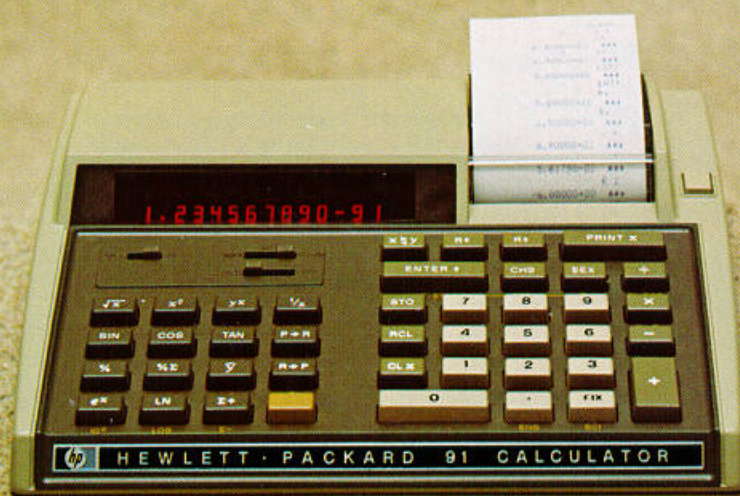


The new HP-91 Scientific Printing Calculator from Hewlett-Packard.



The first battery-operated
scientific calculator that delivers a
printed record of all your calculations
—wherever you go.

The HP-91:

A totally new dimension in
scientific printing calculators—
for only \$500.*



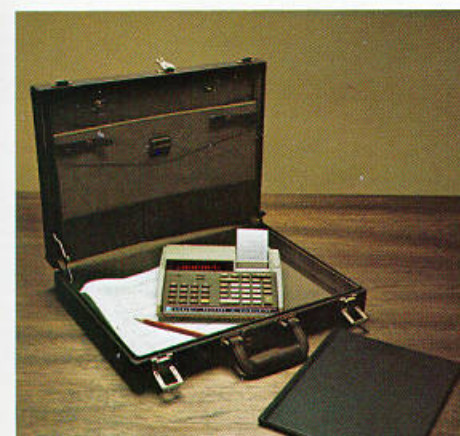
*Complete with manual, battery pack, AC power cord, carrying case and two rolls of thermal paper.

*Suggested retail price, continental U.S.A., Alaska and Hawaii.

The new HP-91 Scientific Printing Calculator provides you with a full range of scientific and arithmetic functions—complete with a printed record—all in one compact calculator. And because the HP-91 prints and operates on AC or its own built-in batteries, you can use it anywhere—in the office or in the remotest field locations.

Quiet thermal printer provides a complete record of your calculations.

The sophisticated new thermal printing system of the HP-91 employs a moving thin-film head to record and label your calculations on heat sensitive paper. Because the HP-91 can print all your calculations, you can print—with labels—statistical summations, contents of the operational stack, or the contents of all sixteen addressable memories. Your routine repetitive calculations can be performed by non-specialists and later checked for accuracy. Tape is available in 80-ft. rolls that accommodate 5,760 lines of printed data.



You select from three printing modes.

With switch set to ALL, the printer will show all entered data, functions, intermediate and final answers. With the switch set to NORMAL, the printer will record entered data and functions only. In this mode, intermediate and final answers may be printed by pressing the Print X key. With switch set to MANUAL, the printer will operate only when you press the Print X key or a list function. This mode is useful in conserving battery power or when the full printing capability of the HP-91 is not required.

You may operate on battery or AC.

The power requirement of the HP-91 thermal printing system is so low that it may be operated on batteries alone for between 3 and 7 hours, depending on

extent of printer use. The AC adapter/recharger permits you to operate from electrical outlets while batteries are being recharged.



Extra large display is easy to read in office or field.

The brilliant lighted display of the HP-91 shows up to ten significant digits, plus two digits exponent and appropriate signs. And the display is at a 45° angle that makes it easily read while seated at your desk or standing at your workbench or drafting board.

You can display and print in decimal, scientific or engineering notation.

