sales Company
 (O.S.C. CORP.)

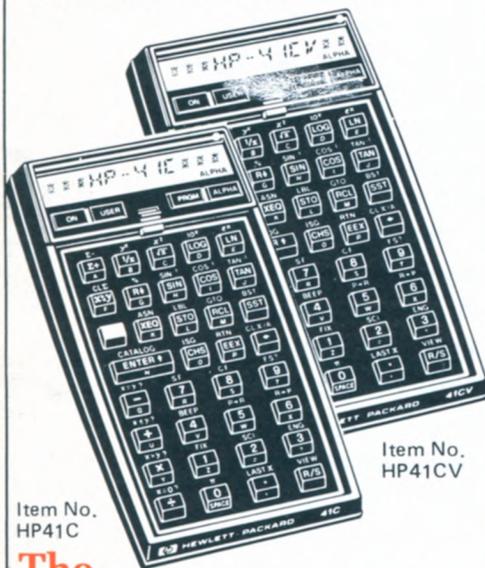
My commission expires October 11, 1985.

Address: 600 N. Sepulveda
 El Segundo, CA 90245

Eleanor E. Nagy
 Eleanor E. Nagy, Notary Public



THE HP-41... A CALCULATOR. A SYSTEM. A STANDARD.



Item No. HP41C

The HP-41C or HP-41CV... Which One For You?

The unique difference between the HP-41C and HP-41CV is that the HP-41CV has 5 times more memory built in. Specifically, it contains 319 storage registers versus 63 storage registers in the HP-41C. For those of you who have programming experience, the HP-41CV gives you the memory capacity to store a host of programs continuously. And with all this memory built in, you have four free ports to add the peripherals of your choice, making your system even more powerful and versatile.

If you are new to programming or your needs do not immediately require full memory capabilities, start with the HP-41C. As your need for memory increases, add a Quad Memory Module or up to 4 Memory Modules to meet your increasing computational needs.

HP-41C \$199.95
HP-41CV \$249.95

MEMORY MODULES

These handy modules can actually quintuple the HP-41C's resident memory. You simply plug in up to four Memory Modules or one Quad Memory Module to increase data storage and program memory. One Memory Module contains 64 data storage registers. The Quad Memory Module contains 256 data registers. With four Memory Modules or one Quad Memory Module, you can expand your HP-41C resident memory up to a maximum of 319 data registers—the equivalent of the HP-41CV.

The HP 82180A Extended Function/Memory Module

Retail: \$75.00

The NEW Extended Function/Memory Module increases your current programming function set by adding such functions as programmable size, programmable assign and string functions. This new module also provides memory management functions for accessing extended memory and an additional 889 bytes of extended memory.

Item No. HP82180A Your Cost: **\$67.95**

The HP 82181A Extended Memory Module

Retail: \$75.00

The Extended Memory Module provides an additional 238 data registers or 1,666 bytes to the HP-41. These modules can be used in conjunction with the HP 82106A Memory Module or the HP 82170A Quad Memory Module. (The HP 82180A Extended Function/Memory Module is required when using the HP 82181A Extended Memory Module.)

Since the Extended Function/Memory Module itself contains 127 extended memory registers, plug in one Extended Memory Module and you have 365 extended memory registers or 2,555 bytes of program memory. Plug in two Extended Memory Modules and you have a total of 603 extended memory registers or 4,221 bytes. No more than two Extended Memory Modules can be used at any one time.

Item No. HP82181A Your Cost: **\$67.95**

The HP 82182A Time Module

Retail: \$75.00

Introduce the dimension of time to HP-41 programming with the NEW interactive Time Module. The Time Module enables you to expand your calculating system with time information and time-controlled operations. Using the Time Module, your HP-41 can become the heart of a time-based system controller, an alarm clock, an appointment reminder, a calendar, a timer, even an advanced stopwatch.

Item No. HP82182A Your Cost: **\$67.95**

The HP 82183A Extended I/O Module*

Your HP-41/HP-IL capabilities can be further enhanced with the Extended I/O Module.

Now you can generate HP-41 compatible bar code on the new HP 82162A Thermal Printer/Plotter. You can convert your frequently used programs to bar code, an inexpensive means of storing programs and data.

Cassette tapes can be duplicated quickly and easily by using multiple HP 82161A Digital Cassette Drives and the Extended I/O Module. This time-saving feature allows you to conveniently make multiple copies of tapes to meet your software distribution needs.

When plugged into the HP-41, the Extended I/O Module gives you capability and flexibility for accessing files on mass memory devices. And you get more general purpose I/O capabilities.

*Requires HP 82160A HP-IL Module.

Item No. HP82183A Call for Availability & Price!

Upgrade your HP-41C...

MEMORY MODULES

Item No. HP82106A **\$29.95**

Item No. HP82170A **\$84.95**

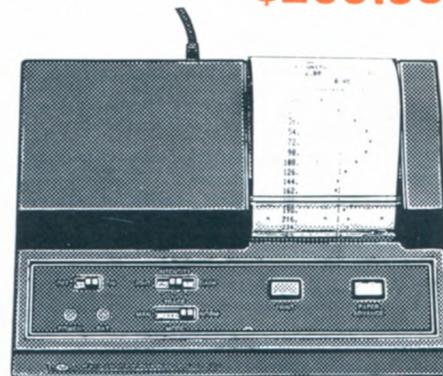
The HP-41 The HP-41C and HP-41CV are the most powerful Hewlett-Packard programmable calculators to date. The HP-41C was chosen by NASA for the Astronauts on the space shuttle Columbia because of its capabilities and reliability.



HP 82143A PRINTER/PLOTTER

Item No. HP82143A
Retail: \$385.99
Shpg Wt: 8 lbs

\$299.95



This whisper-quiet, thermal, 24-character Printer/Plotter easily plugs into the calculator to give you numeric, upper- and lower-case alpha, double-wide characters, plotting capability, and intensity control for optimum contrast and readability. It even allows you to define your own "special" characters. The Printer/Plotter is a valuable aid in editing programs or checking long calculations. Your output is listed line by line for easy reference. Portable and lightweight, the HP-41 Printer/Plotter operates on batteries or ordinary house current, working when and where you need it.

THE HP 82104A CARD READER

Item No. HP82104A
Retail: \$215.00
Shpg Wt: 3 lbs



\$179.95

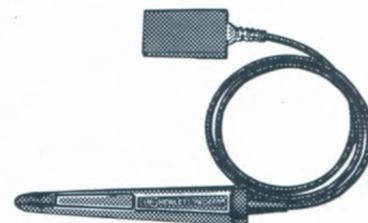
The Card Reader for the HP-41 saves your programs and data on small, magnetic cards. By passing the appropriate magnetic card through the Card Reader, you place all the information on the card in the HP-41. Instantly. You write and store programs on the cards just as quickly, too. And the Card Reader is "extra-smart": it swiftly reads cards whether under your control or that of a program; it accepts cards as they are read; it prompts you for the next card; it even accepts program cards from the HP-67 and HP-97, automatically translating programs into HP-41 code.

If you frequently change long programs, develop or change software, or need quick storage of programs and data, the Card Reader will give you a highly portable, time-saving method.

THE HP 82153A OPTICAL WAND

Item No. HP82153A
Retail: \$125.00
Shpg Wt: 2 lbs

\$109.95



With the Wand, Hewlett-Packard makes using the HP-41 even quicker and easier. The Wand reads bar code, a convenient and inexpensive means of inputting and storing HP-41 programs and data. Almost all HP-41 software is available in bar code, including Users' Library programs and Solutions Books.*



**HEWLETT
PACKARD**

IL-HEADLINERS

HP 82163A RE:\$295.00 **\$249.95**
Video Interface Module

HP 82164A RE:\$295.00 **\$249.95**
RS-232 Interface

HP 82165A RE:\$295.00 **\$249.95**
GPIB (IEEE488) Interface

HP 82166A RE:\$295.00 **\$249.95**
8-Bit Parallel Interface

Shpg Wt:
2 lbs each

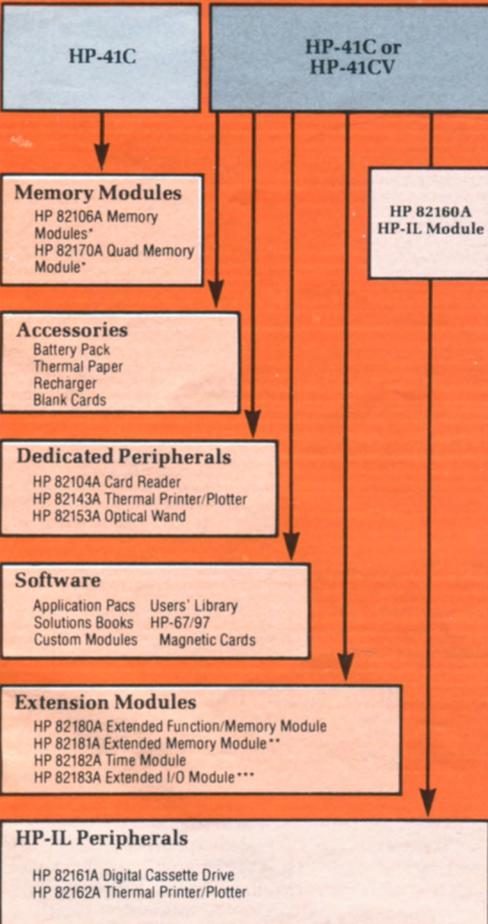
The HP-IL concept revolves around a two-wire cable that can connect as many as 30 HP-IL devices in a closed series loop. HP-IL is a "master-slave" interface, meaning that one active controller regulates the information flow between all of the devices in the loop. Data and commands move around the loop in one direction.

Now, your HP-41 hand-held computer can easily communicate with, and control, any Hewlett-Packard Interface Loop (HP-IL) peripheral.

HP-IL

Your Link with the Future

HP-41 System Configuration



*For use with HP-41C only.
**Extended Function/Memory Module required.
***HP-IL Module required.



This module plugs into any of the four ports of the HP-41C/CV. Once plugged in, it allows, with simple HP-41 commands, control of up to 30 HP-IL devices.

Item No. HP82162A
Shpg Wt:8 lbs
Retail:\$495.00

The HP 82162A Thermal Printer is a high quality, twenty-four character, battery-operable device featuring ASCII standard characters, special characters, user definable characters and symbols, bar code generation, and plotting capabilities. It has all the features of the HP 82143A Thermal Printer and, in most cases, programs written for the HP 82143A will work without modification.

Two different print modes allow you to highlight words or the titles of your output, and special justification features permit you to control the output of the printer to align a single column either to the left or right of the page. The full 128 character set makes it easy to describe problems and results.

Item No. HP821061A
Shpg Wt:8 lbs
Retail:\$550.00



\$469.95

The HP 82161A Digital Cassette Drive is a battery-operable, mass memory device that easily meets the standards of quality and performance previously found only in peripherals for large computers.

It uses mini digital cassettes with a capacity of 131,000 bytes, or 512 records of 256 bytes each. The extensiveness of storage space is more easily understood when you realize that all 26 of the current HP-41

HP 82160A HP-IL Interface Module

Item No. HP82160A
Shpg Wt:2 lbs

\$109.95

A special printer select switch on the HP 82160A allows the HP 82143A to be connected in lieu of the HP-IL printer and makes all the HP 82143A functions accessible. Additionally, it provides mass storage functions that enable the user to create, store, and recall data, program, and status files. Finally, the HP 82160A makes control of all the devices on the loop happen in a friendly manner.

HP 82162A Thermal Printer

\$419.95



In addition, the FORMAT function automatically centers words on a page, and will left and right justify any two columns on any line(s). The 101 Element Buffer extends graphics on any one line by 57 more character or column locations than the HP 82143A Thermal Printer.

HP 82161A Digital Cassette Drive

Solutions Books take up only 3/4 of one cassette!

The search speed of the HP 82161A is 30 inches per second (IPS), or an average of 13 seconds to access a file. Rewind time is a maximum of 30 seconds. The Read/Write speed is 9 inches per second (IPS), or 900 bytes per second. This means it would take 40 seconds to store the full HP-41CV memory.

Other special features include a STANDBY function to help conserve battery power and the ability to create, store, and access files by user-defined names of variable length.

Other functions will be accessible when the Extended I/O Rom is available. Included among them is a bar code function that will enable the HP 82162A to print HP-41 Bar Code.



HEWLETT PACKARD

HP-41

Compatible with HP-41CV & 41C

Software

Shpg wt: 1 lb each

HP-41 software has been carefully designed to effectively increase your problem-solving potential by adding power, flexibility, and versatility to your calculator. And HP-67 and HP-97 magnetic card pacs are compatible, although some programs require additional memory modules. By utilizing any of these software solutions you can make your calculator a highly specialized tool in seconds.

HP-41 Application Pacs

HP-41 Application Pacs are complete with detailed manuals including examples, and plug-in Application Modules that increase the versatility of the HP-41

Choose from:

Aviation HP415018 \$30.00

- Flight Management
- General Aircraft Weight and Balance
- Determining In-Flight Winds
- Flight Plan
- Position by One or Two VORs
- Course and Speed Corrections

Clinical Lab

and Nuclear Medicine HP415024 \$30.00

- Clinical Chemistry**
- Beer's Law
 - Body Surface Area
 - Creatinine Clearance
 - Blood Acid-Base Status
 - Oxygen Saturation and Content
 - Red Cell Indices
- Nuclear Medicine**
- Total Blood Volume
 - Thyroid Uptake
 - Radioactive Decay Corrections
- Radioimmunoassay Statistics**
- Basic Statistics
 - Chi-square Evaluation and Distribution
 - t Statistics
 - t Distribution

Circuit Analysis

HP415006 \$30.00

- General Network Analysis
- Ladder Network Analysis

Financial Decisions

HP415004 \$30.00

- Compound Interest Solutions
- Internal Rate of Return
- Compound Interest Solutions
- Internal Rate of Return
- Modified Internal Rate of Return (FMRR)
- Net Present Value
- Loan Amortization Schedules
- Depreciation Schedules
- Bond Price and Yield
- Days Between Dates

Financial Decs./Spanish

HP415030 \$30.00

Mathematics

HP415003 \$30.00

- Matrix Operations
- Solution to $f(x) = 0$ on an Interval
- Polynomial Solutions/Evaluation
- Numerical Integration
- Differential Equations
- Fourier Series
- Complex Operations
- Hyperbolics
- Triangle Solutions
- Coordinate Transformations

Mathematics/Spanish

HP415029 \$30.00

Securities HP415026 \$30.00

- Bond/Note Price and Yield
- Routines for Option Writers Using the Black-Scholes Evaluation Method
- Warrant and Option Hedging
- Yield on Call Option Sales
- Butterfly Options
- Bull Spread Option Strategy
- Convertible Security Analysis
- Convertible Bond Investment Analysis
- Stock Portfolio Valuation
- Bond Speculation Using Margin

Statistics HP415002 \$30.00

- Basic Statistics for Two Variables
- Moments, Skewness and Kurtosis
- Analysis of Variance (One Way)
- Analysis of Variance (Two Way, No Replications)
- Analysis of Covariance (One Way)
- Curve Fitting (Linear, Exponential, Logarithmic, and Power Curve)
- Multiple Linear Regression
- Polynomial Regression
- t Statistics
- Chi-Square Evaluation
- Contingency Table
- Spearman's Rank Correlation Coefficient
- Normal and Inverse Normal Distribution
- Chi-Square Distribution

Statistics/Spanish

HP415028 \$30.00

Structural Analysis for Mechanical Engineers

HP415027 \$30.00

- Section Properties
- Beams
- Simply Supported Continuous Beams
- Columns
- Mohr Circle Analysis
- Strain Gage Data Reduction
- Soderberg's Equation for Fatigue
- RPN Vector Calculator

Structural Analysis for Civil Engineers

HP415021 \$45.00

- Section Properties
- Beams
- Simply Supported Continuous Beams
- Settling of Continuous Beams
- Continuous Frame Analysis
- Steel Column Formula
- RPN Vector Calculator
- Reinforced Concrete Beam
- Concrete Columns
- Effective Moment of Inertia for Concrete Sections

Surveying HP415005 \$30.00

- Traverse, Inverse and Sideshots
- Compass Rule Adjustment
- Transit Rule Adjustment
- Intersections
- Curve Solutions
- Horizontal Curve Layout
- Vertical Curves and Grades
- Resection
- Pre-determined Area
- Volume by Average End Area
- Volume of a Borrow Pit
- Coordinate Transformation

Machine Design

HP415020 \$30.00

- Circular Gears
- Generation of a Four Bar System
- Progression of a Four Bar System
- Progression of a Slider Crank
- Gear Forces
- Standard External Involute Spur Gears
- Helical Spring Design
- Forced Oscillator with Arbitrary Function
- Coordinate Transformation
- Points on a Circle
- Circle by Three Points
- Unit Conversions

Thermal and Transport

Science HP415019 \$30.00

- Unit Management System
- Equations of State
- Polytropic Processes for an Ideal Gas
- Isoentropic Flow for Ideal Gases
- Conduit Flow
- Energy Equation for Steady Flow
- Heat Exchangers
- Black Body Thermal Radiation

Home Management

HP415023 \$30.00

- Home Budgeting
- Travel Expense Record
- Stock Portfolio Evaluation
- Remaining Balance and Accumulated Interest
- Your Financial Calculator
- Tax Free Individual Retirement Account (IRA) or Keogh Planning
- The True Cost of an Insurance Policy
- Checking Account Reconciliation
- Home Owner's Equity Analysis

Games HP415022 \$30.00

- Super Bagles
- Biorhythms
- Craps
- Hangman
- Pinball
- Space War
- Submarine Hunt

Navigation HP415017

Provides an integrated set of programs to solve the classic navigation problems of dead reckoning and celestial navigation

Real Estate HP415016

Programs for the real estate investor including Internal Rate of Return, Depreciation, Compound Interest Solutions, and Income Property Analysis

Petroleum Fluids Pac

HP415039 \$30.00

HP-41 Solutions Books

HP-41 Solutions Books provide complete step-by-step keystroke listings, to help provide you with answers to your general or specialized programs.

Choose from:

Business

Business Statistics/Marketing/Sales

HP410094 \$12.50

- Forecasting Using Exponential Smoothing
- Seasonal Variation Factors (SEVAR)
- Multiple Linear Regression
- Normal, t and f Distributions
- Grouped Statistics
- Break-even Analysis
- Moving Average
- Comperz Curve
- Experience (learning) Curve for Manufacturing Cost
- Price Elasticity of Demand

Home Construction

Estimating HP410096 \$12.50

- Concrete Volume
- Linear to Board Feet Conversions and Framing Board Feet
- Lumber Estimate
- Shingle Estimate
- Wall and Ceiling Areas Estimate
- Wallpaper Estimate
- Drywall and Insulation Estimate
- Sheathing and Subfloor Estimate
- Painting Estimate
- Wood Floor Estimate

Lending, Savings and Leasing HP410086 \$12.50

- Constant Payment to Principal Loan
- APR With Fees/Discount
- Rules of 78's
- Interest Conversions
- Amortization Schedule
- Savings Plan
- Add-on to APR with Odd Days
- Lease with Additional Payments in Advance
- Skipped Payments
- Compounding Periods Different from Payment Periods
- Compound Interest Solutions

Real Estate HP410136 \$12.50

- Ellwood Analysis
- Mortgage Pricing
- Analysis of Income Property
- Wrap-Around Mortgage
- Mortgage Yield
- Amount of Equity at Any Time
- IRR
- Investment Analysis for Property and Land
- Residential Analysis (Rent or Buy)
- Variable Analysis of Real Estate Investment
- Shopping Center Rent Projections

Small Business HP410137 \$12.50

- Percentages and Proportions with Tabulator
- Account Posting
- Retail Inventory Monitor
- Invoiceing
- Inventory Ordering
- Estimating Inventory
- Order Point Calculations
- Hourly Payroll
- Working Capital Needs—Bardahl Formula
- Deprecation Schedules
- Break-even Analysis

Computation

Taxes HP410338 \$12.50

Geometry HP410084 \$12.50

- Sine Plate Solutions
- V Notches and Long Radii
- Internal and External Tapers
- Points of Tangency with Circles and Arcs
- Line-Line Intersection

- Points on a Straight Line
- Grid of Points
- Calculates All Points
- Grid of Points
- Calculates Discrete Points
- Tangent Circle to Two Straight Lines with a Given Radius
- Distance Between Lines in Space

High-Level Math HP410083 \$12.50

- Sine, Cosine, Exponential Integrals
- Eigen Values/Vectors of 3rd Order Systems
- Eigen Values for 3rd Order System
- Chebyshev, Legendre, Hermite, and Laguerre Polynomials
- Sixteen-Point Gaussian Quadrature
- Gamma Function
- 4 x 4 Matrix Operations
- Bessel Functions, Error Function
- Characteristic Equation of a 4 x 4 Matrix

Test Statistics HP410082 \$12.50

- One Sample Test Statistics for the Mean
- Test Statistics for the Correlation Coefficient
- Differences Among Proportions
- Behrens-Fisher Statistics
- Kruskal-Wallis Statistic
- Mean-Square Successive
- The Run Test for Randomness
- Intraclass Correlation Coefficient
- Fisher's Exact Test for a 2 x 2 Contingency Table
- Bartlett's Chi-Square Statistic
- Mann-Whitney Statistic
- Kendall's Coefficient of Concordance

Engineering

Antennas HP410093 \$12.50

- Loaded Vertical Antennas
- Loaded Dipole Antennas
- Gain of a Horizontal Rhombic Antenna at Zero Azimuth
- Azimuth Pattern of Cylindrical Array of Antennas
- Collinear Antenna Gain and Pattern
- Beam Pattern for Uniform Array
- Radar Antenna Beamwidth and Gain
- Antennas
- Parabolic Antenna Calculations
- RF Path Loss, dB
- Antenna Gain or Power of a Remote Transmitter
- Planar Phased Array Radar Beam Positions
- Shortwave Transmission Path Calculations

Chemical Engineering HP410100 \$12.50

- Conservation of Energy
- Hydrocarbon Combustion
- Conduit Flow
- Heat Transfer through Composite Cylinders and Walls
- Von Karman Analogy for Heat and Mass Transfer
- Equations of State
- Reversible Polytropic Process for an Ideal Gas
- Straight Fin Efficiency
- Fluid Transport Numbers
- Single Stage Equilibrium Flash Calculation
- Weak Acid/Base Titration Curve

Civil Engineering HP410089 \$12.50

- Steel Column Formula
- Cantilever Beams
- Compressive Buckling
- Bolt Torque
- Reinforced Concrete Beams
- Vectors
- Stress in Thick-Walled Cylinders
- Properties of Special Sections
- Beams Fixed at Both Ends
- Simply Supported Beams

Control Systems HP410092 \$12.50

- Frequency Response of a Transfer Function
- Bode of Transfer Function that has Each Pole and Zero Given
- Bode of Third Order Over Fourth Order Transfer Function
- Bode of Third Order Over Third Order Times Sⁿ Transfer Function
- Routh Test for Continuous and Discrete Time System Stability
- Convert Frequency Response—Open Loop, Closed Loop
- Aid to Root Locus Plots I—Real Poles
- Aid to Root Locus Plots II—Complex Poles
- Classical Control Gains
- First Order Regulator
- Second Order Regulator

Electrical Engineering HP410088 \$12.50

- RC Timing
- Active Filter Design
- Frequency Response of a Transfer Function
- Transistor Amplifier Performance
- Class A Transistor Amplifier Bias Optimization
- Butterworth Filter Design
- Chebyshev Filter Design
- Bode Plot of Butterworth and Chebyshev Filters
- Transmission Line Calculations
- Transmission Line Impedance

Fluid Dynamics and Hydraulics HP410139 \$12.50

- Conduit Flow
- Pipe Slide Rule
- Flow with a Free Surface
- Valve Sizing
- Forces at Bends and Fittings
- Pipe Network Analysis
- Restriction Metering Orifice Calculation
- Energy Equation for Steady Flow
- Compressible Flow in Ducts
- Flood Routing and Hydrographs

