

# HP-67 COMPREHENSIVE HP-97 SOFTWARE SUPPORT



## HP Application Pacs let you save significant time in solving a wide range of problems.

With HP Application Pacs, the solutions you require may already exist. They let you put the full power of the HP-67 and HP-97 to work instantly.

You save valuable time because no researching, programming, debugging or documenting is needed.

A wide variety of programs – in science, engineering and business – is available on prerecorded magnetic cards

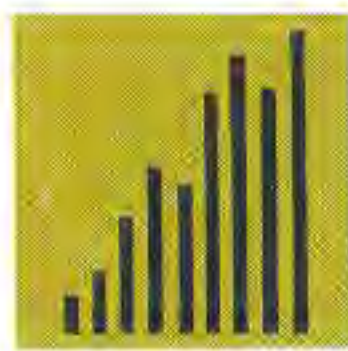
that program the calculator for you in less than 2 seconds.

Each program in an HP Applications Pac is fully documented with helpful comments on each program listing. Using these valuable programming hints, you can adapt programming techniques you find useful in each application area.

Application Pacs contain 19 to 26 preprinted, prerecorded program cards, a program card holder and a manual of complete documentation.

The manual also provides operating instructions, equations, limits and warnings, and sample problems with solutions for each program in the Pac.

**See over page for list of all HP Application Pacs currently available for the HP-67 and HP-97:**



**STAT PAC I**  
No. 00097-13111

French version No. 00097-13112  
German version No. 00097-13113  
Italian version No. 00097-13114

21 programs on 24 magnetic cards

**General Statistics**

- **Basic Statistics for Two Variables.**  
Basic statistics for two variables, grouped or ungrouped.
- **Factorial, Permutation and Combination.**  
Calculate factorial (extended range), permutation, and combination.
- **Moments, Skewness and Kurtosis for Grouped or Ungrouped Data.**  
Moments, Skewness, and Kurtosis are calculated for general (geometrical) description of a distribution; symmetry, relative peakness or flatness, etc.
- **Random Number Generator.**  
Generate up to 500000 different numbers.
- **Histogram.**  
A histogram program for 24 intervals of equal width between specified upper and lower limits.

**Analysis of Variance**

- **Analysis of Variance (One Way).**  
This program is used to test the observed differences among sample means.
- **Two Way Analysis of Variance.**  
The row effects and the column effects are tested independently in the analysis of the total variability of a set of data.
- **Analysis of Covariance (One Way).**  
This program tests the effect of one variable separately from the effect of the second variable.

**Distribution Functions**

- **Normal and Inverse Normal Distribution.**  
Polynomial approximation is used to calculate normal and inverse normal distribution.
- **Chi-Square Distribution.**  
This program evaluates the chi-square density. A series approximation is used to evaluate the cumulative distribution.
- **t Distribution.**  
This program evaluates the t density function and the cumulative distribution for a given x and degrees of freedom v.
- **F Distribution.**  
This program evaluates the integral of the F distribution for given values of x (> 0), degrees of freedom v<sub>1</sub>, v<sub>2</sub>, provided either v<sub>1</sub> or v<sub>2</sub> is even.

**Curve Fitting**

- **Multiple Linear Regression.**  
Linear regression for two independent variables, using least squares method.
- **Polynomial Approximation.**  
This program approximates in the least square sense the function f(x) by a polynomial of

degree m, where 2 ≤ m ≤ 4. Data from equally spaced points are required.

**Test Statistics**

- **t Statistics.**  
Paired t statistic tests the null hypothesis Ho: μ<sub>1</sub> = μ<sub>2</sub> for two observations. t statistic for two means tests the null hypothesis Ho: μ<sub>1</sub> - μ<sub>2</sub> = d for two independent random samples.
- **Chi-Square Evaluation.**  
This program calculates the value of χ<sup>2</sup> statistics for the goodness of fit test.
- **Contingency Table.**  
2 × k and 3 × k contingency tables test the null hypothesis that two variables are independent.
- **Spearman's Rank Correlation Coefficient.**  
This program tests whether 2 rankings are substantially in agreement with one another.

**Quality Control**

- **$\bar{x}$  and R Control Chart.**  
 $\bar{x}$  (mean) and R (range) are used to decide periodically whether a process is in statistical control.
- **Operating Characteristic Curves.**  
This program evaluates the probability P<sub>a</sub> of acceptance for a single sampling plan with finite or infinite lot size.

**Queueing Theory**

- **Single- and Multi-Server Queues.**  
Queueing theory for infinite customers and finite customers.



**MATH PAC I**  
No. 00097-13121

French version No. 00097-13122  
German version No. 00097-13123  
Italian version No. 00097-13124

19 programs on 20 magnetic cards

- **Factors and Primes.**  
Finds prime factors of an integer; finds all primes between two numbers.
- **GCD, LCM, Decimal to Fraction.**  
Finds greatest common divisor and least common multiple of two integers; finds nearest fractional approximation for a decimal number.
- **Base Conversions.**  
Converts a number in base b to its equivalent in base B (b, B < 100).
- **Optimal Scale for a Graph; Plotting.**  
Finds a "nice" scale for graphing a function; generates ordered pairs for a graph.
- **Complex Operations.**  
Arithmetic and several functions for complex numbers.