The HP-91 will print and display in fixed decimal and scientific notation, common in many scientific calculators. It will also print and display in engineering notation, an exclusive HP feature that displays values with exponents that are multiples of 3. This is useful in working with many units of measure, such as kilo (10^3), nano (10^{-9}), etc.

Compact design and light weight for easy portability.

Total weight of the HP-91 without AC adapter/recharger is only 2½ pounds. It will fit into a standard briefcase so you can take it with you, and operate it while you travel in airplanes, taxis, anywhere. For security, it will easily fit into lockable desk drawers or the glove compartment of your car. A built-in metal tab lets you secure it to your desk easily with a cable or bolt. (A special cable and lock is available as an optional accessory.)

Easy for anyone to use as a fine desk-top office calculator.

Anyone now operating an office calculator can perform arithmetic on the HP-91 efficiently without special training. Large, conventionally-spaced keys are buffered, so data may be keyed in at high speed.

All the most-needed scientific functions—preprogrammed for speed and accuracy.

The HP-91 provides about the same pre-programmed functions found on the widely-used HP-45 pocket calculator—with the added advantage, of course, of a printed record of all your calculations. Its math capabilities include log and trig functions (the latter in degrees, radians or grads), rectangular/polar conversions and three separate percentage functions. Its statistical capabilities include summations, mean and standard deviation, linear regression, linear estimates (all for two variables) and factorial. All this, plus sixteen addressable registers, an automatic four-register stack, a Last-x register for easy error recovery and four clearing options. For a complete list of HP-91 capabilities, see back page.



RPN—the professional logic system—gives added flexibility, speed and confidence.

Compared to algebraic logic, the RPN logic system is faster, more efficient and more versatile in solving the complex problems faced by today's professionals in science and finance. For most calculations, it requires far fewer keystrokes. You don't need parenthesis keys and you don't need to keep track of complicated hierarchies. Intermediate answers are displayed and stored automatically in an operational stack of four memories—so you never need to write them down and risk errors. The size and complexity of problems that can be handled with RPN logic are virtually unlimited.

220-page Owner's Handbook includes detailed applications.

The Owner's Handbook for the new HP-91 Scientific Printing Calculator is extensive and detailed. It covers all functions and operations—including a clear description of RPN. More than half the book is devoted to practical applications of the HP-91 in mathematics, statistics, finance, navigation, and surveying. Formulas for each of the preprogrammed functions in the HP-91 are provided for easy reference. ■



The HP-91 Scientific Printing Calculator comes complete with:

- Battery pack that under normal use provides 3 to 7 hours of continuous operation and fully charges in under 6 hours.
- Recharger/AC adapter that lets you operate the calculator on AC while the battery pack is recharging.
- Soft carrying case with handle.

- Illustrated Owner's Handbook with instructions and applications section.
- Thermal paper (2 rolls).

Optional Accessories (*Details sent with HP-91*)

- Security cable and lock lets you secure your HP-91 to your work area.
- Reserve Power Pack provides a spare battery pack and keeps it fully charged.
- Thermal paper (box of 6 rolls).

Full One Year Warranty.

The HP-91 is warranted against defects in materials and workmanship for one year from the date of delivery. During the warranty period, Hewlett-Packard will repair, or at its option, replace at no charge, components which prove to be defective, provided the calculator is returned shipping prepaid, to Hewlett-Packard's Customer Service facility.

This warranty does not apply if the calculator has been damaged by accident or misuse, or as a result of service or modification by other than an authorized Hewlett-Packard Customer Service facility. No other express warranty is given by Hewlett-Packard. **HEWLETT-PACKARD SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES.**

Hewlett-Packard Quality.

HP calculators are designed and built for you—the professional person who needs a calculator rugged enough for day-in, day-out use and as up-to-date as tomorrow.

Every key is double injection molded. The symbol on the face of the key goes through the entire key, so it won't wear off—no matter how often the key is pressed.

The fully floating plastic platen is molded from a specially formulated, high temperature, ceramic-like material in a precision mold to assure a flat printing surface for high quality printing.