Heating, Ventilating, and Air Conditioning HP410140 \$12.50

- Overall Heat Transfer Coefficient
- Insulation Break Even Analysis
- Air Flow in Circular Ducts
- Air Duct Conversion
- Equations of State
- Black Body Thermal Radiation
- Psychrometric Properties
- Heat Exchangers
- Decibel Addition and Subtraction
- Temperature Conversions

Mechanical

Engineering HP410090 \$12.50

- Gear Forces
- Stress on an Element
- Equations of State
- Soderberg's Equation for Fatigue
- Progression of a Slider Crank
- Linear or Angular Deformation
- Constant Acceleration

Solar Engineering HP410138 \$12.50

- Solar-Beam Irradiation
- Sun Altitude, Azimuth, Solar Pond Absorption
- Energy Equivalents—Fuels and Prices
- Solar Shading Angles
- View Factor
- Heat Exchangers
- Sun Almanac
- Black Body Radiation
- Heat Transfer

Other

Calendars HP410145 \$12.50

- Calendar Date/Julian Date Conversion
- Day of Year—Day of Week
- Number of Weekdays between Two Dates
- In What Year is a given Date an M-Day
- Number of M-Days between Two Dates and Nth M-Day of Month
- Holidays
- Religious Holidays
- Chinese Years to/from Gregorian Years
- New Moon and Full Moon Day of Month
- Calendar Printout

Cardiac/Pulmonary HP410097 \$12.50

- Pulmonary Functions
- Body Surface Area
- Blood Chem I
- Blood Chem II
- Ventilator Calculations
- Contractility and Stroke Work

Chemistry HP410102 \$12.50

- pH of Weak Acid/Base Solutions
- Acid-Base Equilibrium (Diprotic)
- Weak Acid/Base Titration Curve
- Equations of State
- Van Der Waals Gas Law
- Beer's Law and Absorbivity Calculations
- Activity Coefficients from Potentiometric Data
- Crystallographic to Cartesian Coordinate Transformations
- Kinetics using Lineweaver-Burk or Hofstee Plots
- Mixture Viscosities
- Vapor Pressure, Bubble and Dew Point Calculation
- Single-Stage Equilibrium Calculation

Games HP410099 \$12.50

- Hexapawn
- War
- Nim
- Dice
- 3-D Tic Tac Toe
- Simon
- Planet Lander
- Orbital Lander
- Scatter
- Flip-Flop
- Hunt the Wumpus

Optometry I (General) HP410143 \$12.50

- Aniseikonia
- Oblique Cylinder Sum
- Low Vision; Determination of Activity Demand from Letter Size and Working Distance
- Contact Lens, Telescope Calculations
- Calculation of Needed Magnification, Add, and Working Distance
- Effective, Equivalent and Neutralizing Power
- Lens Power Needed at New Vertex Distance
- Positional Effective Power
- Pratt, Sheard, Percival Methods of Near R, R, Four Accommodative R, s and their Average

Optometry II (Contact Lens) HP410144 \$12.50

- Back Vertex Power of PMMP Contact Lens
- Effective Power of Spectacle Lens at Corneal Plane
- Residual Cylinder Induced at Tear/Cornea Interfaced by Contact Lens
- Cylinder Induced by Tonic Contact Lens
- Contact Lens Power Necessary to Correct Anisometropia
- Tonic Contact Lens Parameters
- Tabb Contact Lens of 1st Approximation
- May-Grant Contact Lens of 1st Approximation
- Roggenkamp Specification for Prism Ballast Front Tonic or Prism Ballast Contact Lens
- Brungardt I
- Brungardt II

Surveying HP410141 \$12.50

- Spiral Curve Layout
- Two Instrument Radial Survey
- EDM Slope Reduction
- Stadia Reduction
- Three Wire Leveling
- Azimuth of the Sun
- Taping Reduction
- Triangle Solutions
- Traverse for Auto Adjust Routines
- Auto Adjust for Compass Rule
- Auto Adjust for Crandall's Rule

Physics HP410142 \$12.50

- Black Body Thermal Radiation
- Black Hole Characteristics
- Special Relativity Conversions
- Three-Dimensional Special Relativity
- Einstein's Twin Paradox
- Delta-V Orbit Simulator
- Equations of Motion
- Isotope Overlap Corrections
- Semi-Empirical Nuclear Mass Formula
- Clebsch-Gordon Coefficients and 3j Symbols Evaluation
- 32-P Remaining on MMDDYYYY Given (Solutions Book titles and program listings subject to change without notice.)

KEY FEATURES

- Base Conversions and Arithmetic
Hexadecimal, Decimal, Octal, and Binary
- Programmability
203 Program Lines
Insert/Delete Editing
4 Subroutine Levels
16 Program Labels
- Extensive Bit-Manipulation Capability
1's and 2's Complements
Unsigned Mode
- Word-Size Specifiable
- Logical Operators
AND, NOT, OR, XOR
- Floating-Point
Decimal Mode

BENEFITS

Quickly and easily converts among four number bases. Performs arithmetic in any one of the four bases. Big time-savings as there is no need to memorize or recalculate number conversions.

Saves you time when debugging or rewriting programs. Simplifies repetitive problem solving.

When coupled with programming tools, you can perform such tasks as simulating individual processor instructions.

Versatile to meet your application. You dimension word size from a minimum of 1 bit to a maximum of 64 bits.

Perform Boolean operations at the touch of a key. In binary mode, you can actually see the binary representation of the number.

Use as a specialized programmer's tool or as a convenient, programmable calculator.

Programmable Calculator for:

Computer science students and instructors.
Logic designers.
Electrical engineers and students.
Machine-language programmers,
software engineers.
Control-applications specialists.
Computer hobbyists.
System analysts and consultants

Retail: \$150.00
Item No. HP16C

hp HEWLETT
PACKARD

HP-16C



Digital Electronics & Computer Science

\$127.50

Your Cost:

Slimline LCD

The slim-line HP-16C is the most advanced calculator ever designed for computer science applications. With a choice of four number base modes, four Boolean operators, and programming capability, the HP-16C is an ideal tool for the technical professional in digital electronics.

Shpg Wt: 4 lbs

hp HEWLETT
PACKARD

HP-15C

ADVANCED PROGRAMMABLE SCIENTIFIC with Matrix Functions

Your Cost:

\$119.95

Retail: \$135.00



Slimline LCD
Item No. HP15C

Programmable Calculator for:

Engineers, scientists, and technicians who use advanced mathematics.
Surveyors and navigators.
Students and instructors dealing with advanced mathematics.
Business-decision makers who use small-scale systems of equations.

Shpg Wt: 4 lbs

KEY FEATURES

- Matrix Functions
- Complex Number Arithmetic
- Solve
- Integrate
- Programmability
448 Program Lines
Insert/Delete Editing
7 Subroutine Levels
25 Program Labels

BENEFITS

Operates with whole arrays of numbers as easily and quickly as with simple numbers.

Matrix capability simplifies many tasks, such as solving a system of linear equations. Manipulate up to five matrices or a total of 64 elements. Solve a 7×7 system in just 28 seconds.

Simplifies advanced mathematical calculations. A real time-saver in such applications as calculating impedance in electrical circuit analysis.

Finds the roots of an equation in a matter of seconds. Even tells you if there are no real roots.

Finds definite integrals of a function, the area under a curve. No need to remember complicated integration rules.

Quick and easy editing tools to debug programs. Call your program by label name. Memory space comparable to an HP-41C.

HP-11C ADVANCED Programmable Scientific

Scientific Features:

Solves trigonometric functions (in degrees, radians and grads) for Sin, Cos, Tan and their inverses, hyperbolic and inverses. Converts from rectangular coordinates to polar coordinates, from decimal angles to angles in degrees (hrs/min/sec) and degrees to radians. Operates in fixed, scientific and engineering notation with automatic overflow/underflow into scientific.

Item No. HP11C
Retail: \$135.00

Statistical Features:

Percent, percent change, mean/standard deviation (1- or 2- variable), summations, linear regression/estimate, correlation coefficient, factorials, gamma functions, permutations and combinations, random number generator.

General Features:

$+$, $-$, \times , \div , y^x , \sqrt{x} , $1/x$, Change Sign (CHS), $\ln X$, e^x , $\log X$, 10^x , x^2 , π , absolute value, integer/fraction part, round, storage register arithmetic.

Programming Features:

Up to 203 program lines, automatic memory allocation, five single-character program labels and ten numeric program labels, program review (single-step and back-step), insert/delete editing, unconditional branching, four levels of subroutines, eight conditional tests, two flags, pause, controlled looping, integer/fraction truncation, user mode, indirect control of: data storage and recall, storage register arithmetic, branching and looping.

Your Cost:

\$89.95



Slimline LCD

Shpg Wt: 4 lbs

hp

**HEWLETT
PACKARD**

Item No. HP12C
Shpg Wt: 4 lbs

Your Cost:

\$127.50



Slimline LCD

HP-12C ADVANCED Financial Programmable with Special Functions

Business Functions:

Solves for: number of periods (n), compound interest (i), present value (PV), payment (PMT), and future value (FV). Bond yield-to-maturity and price, amortization (both accumulated interest and remaining balance), net present value (NPV), internal rate of return (IRR), depreciation (sum-of-years' digits, declining balance, and straight-line), odd days'

interest, simple interest. Percent, percent change, percent of total, calendar functions, beginning/end of period selection. Five financial registers.

Programming Features:

Up to 99 program lines, automatic memory allocation, program review (single-step, back-step), unconditional branching, two conditioning tests and pause.

Statistical Functions:

Mean/standard deviation (1- or 2- variable), summations, linear regression/estimate, correlation coefficient, factorials.

General Functions:

$+$, $-$, \times , \div , y^x , \sqrt{x} , $1/x$, x^2 , Change Sign (CHS), $\ln X$, e^x , integer/fractional truncation, storage register arithmetic.

Retail: \$150.00

hp

**HEWLETT
PACKARD**

HP-38C
Advanced Financial
Programmable with
Continuous Memory

\$122.95

Shpg Wt: 6 lbs
Dynamic Memory Allocation.

The HP-38C shares its memory space between program memory and data memory. When the HP-38C is first turned on it contains 8 lines of memory for your program and 20 addressable storage registers. As you write a program longer than 8 lines, memory is automatically converted from data storage to program memory (at a ratio of 1 to 7) until you've reached a maximum of 99 lines, with 7 storage registers still remaining. And remember, any keyboard operation occupies one line of program memory even though it may take one, two, or three keystrokes to perform.

A Handy 2000-Year Calendar.

The built-in HP-38C calendar can easily calculate the actual number of days between two dates on a 360- or 365-day year, day of the week, or a past or future date.

Statistics at the Press of a Key.

The HP-38C offers all of the statistical capability of the HP-37E plus linear estimate of x for a known y and x_n (weighted average).

Continuous Memory.

The HP-38C has all the functions and capabilities of the HP-38E with the added feature of Continuous Memory which:

Saves Time. You can key a program once, then use it for months.

Extends Functional Capability. Customize your calculator to meet your specific needs.

Reduces Errors. Fewer entries mean fewer errors.

Prolongs Battery Life. The less your calculator is turned on, the longer it lasts between recharges.

The HP-38C Advanced Financial Programmable Calculators come complete with:

- HP-38C Owner's Handbook and Programming Guide
- Your HP Financial Calculator: An Introduction to Financial Concepts and Problem-Solving
- Recharger/AC Adapter
- Rechargeable battery pack
- Soft carrying case

Item No. HP38C
Retail: \$150.00



HP-34C
Advanced
Programmable
Scientific with
Continuous Memory

\$122.95

Item No. HP34C
Retail: \$150.00
Shpg Wt: 6 lbs

More Programming Features.

The HP-34C's 12 reusable address labels let you easily create branches and sub-routines. With the conditional test set of four x/y comparisons, four $x/0$ comparisons, four flags, plus the increment/decrement loop counter, you can program the HP-34C to make a wide range of program control decisions. And, with the versatile I-register, you can indirectly address data and program locations.

Continuous Memory.

Continuous Memory provides tremendous value in time-saving and convenience. It also extends the functional capability of your calculator by allowing you to customize it to meet your specific needs.

Applications Book Support.

The solutions you require may already exist in the four applications books available for the HP-34C. Subjects covered include mathematics, statistics, surveying, and student engineering.

Compare the HP-34C's new functions to any other and see if you don't agree—Hewlett-Packard has made another major contribution to technical problem-solving.

The HP-34C Advanced Programmable Scientific with Continuous Memory comes complete with:

- HP-34C Owner's Handbook and Programming Guide
- Solving Problems with your Hewlett-Packard Calculator
- HP-34C Standard Applications Book
- HP-34C Quick Reference Card
- Recharger/AC Adapter
- Rechargeable Battery Pack
- Soft Carrying Case

Physical Specifications:

- Length: 140 mm (5.6")
- Width: 75 mm (3.0")
- Height: 30 mm (1.2")

HP-37E
FINANCIAL
CALCULATOR

Provides an ideal
combination of the
financial, retail and
statistical capabilities
you need in
modern business.

\$78.95

The HP-37E is a Hewlett-Packard Series E calculator designed specifically for the residential real estate, retailing, and business communities who need to make fundamental business and financial decisions quickly and accurately.

Retail-Style Percent Functions.

Whether you're solving for percent, percent change, or percent of total, you'll appreciate the logical, consistent operation of the HP-37E. And the unique PRICE function calculates the selling price if you know the cost and the margin.

Seven Addressable Storage Registers.

Besides the five financial registers and the Hewlett-Packard four-register automatic memory stack, the HP-37E is equipped with seven other memories in which you can store or recall constants, answers, or any number you want to save during your calculations.

Statistics at Your Fingertips.

For research and analysis, the HP-37E is packed with useful statistical functions. The $\Sigma +$ key automatically accumulates the values needed to calculate the means (averages) and standard deviations for one or two sets of data.

The HP-37E also provides a linear regression, or trend line function and can compute the correlation coefficient. A factorial function is also available.

Physical Specifications:

- Length: 140 mm (5.6")
- Width: 75 mm (3.0")
- Height: 30 mm (1.2")



Item No. HP37E
Retail: \$90.00
Shpg Wt: 6 lbs

**Handheld Fully
Programmable
Calculator**

HP-67 Item No. HP67
Retail: \$375.00
Shpg Wt: 8 lbs
\$299.95

"Smart" magnetic card reader.
With the magnetic card reader in both the HP-67 and the HP-97 you can load the entire program memory, or selected portions, either manually or under program control.

You can record data from all registers onto a magnetic card. You can also load every data storage register or selected registers.

When recording programs, the HP-67 and HP-97 automatically record the angular mode setting, the display setting and the status of the four flags.

10 User-definable Keys.

There are ten user-definable keys you can use for any special function you may require. In addition there are ten numerical labels (LBL 0 thru LBL 9).



GTO GSB

You can perform a direct branch or sub-routine to a label specified.

A GSB instruction can also be used with a subroutine to a depth of three levels.

Conditional Branching.

$x \neq y$, $x = y$, $x < y$, $x > y$,

$x \neq 0$, $x = 0$, $x < 0$, $x > 0$

These keys allow your program to make decisions for you by testing the values in the X- and Y-registers or by testing the value in the X-register against zero as indicated.

Flags

You can use the four flags in the calculator for tests in your programs. They can be set, cleared, or tested.

Indirect Addressing.

GTO (i) GSB (i)
You can perform a direct branch or sub-routine to a label specified by the current positive number in the I-register using these keys. When the number in the I-register is a negative number these instructions perform a direct branch (GTO (i)) or a subroutine (GSB (i)) backward the number of lines specified.

STO (i) RCL (i)

You can also use the I-register to specify the address of a storage register for storing and recalling data or for storage register arithmetic.

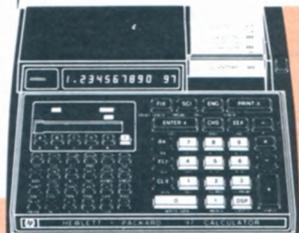
ISZ (i) DSZ (i)

You can also increment (ISZ (i)) or decrement (DSZ (i)) the contents of the storage register specified by the value in the I-register and then test against zero.

Comes complete with NiCad battery pack, 110/220 volt charger and instruction manuals.

HP-97
Desktop
Fully Programmable
Printing Calculator

\$589.95



Item No. HP97
Retail: \$750.00
Shpg Wt: 10 lbs

The HP-97 provides
battery operation
and thermal printing
— in one, self-
contained unit.

The HP-97 Fully Programmable Printing Calculator combines exceptional programming power and the great usefulness of a quiet thermal printer. What's more, the HP-97 operates on batteries as well as AC—so you can have a printed record whenever and wherever you need it. In addition, there's an extra-large display for easy readability and a buffered keyboard so data may be keyed in at high speed.

The HP-67/97 Fully Programmable Calculators come complete with:

- Illustrated Owner's Handbook and Programming Guide.
 - Quick Reference Card. (HP-67 only)
 - Standard Pac complete with 40 cards, card holder, and manual.
 - Battery pack that under normal use provides about 3 hours of continuous operation.
 - Recharger/AC adapter that lets you operate the calculator on AC while the battery pack is recharging.
 - Soft carrying case.
 - Programming pad.
 - Users' Library and newsletter subscription card.
 - 2 rolls of thermal paper (HP-97 only).
- Also available are a one-year subscription to the Users' Library and a free Newsletter to keep you abreast of current information.

HP-97 Physical Specifications:

- Calculator width: 228 mm (9")
- Calculator depth: 203 mm (8")
- Calculator height: 63 mm (2.5")
- Calculator weight: 1.13 kg (2.5 lb.)
- Recharger weight: 268 g (9.5 oz.)

- AC Power Requirement: 90-120V or 220 ± 10%, 50 to 60 Hz
- Battery Power Requirement: 5.0 Vdc nickel cadmium rechargeable battery pack

HP-67/97 Application Pacs

HP-67 Standard Pac	HP673101	\$ 35.00
HP-67 Standard Pac—Spanish	HP673105	\$ 35.00
HP-97 Standard Pac	HP973101	\$ 35.00
HP-97 Standard Pac—Spanish	HP973105	\$ 35.00
Business Decisions Pac	HP973144	\$ 35.00
Civil Engineering Pac	HP973195	\$ 35.00
Clinical Lab & Nuclear Medicine Pac	HP973165	\$ 35.00
Electrical Engineering Pac I	HP973131	\$ 35.00
Games Pac	HP973185	\$ 35.00
Math Pac I	HP973121	\$ 35.00

Mechanical Engineering Pac I	HP973155	\$ 35.00
Navigation Pac	HP973205	\$ 35.00
Statistics Pac I	HP973111	\$ 35.00
Survey Pac I	HP973175	\$ 35.00

HP-34C/37E/38E Application Books

HP-34C		
Standard Applications	HP340022	\$ 5.00
Standard Applications—Spanish	HP340023	\$ 7.00
Mathematics Applications	HP340032	\$ 10.00
Statistics Applications	HP340033	\$ 10.00
Surveying Applications	HP340034	\$ 10.00

Student Engineering Applications	HP340035	\$ 10.00
HP-37E, HP-38E / C		
"Your HP Financial Calculator"	HP 5296	\$ 3.00
Real Estate Applications	HP380024	\$ 5.00
Lending, Savings & Leasing Appl	HP380025	\$ 5.00
Investment Analysis & Statistics	HP380026	\$ 5.00
Investment Analysis & Statistics Applications—Spanish	HP380027	\$ 7.00
Marketing & Forecasting Appl	HP380049	\$ 5.00
Real Est II (Income Prop Analysis)	HP380051	\$ 10.00
HP-38E / C Personal Finance Appl	HP380052	\$ 5.00

HP Accessories.



Calculator/Printer Supplies

Blank Program Cards for 82104A Card Reader, HP-67, HP-97, HP-65 40 Card Pac with Holder	HP973141	\$ 20.00
120 Card Pac with 3 Holders	HP973143	\$ 50.00
1000 Card Pac (No Holders)	HP973206	\$ 250.00
Thermal Printing Paper for HP-10, HP-19C (6 rolls)	HP82051A	\$ 8.00
Thermal Printing Paper for 82143A Printer/Plotter, HP-97, HP-92, HP-91 (6 rolls)—Blue	HP82045A	\$ 10.00
Thermal Printing Paper for 82143A and 82162A Printer/Plotter (6 rolls)—Black	HP82175A	\$ 12.00
3 Program Card Holders for 82104A Card Reader, HP-67, HP-97, HP-65	HP973142	\$ 15.00
Program Pad for HP-19C, HP-29C, HP-25, HP-25C, HP-33E/C, HP-34C, HP-38E/C, HP-65, HP-67, HP-97	HP973154	\$ 4.00

Battery Pack

HP-31E, HP-32E, HP-33E/C, HP-34C, HP-37E, HP-38E/C	HP82109A	\$ 12.00
HP-67, HP-35, HP-45, HP-55, HP-65, HP-70, HP-80	HP82001B	\$ 15.00
82143A Printer/Plotter, HP-97, HP-92, HP-91	HP82033A	\$ 25.00
HP-10, HP-19C	HP82052A	\$ 30.00
HP-21, HP-22, HP-25, HP-25C, HP-27, HP-29C	HP82019B	\$ 12.00

Reserve Power Pack

HP-31E, HP-32E, HP-33E/C, HP-34C, HP-37E, HP-38E/C	HP82103A	\$ 30.00
HP-67, HP-35, HP-45, HP-55, HP-65, HP-70, HP-80	HP82004A	\$ 40.00
82143A Printer/Plotter, HP-97, HP-92, HP-91	HP82037A	\$ 60.00
HP-21, HP-22, HP-25, HP-25C, HP-27, HP-29C	HP82028B	\$ 30.00

Recharger/AC Adapter

HP-31E, HP-32E, HP-33E/C, HP-34C, HP-37E, HP-38E/C (110 Vac)	HP82087B	\$ 12.50
HP-31E, HP-32E, HP-33E/C, HP-34C, HP-37E, HP-38E/C (Euro 220 Vac)	HP82090B	\$ 20.00
HP-67, HP-35, HP-45, HP-55, HP-65, HP-70, HP-80 (110/220 Vac Switchable)	HP82002A	\$ 35.00
82143A Printer/Plotter, 82120A (HP-41), HP-97, HP-92, HP-91, HP-10, HP-19C (110 Vac)	HP82059B	\$ 12.50
82143A Printer/Plotter, 82120A (HP-41), HP-97, HP-92, HP-91, HP-10, HP-19C (Euro 220 Vac)	HP82066B	\$ 25.00
HP-21, HP-22, HP-25, HP-25C, HP-27, HP-29C (110 Vac)	HP82041A	\$ 15.00
HP-21, HP-22, HP-25, HP-25C, HP-27, HP-29C (110/220 Vac Switchable)	HP82026A	\$ 20.00

Security Cradle or Cable

HP-67, HP-65	HP82015A	\$ 65.00
82143A Printer/Plotter, HP-97, HP-92, HP-91 (Cable)	HP82044A	\$ 20.00

Soft Case

HP-11C, HP-12C	HP82174A	\$ 5.00
HP-31E, HP-32E, HP-33E/C, HP-34C, HP-37E, HP-38E/C	HP82110A	\$ 5.00
HP-41 (plus card reader 82104A)	HP82111A	\$ 10.00
HP-67, HP-65 (soft vinyl)	HP82053A	\$ 10.00
HP-97, HP-92, HP-91	HP82035A	\$ 12.00
HP-29C	HP82027A	\$ 8.00
HP-10, HP-19C	HP82064A	\$ 8.00

