

THE NEW HP-21

SCIENTIFIC POCKET
CALCULATOR



Now... Hewlett-Packard combines smaller size with added functions.

The smallest Scientific Pocket Calculator in the World Extraordinary Problem Solving Power in the Smallest Package

THE HP-21 SCIENTIFIC POCKET CALCULATOR HAS ALL THE FEATURES AND FUNCTIONS YOU'D EXPECT IN A FULL SCIENTIFIC CALCULATOR PLUS A FEW SURPRISES . . .

HEWLETT-PACKARD'S B

PERFORMS RECTANGULAR/POLAR CONVERSIONS AUTOMATICALLY

The HP-21 converts rectangular coordinates to polar coordinates (and vice versa) easily, thus simplifying vector addition and subtraction.

DISPLAY FORMAT SELECTIVITY

Choose between scientific notation and fixed decimal point display format. With the fixed decimal format, you select how many digits you wish to see displayed (up to 10). In scientific notation you can select up to 8 digits. Although the HP-21 provides you with automatic roundoff to the selected digit, a full ten digits are retained internally for accuracy of computation. The calculator incorporates an automatic overflow and underflow feature that will "temporarily" switch into full scientific mode to accommodate numbers too large (or too small) to be displayed in any particular fixed decimal mode.

FULL REGISTER ARITHMETIC FOR SPEED AND ACCURACY

In addition to the four-register Operational Stack that is characteristic of all Hewlett-Packard Scientific Pocket Calculators, the HP-21 contains an addressable memory for storing data . . . and, you can perform all four arithmetic operations directly upon this stored data, pushbutton-fast with M+, M-, M×, M÷ keys. And, of course, not having to recall and store data to perform an operation, makes your calculation just that much simpler.

DEGREE/RADIAN MODE SELECTION AND CONVERSION CAPABILITY

The HP-21 lets you express angles in either degrees or radians and perform trig operations in either angular mode. It also simplifies conversion from one mode to the other.

THE FULL RANGE OF SCIENTIFIC FUNCTIONS

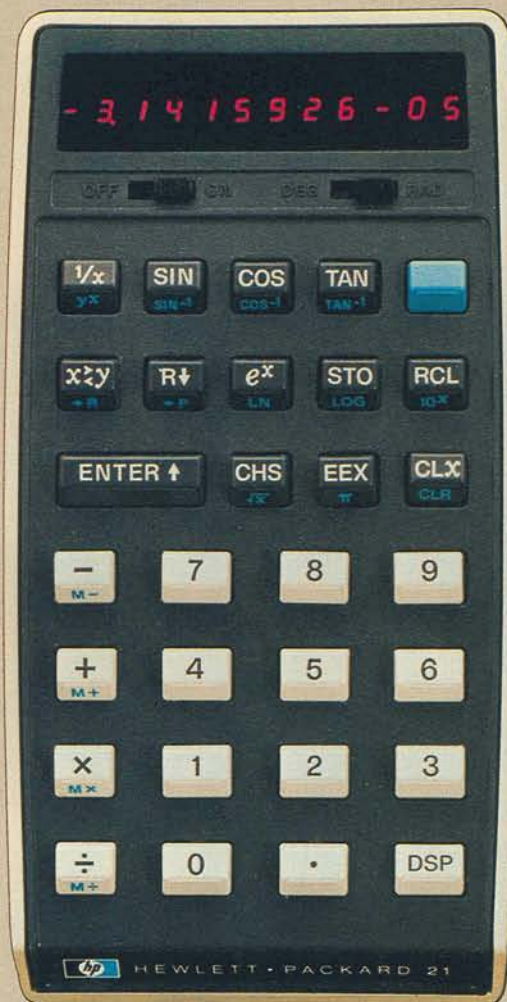
And, of course, the HP-21 gives you the standard scientific functions: Sin x, arc sin x, cos x, arc cos x, tan x, arc tan x, e^x, Ln x, log x, 10^x, Y^x, √x, 1/x, π.