Display windows are color-matched to the LED's to assure that the LED light is transmitted and ambient light is rejected.

For greater reliability the printing mechanism has been designed with only 25 parts—far less than a conventional impact printer.

Key stems are X-shaped for better guiding qualities and lubricant-impregnated to prevent sticking.

Uncompromising quality, innovative design, high quality components and precision assembly combine to produce calculators that are second to none.

Hewlett-Packard reserves the right to make changes in materials, specifications or accessories without notice.

The HP-91 Scientific Printing Calculator Features and Specifications:

Printer Features:

- Print** —Selects printing modes.
- Mode Switch** You can print nothing, digit entries and functions, or digit entries, functions and results.
- Print X** —Prints the displayed number.
- List STACK** —Prints and labels the contents of the stack registers.
- List Σ** —Prints and labels the contents of the summation registers.
- List REG** —Prints and labels the contents of the addressable registers.
- Paper Advance** —Advances the paper. At the same time clears errors and halts list operations.

Mathematical Functions:


- Angular Mode Switch** —Selects degrees, radians or grads mode
- sin, cos, tan** —Trigonometric functions
- sin⁻¹, cos⁻¹, tan⁻¹** —and their inverses.
- ln, e^x** —Natural log and antilog
- log, 10^x** —Common log and antilog
- y^x** —Exponential function
- R, →P** —Rectangular/polar coordinate conversion
- H.MS+, H.MS-** —Time (angle) addition and subtraction in hours, minutes and seconds.
- H.MS, H.MS→** —Time (angle) conversion between hours, minutes and seconds and hours.
- 1/x, √x, π, x²** —Convenient math functions
- +, -, ×, ÷** —Arithmetic functions
- %** —Percent
- △%** —Percent difference
- %Σ** —Percent of total

Statistical Functions:

- Σ+** —Accumulates x, y, x², y², xy, n
- Σ-** —Deletes unwanted data
- \bar{x}** —Mean—two variables

- s** —Standard deviation—two variables
- L.R.** —Linear regression coefficients
- \hat{y}** —Linear estimate
- n!** —Factorial

Data Manipulation, Operations and Storage Functions for 16 registers:

- ENTER ↑** —Separates numerical entries
- x↔y** —Exchanges contents of x and y stack registers
- R↓** —Rolls down contents of stack registers
- R↑** —Rolls up contents of stack registers
- CHS** —Changes the sign of a number
- EEX** —Enters exponent for numbers entered in scientific notation.
- LAST x** —Recalls last entry after an operation
-  —Gold shift key; selects functions printed in gold on keyboard
- STO** —Stores displayed value into addressable register. Also used with arithmetic functions in storage register arithmetic.
- RCL** —Recalls a number to the display from an addressable register

Display Control and Clearing Options:

- FIX** —Sets fixed decimal notation display
- SCI** —Sets scientific notation display
- ENG** —Sets engineering notation display
- CLx** —Clears display
- CLEAR** —Clears stack, addressable registers, and Last x register

- CL REG** —Clears addressable registers R₀-R₉
- CL Σ** —Clears summation registers R₀-R₅

Physical Specifications:

- Calculator width: 228.6 mm (9")
- Calculator depth: 203.2 mm (8")
- Calculator height: 63.5 mm (2.5")
- Calculator weight: 1.13 kg (2.5 lb)
- Recharger weight: 268 g (9.5 oz)
- Shipping weight: 3.16 kg (7 lb)
- Operating temperature range: 0°C to 50°C (32°F to 122°F)
- Charging temperature range: 10°C to 40°C (50°F to 104°F)
- Storage temperature range: -40°C to 55°C (-40°F to 131°F)
- Paper temperature range (operating & storage): 10°C to 45°C (50°F to 113°F)

Power Requirements

AC: 115 or 230V, ± 10%, 50 to 60 Hz
 Battery: 5.0 Vdc nickel cadmium rechargeable battery pack

HEWLETT  PACKARD

Sales and service from 172 offices in 65 countries.
 19310 Pruneridge Avenue, Cupertino, Calif. 95014.

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