HP320001 Owner's Mnl.—ENGLISH	4.00
Owner's Manual/HP-67	
HP670011 Owner's Mnl.—ENGLISH	25.00
HP670012 Owner's Mnl.—FRENCH	30.00
HP670013 Owner's Mnl.—GERMAN	30.00
HP670014 Owner's Mnl.—ITALIAN	30.00
HP670015 Owner's Mnl.—SPANISH	30.00
HP670016 Owner's Mnl.—JAPANESE	30.00
Owner's Manual/HP-97	
HP970001 Owner's Mnl.—ENGLISH	25.00
HP970002 Owner's Mnl.—FRENCH	30.00
HP970003 Owner's Mnl.—GERMAN	30.00
HP970004 Owner's Mnl.—ITALIAN	30.00
HP970005 Owner's Mnl.—SPANISH	30.00
HP970006 Owner's Mnl.—JAPANESE	30.00
HP970007 Owner's Mnl.—PORTUGUESE	30.00
Owner's Manual/Digital Cassette Drive	
HP610002 Owner's Mnl.—ENGLISH	10.00
HP610003 Owner's Mnl.—GERMAN	15.00
HP610004 Owner's Mnl.—FRENCH	15.00
HP610005 Owner's Mnl.—ITALIAN	15.00
HP610006 Owner's Mnl.—DUTCH	15.00

Series E/C Application Books

HP-32E, HP-33E/C, HP-34C "Solving Problems with Your Hewlett-Packard Calculator"	HP5267	\$ 3.00
HP-33E/C		
Standard Applications	HP330067	\$ 5.00
Standard Applications—Spanish	HP330068	\$ 7.00
Mathematics Applications	HP330030	\$ 5.00
Statistics Applications	HP330031	\$ 5.00
Student Engineering Applications	HP330032	\$ 5.00
Surveying Applications	HP330033	\$ 5.00

Other Application Books

HP-11C Solutions Handbook	HP110009	\$ 20.00
HP-12C Solutions Handbook	HP120009	\$ 20.00
HP-41C Standard Applications	HP410366	\$ 5.00
HP-41C Standard Applications—Spanish	HP410132	\$ 10.00

Owner's Handbooks

HP-11C	HP110001	\$ 10.00
HP-11C—Spanish	HP110005	\$ 15.00
HP-12C	HP120001	\$ 10.00
HP-12C—Spanish	HP120005	\$ 15.00
HP-32E	HP320001	\$ 4.00
HP-32E—Spanish	HP320017	\$ 5.00
HP-33E/C	HP330039	\$ 8.00
HP-33E/C—Spanish	HP330040	\$ 12.00
HP-34C	HP340001	\$ 15.00
HP-34C—Spanish	HP340002	\$ 20.00
HP-37E	HP370018	\$ 8.00
HP-37E—Spanish	HP370002	\$ 12.00
HP-38E/C	HP380038	\$ 15.00
HP-38E/C—Spanish	HP380039	\$ 20.00
HP-41C/CV	HP410313	\$ 15.00
HP-41C/CV—Spanish	HP410318	\$ 20.00
HP-41 Guide for Experienced Users	HP410328	\$ 5.00
82104A Card Reader	HP040001	\$ 5.00
82104A Card Reader—Spanish	HP040008	\$ 10.00
82143A Printer/Plotter	HP430001	\$ 5.00
82143A Printer/Plotter—Spanish	HP430007	\$ 10.00
82153A Optical Wand	HP530001	\$ 5.00
82153A Optical Wand—Spanish	HP530020	\$ 10.00
82160A Interface Module	HP600001	\$ 10.00
82161A Digital Cassette Drive	HP610002	\$ 10.00
82162A Thermal Printer/Plotter	HP620001	\$ 10.00
82166A HP-IL Converter	HP660002	\$ 10.00
82180A Extended Function/Memory Module	HP800001	\$ 10.00
HP-67	HP670011	\$ 25.00
HP-67—Spanish	HP670015	\$ 30.00
HP-97	HP970001	\$ 25.00
HP-97—Spanish	HP970005	\$ 30.00

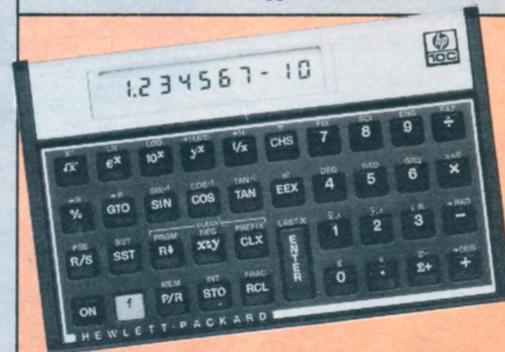
HP-41 Accessories

Standard Application Module	HP415001	\$ 30.00
Overlay Kit	HP82152A	\$
Module Holders (2)	HP82151A	\$ 7.50
Multipurpose Rechargeable Battery Pack	HP82120A	\$ 35.00
50 Blank Overlays	HP82172A	\$ 55.00
"Creating Your Own Bar Code" Manual	HP530019	\$ 12.50

HP-IL Accessories

Data Mini Cassettes (10 pac)	HP82176A	\$ 95.00
5 meter HP-IL Cable	HP82167A	\$ 12.00
1 meter HP-IL Cable	HP82167B	\$ 15.00
5 meter HP-IL Cable	HP82167D	\$ 20.00

HP610007 Owner's Mnl.—SWEDISH	15.00
HP610008 Owner's Mnl.—SPANISH	15.00
HP610009 Owner's Mnl.—JAPANESE	15.00
HP610010 Owner's Mnl.—PORTUGUESE	15.00
Owner's Manual/Thermal Printer/Plotter	
HP620001 Owner's Mnl.—ENGLISH	10.00
HP620002 Owner's Mnl.—GERMAN	15.00
HP620003 Owner's Mnl.—FRENCH	15.00
HP620004 Owner's Mnl.—ITALIAN	15.00
HP620005 Owner's Mnl.—DUTCH	15.00
HP620006 Owner's Mnl.—SWEDISH	15.00
HP620007 Owner's Mnl.—SPANISH	15.00
HP620008 Owner's Mnl.—JAPANESE	15.00
HP620009 Owner's Mnl.—PORTUGUESE	15.00
Manual/Extended Function/Memory Module	
HP800001 Owner's Mnl.—ENGLISH	10.00
HP800003 Owner's Mnl.—GERMAN	15.00
HP800004 Owner's Mnl.—FRENCH	15.00
HP800005 Owner's Mnl.—ITALIAN	15.00
HP800009 Owner's Mnl.—SPANISH	15.00
HP800011 Owner's Mnl.—JAPANESE	15.00
HP800013 Owner's Mnl.—DUTCH	15.00
HP800015 Owner's Mnl.—SWEDISH	15.00
HP800017 Owner's Mnl.—PORTUGUESE	15.00
Owner's Manual/HP-34C	
HP340033 Statistics Application Mnl.	10.00



HP-10C \$69.95

Scientific Features

Trigonometric functions:
 Modes (degrees, radians, grads)
 $\sin, \sin^{-1}, \cos, \cos^{-1}, \tan, \tan^{-1}$
 Rectangular \leftrightarrow polar coordinates
 Decimal angle \leftrightarrow angle in degrees (hrs)/min/sec
 Degrees \leftrightarrow radians
 $\ln x, e^x$
 $\log x, 10^x$
 π
 Display modes: fixed, scientific, or engineering notation
 Automatic over/underflow into scientific

Statistical Features

Mean and Standard Deviation (1- or 2-variable)
 Summations ($\Sigma x, \Sigma x^2, \Sigma y, \Sigma y^2, \Sigma xy, n$)
 Linear regression/estimate
 Correlation coefficient
 Factorial

General Features

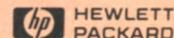
$+, -, \times, \div, \sqrt{x}, 1/x, x^2$
 Change sign (CHS)
 Absolute value
 Integer/fractional part
 Percent
 Storage register arithmetic
 Number of data storage registers: 10 (max.)

Programming Features

Maximum number of program lines: 79
 Automatic memory allocation
 Program review with scrolling (singlestep and backstep)
 Conditional and unconditional branching
 Conditional tests: 2
 Pause

Operating Features

RPN logic system:
 Automatic four-register stack
 Error recovery (LAST X)
 Stack manipulation
 Continuous Memory
 Liquid-crystal display
 Documentation: Owner's Handbook
 Low battery indicator
 Long-life disposable batteries
 Automatic power off
 Diagnostic self-check of internal circuitry and keyboard contacts
 Error codes/messages
 Two modes for display separators and decimal points:
 European (1,000.00)
 U.S. (1,000.00)
 Status annunciators
 Maximum number of digits displayed: 10
 Number of digits used in computation: 10
 One-year limited warranty



Up to 960 program steps, or up to 100 memories. Master Library module simply plugs in. Includes 25 different programs in key areas: Math, Statistics, Finance. Blank magnetic cards let you write and record custom programs which may be run individually or integrated with programs in the library modules.

Features

- Four types of display testing with an independent test or "t" register.
- Up to 10 additional test registers: Loop, Increment, Decrement.
- Up to 10 user flags available: Set, Reset, Test.
- 72 useful labels.
- Up to 6 levels of subroutines.
- Flexible addressing: Program Steps: Absolute, Indirect, Label, Data Memories: Direct, Indirect.
- Complete program editing: Insert, Delete, Single step, Backstep, No operation.
- 10 user-defined label keys.
- Up to 9 sets of parentheses for up to 8 pending operations.
- Over 175 functions and operations in sciences and statistics.
- Operates with PC-100C.

TI Programmable 59

Magnetic card programmable calculator with plug-in Solid State Software™



Your Cost: **\$169.95**
Retail: \$250.00
• AC adapter/charger included.
Shpg Wt: 7 lbs
and magnetic card storage
Item No. TI59

Personal Programming takes you through each function, each operation—step-by-step.



TEXAS INSTRUMENTS

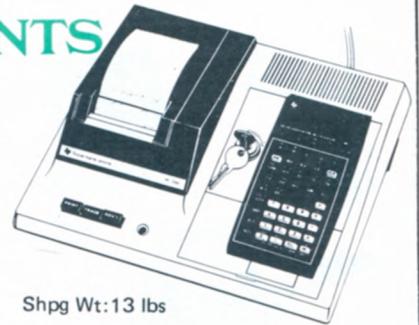
PC-100C Printer/Plotter

Retail: \$225.00

Your Cost:

\$169.95

Item No. TIPC100C



Shpg Wt: 13 lbs

The PC-100C printer/plotter turns your TI Programmable 58C or 59 into a quiet, high-speed printing calculator that prints, lists, and traces your program. Just push the LIST key for a printout of the entire program. Push the TRACE key and every calculation that's performed in your program is printed—the full number and the operation.

Provides alpha and plotting capabilities. Prints 64 different

characters with a maximum line length of 20 characters. Print headings and data labels. Plot curves and histograms.

You can even use the alpha capability to build prompting messages directly into your program. Uses a non-impact, thermal printer. (For a battery-operated compact thermal printer with the same high quality and high performance of the PC-100C, see the new PC-200

TI Advanced Programmable 58C calculator with plug-in Solid State Software™ and Constant Memory™



Item No. TI58C

Features TI's exclusive Solid State Software, preprogrammed modules you slide into the calculator to extend power, flexibility, and range. It is also keyboard-programmable. Constant Memory feature retains data and program information *even when shut off.*

There are many computer-like features: 170 functions and operations to program up to 480 steps or 60 memories. With 4 types of display testing, 6 levels of subroutines, plus 9 levels of parentheses, it can handle almost any problem.

Personal Programming shows how to get the most from the 58C.

Your Cost: **\$94.95**

Retail: \$115.00

Shpg Wt: 6 lbs

The NEW TI-57 PROGRAMMABLE LCD Self-teaching programming system for students & professionals



Your Cost:

\$37.95

Item No. TI57 Shpg Wt: 6 lbs

Seven multi-use memories provide addressable memory locations to store and recall data. With a new, more powerful program memory, the TI-57 LCD stores 48 fully merged steps (up to 150 keystrokes). Once a program is built, it can be executed repeatedly by supplying new sets of variables. Computer-like programming functions help solve repetitive problems quickly and accurately.

The TI-57 LCD also has Constant Memory™ that allows programs and data to be retained even when the power is turned off. The calculator may also be used as a powerful slide rule calculator.

The TI-57 LCD comes with its own carrying case and the "Programmable Calculator Sourcebook," which takes you into the power and fun of programming right away, with step-by-step instructions and examples.

TI LCD Programmer Efficient, time-saving solutions for computer-programming professionals & students

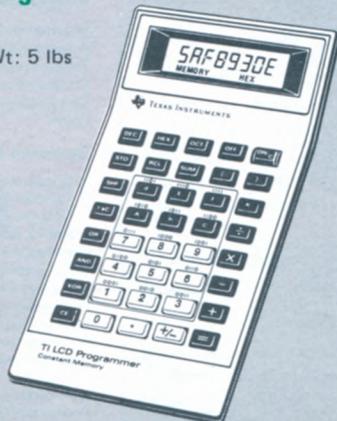
Item No. TILCDPR

Shpg Wt: 5 lbs

Hexadecimal, octal, decimal. Perform fast conversions and calculations in any of these number bases. Enter a number in base 8, 10, or 16. Convert to either of the other bases.

Rapidly handle arithmetic computations in all three bases. Ideal for use with any size computer, the TI LCD Programmer uses integer "two's complement" arithmetic in hexadecimal and octal bases.

Three-key memory. Decimal base features signed floating point arithmetic for convenience in day-to-day math. Constant Memory™ and 10-digit LCD display with mode indicators for decimal, octal or hexadecimal. Easy-to-read tilt-top display. Can multiply the effectiveness of anyone in computer programming.



Your Cost:

\$64.95

The MBA™ Powerful business calculator with statistical & financial functions and programmability

Your Cost: **\$62.95**

Item No. TIMBA

Preprogrammed functions compute net present value and internal rate of return for variable cash flows. Payment, present value, future value, number of periods or periodic interest rate for ordinary annuities and annuities due. Bond yields and much more. Statistical functions—mean, variance, standard deviation—at the touch of a key.

Plus built-in linear regression with correlation coefficient. Twelve memories. Simple programmability lets it remember a sequence of up to 32 keystrokes.

Calculator Analysis for Business and Finance shows you how to analyze financial situations faster, use statistical methods easier.



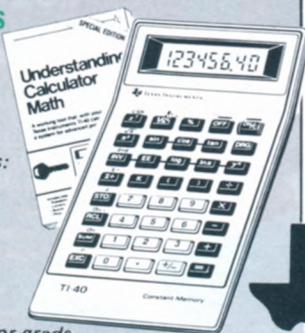
Shpg Wt: 5 lbs

TEXAS INSTRUMENTS

TI-40 Scientific Calculator with Statistics

\$27.95

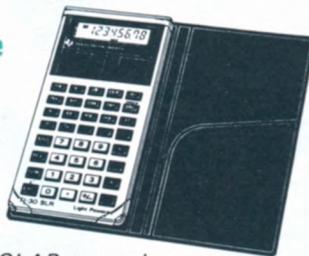
Shpg Wt: 3 lbs
The TI-40 offers a broad range of scientific functions: powers, roots, reciprocals, common & natural logarithms, trigonometric functions & inverses in degrees, radians or grads. Pi and factorial. Built-in statistical calculations include mean & standard deviation for both sample & population data. Includes Special Edition of "Understanding Calculator Math". Item No. T140



TI-30 SLR Light Powered Student Slide Rule

\$27.95

Shpg Wt: 3 lbs



SOLAR powered version of TI-30-II. Features a solar light panel instead of batteries. Responds to sunlight or electric light. Offers all the same outstanding features of the TI-30-II.

Item No. T130SLR

TI-30-II Pocket Slide Rule Calculator for Students

\$16.95

Item No. T1302
Shpg Wt: 3 lbs

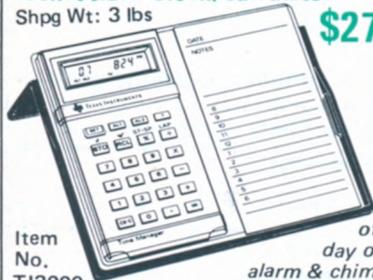


Restyled for easy reading—the TI-30-II is perfect for today's student. Powerful functions make problem-solving easy: roots, reciprocals, powers, common & natural logarithms & trigonometry are built-in. Also features x factorial and degree, radian & grad conversions. LCD display shows 8 digits or 5-digit mantissa & 2-digit exponent, and angular modes in degrees, radians and grads. Algebraic operating system (AOS) lets you enter formulas as they appear left to right. Four-key memory & automatic power down feature.

TimeManager™ Pocket-sized Clock/Calculator

Shpg Wt: 3 lbs

\$27.95



Shows continuous display of time, date, day of week, p.m. alarm & chime indicators.

Item No. T12000
Two 24-hour alarms, optional 'cuckoo' tone for hourly time signal. Calculator mode: 8-digit readout, two-key constant memory, basic functions plus automatic percent & constant. Stopwatch function, lap & elapsed time. Comes with daily appointment pads (re-orderable), smoked-acrylic desk stand, batteries, & owner's manual.



\$19.95

VISOR KIT—Make the MOST of your travel dollars!

Shpg Wt: 4 lbs Item No. T11850

Five-piece kit clips securely to car visor. Full-function TI-1850 calc lets you monitor efficiency & performance of your car: mileage, miles per gallon, travel expenses plus perform all basic calculator functions including percent & square root. Kit also includes pencil-type tire gauge, mechanical pencil & Auto Record Pad to log in your info.

TI-1850

TI-Checkwriter Handy, side-by-side wallet & calculator

Item No. T11880

\$19.95



Shpg Wt: 4 lbs

Convenient 6-function calculator swings out from its wallet holder. The stylish leather-like wallet holds checks, balance book, cash, credit cards and a pen in one handy location. Perfect for shopping, etc.

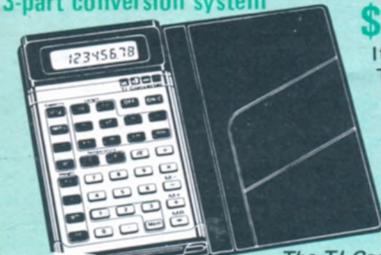
TI Converter Kit 3-part conversion system

English/Metric

\$23.95

Item No. T11890

Shpg Wt: 3 lbs



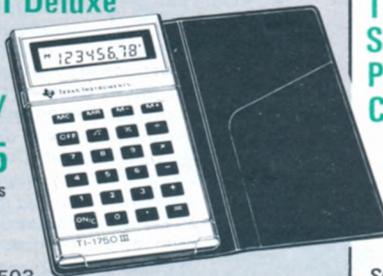
The TI-Converter Kit has 194 built-in conversions for unit measurements of capacity, length, temperature & weight. Convert pounds to kilograms, miles to kilometers, inches to yards, Fahrenheit to Celsius, and much more!

Includes "The Calculator & Converter Handbook" and "Quick Reference Guide"

TI-1750-III Deluxe Calculator with Memory

\$14.95

Shpg Wt: 3 lbs



Item No. T117503

Large, easy-to-read LCD display shows 8 digits plus overflow, minus & memory signs. Math functions: add-ons, discounts, square roots, percentages. Four-key memory. Automatic power down turns unit off after approx. 4 minutes of non-use. Comes in brown vinyl wallet folder with pockets for notes, cards, etc.

TI-1766 SOLAR/LIGHT Powered Ultra-Slim Calculator

\$17.95

Item No. T11766
Shpg Wt: 3 lbs



SOLAR powered—operates under any normal light and many low-light levels and never needs to store energy. No "On-Off" switch—this is automatic! Sleek, ultra-slim, performs the most common calculations instantly. Four-key memory, square root key, automatic percent key. Comes in high-quality vinyl wallet.

TI-1776 LIGHT Powered Card-sized Calculator

\$17.95

Shpg Wt: 3 lbs
Item No. T11776



SOLAR powered—operates under any normal light source indoor & out. Ultra-compact, card-sized, comes in stylish but sturdy metal case. Four-key memory to add, subtract, recall & clear memory. Square root & automatic percent key.

TI-1006 LIGHT Powered

Item No. T11006

\$13.95

Basic Calculator

All-purpose calculator—SOLAR powered—operates from any light source—indoors or out. Features four-key memory, square root function & automatic percent key. Shpg Wt: 3 lbs. Comes with leather-like vinyl wallet.



\$10.95

Item No. T11031

TI-1031 Basic Calc

Large, easy-to-read LCD display shows 8 digits plus overflow, decimal point, negative sign & memory indication. Automatic constant Shpg Wt: 3 lbs. Four-key memory, percent key & square root key. Automatic power down turns unit off after approx. 4 minutes of non-use.

TI-1001 Pocket-portable 6-function calculator

\$9.95



Shpg Wt: 3 lbs

Sleekly styled, thin as a pencil—fits easily into pocket or purse. Adds, subtracts, multiplies, divides & square root. Item No. T11001. Automatic percent & constant. Automatic power down turns unit off after approx. 4 minutes of non-use.

TI Professional Business Analyst™

An advanced financial & statistical calculator for the professional graduate business student

Item No. TIBA55



The TI Professional Business Analyst has preprogrammed functions for quick and accurate solutions to time value of money calculations, amortization principle balance and interest problems, net present value and internal rate of return with ten variable grouped cash flows, interest rate conversion, and statistical mean, standard deviation and linear regression. Additionally, the calculator features 32 steps of programming which allows even more flexibility in problem-solving.

The TI Professional Business Analyst is accompanied by the Professional Business Analyst Guide, which offers many practical applications on how to fully utilize the calculator's functions and features.



Shpg Wt: 4 lbs

Compatible with the PC-200 portable printer, the TI Professional Business Analyst is an extremely powerful system that goes anywhere. The TI Professional Business Analyst comes with its own tilt-top case and *Quick Reference Guide* for a quick summary of the calculator's functions.

TI-BA 55

Your Cost:
\$54.95



Your Cost:
\$64.95



TEXAS INSTRUMENTS

PC 200 Item No. TIPC200
Shpg Wt: 8 lbs

Printer for TI-BA 55

This battery operated, quiet, thermal printer is designed to be compatible with the TI Professional Business Analyst™. Connecting via a maneuverable cord to the TI Professional Business Analyst™, the PC 200 offers a hard copy review of calculations as well as fast two lines per second speed.

The printer commands are easily directed from the calculator keyboard and the calculator-to-printer cord also has an internal storage option in the printer.

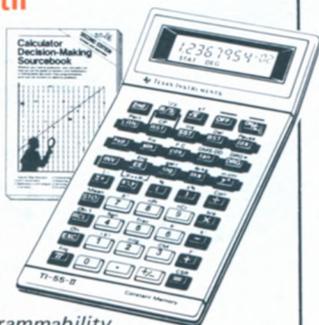
The PC 200 has a convenient five character audit trail which identifies calculations or what printed numbers represent (i.e., 1000 PV, 100 PMT, or 10% I). This highly portable and compact printer is an ideal companion for the TI Professional Business Analyst™ in the office, at home or on the road.

Compact, portable printer

TI-55-II Advanced LCD Slide Rule with Programming & Statistics

Your Cost:
\$44.95

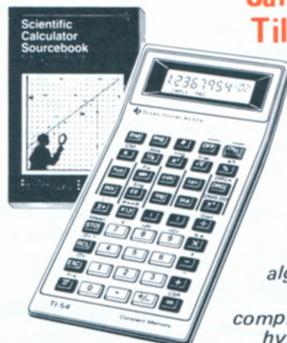
Item No. TI55II



TI-55-II Has 112 powerful functions for professional engineering, math & science applications. Easy keyboard programmability, including function evaluation & integration features, saves time on repetitive problems. Most needed statistical functions for better data analysis. Use up to 8 memories. Built-in conversion functions plus: roots, powers, reciprocals, trig & hyperbolic functions. Enter data in standard, scientific or engineering notation formats. LCD display has 8-digit mantissa and 2-digit exponent. Indicates calculator mode & angular mode. Revised & expanded "Calculator Decision-Making Sourcebook" included. Shpg Wt: 4 lbs

TI-54 Advanced Scientific Calculator with Tilt-top styling

Your Cost:
\$36.95
Item No. TI54
Shpg Wt: 4 lbs



The powerful TI-54 has built-in algebraic functions for both real and complex numbers, and hyperbolic and trig functions with inverses—in degrees, radians or grads—for real numbers. Conversions include polar to rectangular, degrees/minutes, seconds to decimal degrees, & degrees to radians to grads. Constant Memory feature retains data in the 7 storage registers even when the calculator is turned off. The power-saving LCD display shows 8-digit mantissa, 2-digit exponent & 5 other status indicators. Comes with "Scientific Calculator Sourcebook" with easy "how-to" format.