BUILT-IN QUALITY MAKES OWNING A HEWLETT-PACKARD CALCULATOR AN EXPERIENCE OF A LIFETIME.



The HP-21, with its solid design and construction, continues the respected Hewlett-Packard tradition of quality. The most frequent comment encountered from owners of Hewlett-Packard pocket calculators is the "feel" of the instrument. The positive action of the keys is the direct result of Hewlett-Packard's uncompromising commitment to the design and manufacture of only high quality electronic instruments. And where some might consider such "extras" as double

injection-molded keys and a moisture barrier to be extravagant, they are indicative of the "permanence" that is built into every Hewlett-Packard instrument. It is attention to details like this that prevents symbols from wearing off the keys and protects against spilled liquids. Even a quick glance at the full specifications of the HP-21 (see back page) reveals that the HP-21's precision capability combined with high quality construction make the HP-21 exceptionally durable.



ACTUAL SIZE

\$125

complete with manual, battery pack, recharging unit and carrying case.

our line...The HP-21 Delivers the Hewlett-Packard Tradition.

**BUILT-IN PROBLEM SOLVING POWER
AND EASE OF OPERATION GIVE
YOU ACCURATE ANSWERS . . . FAST.**

With Hewlett-Packard's famous RPN logic and four-register stack system, this one key . . . **ENTER ↑** makes all these keys unnecessary!



This ingenious system gives you the problem solving power of an equals key and at least three levels of parentheses, yet is distinguished by its similarity to your natural way of solving mathematical problems. It allows you to approach the solution of every problem in the same natural manner as you would by hand . . . through the process of equation simplification. Since there is no need to re-format equations, operation is easy. And, it's made even easier by the fact that you only work with one or two numbers at any one time. When you press any function key, it executes

the function immediately and you see every intermediate answer. This allows you to check your progress every step of the way through even the most complex equations. The operational stack actually handles the detail work for you automatically (saving up to four intermediate solutions for future operations) to free your mind for the conceptual challenges. But, seeing is believing and once you actually work with this system you will see why it has set the pace with discerning scientists and engineers the world over.

PROVE TO YOURSELF HOW THE HP-21 WILL HELP YOU SOLVE YOUR ACTUAL DAY-TO-DAY PROBLEMS MORE QUICKLY, ACCURATELY AND EASILY.

WHEN SOLVING
PROBLEMS IS YOUR
JOB, YOU'LL FIND THE
HP-21 A VALUABLE
COMPANION . . .



IN THE FIELD . . .



IN THE LABORATORY . . .



IN THE CLASSROOM .

For further information about the HP-21 Scientific Pocket Calculator, contact your nearest Hewlett-Packard sales representative. For the one nearest you, call Customer Service on our toll-free number 800 + 538-7922 (in California, call 800 + 662-9862).

HEWLETT  PACKARD

Cupertino, CA 95014

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**IT TAKES A COMPANY LIKE
HEWLETT-PACKARD TO BRING YOU
THE REMARKABLE NEW HP-21.**

36 YEARS OF EXPERIENCE — Ever since 1939, Hewlett-Packard has been a leading designer and manufacturer of special-purpose electronic equipment for measurement and computation. Today, there are more than 3,000 different HP products, ranging in size from microscopic components to complete computer systems.

HP pocket calculators have become the standard of excellence in the industry, and more than 500,000 are in daily use throughout the world.

ADVANCED TECHNOLOGY — Hewlett-Packard has always been an innovator, with a policy of introducing products with unique features and benefits. To make this advanced technology possible, HP maintains an unusually high dedication to research and development. In 1974, \$85,000,000 was spent on R & D. The HP-21 is one result of this expenditure.

THOROUGH TESTING — The HP-21 is manufactured to exceedingly close tolerances entirely in the United States, with final assembly and testing in Hewlett-Packard's own facilities. Every single HP-21 is thoroughly tested not only for mechanical operation but for accuracy in computation.

SERVICE — Prompt service is available from Hewlett-Packard in the United States and in other countries around the world.