TI User Value Chart

	Student Business Analyst	Business Analyst II	Professional Business Analyst	MBA
Determining the Time Value of Money				
Present Value (PV) and Future Value (FV)	●	●	●	●
Number of Payments and Interest	●	●	●	●
Annuities with Balloon Payments	●	●	●	●
Converting Interest Rates from Effective Rates to and from Annual Percentage Rates	●	●	●	●
Computing Amortization Functions:				
Balance	●	●	●	●
Interest	●	●	●	●
Principle	●	●	●	●
Schedule (User Programmed)	●	●	●	●
Analysis of Investment Opportunities				
Net Present Value (NPV) and Internal Rate of Return (IRR)	●	●	●	●
Variable Cash Flows	●	●	●	●
Grouped Cash Flows to 999 Frequencies	●	●	●	●
Cost Sell Margin for Pricing and Profit Analysis	●	●	●	●
Statistical Mean and Standard Deviation	●	●	●	●
Forecasting through Linear Regression	●	●	●	●
Programming for Special Application Problems	●	●	●	●
Printing Capability	●	●	●	●

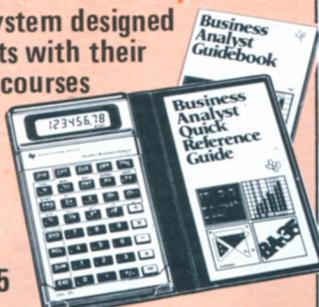
TI Student Business Analyst™

A calculator system designed to help students with their business math courses

Item No. TIBA35

Your Cost:
\$33.95
Shpg Wt: 4 lbs

TI-BA 35



Designed specifically for the undergraduate business student, this calculator & Guide can help a student expand his/her knowledge in finance, statistics and accounting. The calc has pre-programmed functions such as: time value of money calculations, amortization balance & interest problems, interest rate conversions, statistical mean & standard deviation as well as every-day math. Used with the "Business Analyst Guidebook" (included) It briefly explains the concept in question, gives a sample problem & shows how it is solved using the BA-35. This calc also features Constant Memory & Automatic Power Down (turns off after 10 min. non-use).

TI Business Analyst-II™ Executive Calculating System

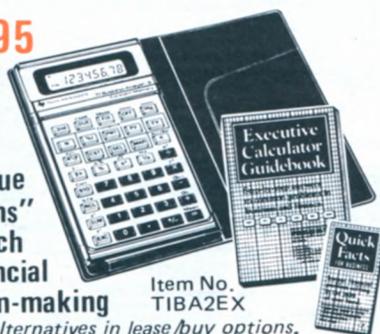
\$44.95

Shpg Wt: 4 lbs

A unique "systems" approach to financial decision-making

Item No. TIBA2EX

Analyze alternatives in lease/buy options, loan amortizations or sales and earnings forecasts—all in a matter of minutes. The TI-Business Analyst II has the built-in functions you need to help you manage your business or personal financial affairs with ease & accuracy. It computes a wide range of time & money problems, profit margins & complex statistical computations. Comes with "Quick Fact for Business" & "Executive Calculator Guidebook", features 8-digit LCD display & constant memory.



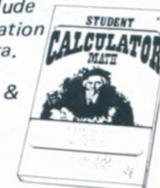
TI-35 Student Math Kit Problem-solving Kit with Slimline TI-35 Scientific Calculator

Item No. TI35SP
Shpg Wt: 4 lbs

Your Cost:
\$23.95



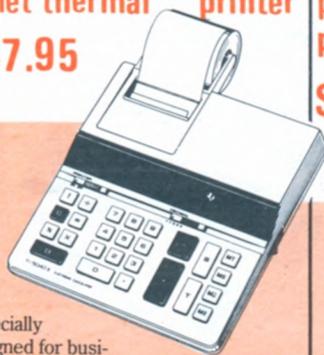
This powerful 54-function calculator performs most-needed slide rule functions as well as pi, factorial & constant. LCD display with scientific notation. Built-in statistical capabilities include data entry, mean & standard deviation for both sample & population data. Versatile 4-key constant memory feature lets you store, recall, sum & exchange memory with display. Includes the "Student Calculator Math Book", detailed Owner's Manual & vinyl carrying case.



TEXAS INSTRUMENTS



TI-5040-II Print/Display
Quiet thermal printer
\$67.95

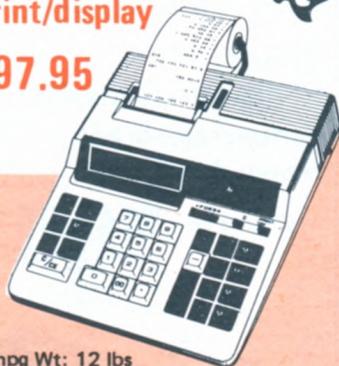


Especially designed for business home managers, it has all the features an executive needs. That means having both a display for fast calculations and a tape produced by a thermal printer.

You'll make quick work of most problems with features like: Four-function memory and independent add register for "dual-memory" capability. Add register also makes the extensions, cross footing, and invoices easier. Automatic constant. And percent key.

Item No. TI50402

TI-5142 Business features
plus plain paper
print/display
\$97.95



Shpg Wt: 12 lbs

Switch on the dependable 12-digit mechanical printer, which delivers a fast 2.5 lines per second when a record is needed. An easy-to-read, 12-digit vacuum fluorescent display with commas and decimal point lets you save on paper if you wish.

There are enough other features to solve most business and accounting problems like: Long-travel keyboard. Full-function memory. Mark up/down. Decimal point selection. Percent and percent keys. Plus/minus change. And a special dating/numbering key. Heavy-duty construction helps it stand up to the tough day-to-day use.

Item No. TI5142

TI-5120 Desk-top
printing calculator
for home or office

Your Cost
\$79.95



Item No. TI5120

A touch operator's dream with many of the convenience features you'd find on a heavy business machine. The sleek, desk-hugging TI-5120 offers a 10-digit printout of your calculations on a 2 1/4 inch plain paper tape. Features include four-key memory, independent add register, automatic percent and constant key, item counter, decimal select and 5/4 round up/down switch. Styled to be lighter and more compact than most business machines, the TI-5120 is perfect for light office work or home use, economically priced, and designed for ease and comfort of use.

Large, sculptured keys, long travel keyboard, 10-level keyboard buffering and two-key rollover reduce fatigue and risk of error.

TI-5130 Sleek desk-top
print/display,
uses plain paper

Shpg Wt: 12 lbs
\$67.95



Item No. 5130

For office or home, the TI-5130 offers all the features of the TI-5120 with the added convenience of a bright 10-digit display. Its easy-to-read 6.5mm characters appear in a soft green, vacuum fluorescent light that's never harsh. For economy, the printer on/off switch lets you use standard 2 1/4-inch plain paper when you need permanent records of your calculations.

Designed for the touch operator, the TI-5130 has large, sculptured keys, long travel keyboard, 10-level keyboard buffering and two-key rollover. Perfect for all but the most demanding accounting problems, the TI-5130's features include 4-key memory, independent add register, percent and constant, date/non-add key, decimal select, automatic 5/4 rounding up/down.

TI-5010
hand-held
\$39.95



Item No. TI5010

Shpg Wt: 4 lbs

print/display calculator

The compact TI-5010 prints out a permanent copy of your calculations at 1.5 lines per second on 1 1/2 inch plain paper tape—Offers 10-digit LCD display that shows decimal, comma and status indicators.

Printer on/off switch. 4-key memory, date/number key, automatic constant, decimal selector and 00 key make even lengthy calculations easy to enter. Powered by AA penlight batteries or from a standard wall outlet with an optional AC adapter. Batteries and vinyl carrying case included.

This versatile, quality calculator can increase calculating efficiency in the office or at home with silent, effortless operation. Adds, subtracts, multiplies, divides and features a memory to store and recall numbers.

Display shows M when a number is in memory. Overflow is indicated by an arrow at the left of the display. Calculate percentages, taxes and discounts. An item count key for simplified inventory and calculation of averages. Decimal selector switch positions decimal at full floating or presents at two places.

Large 10-digit green vacuum fluorescent display (with comma) for easy readability.

Item No. TI5100

TI-5100 Attractive
display calculator
for home or office

Your Cost
\$45.95



Shpg Wt: 4 lbs

Pocket-sized print/display
calculator
\$39.95
TI-5000



TI-5000 features an easy-to-read 10 digit liquid crystal display, solid key feel, large add bar, and battery-saving Automatic Power Down™ that turns the calculator off after ten minutes of non-use.

The TI-5000 also can be used with an optional AC adapter.

ACCESSORIES

TI20225	Three-roll pack of thermal paper for TI-5015, TI-5040, and TI-5040-II	2.00
TI25000	Five-roll pack of thermal paper for TI-5000	2.25
TI27225	Three-roll pack of thermal paper for TI-5015, TI-5040, and TI-5040-II	4.00
TI9173	TI-5010 AC Adapter	6.95
TI9174	TI-5000 AC Adapter	6.95
TI55142	TI-5142 Ink Roller, (1) per blister card	3.30
TI55130	TI-5130 & TI-5120 Ink Roller, (1) per blister card	4.25
TI9130A	120 volt AC adapter charger for use with BP-1A battery pack	9.00
TI9130SW	120/240 V AC adapter for BP-1 or BP-1A	14.75
TI9131	120 V AC adapter charger for use with TI-58-58C-59	6.59
TI9132	120 volt AC adapter charger for use with BP-7 or BP-8 battery packs	6.00
TIBC59	40 blank cards and card case for TI-59	15.00
TIBP1A	Battery pack for TI-58-58C-59	10.50
TIBP7	Battery pack for TI-55, TI-57. Also available in brown color for The MBA as BP-7-BRN	8.00
TIBP8	Battery pack for SR-40 and TI-Business Analyst	8.00
TIDC9105	12 volt adapter charger for BP-1A	27.00
TIPW5859	Programming Workbook for TI-58-58C-59	7.95
TIRK2	Rechargeable kit for TI-30	12.00
TI103026	Three-roll pack of thermal paper for PC-100C	10.00

SOLID STATE SOFTWARE (\$40.00 each)

TILSTAT	Applied Statistics
TILREI	Real Estate & Investment
TILAV	Aviation
TILNAV	Marine Navigation
TILSURV	Surveying
TILLEIS	Leisure Library
TILSEC	Securities Analysis
TILBUS	Business Decisions
TILMATH	Math/Utilities
TILELEC	Electrical Engineering
TILRPM	RPM Simulator

Also available:

TILAGRI	Farming	\$55.00
TILPOOL	Pool Water Analysis	\$45.00

SPECIALTY PAKETTES (\$10.00 each)

TIPSECU	Securities (TI-59 required)
TIPSTAT	Statistical Testing
TIPCVIL	Civil Engineering
TIPLEC	Electronic Engineering
TIPBLACK	Blackbody
TIPOE	Oil/Gas/Energy
(req. TI-59 & PC-100 A/C)	
TIPPROG	Programming Aids
TIPPRNTR	Printer Utility
TIPAST	Astronomy
TIPFUN	59 Fun (TI-59 req)
TIP3D	3-D Graphics
TIPMATH	Math
TIPFLUID	Fluid Dynamics
TIPCHEM	Lab Chemistry (TI-59 req)
TIPPROD	Production Planning
TIPMKT	Marketing/Sales
TIPQAI	Quality Assurance I
TIPQAI	Quality Assurance II

- 12-digit vacuum fluorescent display and impact printer.
- Automatic punctuation for printer and display.
- Full-size 28-key keyboard.
- Ten-level keyboard buffering for rapid entry of numbers and operations.
- Full four function "live" memory.
- Independent add register.
- Decimal setting: F, A, 0, 1, 2, 3, 4, 5 and 6.
- Percentage key and add-in/discount.
- Grand total register.
- Item count key.
- Reverse and backspace key.
- Non-add key for dating and numbers.
- 3-position switch for automatic rounding.
- Automatic constant.
- Add mode with override.
- Product/quotient calculation.
- Print speed 2.8 lines per second.
- Uses 2-color ribbon with negative entries and results printed in red.
- Single and double zero.
- Non-print capability.
- Uses standard 2 1/4" paper (1 roll included).
- 9"W x 12"L x 3 3/4"H.

TI-5219 Item No. TI5219
Shpg Wt: 13 lbs
12-digit print/display calculator with memory

Your Cost **\$164.95**
Retail: \$205.00



Shpg Wt: 13 lbs
Item No. TI5215 **TI-5215**
12-digit printing calculator with memory
Your Cost **\$134.95** Retail: \$175.00
Commercial grade-heavy duty!

- 12-digit impact printer with automatic punctuation and two-column audit.
- 28 touch keys including large total, plus, minus, zero and clear entry.
- Ten-level keyboard buffering permits rapid entry and operation.
- Full four-function "live" memory.
- Automatic constant.
- Independent add register.
- Add-mode with override.
- Automatic rounding.
- Percent key and add-on discount.
- Two-key rollover.
- Double zero key.
- Decimal setting: F, 0, 1, 2, 3, 4, 5 and 6.
- 2.8 lines per second print speed.
- Power on light.
- Uses 2-color ribbon with negative entries and results printed in red.
- Uses standard 2 1/4" paper (1 roll included).
- 9"W x 12"L x 3 3/4"H.

ti
Heavy duty!
Commercial grade

- 12-digit vacuum fluorescent display.
- Automatic punctuation for both printer and display.
- Status indicator for error or overflow.
- Full size 24-key "Touch Operator" keyboard.
- Ten-level keyboard buffering permits rapid entry of numbers and operations.
- Independent add register and grand total register.
- Ten-level keyboard buffering and two-key rollover features for operation at top speed.
- High speed printer produces 2.8 lines per second.
- Non-print capability.
- Decimal selection F, A, 0, 1, 2, 3, 4, 5 and 6.
- Percent key and add-on discount.
- Automatic constant.
- Automatic rounding switch.
- Double zero key.
- Add mode with override.
- Uses 2-color ribbon with negative entries and results printed in red.
- Uses standard 2 1/4" paper (1 roll included).
- 9" x 12" x 3"

TI-5217 Item No. TI5217
12-digit print/display commercial grade Heavy duty!

Your Cost **\$144.95**
Retail: \$190.00



Shpg Wt: 12 lbs
Item No. TI5213 **TI-5213**
12-digit printing calculator
Your Cost **\$124.95** Retail: \$160.00
Commercial grade-heavy duty!

- 12-digit impact printer with automatic punctuation and two column audit trail.
- "Touch operator" 24 key fullsize keyboard.
- Ten-level keyboard buffering permits rapid entry of numbers and operations.
- Independent add register.
- Three-position automatic rounding switch.
- Decimal select: F, A, 0, 1, 2, 3, 4, 5 and 6.
- Automatic item count.
- Percentage key and add-ons/discounts.
- Non-add key for dating and numbering.
- Two-key rollover.
- Double zero key.
- Add mode with override.
- Power on light.
- Print speed 2.8 lines per second.
- Uses 2-color ribbon with negative entries and results printed in red.
- Uses standard 2 1/4" paper (1 roll included).

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EL-550 Hand-Held Scientific Printer

Your Cost **\$69.95** Retail: \$79.95

Item No. SHEL550
Hand-held 10-Digit Scientific Printer

- Full featured 46 scientific printer with statistics functions
- Some of 46 scientific functions included:
 - Trigonometric (sin, cos, tan) and their inverses
 - Exponential (base 10 and base e) and their inverses (logarithms)
 - Factorial (n!) 3 angle modes (degree/radian/grad)
 - Mean, sum and standard deviation
 - Power (y^x) and its inverse (x root of y)
 - Degree/Min./Sec. -- Degree conversions
- Other Features:** Independently accessible 3-key memory
- 15 levels of parentheses and 3 pending operations
- Automatic Power-Off™ for extended battery life
- Operates on 3 "AA" batteries (supplied) and AC outlet (Optional AC adaptor) comes with a pouch and paper rolls
- Dimensions: 3"7/8" (W) x 7/8" (H) x 6-3/8" (D)

Shpg Wt: 5 lbs



Slim Programmable with 24 digit Dot Matrix Alphanumeric Display/Direct Formula Entry/Playback

Retail: \$89.95
Your Cost

\$79.95

EL-5100 Item No. SHEL5100

- The calculator with direct formula entry that writes an equation and remembers it
- AER (Algebraic Expression Reserve) permits the user to enter 5 formulas with up to 80 program steps directly as they are written and remembers them (with memory retention)
- Wide variety of 61 scientific functions including combination (nCr), permutation (nPr), and 2-variable statistics (linear regression)
- Playback memory permits the user to check and make corrections in 24-digit dot matrix alphanumeric display even after the calculation is done
- 10 data memories with memory retention
- Display format exchange (F-E Key)
- Decimal setting (TAB Key)
- 15 levels of parentheses and 8 pending operations
- "Auto Power-Off"™
- Complete with case and batteries
- Dimensions: 6-7/8" (W) x 3/8" (H) x 2-3/4" (D)

Shpg Wt: 5 lbs



"Thin Man"™ Wallet-Size Programmable with 13-Digit Dot Matrix Alphanumeric Display

Your Cost **\$56.95**

- The calculator with direct formula entry that writes an equation and remembers it
- AER (Algebraic Expression Reserve) permits the user to enter a formula up to 48 program steps directly as it is written and remembers it (with memory retention)
- Wide variety of 63 scientific functions including 2-variable statistics (linear regression/prediction)
- Even after calculation is done, the EL-5103 remembers the formula and permits the user to see it in the 13-digit dot matrix alphanumeric display for checking and making corrections (Playback)
- 6 data memories with memory retention
- 4 variety of display format control functions (fixed/scientific/engineering display and decimal setting)
- 15 levels of parentheses and 8 pending operations
- "Automatic Power-Off"™
- Complete with wallet and batteries
- Dimensions: 2-23/32" (W) x 5/16" (H) x 5-1/32" (D)

Shpg Wt: 5 lbs



10-Digit "Thin-Man"™ Wallet-Size with 128 Program Steps/10 Data Memories and Linear Regression

- Super scientific calculator with Multi Formula Reserve and 2-variable statistic
- In addition to performing 61 scientific functions, the multi-formula reserve permits the user to store up to 128 program steps which can be separated in up to 4 independent formulas. These formulas can be accessed independently and the EL-512 will remember them (with memory retention)
- Other Features:** Easy-to-read 10-digit liquid crystal display with scientific notation expression
- Independently accessible 3-key memory plus 9 storage memories (with memory retention)
- 15 levels of parentheses and 8 pending operations
- Hyperbolic (sinh, cosh, tanh) and their inverse
- Hexadecimal conversion
- Trigonometric (sin, cos, tan) and their inverse
- Rectangular/polar co-ordinate conversion
- Exponential (base 10 and base e) and their inverse (Logarithm)
- Power (y^x) and its inverse (x root of y)
- Factorial (n!) • 2-variable statistics (Mean, sum, standard deviation) Linear regression/prediction/Degree/Min./Sec. degree conversions
- 3 angle mode (Degree/Radian/Grad)
- Display format exchange (F-E Key)
- Decimal setting (TAB Key)
- "Automatic Power-Off"™
- Complete with wallet and batteries
- Dimensions: 2-23/32" (W) x 11/32" (H) x 5-1/32" (D)

Item No. SHEL512

Shpg Wt: 4 lbs

Your Cost **\$44.95**

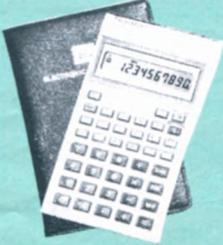


10-digit "Thin Man"™ Wallet-Size with 38 Program Steps/5 Data Memories

Your Cost **\$39.95**

- Full featured "Programmable" scientific calculator with built-in statistics functions
- In addition to performing 44 scientific functions, the EL-507 permits the user to store up to 38 program steps formula and remember them (with memory retention)
- Other Features:** 10-digit liquid crystal display with scientific notation expression
- Trigonometric (sin, cos, tan) and their inverses
- Hyperbolic (sinh, cosh, tanh)
- Rectangular/polar co-ordinate conversions
- Exponential (base 10 and base e) and their inverses (Logarithms)
- 3 angle modes (degree/radian/grad)
- Power (y^x) and its inverse (x root of y)
- Factorial (n!)
- Mean, sum and standard deviation
- Degree/Min Degree conversions
- Display format exchange (F-E Key)
- Decimal setting (TAB Key)
- 15 levels of parentheses and 7 pending operations
- Independently accessible 3-key memory plus 4 storage memories (with memory retention)
- "Automatic Power-Off"™
- Complete with wallet and batteries
- Dimensions: 2-23/32" (W) x 5/16" (H) x 5-1/32" (D)

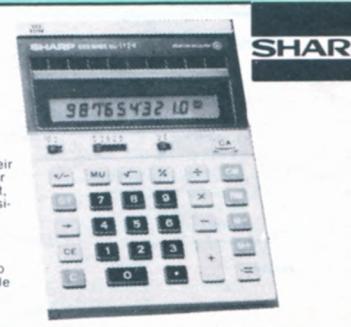
Shpg Wt: 4 lbs



EL-1124 SOLAR Semi-Desk-Top

Item No. SHEL1124
Shpg Wt: 5 lbs
Your Cost **\$54.95**

- Trim, new size in a semi desk-top, solar-powered model that can be carried anywhere
- Operates on built-in silicon solar cells which receive their power from natural and artificial light (no batteries to ever run down)
- Four basic arithmetic operations with 10-digit, easy-to-read liquid crystal display
- Independently accessible 4-key memory
- Full-floating decimal point mode of operation
- One-touch percent key for add-on/discount calculations
- Square root key and convenient right shift key
- Easy-to-use large plus and zero keys
- Constant, power, reciprocal, and chain calculations
- Mark-up key to simplify computing of mark-up and mark-down on the sale of merchandise
- "G1" key accumulates individual totals to obtain one grand total
- Dimensions: 5-1/32" (W) x 21-3/32" (H) x 6-15/16" (D)



EL-410 Wallet Size Calc w/Calendar & Large Display— Exhibits a month at a time!

Item No. SHEL410

Your Cost: **\$49.95**

Shpg Wt: 3 lbs

Clock/calculator with extra large display exhibits an entire month
• Performs as a 4-function basic calculator with an independently accessible 3-key memory, and as a 12- or 24-hour cycle accurate timepiece with two melodic alarms. The EL-410 features an extra-large display which can simultaneously exhibit any of its time functions and any one month selected from the years 1901 to 2099
Other Features: • Timer and alarm to remember appointments, meetings, and other time-related events • A stopwatch and an hourly chime • 11 musical notes accompany entry of numbers
Dimensions: 2-5/8" (W) x 5-1/16" (H) x 4-1/2" (D)



EL-450 CLOCK/CALENDAR CALCULATOR

SHARP

Item No. SHEL450

Your Cost: **\$29.95**

Clock calculator with day, date, and precision stopwatch
• Performs as a 4-function basic calculator with an independently accessible 3-key memory and serves as an accurate timepiece, displaying the time in hours, minutes and seconds (blinking dots). As a calendar, indicates the day of the week, as well as the date
Other Features: • A pleasant alarm to remember meetings, appointments, and other time-related events • Easy-to-read 8-digit, liquid crystal display
Dimensions: 2-1/8" (W) x 7-3/32" (H) x 3-19/32" (D)



Shpg Wt: 3 lbs

EL-408 Business Card Size with DAY/DATE/STOPWATCH

Item No. SHEL408

Your Cost: **\$29.95**

Shpg Wt: 3 lbs

Clock calculator with day, date, and precision stopwatch
• Performs as a 4-function basic calculator with an independently accessible 3-key memory and serves as an accurate timepiece, displaying the time in hours, minutes and seconds (blinking dots). As a calendar, indicates the day of the week, as well as the date
Other Features: • A pleasant alarm to remember meetings, appointments, and other time-related events • Easy-to-read 8-digit, liquid crystal display
Dimensions: 2-1/8" (W) x 7-3/32" (H) x 3-19/32" (D)



EL-2188 12-Digit Desk-Top Print/Display

Item No. SHEL2188

Your Cost: **\$109.95**

Compact desk-top print/display, 12-digit calculator with fast printing (2.5 lines per second)
• Full printout of 12 numerals and 2 symbols on standard size paper roll • Easy-to-read 12-digit bright green display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Add-bar/subtract key-top design to minimize human error • Non-add/sub-total key allows for printing desirable intermediate calculations • Floating and fixed decimal (3-2-0), constant (K), and add (A) operating modes (latter facilitates entry of dollar-and-cents figures) • Independently accessible 4-key memory • One-touch percent key for add-on/discount calculations • Power, reciprocal and chain calculations • Item counter totals number of entries (useful for computing averages) • Operates on ordinary AC outlet • Includes dust cover and paper roll
Dimensions: 7-1/16" (W) x 2-7/32" (H) x 9-1/4" (D)



Shpg Wt: 10 lbs

EL-1193 10-Digit Desk-Top Print/Display with Two-Color Printout

Item No. SHEL1193

Your Cost: **\$84.95**

Shpg Wt: 10 lbs

Sleek, 10-digit desk-top print/display, AC/DC powered and 2-color printout
• Full printout of 12 numerals and 2 symbols on standard-size paper roll • Negative numbers printed in red are clearly identified • Easy-to-read 10-digit fluorescent display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Independently accessible 4-key memory • Add-bar/subtract key-top design to minimize human error • Non-add/sub-total key allows for printing desirable intermediate calculations • Fixed decimal (3-2-0), constant (K), and add (A) operating modes (latter facilitates entry of dollar-and-cents figures) • One-touch percent key for add-on/discount calculations • Power, reciprocal and chain calculations • Power is provided by 4 "AA" batteries or AC adaptor (option) • Includes dust cover and paper roll
Dimensions: 7-1/16" (W) x 2" (H) x 8-3/16" (D)



EL-1197 DELUXE 10-Digit Print/Display Desk-Top Model

Item No. SHEL1197

Your Cost: **\$84.95**

Compact desk-top print/display, 10-digit calculator designed for standard office work
• Full printout of 10 numerals and 2 symbols on standard size paper roll • Easy-to-read 10-digit bright green display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Independently accessible 4-key memory • Floating and fixed decimal (3-2-0), constant (K), and add (A) operating modes (latter facilitates entry of dollar-and-cents figures) • Add-bar/subtract key-top design to minimize human error • Non-add/sub-total key allows for printing desirable intermediate calculations • One-touch percent key for add-on/discount calculations • Power, reciprocal and chain calculations • Operates on ordinary AC outlet • Includes dust cover and paper roll
Dimensions: 7-1/16" (W) x 2-7/32" (H) x 9-1/4" (D)



Shpg Wt: 9 lbs

EL-1182A 10-Digit Desk-Top Print/Display

Item No. SHEL1182

Your Cost: **\$84.95**

Compact desk-top print/display, 10-digit calculator designed for standard office work
• Full printout of 10 numerals and 2 symbols on standard size paper roll • Easy-to-read 10-digit bright green display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Independently accessible 4-key memory • Floating and fixed decimal (3-2-0), constant (K), and add (A) operating modes (latter facilitates entry of dollar-and-cents figures) • Add-bar/subtract key-top design to minimize human error • Non-add/sub-total key allows for printing desirable intermediate calculations • One-touch percent key for add-on/discount calculations • Power, reciprocal and chain calculations • Operates on ordinary AC outlet • Includes dust cover and paper roll
Dimensions: 7-1/16" (W) x 2-7/32" (H) x 9-1/4" (D)



Shpg Wt: 9 lbs

EL-1192 10-Digit Desk-Top Print/Display, AC/DC powered

Item No. SHEL1192

Your Cost: **\$66.95**

Sleek, 10-digit desk-top print/display, AC/DC powered
• Full printout of 10 numerals and 2 symbols on standard size paper roll • Easy-to-read 10-digit liquid crystal display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Independently accessible 4-key memory • Add-bar/sub-total key-top design to minimize human error • Non-add/sub-total key allows for printing desirable intermediate calculations • Fixed decimal (3-2-0), constant (K), and add (A) operating modes (latter facilitates entry of dollar-and-cents figures) • One-touch percent key for add-on/discount calculations • Power, reciprocal and chain calculations • Power is provided by 4 "AA" batteries or AC adaptor (option) • Includes paper roll
Dimensions: 7-1/16" (W) x 2" (H) x 8-3/16" (D)



Shpg Wt: 10 lbs

EL-1195 10-Digit Print/Display Wallet-size Calculator

Item No. SHEL1195

Shpg Wt: 6 lbs

Your Cost: **\$56.95**

"Thin Man"™ print/display calculator with wallet
• Slim and light enough to carry in shirt pocket • Full printout of 10 numerals on thermal printing paper • Easy-to-read 10-digit liquid crystal display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Floating as well as fixed decimal point mode of operation • Add-mode (A) to facilitate entering of dollar-and-cents figures • Independently accessible 3-key memory • Constant and add-on/discount calculations • Comes with Ni-Cd rechargeable battery, AC adaptor/charger, attractive wallet and paper roll
Dimensions: 3" (W) x 9-1/16" (H) x 5-1/32" (D)



Shpg Wt: 6 lbs

EL-1188S Hand-Held Print/Display with Inboard Paper Holder

Item No. SHEL1188

10-Digit Calculator

Your Cost: **\$47.95**

Hand-held print/display 10-digit calculator
• Full printout of 10 numerals and symbols on plain paper tape • Built-in paper holder • Easy-to-read 10-digit liquid crystal display, each group of 3 digits clearly punctuated • Operates in non-print (display only) mode for conserving paper • Floating as well as fixed decimal point mode of operation • Independently accessible 3-key memory • Constant, power, reciprocal, chain, and add-on/discount calculations • Operates on 3 "AA" batteries (supplied) • Comes with paper rolls
Dimensions: 3-5/16" (W) x 1-5/16" (H) x 7-5/32" (D)



Shpg Wt: 6 lbs

EL-8180 Hand-Held Print/Display

Item No. SHEL8180

Your Cost: **\$39.95**

SHARP

Item No. SHEL8180

8-digit printing calculator with display
• Full print-out of 8 numerals on thermal printing paper • Easy-to-read 8-digit liquid crystal display • Operates in non-print (display only) mode for conserving paper
Other Features: • Auto Power-Off™ function preserves batteries • Independently accessible 3-key memory • One-touch percent and square root keys • Comes with a pouch and paper rolls • Operates on 3 "AA" batteries (supplied) and AC outlet (with optional adaptor)
Dimensions: 2-3/4" (W) x 7/8" (H) x 5-7/8" (D)



CT-455E Electronic Digital Alarm Clock

Your Cost: **\$24.95**

Precision timepiece with alarm slips into vest pocket or purse.

- Fashionably and elegantly designed, slim electronic pocket clock.
- Extra-large liquid crystal display exhibits the time in hours, minutes, and seconds (blinking dots) with AM and PM indicated.
- Easy-to-set alarm can be used to remember meetings, appointments and other time-related events.
- Functions to within an accuracy of ± 1.5 seconds each day.
- Runs for approximately 18 months on a single LR-44 alkaline manganese battery.
- Comes with attractive soft case.

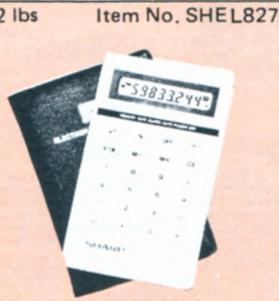


Shpg Wt: 2 lbs

Item No. SHCT455E

EL-827
8-Digit Calculator
Business card-sized with Music!
 Your Cost: **\$19.95**

Business card-sized 8-digit basic calculator with electronic musical keyboard
 • In addition to the 4 basic arithmetic functions, this easy-to-read liquid crystal display calculator emits eleven distinct musical notes (la, si, do, re, mi, fa, sol, la, si, do, re) to (optionally) accompany entry of numbers
 • Independently accessible 3-key memory in conjunction with Memory Safe Guard™ feature (protects memory when power is off) can be used to store simple tunes
Other Features: • Percent key for add-on/discount calculations
 Dimensions: 2-1/8" (W) x 3/16" (H) x 3-19/32" (D)



EL-835 Solar Super-Thin Calculator—
Never Needs Batteries!
 Your Cost: **\$39.95**

Solar-powered, super-thin (1/16") calculator
 • Thinnest (1/16") solar calculator reflects Sharp's most advanced technology
 • Operates on built-in silicon solar cells which receive their power from natural and artificial light (no batteries to ever run down)
 • Four basic arithmetic operations with 8-digit, easy-to-read liquid crystal display
 • Independently accessible 4-key memory
 • Full-floating decimal point mode of operation
 • One-touch percent key for fast add-on/discount calculations
 • Square root key
 • Constant, power, reciprocal and chain calculations
 • Luxurious and elegant design in an all-metal case
 • Comes with its own attractive pouch
 Dimensions: 2-1/8" (W) x 1/16" (H) x 3-25/32" (D)



SHARP

Your Cost: **\$64.95** Item No. SHEL620

EL-620 Voice-Synthesized Calculator

Hand-held 8-digit basic calculator with voice-synthesized announcements
 • Compact and lightweight voice-synthesized calculator tells the computation being performed
 • At the depression of a key, the voice tells the numerical figures, point and the 4 mathematical functions. Other functions are indicated by various beep sounds
 • In long figure answers, there is the optional selection of voice announcement for "hundreds", "thousands", and "millions"
Other Features: • Basic 4-function calculator with easy-to-read 8-digit liquid crystal display
 • Operates on Mercury batteries and AC outlet (Adaptor-optional)
 Dimensions: 3-1/32" (W) x 7/16" (H) x 5-21/32" (D)



EL-640 Talking Clock/Calculator
 Your Cost: **\$89.95**

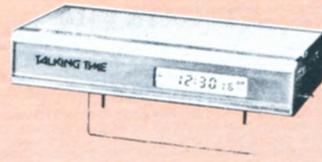
Wallet-size calculator that turns time and calculations into spoken words
Audible clock functions: • Announces the year/month/day/day of the week from years 1901 to 2099, or hour/minute • AM/PM, 12-hour cycle • Automatic time announcement on the hour • Daily alarm with 10- and 5-minute intervals before the clock's alarm goes off
Countdown timer function with melody to remember meetings, appointments and other time-related events
 • Optional time announcement every 5 minutes
Audible calculator functions: • Basic 4-function calculator with easy-to-read 8-digit liquid crystal display
 • Voice announcement by 3 digits (hundreds, thousands, millions) or by digit-by-digit
 • Large-size speaker produces clear voice for easy understanding
 • Fully floating decimal point
 • Operates on 4 "AA" batteries and AC outlet (Adaptor-optional)
 Dimensions: 2-9/16" (W) x 9/32" (H) x 4-21/32" (D)



CT-660E TALKING DIGITAL CLOCK with Alarm
 Item No. SHCT660E
 Your Cost: **\$79.95**

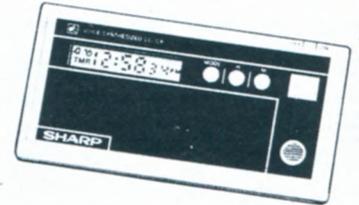
Full-Featured Talking Digital Clock
 Compact digital clock adds voice announcement and melody to its alarm and follow-up times 5 and 10 minutes later

Digital clock with voice announcement • Manual time announcement—hour and minutes • Automatic time announcement every 30 minutes • Alarm with voice and melody. Snooze function 5 and 10 minutes after alarm
 • Timer with automatic elapsed time announcement every 1, 5 or 30 minutes • Nonstop readout of hour/minutes/seconds, AM and PM on an easy-to-read liquid crystal display
 • Easy-to-set alarm can be used to remember meetings, appointments and other time-related events
 • Stopwatch displays standard/accumulated elapsed time measurement with lap time announcement in the preset interval
 • Functions to within an accuracy of ±1.5 seconds each day
 Dimensions: 4-1/2" (W) x 7/8" (H) x 2-3/8" (D)



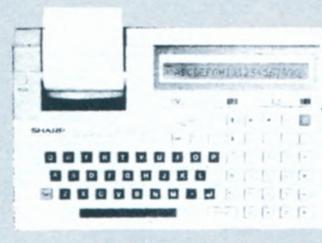
CT-665E "Thin-Man" Talking Digital Clock with Alarm
 Item No. SHCT665E
 Your Cost: **\$79.95**

Voice-synthesized clock announces time in addition to displaying it
 • Elegantly designed precision timepiece also announces the time with electronic voice synthesis
 • Manual time announcement, at any time, at the press of a key—hour, minutes • Automatic time announcement on the hour
 • Alarm with voice and melody with 10- and 5-minute intervals before the clock's alarm goes off • Non-stop readout of hour/minutes/seconds, AM and PM on an easy-to-read liquid crystal display
 • Countdown timer (with alarm) to remember meetings, appointments and other time-related events
 Dimensions: 3-27/32" (W) x 7/16" (H) x 2-1/16" (D)



EL-7100 DELUXE Print/Display
Deluxe Memowriter™ with Print/Display
Calculation and 120-Character Input Memory
 Your Cost: **\$159.95** Shpg Wt: 6 lbs

Portable 20-digit dot matrix LCD calculator with alphanumeric keyboard, 40 word memories and printer for accurate processing of numerical and alphabetical data
 • Handy data processor with typewriter keyboard input and 4-function printing calculator
 • 40 word memories, each capable of holding up to 20 characters of alphanumeric data
 • 20-digit column on both display and printer tape, for easier match-up
 • 120-character input memory adds extra versatility to word processing applications
 • Repeat print-out of up to 120 characters from the input memory
Other Features: Calculations can be interrupted for insertion of comments via the input memory
 • Scroll up/down and cursor keys allow easy confirmation and correction of input data
 • 3-way operation (AC/DC rechargeable adaptor supplied)
 • Comes with soft case and rolls of paper.
 Dimensions: 6-5/16" (W) x 13/16" (H) x 3-3/8" (D)



EL-7001 MEMOWRITER
With 40 Word Memories
 Item No. SHEL7001
 Shpg Wt: 6 lbs
 Your Cost: **\$124.95**

Hand-held 10-digit calculator with alphanumeric keyboard and extra large memory can process and print out words as well as numbers
 • Portable data processor with typewriter-like keyboard and basic 4-function calculator
 • 40 word memories, each capable of storing 15 alphabetic, or 7 alphabetic and 10 numeric characters for subsequent analysis and printout on a paper tape roll
 • 48-character memory buffer permits editing of the data on the display prior to printout
 • Liquid crystal display consists of a 10-character dot-matrix rolling display which rolls as it writes
Other Features: • Easy-to-read 10-digit dot-matrix liquid crystal display
 Dimensions: 7-13/32" (W) x 1-5/16" (H) x 3-3/4" (D)



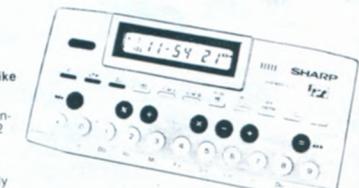
EL-6200 PLANNING COMPUTER
 Item No. SHEL6200
 Shpg Wt: 6 lbs
 Your Cost: **\$74.95**

Alphanumeric planning computer with scheduling, memo and clock functions as well as 10-digit calculator
 • Pocket-sized with typewriter-like keyboard arrangement
 • Dual LCD displays consist of a 12-character dot-matrix rolling display in lower section and 9-digit in upper section
 • Displays date (year/month/day), time (hours/minutes) plus memorandum messages, appointments
 • Symbols provide identification of phone calls, meetings, social engagements and trips
 • Enter up to 27 characters and 9 numerals to store memos into memory
 • Programmable for a full year
 • Daily or monthly schedule recalled at the touch of a key
 • Interaction with user to provide important schedule or program information
 • 37 memories for scheduling with alarm
 • Alarm clock • Memory Safe Guard™
Other Features: • Basic 4-function calculator
 Dimensions: 6-5/16" (W) x 13/16" (H) x 3-3/8" (D)



EL-670 Musical Clock/Calculator
192-Note Programmable Musical/Time
 Item No. SHEL670
 Shpg Wt: 6 lbs
 Your Cost: **\$54.95**

8-digit musical clock/calculator with 2-1/2 octave piano-like keyboard
 Four mode settings permit this precision instrument to function as:
 • Programmable electronic piano (30 notes, including sharps and flats) with playback feature (up to 192 notes)
 • Basic 4-function calculator with easy-to-read 8-digit liquid crystal display
 • Accurate timepiece with readout of hour/minutes/seconds, AM and PM
 • Hourly chime and both built-in and customized (64 notes) melody alarms
Other Features: • Independently accessible 3-key memory
 • One-touch percent key for fast add-on/discount calculations
 Dimensions: 5-5/16" (W) x 5/16" (H) x 2-15/32" (D)



EL-1121
10 Digit Semi Desk-Top Display
 Item No. SHEL1121
 Your Cost: **\$39.95**

Trim, new size in a hand-held, desk-top model that can be carried anywhere
 • 10-digit calculator with easy-to-read large fluorescent display
 • Independently accessible 4-key memory
 • Fixed/floating decimal point mode of operation
 • Add mode (A) to facilitate entering of dollar-and-cents figures
 • One-touch sign change and square root keys
 • Percent key for fast add-on/discount calculations
 • Mark-up key to simplify computing of mark-up and mark-down on the sale of merchandise
 • Constant, power, reciprocal and chain calculations
 • Automatic round-off
 • Operates on 4 ordinary "AA" dry-cell batteries (supplied)
 • Optional AC adaptor
 Dimensions: 5-7/16" (W) x 1-25/32" (H) x 7-1/8" (D)



EL-1114 Semi-Desk-Top Display
 Item No. SHEL1114
 Shpg Wt: 6 lbs
 Your Cost: **\$39.95**

10-digit trim semi desk-top calculator with folding support for optional operating angle
 • Compact 10-digit calculator with large FEM-type liquid crystal display
 • Independently accessible 4-key memory
 • Percent key for fast add-on/discount calculations and display shift key for entry correction
Other Features: • Constant, power, chain and reciprocal calculations
 • Fixed/floating decimal point modes of operation
 • One-touch sign change, square root keys
 • Round-off/down selector
 • Add mode (A) to facilitate entering of dollar and cents figures
 • Automatic Power-Off™ for extended battery life
 • Operates on 2 ordinary "AA" batteries
 Dimensions: 5-1/32" (W) x 1-7/32" (H) x 2-7/32" (D)



ROYAL

ROYAL 244PD PRINT/DISPLAY Commercial-12 Digit-Full Memory

Your Cost
\$134.95

Retail: \$179.95
Item No. RY244PD

Business Functions:
Gross profit-margin key
Live percent key
Percent change key
K 1/o Constant mem. key
Date key
Invoice/print key
Auto. item count
Red credit balance

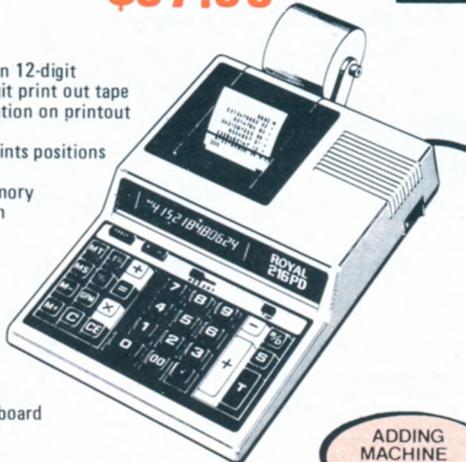
Other Functions:
Change sign key
Exchange key
Two independent registers
Buffered positive touch keyboard
Auto. 5/4 rounding
Prints 3.2 lines per second
Print-head commercial steel constr.
Plain-paper
12 1/2" x 9" x 3"

Shpg Wt: 14 lbs
12-digit Digitron display & 12-digit print-out tape
Extra large green display; Overflow & mem. ind. appear on both paper & display
Comma separation on printout & Digitron display
Fully addressable 4-key memory
Wide, low profile, full function commercial keyboard w/color coded lg mech. keys & lg. sloped plus (+) and bar.

ROYAL 216PD PRINT/DISPLAY 12 Digit-4 Key Memory

Your Cost
\$97.95

Extra large (8MM high) green 12-digit digitron display & 12-digit print out tape
Punctuation: Comma separation on printout tape & display
Decimal system: decimal points positions 0,2,4,6,F, and add mode
Fully addressable 4-key memory
Commercial keyboard design
Special features:
Gross profit margin key
Live percent key
Percent change key
Non-add and date key
Automatic item count
Change sign key
Non-print switch
Two independent registers
Buffered positive-touch keyboard
Automatic 5/4 rounding
Automatic constant (X, ÷)
Ink roll printer
Uses standard bond calculator paper, 2 1/4" wide



Retail: \$139.95
Shpg wt: 11 lbs

Item No. RY216PD

ROYAL

ROYAL 340 PD

Commercial-12 Digit-Full Memory
PRINT/DISPLAY
Item No. RY340PD

DURABLE METAL PRINTER
RED CREDIT BALANCE

ADDING MACHINE KEYBOARD

Your Cost
\$134.95

Retail: \$179.95

Business Functions:
Gross profit-margin key
Live percent key
Percent change key
K 1/o Constant mem. key
Date key
Invoice/print key
Auto. item count
Red credit balance



Shpg Wt: 14 lbs

Other Functions:
Change sign key
Exchange key
Two independent registers
Buffered positive touch keyboard
Auto. 5/4 rounding
Prints 3.2 lines per second
Print-head commercial steel constr.
Plain-paper
12 1/2" x 9" x 3"

12-digit Digitron display & 12-digit print-out tape
Extra large green display; Overflow & mem. ind. appear on both paper & display
Comma separation on printout & Digitron display
Fully addressable 4-key memory
Wide, low profile, full function commercial keyboard w/color coded lg mech. keys & lg. sloped plus (+) and bar.

ROYAL 114PD 10 Digit PRINT/DISPLAY Memory

Your Cost
\$77.95

Retail: \$99.95
Item No. RY114PD

Deluxe 10-digit Digitron display & 10-digit printout tape
Punctuation: Comma separation on display & paper tape
Decimal system: decimal points positions 0,2,3,F, and add mode
Functional color-coded keyboard includes extra-large plus and minus keys
Fully addressable 4-key memory
Two independent registers:
Adding machine register
Calculator register
Gross profit margin key
Live percent key
Non-add & date key
Automatic item count
Repeat calculations (auto entry)
Buffered positive touch keyboard
Automatic constant (X, ÷)
Ink roll printer
Uses standard bond calculator paper 2 1/4" wide



Shpg wt: 12 lbs

Model 116PD
Identical to 114PD,
except 12 digits

Your Cost
\$87.95
Retail: \$109.95

ROYAL
Item No. RY116PD
Shpg wt: 12 lbs

ROYAL D330 DESK DISPLAY for FAST operations! 10 digit Memory

Your Cost:
\$37.95

Item No. RYD330

Retail: \$49.95

10 digit digitron display only
Comma separation on display
Preselection switch for full floating or two decimal places
Memory: One independent addressable memory
- Plus & minus entries
- Memory recall w/o clearing
- Memory grand total
- Memory occupied indication
Constant switch for mult. & divn.
Features:
Percent function
Item count
Auto. add-on/discounts
Exchange key
AC/DC Adapter included
Dimensions: 6 1/2" x 5 3/4" x 2"



ROYAL D120 Portable DESK DISPLAY The Convertible!