WARRANTY — The HP-21 is warranted against defects in materials and workmanship for one (1) year from date of delivery. During the warranty period, Hewlett-Packard will repair or, at its option, replace components that prove to be defective when the calculator is returned, shipped prepaid, to a Hewlett-Packard Customer Service Facility.

This warranty does not apply if the HP-21 has been damaged by accident or as a result of service or modification by any person other than at an authorized Hewlett-Packard Customer Service Facility.

No other warranty is expressed or implied. Hewlett-Packard is not liable for consequential damage.

Hewlett-Packard reserves the right to make changes in materials and specifications without notice.



The HP-21 Scientific Pocket Calculator comes complete with:

- Battery pack that under normal use provides 3 to 5 hours of operation and fully charges in under 6 hours
- 115/230 V AC adapter/recharger that lets you operate the calculator on AC while the pack is recharging
- Soft carrying case with belt loop
- Illustrated Owner's Handbook with instructions and sample problems
- Light-emitting diode (LED) display recessed for better contrast in harsh lighting

MEMORY

- Four-register Operational Stack (automatic memory)
- Stack Roll Down
- x, y Register Interchange
- Separate Addressable Memory with full Register Arithmetic

DESIGN SPECIFICATIONS

- Operates 3 to 5 hours on rechargeable batteries (under 6 hours to recharge) or AC
- Specially designed recessed plug to prevent erroneous insertion of improper unit
- Solid state electronics with all critical connections gold-plated
- Tactile feedback keyboard. Positive contact action assures accurate entry of data
- Heavy gauge compact case contoured to fit the hand
- Ultrasonically welded impact resistant case prevents entry of dust and moisture
- Vinyl liquid-barrier shield under keyboard sealed to prevent entry of moisture
- Keys are double injection molded to prevent wear

PHYSICAL SPECIFICATIONS

- Calculator Length: 5-1/8" (13.02 cm)
- Calculator Width: 2-11/16" (6.83 cm)
- Calculator Height: 1-3/16" (3.02 cm)
- Calculator Weight: 6 oz. (170.1 g)
- Recharger Weight: 5 oz. (141.8 g)
- Shipping Weight: approx: 1 1/2 lbs. (680 g)
- Operating Temperature Range: 32° F to 113° F (0° C to 45° C)
- Charging Temperature Range: 59° F to 104° F (15° C to 40° C)

POWER REQUIREMENTS:

- AC: 100-127 v/200-254 v, ± 10%, 50 to 60 Hz, 5 watts
- Battery: 350 mw derived from nickel-cadmium rechargeable battery pack

OPTIONAL ACCESSORIES

(Details sent with HP-21)

- Security Cradle (Lets you secure your HP-21 to your work area.)
- Reserve Power Pack (Provides a spare battery pack and keeps it fully charged.)

THE HP-21

Scientific Pocket Calculator Features and Specifications

TRIGONOMETRIC FUNCTIONS:

Sin × . Arc sin ×
Cos × . Arc cos × . Tan ×
Arc tan × . Use in either Degrees or Radians Mode . Rectangular ↔ Polar Coordinate Conversion

LOGARITHMIC FUNCTIONS:

Log × . 10^x . Ln × . e^x

OTHER FUNCTIONS:

Addition, Subtraction, Multiplication or Division in Serial, Mixed Serial, Chain or Mixed Chain Calculations. Full Four Function Register Arithmetic.

Y^x . 1/x . √x . π

DISPLAY:

- 10 Significant Digits (8 + 2 digit exponent displayed in Scientific Notation) with trailing zeros suppressed
- Fixed Decimal Notation with Automatic Overflow and Underflow into Scientific Notation
- Scientific Notation with Dynamic Range of 10⁹⁹ to 10⁻⁹⁹
- Automatic Decimal Point Positioning and Selective Round-off
- Indicators for improper operations (ERROR in display) and low battery condition (lighted decimal points)



Donald G. McGee

Sales and service from 172 offices in 65 countries
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Hewlett-Packard makes the most advanced pocket-sized calculators in the world!