10-digit desktop display calculator
AC or optional DC operation

Your Cost:
\$29.95

Shpg Wt: 8 lbs

Item No. RYD120

Features:
Full 4-key memory
Constant
Percent Key
Item Counter
Delta Percent
Gross Margin
Fixed/floating decimal selection
AC adapter extra



ROYAL 316PD PRINT/DISPLAY Memory

Your Cost:
\$89.95

FEATURING—
Easy-to-read 12-digit fluorescent display
Durable printer — uses plain paper
Independent Memory
Percent Key
Gross profit margin key
Non-add/date key
Automatic Constant
Item Counter
... and more!

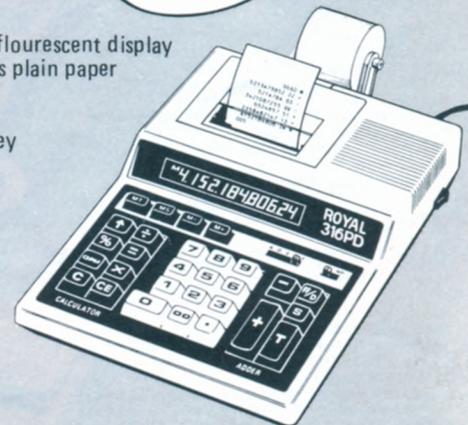
DURABLE PRINTER

12-DIGIT DISPLAY

Retail: \$119.95
Item No. RY316PD
Shpg wt: 12 lbs

Full-featured professional in a compact size!

Electronic printing/display calculator is simple to operate, featuring large color-coded function keys with basic adding machine design for ease of operation.



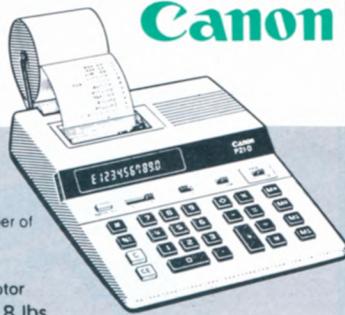
ROYAL

P21-D 10-Digit Mini-Desktop Print/Display with Memory

Your Cost: **\$68.95**

- 10-digit plus symbols are printed on standard tape
- 10-digit, fluorescent display, 4-key memory
- Automatic constant in multiplication and division
- **Decimal selection 0-1-2-3-F-add-mode**
- Optional round-off and down
- Item counter, printed on the left, indicates the number of addition and subtraction performed
- (% ±) key for percentage calculations
- Two-key rollover for speed in accurate indexing
- Power source: 4 dry batteries (size C) or AC adaptor

Item No. CNP21D Shpg Wt: 8 lbs



Canon

P5-D PalmPrinter 10-Digit Hand-Held Print/Display with Memory

\$53.95

- 10-digit plus symbols are printed on 1-1/2" plain roll paper
- 10-digit fluorescent display, 3-key memory
- Automatic constant in multiplication and division
- (% ±) key for percentage calculations
- Decimal selection: F (floating), + (add-mode)
- Power and reciprocal calculations
- It comes with a charger and 3 rolls of paper
- Power source: DC with built-in rechargeable NiCad batteries
- Size: 3-7/16" x 8-25/32" x 1-5/8"

Item No. CNP5D Shpg wt: 7 lbs



P34-D 12-Digit Mini-Desktop Print/Display with Memory

Your Cost: **\$79.95**

- 12-digit plus symbols printed on std 2-1/4" tape
- 12-digit fluorescent display, 4-key memory
- Automatic constant in multiplication and division
- **Decimal selection 0-1-2-3-F-add-mode**
- Item counter function
- (% ±) key for percentage calculations
- Convenient two-way power system
- Power source: 4 dry batteries (size C) or AC adaptor

Item No. CNP34D Shpg wt: 8 lbs



TP-10 PocketWriter Print/Display with Memory

Your Cost: **\$52.95**

- 10 digits and full live memory
- Handheld printing and display calculator with 1 1/2" wide thermal printing paper
- Alphanumeric printing capability allows use as a portable typewriter
- Three special memories store numbers and/or messages of up to 42 characters
- Bar-graph printout feature
- Power source: AC with Canon AC Adapter AD-4 DC with 4 AA batteries

Item No. CNTP10 Shpg Wt: 7 lbs



Canon

P26-D 10-Digit, Mini-Desktop Print/Display with Memory

\$79.95

- 10-digit plus symbols printed on standard 2-1/4" plain paper with punctuation space at every three digits
- 10-digit fluorescent display, 4-key memory
- Canon printing mechanism
- **Decimal selection: 0-1-2-3-F-add-mode**
- (MU) key for markup and markdown calculations
- (Δ%) key for percentage increase and decrease calculation
- Line of dashes after addition and subtraction result
- Power source: AC only
- Size: 7-3/32" x 9-27/32" x 2-17/32"

Item No. CNP26D Shpg Wt: 10 lbs



P6-D PalmPrinter 10-Digit Hand-Held Print/Display with Memory

\$59.95

- 10-digit plus symbols are printed on 1-1/2" plain roll paper
- 10-digit fluorescent display, 4-key memory
- **Decimal selection: 0-2-3-F-add-mode**
- Easy-to-operate algebraic calculation method
- Square root key
- (% ±) key for percentage calculations
- It comes with a charger and 3 rolls of paper
- Power source: DC with built-in rechargeable NiCad batteries
- Size: 2-29/32" x 6-3/8" x 1-1/4"

Item No. CNP6D Shpg Wt: 7 lbs



P36-D 12-Digit, Mini-Desktop Print/Display with Memory

Your Cost: **\$89.95**

- 12-digit plus symbols printed on standard 2-1/4" tape
- 12-digit fluorescent display, 4-key memory
- Canon printing mechanism
- **Decimal selection: 0-1-2-3-F-add-mode**
- (Δ%) key for percentage increase and decrease calculation
- (MU/MD) key for mark-up and mark down calculations
- Punctuation: Spacing after every three digits
- Power source: AC only
- Size: 7-3/32" x 9-27/32" x 2-17/32"

Item No. CNP36D



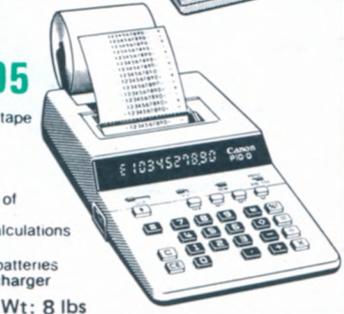
Shpg Wt: 10 lbs

P10-D 10-Digit Hand-Held Print/Display with Memory

Your Cost: **\$79.95**

- 10-digit plus symbols are printed on standard 2-1/4" tape
- **Decimal selection: 0-2-3-F-add-mode**
- 10-digit, fluorescent display, 4-key memory
- Automatic constant in multiplication & division
- Optional rounding-off & down
- Item count, printed on the left, indicates the number of addition & subtraction performed
- (% ±) key for add-on, discount & various percent calculations
- Two key rollover for speed in accurate indexing
- Power source: DC with built-in rechargeable NiCad batteries
- Size: 4-3/8" x 8-9/16" x 1-5/8" • It comes with a charger

Item No. CNP10D Shpg Wt: 8 lbs



P101 10-Digit Desktop Printer with Memory

\$99.95

- 10-digit with accumulation memory
- Canon printing mechanism
- Constant in multiplication & division
- **Decimal selection 0-1-2-3-add-mode**
- Automatic setting for dollars & cents
- Line of dashes after addition & subtraction result
- (⊞ ⊚) non-add/subtotal key, prints on the left
- (% ±) key for add-on, discount & various percent calculations
- Power source: AC only
- Size: 8-9/16" x 10-1/2" x 2-5/8"

Item No. CNP101 Shpg Wt: 10 lbs



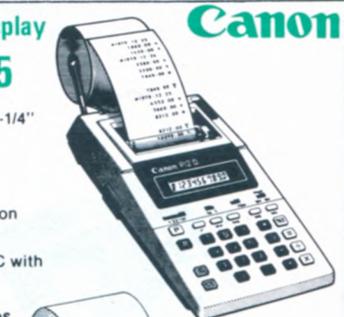
Canon

P12-D 12-Digit Hand-Held Print/Display with Memory

Your Cost: **\$83.95**

- 10-digit plus symbols are printed on standard 2-1/4" adding machine tape
- 10-digit liquid crystal display
- 4-key memory
- **Decimal selection: 0-1-2-3-F-add-mode**
- (% ±) key for percentage calculations
- Automatic constant in multiplication and division
- Convenient 2-way power sources
- It comes with an AC adaptor
- Power source: DC with 4AA size batteries or AC with AC adaptor
- Size: 4-1/2" x 8-3/16" x 1-25/32"

Item No. CNP12D Shpg Wt: 12 lbs



Canon

P101-D 10-Digit Desktop Print/Display with Memory

Your Cost **\$117.95**

- 10-digit with accumulation memory
- Easy-to-read fluorescent display with 3-digit punctuation
- Canon printing mechanism
- Constant in multiplication & division
- **Decimal selection 0-1-2-3-add-mode**
- Automatic setting for dollars & cents
- Line of dashes after addition & subtraction result
- (⊞ ⊚) non-add/subtotal key, prints on the left
- (% ±) key for add-on, discount & various percent calculations
- Power source: AC only
- Size: 8-9/16" x 10-1/2" x 2-5/8"

Item No. CNP101D Shpg Wt: 12 lbs



FP-10 10-Digit Hand-Held Print/Display with Memory & Scientific and Statistical Functions

\$96.95

Your Cost

- Scientific and statistical printing calculator
- 10-digit, one memory capacity
- 8-digit mantissa and 2-digit exponent in scientific notation
- Algebraic logic operation system
- Alpha-numeric print out
- Using standard 2-1/4" adding machine tape
- Versatile scientific functions and statistical functions
- It comes with a charger
- Power source: DC with built-in rechargeable Ni Cad batteries
- Size: 4" x 7-3/16" x 1-11/32"

Item No. CNFP10

Shpg Wt: 7 lbs



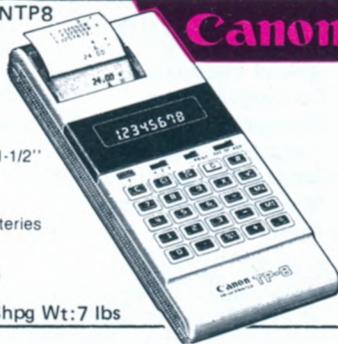
Canon

TP-8 PocketPrinter Item No. CNTP8
Print/Display with Memory

Your Cost **\$31.95**

- 8 digits and single live memory
- Handheld printing and display calculator with 1-1/2" wide thermal printing paper
- Percentage and square root functions
- Print ON-OFF switch
- It comes with 3 rolls of paper and 4 penlight batteries
- Power source:
 1. DC with 4 penlight batteries (size AA)
 2. AC with Canon AC Adapter AD-4 (optional)
- Size: 2-13/16"x6-7/8"x29/32"

Shpg Wt: 7 lbs

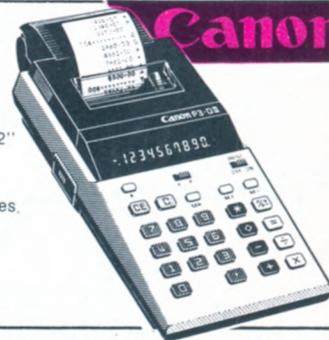


P3-DII Your Cost **\$42.95**
Print/Display with Memory

Item No. CNP3D2

- 10 digits, and single live memory
- Handheld printing and display calculator with 1-1/2" wide plain paper
- Percentage function and decimal selection switch (F, +)
- It comes with 3 rolls of paper and 4 penlight batteries.
- Print ON-OFF switch
- Power source:
 1. DC with 4 penlight batteries (size AA)
 2. AC with Canon AC Adapter AD-4 (optional)
- Size: 3-7/16"x8-9/16"x1-5/8"

Shpg Wt: 7 lbs



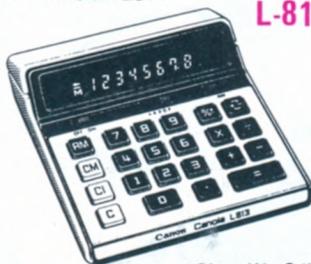
Item No. CNL813

L-813 Display Calculator

Your Cost **\$32.95**

- 8 digits with accumulative memory function
- Well-spaced keyboard and large, easy-to-read blue display
- Power source:
 1. 4 penlight batteries (size AA)
 2. AC with the Canon AC Adapter AD-1 (optional)
 3. Rechargeable NiCad Battery Pack-5 (optional)
- Size: 5-3/16"x6-1/8"x1-3/4"

Shpg Wt: 6 lbs



F-73P Hand-Held Scientific
65 Scientific & Statistical Functions
Your Cost **\$39.95**

Shpg Wt: 3 lbs

Item No. CNF73P

- 10 digits with 8 digit mantissa-2 digit exponent
- One live memory, six data storage memories
- 65 scientific and statistical functions
- 45 step programmability
- Seven levels of parenthesis
- Automatic power off feature
- Power source: 2 silver oxide batteries
- Size: 2-3/4" x 5-3/8" x 5/16"

Item No. CNFINANC

FINANCIAL Held-Held Calculator

Your Cost **\$29.95**

Shpg Wt: 3 lbs

- 10 digits and single live memory
- 4 financial functions: compound interest, loan, sinking fund, repayment calculation
- One or two variable-statistical calculation
- 3,000 hours of continuous use
- Power source: Two silver oxide batteries (G-13 or S-76)
- Size: 2-3/4"x5-13/32"x5/16"



F-72 Hand-Held Scientific
47 Scientific & Statistical Functions

Your Cost **\$54.95**

- 10 digits, and single live memory
- 47 scientific and statistical functions with three-level parentheses
- Algebraic operation system
- Easy-to-operate key layout
- 1,400 hours of continuous use
- Power source: Lithium battery LF1/2V (CR2032)
- Size: 4-1/2" x 2-3/4" x 1/2"

Shpg Wt: 3 lbs

Item No. CNF72



Canon Your Cost **\$29.95**

LC-8T 8-Digit Calculator with Alarm, Stopwatch & Memory

Item No. CNLC8T

- 8 digits and single live memory
- Time calculation.
- Timepiece and calendar display contains month, day, date, hour, minute, and second
- Alarm, stopwatch, laptime, and time signal functions
- Battery life approx. 1 year
- Power source: Lithium battery CR2025
- Size: 2-5/8" x 4-1/2" x 9/32"

Shpg Wt: 3 lbs

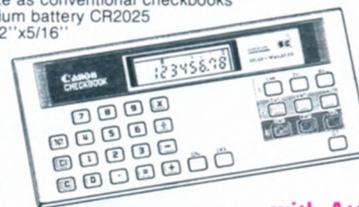


- 8 digits and single live memory
- Three non-volatile memory functions for storing bank account balances
- Automatic power-saving function
- About the same size as conventional checkbooks
- Power source: Lithium battery CR2025
- Size: 2-3/4" x 5-13/32" x 5/16"

Shpg Wt: 3 lbs

CHECKBOOK Calculator
Your Cost **\$24.95**

Item No. CNCHKBK



with Attractive Card Case

Shpg Wt: 3 lbs

Item No. CNLC61T

LC-61T Calculator with Quartz Clock Alarm, Stopwatch & Laptime

Your Cost **\$24.95**

- 8 digits and single live memory
- Accurate crystal quartz clock displays day, date, hour minute and flashing second all year around
- Alarm, stopwatch, laptime, and time signal functions
- Choice of finishes (black or silver)
- Battery life approx. 1 year
- Power source: Lithium battery LF1/2V (CR2032)
- Size: 2-3/16"x3-11/16"x1/8"



Canon Shpg Wt: 3 lbs

LS-4 Hand-Held SOLAR Calculator
Operates from any light source

Your Cost **\$18.95**

- 8 digits and single live memory
- Percentage and square root functions
- Operates on built-in amorphous silicon solar cells which use power from any light source
- Size: 2-5/8" x 4-1/2" x 1/4"

Item No. CNLS4SOL



Item No. CNLS6SOL

LS-6 Hand-Held Credit-Card Size SOLAR Calculator

Your Cost **\$19.95**

Shpg Wt: 3 lbs

Operates from any light source

- 8 digits and single live memory
- Slim, credit card size
- Percentage and square root functions
- Operates on built-in silicon solar cells which use power from any light source
- Size: 2-7/32"x3-29/32"x1/8"



Canon ACCESSORIES

AC Adaptor AD-1 115 Volt	\$5.00	Lithium Battery 1/2V (Set of 10)	30.00
AC Adaptor AD-1 220 Volt	6.00	Lithium Battery 3/4V (Set of 10)	30.00
AC Adaptor AD-4 115 Volt	6.00	Lithium Battery 1/3V (Set of 10)	30.00
Rechargeable NiCad Battery Pack-5	7.50	Carrying Case for PalmPrinter	5.00
Ink Roller CP-2 (Box of 5)	12.50	Roll Paper for P6-D/P5-D/P3-D II (5)	1.00
Ink Roller CP-7 (Box of 5)	15.00	Thermal Roll Paper TP38 (Set of 5)	2.50
Ink Roller CP-9 (Box of 5)	12.50		
Ink Roller CP-10 (Box of 5)	15.00		
Cassette Ink Ribbon for FP-10 (Box of 5)	17.50		
Charger-3 115 Volt	7.00		
Charger-3 220 Volt	8.00		
Lithium Battery 1/2V (Set of 10)	30.00		



VICTOR 860 12 DIGIT PRINT/DISPLAY with Memory

Special Features—
Cartridge ribbon
Large, clear print with full punctuation
and triplicate spacing
Large punctuated display
Standard width tape

\$199.95

Retail: \$289.00



ADDING MACHINE —
Twelve column entry
Ten key adding machine keyboard
Adding machine keys separated from the calculator
Independent calculate and add registers
Add mode
Automatic grand total
Item count key
Clear-all key
Full accumulating memory
Repeat entries
Two-color ribbon
Non add/date key

Item No. VI860
Shpg Wt: 14 lbs

CALCULATOR —
Multiplication and division
Automatic constant
Dual function M+, M-, =+ and -= keys
Percent key
Automatic percent of change
Automatic mark-up based on selling price

VICTOR 850 PRINT/DISPLAY

Special Features—
Cartridge ribbon
Large, clear print with full punctuation
and triplicate spacing
Large punctuated display
Standard width tape

Your Cost:
\$179.95

Retail: \$259.00

ADDING MACHINE —
Twelve column entry
Ten key adding machine keyboard
Adding machine keys separated from the calculator
Independent calculate and add registers
Add mode
Automatic grand total
Item count key
Clear-all key
Repeat entries
Two-color ribbon
Non-add/date key

12 DIGIT



CALCULATOR —
Multiplication and division
Automatic constant
Percent key
Automatic percent of change
Automatic mark-up based on selling price
=+key, =-key = +key, =-key

Item No. VI850
Shpg Wt: 14 lbs

VICTOR

VICTOR 840 ELECTRONIC PRINTING CALCULATOR 12 DIGIT

Special Features—
Cartridge ribbon
Large, clear print with full punctuation
and triplicate spacing
Standard width tape

\$139.95

Your Cost

Retail: \$199.00



ADDING MACHINE —
Twelve column entry
Ten key adding machine keyboard
Adding machine keys are separated from the calculator
Independent calculate and add registers
Add mode
Automatic grand total
Item count key
Clear-all key
Repeat entries
Two-color ribbon
Non-add/date key

Item No. VI840
Shpg Wt: 14 lbs

CALCULATOR —
Multiplication and division
Automatic constant
Percent key

VICTOR 120 PRINT/DISPLAY GRAND TOTAL

Special Features—
Cartridge ribbon
Large, clear print
Large, punctuated display
Uniform keyboard
Standard width tape

Your Cost:
\$124.95

Your Cost:

Retail: \$189.00

ADDING MACHINE —
Ten column entry
Ten key adding machine keyboard
Adding machine keys separated from the calculator
Independent calculate and add registers
Entry and sub-total display
Add mode
Automatic grand total
Repeat entries
Two-color ribbon
Non-add/date key

Item No. VI120
Shpg Wt: 12 lbs

CALCULATOR —
Multiplication and division
Automatic constant
Percent key

ESTABLISHED SINCE 1918

MADE IN U.S.A.

VICTOR

VICTOR

ESTABLISHED SINCE 1918

VICTOR 12PD PRINT/DISPLAY

Your Cost
\$89.95
Retail: \$149.95



Shpg Wt: 14 lbs

Item No. V112PD

FAST! 3 lines per second!

FAST! 3 Lines per Second!
Sub-total Sigma switch
Repeat entries Change sign
Uses plain paper (2 1/4" tape)
Over-sized control keys
4-key independent memory

Ink roller printing (black)
Print Select switch (Model 12 PD)
Punctuation
Triplicate spacing

Independent add/calculate registers
Item count
Automatic percent with add-on & discount
Automatic constant
Fully accessible memory and more...

Special Features:
Add mode directly enters dollars & cents
decimals for greater speed, efficiency & less
possibility of operator error.
Percent key automatically places decimal
in percent calculations.
Easy-to-read fluorescent display with 3-digit
automatic punctuation.

VICTOR 12P PRINT ONLY

Your Cost
\$79.95
Retail: \$139.95
Shpg Wt: 14 lbs



**THE GREAT
BUY OF
THE YEAR!**

Item No. V112P

ADDING MACHINE:

Ten column entry
Ten key adding machine keyboard
Adding machine keys separate from calc keys
Independent Calc & add registers
Add mode
Repeat entries
Two-color ribbon
Non add/date key

Your Cost
\$109.95

Made in U.S.A.

CALCULATOR:

Multiplication & division
Automatic constant
Percent key

SPECIAL FEATURES:

Optional cartridge ribbon
Large, clear print
Uniform keyboards
Standard width tape

SPECIFICATIONS:

Power consumption: 100 watts max.
Dimensions L=13.9" W=7.9" H=3.1"
Paper roll: 2 1/4" standard paper



Shpg Wt: 13 lbs

Retail: \$139.95
Item No. V1100

VICTOR 100 PRINTING CALCULATOR

VICTOR 204 DISPLAY CALCULATOR

Item No. V1204

Shpg Wt: 9 lbs

Your Cost
\$79.95

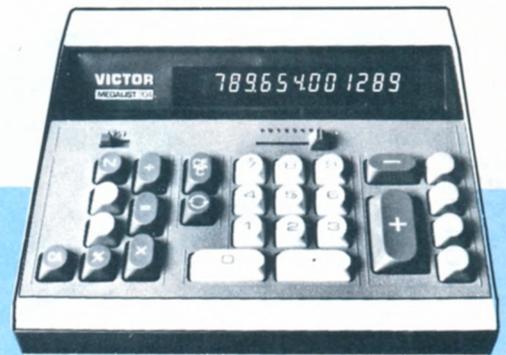
Retail: \$99.95

FEATURES:

Functions: Addition, subtraction, multiplication, division, percent, item count, exchange, one memory. Oversized keys, rollover buffer; Capacity: 12 digits plus sign and punctuation. Overflow, Six access keys.

Fluorescent display: blue on black.
Decimal System: features Floating Input, Floating Intermediate Results, Decimal Format Selector, Decimal Rounding Selector.
Memory System: features one memory, six access keys.
Constant System: features Repeat Addition/Subt., Constant Mult/Divn.
Clearing System: features Clear Entry/Clear & Clear All.

DIMENSIONS: 8 1/2" X 8 1/2" X 2 3/4"



VICTOR 511 ECR

Item No. V1511ECR



Retail: \$595.00

- FRONT AND REAR DISPLAY
- SELECTIVE ITEMIZATION
- LOCKED JOURNAL

Standard Cash Drawer

**ELECTRONIC
CASH REGISTER**

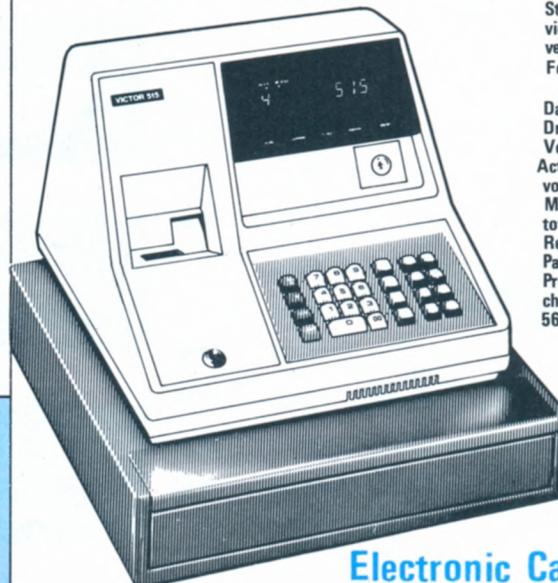
Shpg Wt: 40 lbs

Your Cost

\$429.00

VICTOR 515 ECR

Retail: \$695.00



Standard front & rear view window display—very visible.

Four department sales TOTALS
Daily sales totals
Drawer total
Void total
Activity count on dept. & void totals
Mult, a non-add, grand total, change computation.
Rec'd on account key
Paid out key
Programmable check or charge key
56 break point tax table
Digit limit entry key
Bottle refund
Many more features
Your Cost

\$499.00

Shpg Wt: 45 lbs
Item No. V1515

Electronic Cash Register

ACCESSORIES FOR VICTOR PRINTERS

Item No.	Description	Your Cost	Shpg Wt:
VIRIB	1 cartridge ribbon	4.95 each	1 lb
	6 cartridge ribbons	3.95 each	
	12 cartridge ribbons	3.25 each	
	144 cartridge ribbons	2.95 each	
VICASE	Carrying case for Victors	49.95 each	

UNITREX CLASSIC 50

**DeLuxe Printer/Display
with Memory
Uses Plain Paper**

Your Cost

\$119.95

Retail:\$189.95

Item No. UXC50

Results and entries can be calculated in print, on large green digitron or in both modes simultaneously by adjusting a 2 mode switch.
Digitron display keeps running sub-total and enables you to see visual entry prior to key depression.
Adds, subtracts, multiplies and divides.
Does chain and mixed calculations.
Selectable decimal point with 2, 4, and 6 setting as well as "add mode" and "full float" position.
Fully addressable memory selectively stores and accumulates in separate register.
Memory accumulation setting allows all calculated results to be automatically accumulated in the memory.
Automatic constants in all four functions.
Full 12 digit capacity, entries and answers up to 9,999,999,999.99.
Item count key indicates the total number of entries in addition and subtraction.
Two color ribbon for negative sub-totals and credit balances printed in red.
Automatic percentage key with add on and discount capability.

Mark up key automatically gives selling price calculated on desired mark up, and stated cost.
Exchange key used for reciprocal calculations.
Sign change key for changing the value of any given entry or result.
Backspace key allows clearing of the last digit of an entry for correction purposes, without clearing the entire entry.
Clear and clear entry key for easy correction.
Non add key for reference numbers.
5/4 switch allows either rounded-off or automatic truncated results.
High speed buffered keyboard for convenient touch operation.
Power on, memory in use, overflow, and error indicators.
Automatic paper advance and alignment with standard 2 1/4" tape.
Seiko impact printing head.
11 1/2" x 9 1/4" x 3 1/2".
U.L. approved AC operation.

Shpg wt: 14 lbs



UNITREX CLASSIC 360

**Printer/Display with Memory
Uses Plain Paper**

Your Cost

\$129.95

Retail:\$199.95

Add, subtracts,
multiplies & divides
Item counter
% key
Mark-up with Delta
Sigma switch
Fixed & floating decimal
4 key accumulative memory
Seiko print head
for fast operation
Uses standard 2 1/4" plain paper

Item No. UXC360

Shpg wt: 14 lbs



**HEAVY DUTY FOR HEAVY WORK!
FULL DESK-TOP MODEL**

UNITREX

UNITREX

**"PROFESSIONAL II"
10 Digit Printer/Display**

Your Cost

\$79.95

Retail:\$129.95

Item No. UXPROII

PROFESSIONAL II

Featuring 10 digit capacity,
Large, easy-to-read display with
punctuation
4-Key memory
Selectable, fixed and floating
decimal
Add mode
Automatic mark-up and
mark-down key
Item counter
Seiko impact head
Uses standard 2 1/4" paper

Shpg wt: 12 lbs



"PROFESSIONAL III" 12 Digit Printer/Display

Features all of the functions
and quality of the Professional
II with the added convenience
of 12 digit capacity.

Your Cost

\$89.95

Retail:\$149.95

Item No. UXPROIII

Shpg wt: 12 lbs

**Full Size Calculator
Uses Plain Paper**

UNITREX CLASSIC 12

**DeLuxe Desk-top
Digital Calculator**

Heavy Duty

\$79.95

Retail:\$119.95

Item No. UXC12

Adds, subtracts, multiplies & divides
Chain & mixed calc.
12-digitron display
Fully addressable memory
Memory accumulation switch
Selectable decimal point
Constant switch
Square root key
Exchange key
Backspace key
Item count key, auto. % key
Clear & clear entry key
Non-add key
Mark-up key
AC/DC operation w/rechargeable
battery
Internal timer auto. turns off display
after approx. one minute

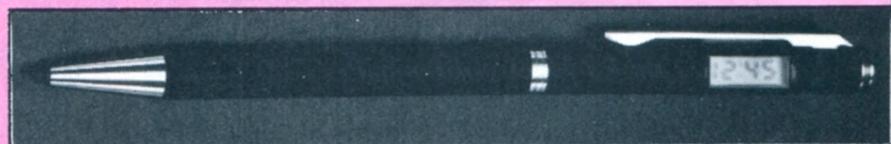
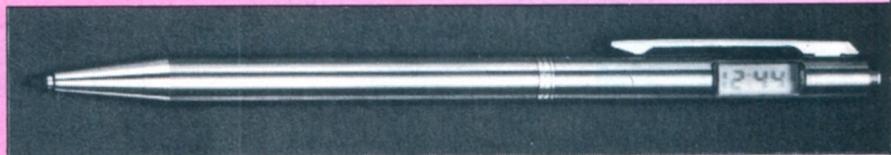
Shpg wt: 8 lbs



THESE ARE VERY HIGH QUALITY PEN WATCHES WITH MANY FEATURES

ALL ARE LCD DELUXE THINLINE

Item No.	Description	Retail	Your Cost
AI501G	Five function, silver tone, great seller, gold trim	29.95	6.95
PW401	Five function, silver tone, great seller	29.95	5.95
PW402	Five function, matte black with gold trim, beautiful	39.95	12.95
PW403	Five function, gold tone with diamond cut finish	44.95	14.95
PW404	Five function, silver tone with diamond cut finish	39.95	12.95
PW500	Five function, burgundy finish with gold trim	39.95	12.95
PW201	Five function, silver tone/gold trim with alarm	59.95	19.95
PW301	Five function, silver tone/gold trim with melody alarm	69.95	24.95
PWC100	Beautiful golf ball with LCD watch (Golf Ball Clock, not pen watch)	29.95	9.95

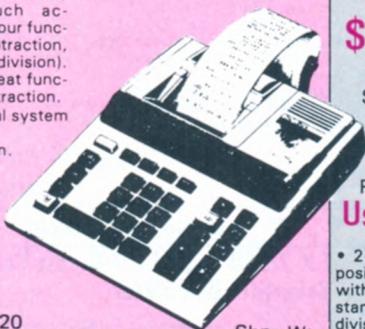


Shpg Wt:
1 lb each

ORDER SEVERAL & HAVE THEM ON HAND—THE PERFECT GIFT FOR ANY OCCASION!

- 12-digit printer with digitron display and 2-color print-out (black/red).
- Features a full range of percentage calculations: regular, percentages, add-ons, discounts, ratios, increase/decrease values.
- One-touch accumulated totals in four functions (addition, subtraction, multiplication and division).
- Item count.
- Repeat function for addition/subtraction.
- Full floating decimal system or round-off.
- Add mode function.

CASIO DL320 12-Digit



Retail:\$169.95
Your Cost

\$139.95

Item No. CSDL320

PRINT/DISPLAY/MEMORY

Shpg Wt:
13 lbs

CASIO DL310 10-Digit PRINT/DISPLAY MEMORY

Item No. CSDL310

\$124.95

Your Cost
Shpg Wt:
13 lbs

Retail:\$149.95

Uses plain paper

- 2-color printer (black for positives, red for negatives) with digitron display.
- Constants in multiplication and division, subtotal, total and grand total, item count, add-mode, repeat, memory and percentage calculations.
- 4-key memory.
- Full floating or fixed decimal with round-off or cut-off.
- One-touch accumulated totals in four functions



CASIO DL300 10-Digit PRINT/DISPLAY

Your Cost:
\$114.95
Retail:\$139.95
Shpg Wt: 13 lbs



- Item No. CSDL300
- 10-digit calculator with digitron display.
 - Subtotal, total and grand total accumulation.
 - Will calculate regular percentages, add-ons, discounts, ratios, and increase/decrease values.
 - Full floating or fixed decimal (0, 2, 3, 4 or 6) with round-off or cut-off.
 - Overflow check.
 - 2-color printout (black/red).
 - Uses standard 2 1/4" paper

CASIO

CASIO Electronic Cash Register 114ER

Handy & compact!

Item No. CS114ER

\$219.95

Retail:\$249.95

New MINI ECR!

Shpg Wt: 25 lbs

- Features key mode selector for receipt, journal, X and Z settings.
- 10-key entry.
- 7-digit green frontal display.
- Automatic daily auditing from 6 totals: cash sales, charge sales, reduction, tax, net sales, gross sales.
- 2 counters, repeat, multiplication features.
- 1 receipt or journal.
- Tax preset or manual.
- Printed reference number.
- Locking cash drawer with 4 coin and 4 currency compartments.
- Uses standard (SP3) 2 1/4" x 16 1/2" x 11 1/4" paper.



CASIO Electronic Cash Register 120ER

CASIO

Item No. CS120ER

Your Cost:
\$269.95
Retail:\$299.50

- 8 totals including 2 departments, cash sales, charge sales, reductions, sales tax, gross sales, and net sales.
- 8-digit digitron displays.
- 4 counters, automatic date change and time.
- Two department and reduction are keyboard programmable in 8 different combinations to establish tax status.
- Tax table programming.
- Telescopic rear display enables customer to view from left, right or rear side.
- Paper spacing for receipt or journal selection.
- Locking cash drawer with 4 coin and 4 currency compartments.
- 12 1/2" x 16 1/2" x 11 1/4" paper.



Shpg Wt:
25 lbs

CASIO Electronic Cash Register 2102B-ER

Item No. CS2102ER

Your Cost:
\$379.95
Retail:\$499.50

Includes large drawer

- 12 totals including 2 departments, cash sales, charge sales, reductions, voids, taxable amount, tax refunds, net sales, gross and non-resettable grand total.
- 2 counters, pre-settable date, time, tax rate.
- Built-in memory protection.
- One receipt and one journal.
- 8-digit digitron frontal/side-view displays.
- Time and date print on receipts/journals.
- Repeat and multiplication functions.
- Telescopic customer display.
- Locking cash drawer with 5 coin and 5 currency compartments.



Shpg Wt:
40 lbs

SANYO ECR150

Electronic Cash Register with Front Display

Retail:\$299.50

Your Cost:
\$249.95

Item No.
SAECR150

- Features single-department with standard functions.
- 11 totals, including: net sales, discount, tax, gross sales, cash sales, charge sales, received on account, paid-out, money in drawer, void and non-resettable total.
- 4-digit item counters for sales quantity, customer and reset counter.
- Discount and tax calculation by manual and automatic modes.
- Repeat registration with counter.
- Digit entry limitation.
- Automatic change calculation.
- Split tendering for cash and charge with the balance displayed.
- No-sale feature.
- Single department with standard functions
- 11 totals
- 4 bill/4 coin drawer



SANYO ECR150LMR

Electronic Cash Register with Front & Rear Display

Your Cost:
\$289.95
Retail:\$349.95

- 11 totals, inc: net sales, discount, tax, gross sales, cash sales, charge sales, received on account, paid-out, money in drawer, void and non-resettable total.
- 4-digit item counter for sales quantity, customer and reset counter.
- Discount and tax calculation by manual and automatic modes.
- Repeat registration with counter.
- Digit entry limitation.
- Automatic change calculation.
- Split tendering for cash and charge with the balance displayed.
- No-sale feature.
- Last and prior item voids.
- Single department with standard functions
- Full 5 bill/5 coin drawer with removable cash till



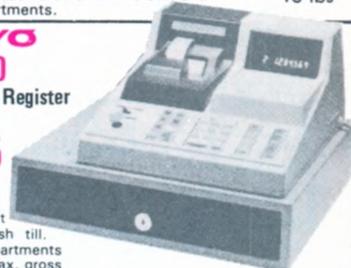
Shpg Wt: 30 lbs

SANYO ECR270

Electronic Cash Register

Your Cost:
\$369.95

- Full 5 bill/5 coin compartment with removable cash till.
- 12 totals, 4 departments include: net sales, tax, gross sales, cash sales, charge sales, received on account, refund and paid-out, money in drawer, void and non-resettable grand total.
- 2 levels of report daily and secondary.
- 4-digit item counters include 2 for sales quantity plus 1 each for customers, receipts and Z counter.
- Read and reset independent of each other.
- Time clock and automatic date.
- Tax shift key.
- Clerk 1 and 2 functions for printout indications.
- Repeat and multiplication registration functions.
- Digit entry limit can be programmed for each department.
- Rounding selector provided.
- Automatic change calculation.
- Split tendering for cash and charge with balance display.
- Fluorescent front and rear displays with 7 numerical digits.
- Memory protection system protects stored info for up to 1 year.
- 2 departments upgradeable to 4 with parts & instructions
- Item No. SAECR270
- Shpg Wt: 30 lbs



SANYO LX321

Electronic Cash Register with 2 Departments

\$429.95

- Features 8-digit print, 6-digit fluorescent display with 1-digit department or sign.
- 2 departments upgradeable to 4 with parts and instructions included with 14 totals.
- Auto tax computation with tax table, mixed tax-table, % tax, rounding selection and selection of percentage presetting.
- Manual tax override key and tax shift key.
- Other functions include repeat registration, multiple registration, charge and last-item/prior-item void.
- Split tendering for cash and charge with balance displayed.
- Automatic change computation.
- Automatic reading and resetting of total.
- Approximately 1000 hours of memory protection with built-in NiCad battery.
- 3-way locking system for mode, journal protection and drawer.

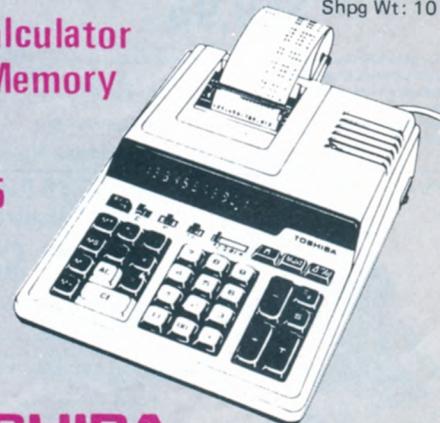


Item No. SALX321
• 14 totals
• 8-digit print, 6-digit display
• Auto tax computation
• 3-way locking system
Retail:\$549.00 Shpg Wt:
40 lbs

TOSHIBA BC1235PV 12-Digit Print/Display Calculator with Full Memory

Your Cost:
\$124.95

- 12-digit fluorescent display.
- 2-color ribbon prints negative entries in red.
- Fixed/floating decimal: 0, 2, 3, 4, F, add-mode.
- 4-key independent memory.
- Random item count and invoice/date keys.
- Mark-up/mark-down and delta percent keys.
- Performs percent, power, quotient sum/difference, product sum/difference calculations.
- AC operation.
- Uses standard 2 1/4" paper (1 roll included).
- 8.3" x 3.1" x 11.3".



TOSHIBA

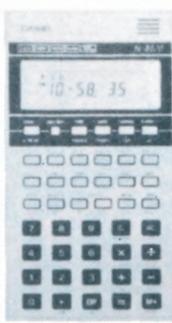
Item No. TOBC1235
Shpg Wt: 10 lbs

FX-8100 10-Digit LCD Scientific Wallet Clock/Calculator

Item No. CSFX8100

- Four basic calculations, percentage calculations.
- Rapid response to 46 scientific functions.
- True algebraic logic — the formula can be entered in the same sequence as written.
- Progressive standard deviations contribute to swift handling of statistics.
- Rectangular polar coordinates.
- Constant for 6 functions.
- Clock function — hour, minute, second, AM/PM, accurate to 3 seconds per day. Time tones every hour on the hour.
- Calendar function — year, month, date, day. Permanently programmed calendar (1976 to 1999).
- Alarm function — alarm signal at preset time.
- Countdown alarm — Timer 1 or timer 2 (repeat timer). Countdown alarm signal when zero is reached.
- Stopwatch function — normal, net & lap times

Your Cost: **\$39.95**



CASIO

Shpg Wt: 5 lbs

FX-3600P 10-Digit LCD Scientific Programmable Wallet Calculator

Your Cost: **\$39.95**

- Integral calculations (Simpson's rule).
- 61 Built-in functions: $\sin, \cos, \tan, \sin^{-1}, \cos^{-1}, \tan^{-1}, \sinh, \cosh, \tanh, \sinh^{-1}, \cosh^{-1}, \tanh^{-1}, \log, \ln, 10^x, e^x, x^y, x^2, 1/x, x^1/x^2$.
- $\%, ab/c, +/-, x^2, \sqrt{\quad}, \sqrt[n]{\quad}, \frac{1}{x}, \frac{1}{y}, \frac{1}{z}, \frac{1}{w}, \frac{1}{v}, \frac{1}{u}, \frac{1}{t}, \frac{1}{s}, \frac{1}{r}, \frac{1}{q}, \frac{1}{p}, \frac{1}{o}, \frac{1}{n}, \frac{1}{m}, \frac{1}{l}, \frac{1}{k}, \frac{1}{j}, \frac{1}{i}, \frac{1}{h}, \frac{1}{g}, \frac{1}{f}, \frac{1}{e}, \frac{1}{d}, \frac{1}{c}, \frac{1}{b}, \frac{1}{a}$.
- EXP, π , RAN#, RND, FIX, SCI, DEG, RAD, GRA, $\Sigma x, \Sigma x^2, \Sigma y, \Sigma y^2, \Sigma xy, \bar{x}, \bar{y}, x_{0n}, y_{0n}, x_{0n-1}, y_{0n-1}, A, B, r, \bar{x}, \bar{y}, DATA, xoyoy, DEL$.
- Convenient programming of constantly used data — up to 38 steps and 2 programs, all retained even when power is off.
- Advanced statistical calculations — can derive correlation coefficient and estimator of regression analysis from two sets of variable statistical data.
- 1 Independent memory and 6 constant memories. Contents protected when power is off. Four basic functions (+, -, x, ÷) may be made to contents of the constant registers.
- True algebraic logic; up to 18 pairs of parentheses in 6 levels.
- Automatic power cut-off saves battery waste.
- 10-Digit mantissa plus 2-digit exponent up to 10.
- "Strategies for Scientific Calculating" included.



Shpg Wt: 5 lbs
Item No. CSFX3600P

FX-900 8-Digit LCD Solar Scientific Calculator

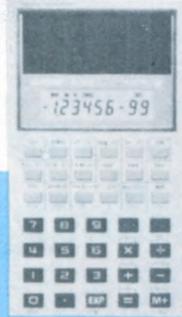
Item No. CSFX900

- Four basic calculations, percentage calculations.
- Rapid responses to 41 scientific functions: $\sin, \cos, \tan, \sin^{-1}, \cos^{-1}, \tan^{-1}, \log, \ln, 10^x, e^x, x^y, x^2, \sqrt{\quad}, \sqrt[n]{\quad}, P \rightarrow R, R \rightarrow P, x^2, 1/x, x^1/x^2, ab/c, \%, (\quad), R \rightarrow P, P \rightarrow R, \frac{1}{x}, \frac{1}{y}, \frac{1}{z}, \frac{1}{w}, \frac{1}{v}, \frac{1}{u}, \frac{1}{t}, \frac{1}{s}, \frac{1}{r}, \frac{1}{q}, \frac{1}{p}, \frac{1}{o}, \frac{1}{n}, \frac{1}{m}, \frac{1}{l}, \frac{1}{k}, \frac{1}{j}, \frac{1}{i}, \frac{1}{h}, \frac{1}{g}, \frac{1}{f}, \frac{1}{e}, \frac{1}{d}, \frac{1}{c}, \frac{1}{b}, \frac{1}{a}$.
- True algebraic logic — the formula can be entered in the same sequence as written.
- 15 Pairs of parenthesis up to 5 levels for reading & processing as in the math expression.
- Progressive standard deviations contribute to swift handling of statistics.
- Fluent conversion between polar \leftrightarrow rectangular coordinates.
- Powered by a silicone solar battery. Works perfectly in normal room-light, daylight, sunlight, lamplight.
- Never need to replace a battery again.
- Full floating decimal point with underflow.
- "Strategies for Scientific Calculating" included.

Your Cost: **\$29.95**

Shpg Wt: 5 lbs

SOLAR



FX-78 10-Digit LCD Credit Card Scientific Calculator

Your Cost: **\$29.95**

- Rapid responses to 41 scientific functions: $\sin, \cos, \tan, \sin^{-1}, \cos^{-1}, \tan^{-1}, \log, \ln, 10^x, e^x, x^y, x^{1/y}, \sqrt{\quad}, \sqrt[n]{\quad}, x^2, 1/x, x^1/x^2, (\quad), R \rightarrow P, P \rightarrow R, ENG, \frac{1}{x}, \frac{1}{y}, \frac{1}{z}, \frac{1}{w}, \frac{1}{v}, \frac{1}{u}, \frac{1}{t}, \frac{1}{s}, \frac{1}{r}, \frac{1}{q}, \frac{1}{p}, \frac{1}{o}, \frac{1}{n}, \frac{1}{m}, \frac{1}{l}, \frac{1}{k}, \frac{1}{j}, \frac{1}{i}, \frac{1}{h}, \frac{1}{g}, \frac{1}{f}, \frac{1}{e}, \frac{1}{d}, \frac{1}{c}, \frac{1}{b}, \frac{1}{a}$.
- DEL, x, FIX, SCI, RND, RAN#, DEG, RAD, GRA.
- Parenthesis calculations up to 6 levels.
- Independent memory and constants for $+/-/x/\div/x^2/x^{1/y}$.
- Automatic cut-off switch saves battery and preserves memory.
- Keyboard features RND (round), RAN# (random number), FIX and SCI keys.
- \square key for display of kilo (10^3), mega (10^6), micro (10^{-6}), etc.
- Fluent conversion between polar \leftrightarrow rectangular coordinates.
- Easy statistics through standard deviation function.
- Crisp, liquid crystal 10-digit display also capable of exponents up to 10^{299} through 8 + 2 digits.
- 3-Mode angular measurements (DEG, RAD, GRA).
- "Strategies for Scientific Calculating" included.



Shpg Wt: 5 lbs
Item No. CSFX78

S-2 12-Digit Digitron Display Desk Top Calculator

Your Cost: **\$39.95**

- Four basic calculations, automatic accumulation in four calculations, direct access to memory, percentage calculation, including add-on's/ discounts, mark-ups/mark-downs, square roots.
- Constant for X/±.
- Full floating decimal point, fixed (0-6) with cut-off, round-off or round-up, & ADD (2) mode.
- Large 10-digit digitron tube display.
- Power source — four "AA" batteries.
- AC adaptor (4145) optional.



Item No. CSS2
Shpg Wt: 6 lbs

HR-1 10-Digit LCD Hand-Held Plain Paper Print/Display Calculator

Your Cost: **\$39.95**

- Uses Standard 38 mm Plain Paper.
- Four basic calculations, percentage calculations, including add-on's/ discount and markups.
- Constants for $+/-/x/\div$.
- Automatic accumulation in four calculations.
- Simple algebraic logic operation.
- Independent memory, print key, $+/-$ key, and item counter.
- 3-Digit comma marker
- Full decimal system: floating, fixed (2) with round-off or cut-off.
- Auto power off function.



Shpg Wt: 7 lbs

Item No. CSHR1

CP-20 10-Digit LCD Shirt Pocket Print/Display Clock/Calculator with Alarm

Your Cost: **\$59.95**

- Four basic calculations, constants for $+/-/x/\div$, percentage calculations, including add-on's/discounts, mark-ups & date calculations.
- Clock function: Readout: 12 hour system - digital display of hour, minute, second, & AM/PM. Printout: hour, minute, second & PM.
- Calendar function: January 1, 1901 to December 31, 2099. Readout - year, month, date, & day of the week. Printout - year, month, date & day of the week. Automatic full month calendar printing.
- 10-Digit LCD display.
- Alarm function.
- Power source: Built-in Ni-Cad rechargeable battery pack. Charger (CHA-1) included.



Shpg Wt: 8 lbs
Item No. CSCP20

HR-12 10-Digit Digitron Hand-Held Print/Display Calculator

Shpg Wt: 7 lbs

- Four basic functions, percentage calculation.
- Four key independent memory available for complex totalling.
- Fast repetitive calculation for X/± with use of the constant function.
- Repeat function for additions/subtraction.
- Convenient answer-printing function — if the unit is being used in the display mode, any answer, can be printed at a touch of the \square key.
- Full decimal system — floating; fixed (0-4) with cutoff, round-off; ADD mode.
- Uses plain paper — 2/14" paper roll.
- 10-Digit digitron display.
- Dual power source — 4 "AA" batteries included. Optional Ni-CD power pack (NP-4M) or optional AC adaptor.



Item No. CSHR12

\$49.95

CASIO Desk-Top Calculator FR-100 10-Digit Digitron Print/Display

Shpg Wt: 8 lbs

Your Cost: **\$69.95**

- Four basic functions, constant, percent, independent memory, item count, sub-total, total, print-on/off switch.
- Floating or fixed decimal: 0-4 cut-off, round-off, round-up, ADD-mode.
- Uses plain paper — standard 2 1/4" paper roll.
- Dual power source: 4 "AA" batteries or AC adaptor (AD-4150) — both included.



Item No. CSFR100

JR-250 12-Digit Digitron Print/Display Desk-Top Calculator

Shpg Wt: 8 lbs

Your Cost: **\$74.95**

- Four basic functions, constants for x/\div , square & powers, reciprocals, sub-total & total, addition/subtraction with item counts, ADD-mode calculation, memory calculations, percentage calculations.
- If the unit is being used only in the display mode, a touch of the \square key will print out the displayed figures.
- Repeat function: repetitive accumulation of additions & subtractions.
- 3-Digit comma markers displayed for large figure read-out.
- Full decimal system: selectable - floating; fixed (0-4) with cut-off or round-off; ADD-mode.
- 12-Digit digitron display.
- Dating & coding: printed references can be added without affecting calculation.
- Dual power source: 4 "AA" batteries or AC adaptor (AD-4150).



Item No. CSJR250

JR-410 10-Digit Digitron Print/Display Clock/Calculator with Musical Alarm

Your Cost: **\$86.95**

- Clock with hourly time signal.
- Melody alarm.
- 10-Digit tape and display, constants for x/\div , independent memory, sub-total/total, $\%$, \square print key, \square key, item counter.
- Full decimal system: floating, fixed (0-4) with round-off or cut-off, ADD mode.
- Clock — 18 months on two penlight batteries (UM-3).
- Calculator: 2-way power source: AC (AD-4150 adaptor) or DC (four penlight batteries).



Item No. CSJR410

FR-1011 10-Digit Digitron Print/Display Desk-Top Calculator

Item No. CSFR1011

\$86.95

- Four basic functions, constant, percent, square root, sign change key, item count key, independent memory.
- Full decimal system: floating, fixed (0-6) with cut-off, round-up, ADD-mode.
- Print on/off switch, uses plain paper (2-1/4").
- Easy to replace ink-roll cartridge (IR-72B).
- Power source: AC only.



Shpg Wt: 8 lbs

CASIO® \$94.95

- Four basic functions, constant, percent, square root, sign change key, item count key, independent memory.
- Full decimal system: floating, fixed (0-6) with cut-off, round-off, ADD-mode.
- Print on/off switch, uses plain paper (2-1/4").
- Easy to replace ink-roll cartridge (IR-72B).
- Power source: AC only.



FR-1211
12-Digit Digitron Print/Display
Desk-Top Calculator

Shpg Wt: 14 lbs

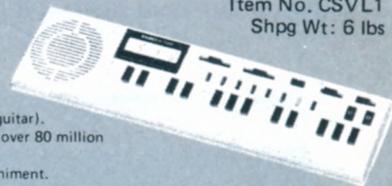
Item No. CSFR1211

VL-1 Hand-Held Musical Keyboard with Calculator

\$59.95

Item No. CSVL1
 Shpg Wt: 6 lbs

- One key play function.
- Auto play function.
- Manual play function.
- Auto-Rhythm (10 built-in rhythms).
- Program storage (100 step maximum).
- 5 Preset sounds (piano, fantasy, violin, flute, guitar).
- ADSR function (different sound variations in over 80 million combinations).
- Melody demonstration with rhythm accompaniment.
- Built-in speaker.
- Calculating function.
- 2-Way power source: AC (AD-4160 adaptor) or DC (four penlight batteries).



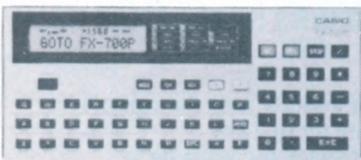
CASIO

FX-700P Hand-Held Personal Computer

Shpg Wt: 5 lbs
 Item No. CSFX700P

\$89.95

- 20 Digit dot matrix.
- Uses BASIC program language.
- 1568 Program steps maximum.
- 222 Memories maximum.
- Basic calculator functions.
- Scientific functions.
- True algebraic logic.



Hand-Held Computer

QUALITY · DEPENDABILITY · DURABILITY

CASIO

FX-702P Hand-Held Personal Computer

Shpg Wt: 7 lbs

- Uses BASIC program language.
- Ultra-high speed processing-10 times faster than any standard system.
- 1680 Program Steps Maximum.
- 226 Memories Maximum.
- Power Source - 2 lithium batteries.
- Auto Power off.
- Effective editing through three cursor shift keys.
- Easy to use 65-key keyboard with simple key command.
- Incorporates 55 different operational functions for every type of calculation.
- Single-touch display command lists program and variables list to insure easy checking of memory contents.
- Subroutine - 10 levels, FOR: NEXT loop - 8 levels, numerical value - 10 levels, calculation elements - 20 levels.
- 10-digit mantissa, 2-digit exponential LCD display, 20-digit dot matrix.



\$129.95

Item No. CSFX702P

FA-3 Cassette Interface for FX-700P Computer

A cassette tape recorder may be connected as an external memory device. The use of the optional FA-3 adaptor makes possible the recording of programs and data on tape. Since a remote control device is provided, a simple designation, "File Name" is enough to control the tape recorder. As it is possible to call the program automatically during programming, a program may be run which is not accommodated by the FX-700P memory.

- Uses standard Mini-Phone Plugs.

FA-2 Cassette Interface for FX-702P Computer

A cassette tape recorder may be connected as an external memory device. The use of the optional FA-2 adaptor makes possible the recording of programs and data on tape. Since a remote control device is provided, a simple designation, "File Name" is enough to control the tape recorder. As it is possible to call the program automatically during programming, a program may be run which is not accommodated by the FX-702P memory.

- Uses standard Mini-Phone Plugs.

Item No. CSAF2

CASIO



Shpg Wt: 3 lbs

Either IFC, only

\$49.95

FP-10 Mini-Printer for Hand-Held Computer

- Printing method: discharge printing method (non-impact type).
- Number of print positions: 20
- Printing speed: 2 lines per second.
- Roll paper: paper width 35mm, roll diameter 26.5mm or less, metalized recording paper (type: CMP-36).
- Power supply: DC-4AA batteries, AC-with AC adaptor (AD-4150), rechargeable pack (NP-4M).
- FP-10 Capabilities with FX-702P
- Manual printing.
- Printing of memory list.
- Printing of memory list & single program list.
- Simultaneous printing of all programs and memories.
- Printing of operation results using a program.



\$79.95

Item No. CSFP10 Shpg Wt: 9 lbs

CASIO

Item CASIO CALCULATOR ACCESSORIES

Item	Model	Your Cost:
AC-Adaptor: 2-3550(C), AD-4145(A), CHA-IU	CSAC1	\$ 6.00
AC-Adaptor: AD-4150(J), AD-4160	CSAC2	\$ 7.00
AC-Adaptor: AD-4170(K)	CSAC3	\$10.00
AC-Adaptor: AD-1	CSAC4	\$12.00
NI-CAD KIT (2 Bat.) NP-2M	CSNP2M	\$ 6.00
NI-CAD KIT (4 Bat.) NP-4M	CSNP4M	\$17.95
INK-Roll (IR-72, IR-2)	CSINK1	\$ 3.25/Pc
INK-Roll (IR-80)	CSINK2	\$ 2.95/Pc
Paper (HR-20, HR-5, CP-10) TRP-16X5	CSTRP165	\$ 2.25/Bx
Paper (HR-10, FP-10) CMP-36X5	CSCMP365	\$ 6.00/Bx
Paper (HR-20, HR-5) TRP-26X5	CSTRP265	\$ 3.50/Bx

PROGRAMS for the Casio Hand-Held Computer

\$19.95

Whether you're looking for mathematics and science programs, or simply want to use your handheld computer to balance your checkbook, *Programs for the Casio Handheld Computer* has something for you. This useful book is divided into 14 sections, covering such diverse topics as Analytic Geometry, Astronomy and Time, Electronics, Financial Applications, and Games.

Programs for the Casio Handheld Computer begins with an introductory section, which explains how to use the book. Each program is documented clearly with a concise description of what the program does and how to use it. Simplified examples show you each step of what appears on the display and what you must enter. And the entire program listing, ready to type in and use, appears at the end of every chapter, as well as a list of variables.

Item No. CSPROGMS Shpg Wt: 3 lbs

VICTOR²¹⁰

Item No. VI210

Shpg Wt: 6 lbs

DISPLAY 14 Digit Two Memories

Retail: \$159.95

Features: Snap Touch, Oversized keys, Rollover buffer, Fluorescent display, Underflow, Overflow.

Decimal System: Features Floating input, floating intermediate results, decimal format selector, decimal rounding selector.

Memory System: Features Two memories, Seven access keys, Special Function Selector.

Constant System: Features Repeat Addition/Subtraction Constant Mult/divn.

Clearing System: Features Clear Entry/Clear, Clear All. Capacity: 14 digit entry.

\$117.95

DIMENSIONS:
 8 1/2" X 8 1/2" X 2 1/4"

FUNCTIONS: Addition, subtraction, mult., division, square root, percent, item count, change sign, exchange, two memories.



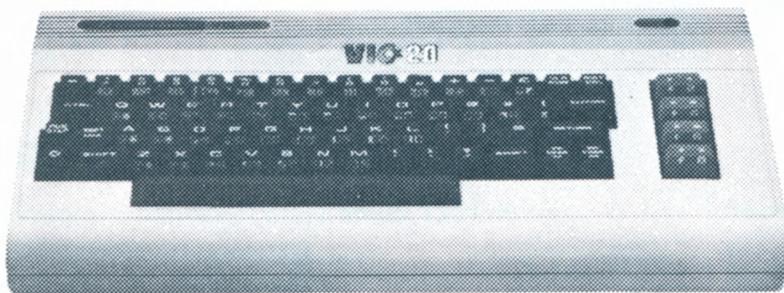
Apple Computer

Your

Model	Description	Retail	Cost
AE2S1048	48K Bytes Plus	1530.00	1089.00
AE2P2048	Family System	2495.00	1795.00
AE2P0005	Apple II System Package	1995.00	1649.00
Apple II Peripherals for Apple II			
AE2M0044	Disk Drive with Controller	645.00	519.95
AE2M0003	Disk Drive Two (Drive only)	525.00	429.95
AE2M0036	Silentyper printer for Apple II	395.00	329.95
AE2M0029	Graphics Tablet with interface	795.00	649.95
AE3M0039	Monitor, 12" green for Apple III	249.00	219.95
AE3M0006	Monitor, 12" black & white for Apple III	249.95	219.95

Call for shipping weights.

commodore



The VIC-20 (Video Interface Computer) features 5K Random Access Memory (RAM) expandable to 32K and 16K Read Only Memory (ROM) capacity.

It is designed so that a first time user can begin using it immediately with plug-in cartridges.

UNIQUE BUILT-IN FEATURES:

- Full-size 64-character typewriter keyboard with upper & lower case letters & 65 graphic characters
- Built-in BASIC language
- 4 programmable function keys
- 8 border colors, 16 screen colors
- 4 sound amplifiers for music or sound effects
- Offers RS232 interface capability

Screen display shows 22 characters wide by 23 lines deep
Keyboard special functions include:
Automatic repeat on space bar
Insert, delete & cursor control keys

HARDWARE		Shpg Wt:	
CMC2N	Datasette Cassette Recorder	5 lbs	59.95
CM1541	Single Disk Drive	15 lbs	339.95
CM1525E	Printer	15 lbs	339.95
CMVC1600	VICMODEM (Telephone Interface)	2 lbs	99.95
CMVC1311	Single Joystick	1 lb	10.95
CMVC1312	Two Player Game Paddles	1 lb	19.95
CMVC1210	VIC 3K Memory Expander Cartridge	1 lb	42.95
CMVC1110	VIC 8K Memory Expander Cartridge	1 lb	62.95
CMVC1111	VIC 16K Memory Expander Cartridge	1 lb	109.95
CMVC1011	RS232C Terminal Interface	1 lb	48.95
CMVC1112	VIC IEEE-488 Interface Cartridge	1 lb	89.95
CMVC1010	Expansion Module: 6 slot expansion unit	2 lbs	134.95

APPLICATIONS SOFTWARE ON CARTRIDGE		Shpg Wt: 1 lb each	
CMVC1211	VIC 20 Super Expander: 3K RAM expansion, hi res graphics, color, paint & sound commands		62.95
CMVC1212	Programmers Aid Cartridge Adds 20 new commands to BASIC; proga programmable function keys.		48.95
CMVC1213	VICMON Machine Language Monitor Write fast, efficient 6502 assembly language programs. Includes one line assembler/disassembler.		48.95

TEACH YOURSELF PROGRAMMING SERIES

5-part series of tapes & manuals provides a self-teaching course in computer programming, from introductory BASIC to 6502 Machine Language Programming.

		Shpg Wt:	
CMVL101	Introduction to Computing For the non-computerist. Stresses "computing", not "programming."	5 lbs	22.95
CMVL102	Introduction to BASIC Programming Excellent first book for any new computerist. Tutorial tapes included.	5 lbs	22.95

VIC 20 BOOKS & MANUALS

		Shpg Wt:	
CMVM100	Personal Computing on the VIC 20	1 lb	7.95
CMVM110	VIC 20 Programmers Reference Guide Includes info. on VIC BASIC, 6502 Machine Code Programming, Input/Output ports, VIC microprocessing chips & tips for all levels of programmers. Indispensable.	2 lbs	19.95

VIC-20

The friendly computer
FREE LCD PEN WATCH
with Purchase of VIC-20!

\$197⁹⁵

Shpg Wt: 20 lbs
Item No. CMVC20

INCLUDES RF MODULATOR, SWITCHBOX, CABLES & SELF-TEACHING INSTRUCTION BOOK.
16" L x 3"H 16"L x 3"H x 8"D.

Program cartridges plug directly into the console and each program can be up to 27K.

Memory expansion cartridges are available in 3K, 8K and 16K increments.

Easily connects to any color or black & white TV set or monitor (optional).

Available ports include an expansion port, game port, serial port, tape cassette port, user port (RS232) and video port.

Software for the VIC20 can be controlled from the keyboard and is available on tape cartridge and disk for entertainment, education and home utilities.

COMPUTER PROGRAMS ON TAPE

		Shpg Wt: 1 lb each	
CMVT106A	Recreation Program Pack A <i>Car Chase, VIC 21, Blue Meanies From Outer Space, Biorhythm/Compatibility, Spacemath, Slither/Super slither</i>		48.95
CMVT107A	Home Calculation Program Pack A <i>Personal Finance I & II, VIC Typewriter: word processor for home use, Expense Calendar, Loan & Mortgage Calculations, Home Inventory.</i>		48.95
CMVT108A	Math Improvement Sixpack <i>Six educational tapes which contain math games with learning essentials to provide hours of constructive entertainment. Grades 1-6. Use with Datasette recorder.</i>	Shpg Wt: 2 lbs	58.95
CMVT164	Programmable Character Set/ Gamegraphics Editor		14.95
CMVT232	VICTerm I VIC terminal program on tape converts any VIC to a terminal for use with modem.		9.95

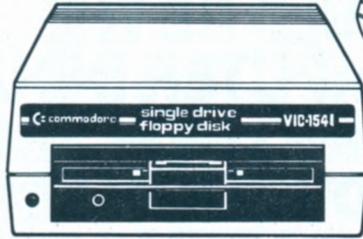
RECREATIONAL GAMES ON CARTRIDGE

		Shpg Wt: 1 lb each	
CMVC1901	VIC Avenger		27.95
CMVC1904	Superslot		27.95
CMVC1906	VIC Super Alien		27.95
CMVC1907	Jupiter Lander		27.95
CMVC1908	Draw Poker		27.95
CMVC1909	Midnight Drive/Road Race		27.95
CMVC1910	Radar Rat Race		27.95
CMVC1911	The Sky is Falling		27.95
CMVC1912	Mole Attack		27.95
CMVC1913	Fort Knox		27.95
CMVC1914	Adventure Land Adventure		34.95
CMVC1915	Pirate Cove Adventure		34.95
CMVC1916	Mission Impossible Adventure		34.95
CMVC1917	The Count Adventure		34.95
CMVC1918	Voodoo Castle Adventure		34.95
CMVC1919	Sargon II Chess		34.95
CMVC1923	Gorf (5 games in one).		34.95
CMVC1924	Omega Race		34.95

Model 1541

Item No. CM1541
Shpg Wt: 15 lbs

- Single Disk Drive allows fast, high-capacity storage and retrieval.
- The disk drive (which is attached to the VIC20 via a single cable to the serial connector) uses 5 1/4" floppy diskettes.
- With read/write compatibility with Commodore PET/CBM computer systems, the single disk drive can store up to 170K on each diskette.



SINGLE 5 1/4" DISK DRIVE

\$339.95

\$59.95 DATASETTE RECORDER

Item No. CMC2N
Shpg Wt: 5 lbs



- Write and store programs of several thousand characters on a standard audio cassette tape.
- Enables the use of any of Commodore's prerecorded tapes.
- Connects directly into the cassette interface slot on the back of the VIC, and requires no special interface, batteries or power connection.
- Built-in tape counter.
- 250 baud read/write speed, and 100% redundancy on program files.

- Allows communicating by telephone, access telecomputing and timesharing services.
- VIC modem cartridge plugs into the VIC20 user's port and connects to any modular-jack phone handset.
- Includes VICTERM 1 terminal program on tape.

Item No. CMVC1600

VICModem Model 1600



Shpg Wt: 3 lbs

\$99.95

commodore
COMPUTER

SOFTWARE

Shpg Wt: 2 lbs each

Additional Software for VIC 20 and Commodore 64

ATARI Loader 79.95

Load the VIC with this program first, then load Atari programs directly into the computer. Makes all Atari programs run on the VIC. Specify CMCW100T for tape, CMCW100D for disk.

APPLE Loader 79.95

Enables the VIC 64 to run all the Apple programs. Emulates the Apple II+ and increases the availability of software for Commodore Computers. Specify CMCW101T for tape, CMCW101D for disk.

TRS-80® (registered Trademark of the Tandy Corp.) 79.95

Emulator for TRS-80® Computers. Permits Radio Shack programs to run on the VIC. Specify CMCW102T for tape, CMCW102D for disk.

New Character Generator 24.95

This program shows how to generate new characters for the VIC by turning off and on each pixel. Make as many as eight new characters for each existing character without losing the characters in ROM. Combine characters into colorful displays or make smaller characters for storing and later use. Includes a demonstration of character animation & action. CMCW103S.

HARDWARE

Additional Hardware for VIC 20 and Commodore 64

CMCW001H Basic MIC (Multiple Interface Connector) 1 lb 249.95

A very powerful addition to the VIC 20. Features include: 8K RAM, a machine language monitor, an editing utility aid that gives programmers 26 new commands, a reset button that resets the VIC instantly without switching off the computer, an IEEE peripheral slot for any IEEE device or any VIC cartridges, and a memory/peripheral switch. Permits the machine language monitor and the editing utility to be used TOGETHER WITHOUT UNPLUGGING ANYTHING--great programming flexibility. Can be expanded to a total of 32K RAM in the MIC.

CMCW010H IEEE Interface 1 lb 99.95

Permits usage of any IEEE device or any cartridges to be used with VIC 20 or Commodore 64. Also includes reset button.

Adapter will be needed for the Commodore 64.

CMCW011H 64 IEEE Adapter (see CMCW010H) 1 lb 39.95

CMCW012H VIC Cable 5 lbs 24.95

Ten feet long, enables connection of 2 VICs, a VIC & Commodore 64 or VIC with any other Commodore Computer.

Especially useful in multiple systems, such as classrooms, etc.

CMCW013H Stringy Floppy 5 lbs 195.00

High speed continuous tape data device which plugs directly into the VIC or Commodore 64. Compatible in capacity and speed to single disk (1540/41)--an economical alternative to the disk drive.

CMCW014H IEEE Cable 5 lbs 59.95

Connects the MIC or IEEE Interface with any IEEE device.

CMCW015H Atari Cartridge Adapter (Call for best price & availability)

Enables all Atari cartridge games and programs to be run on the VIC or Commodore 64 computers. 64 IEEE adapter required for Com. 64.

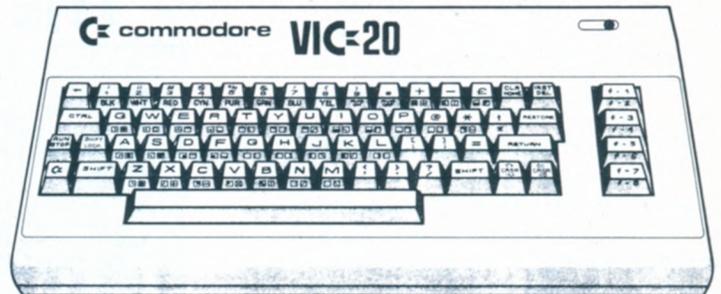
CMCW016H Light Pen 1 lb 79.95

CMCW017H Reset Button 1 lb 14.95

CMCW018H 40 Column/8K Board 1 lb 129.95

Plugs directly into the VIC giving it the necessary additional memory and a 40 column screen. Useful for word processing and many other applications. Assists in making some PET programs run on the VIC.

A REAL COMPUTER FOR THE PRICE OF A TOY.



But, unlike those other video game machines, the Commodore VIC 20 isn't a toy. It's a real computer, with an expandable memory, a full typewriter-style keyboard and a complete line of peripheral equipment to enlarge its capabilities.

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