- **Polynomial Solutions.**  
Solves polynomial equations up to 5<sup>th</sup> degree.
- **4 × 4 Matrix Operations (2 Cards).**  
Computes determinant and inverse of 4 × 4 matrix, solves 4 simultaneous equations in 4 unknowns, by Gaussian elimination.
- **Solution to f(x) = 0 on an Interval.**  
Uses combination of bisection and secant method to guarantee rapid convergence to a root.
- **Numerical Integration.**  
Trapezoidal rule and Simpson's rule for discrete case; Simpson's rule for functions known explicitly.
- **Gaussian Quadrature.**  
Uses the six-point Gauss-Legendre quadrature method to find integrals over finite or infinite intervals.
- **Differential Equations.**  
Solves first- and second-order differential equations by the fourth-order Runge-Kutta method.
- **Interpolations.**  
Linear, Lagrangian, and finite difference.
- **Coordinate Transformations.**  
Two- and three-dimensional translation and rotation of axes.
- **Intersections.**  
Line-line, line-circle, circle-circle.
- **Circles.**  
Circle determined by three points; equally spaced points on a circle.
- **Spherical Triangles.**  
Solutions to six cases of spherical triangles.
- **Gamma Function.**  
Computes Γ(x) for 1 ≤ x ≤ 70.
- **Bessel Functions, Error Function.**  
Computes the value of the Bessel functions J<sub>n</sub>(x) and I<sub>n</sub>(x); computes error function and complementary error function.
- **Hyperbolics.**  
Finds hyperbolic functions and their inverses.



**EE PAC I**  
No. 00097-13131

French version No. 00097-13132  
German version No. 00097-13133

18 programs on 20 magnetic cards

- **Network Transfer Functions.**  
This program computes various transfer functions of a ladder network composed of any number of standard elements.
- **Reactive L-Network Impedance Matching.**  
This program computes networks which will match any two complex impedances.
- **Class A Transistor Amplifier Bias Optimization.**  
This program simplifies the design of a class A transistor amplifier.
- **Transistor Amplifier Performance.**  
This program computes the

- small-signal properties of a transistor amplifier given the h-parameter matrix and the source and load impedances.
- **Transistor Configuration Conversion.**  
This program permits conversion among h-parameter matrices for CB, CE, or CC transistor configurations.
- **Parameter Conversions: S ↔ Y, Z, G, H.**  
This program allows conversion among various commonly used parameter sets.
- **Fourier Series.**  
This program computes Fourier coefficients from samples of a periodic function.
- **Active Filter Design.**  
This program computes element values for a standard filter circuit.
- **Butterworth or Chebyshev Filter Design.**  
This program computes component values for Butterworth or Chebyshev filters between equal terminations. The user may select various filter characteristics.
- **Bode Plot of Butterworth and Chebyshev Filters.**  
This program provides gain, phase, and group delay information for Bode plots of n-pole Butterworth or Chebyshev filters.
- **Resistive Attenuator Design.**  
This program computes values for the resistors which yield an attenuator having any desired loss.
- **Smith Chart Conversions.**  
This program converts among various radially scaled parameters (σ, ρ, SWR, R.L.) and also interconverts impedance and reflection coefficient.
- **Transmission Line Impedance.**  
This program computes high frequency characteristic impedance for five types of transmission lines.
- **Microstrip Transmission Line Calculations.**  
This program computes relative phase velocity and characteristic impedance for lossless microstrip. It also computes copper loss and resistance per unit length.
- **Transmission Line Calculations.**  
This program computes the input impedance of lossy transmission line terminated in Z<sub>L</sub>.
- **Unilateral Design: Figure of Merit, Maximum Unilateral Gain, Gain Circles.**  
This program computes u, G<sub>U</sub>, G<sub>min</sub>, G<sub>max</sub>, G<sub>0</sub>, G<sub>1max</sub>, and G<sub>2max</sub> from a transistor's s-parameters. It also computes r<sub>01</sub> and ρ<sub>01</sub> from G<sub>i</sub> ≤ G<sub>max</sub> (i = 1, 2).
- **Bilateral Design: Stability Factor, Maximum Gain, Optimum Matching.**  
This program computes the maximum gain available and the load and source reflection coefficients which yield the maximum gain.
- **Bilateral Design: Gain and Stability Circles, Load and Source Mapping.**  
This program computes the location and radius of stability circles. It also computes the source or load reflection coefficient corresponding to a given load or source termination.



**BUSINESS DECISIONS PAC I**  
No. 00097-13144  
(Conforms to U.S.A. practice)

French version No. 00097-13145  
German version No. 00097-13146

22 programs on 22 magnetic cards

- Internal Rate of Return. Yield of a sequence of uneven cash flows.
- Internal Rate of Return – Groups of Cash Flows. Yield of groups of uneven cash flows.
- Discounted Cash Flow Analysis – Net Present Value. Finds the net present value of future cash flows.
- Direct Reduction Loans – Sinking Fund. Solves problems when payments are made at the end of the compounding periods (ordinary annuity).
- Accumulated Interest/Remaining Balance. Calculates accumulated interest and remaining balance, and generates an amortization schedule(s).
- Wrap-Around Mortgage. Calculates yield of wrap-around mortgage.
- Constant Payment to Principal Loan. Generates schedule for constant payment to principal loan.
- Add-on Rate Installment Loan/Rule of 78's. Calculations involving add-on loans and loans using the rule of 78's.
- Savings Plans-Leases. Solves problems involving payments at the beginning of the compounding periods (annuity due), and compounded amounts.
- Advance Payments. Payment and yield calculations when additional payments are made in advance.
- Savings – Compounding Periods Different from Payment Periods. Calculations when deposits and compounding periods differ.
- Simple Interest/Interest Conversions. Simple interest calculations and nominal to effective interest rate conversions.
- Depreciation Schedules. Straight line, SOYD, declining balance, and crossover between straight line and declining balance.
- Days Between Dates. Calendar routine.
- Bond Price and Yield. Calculates price and yield of semiannual coupon bonds.
- Interest at Maturity/Discounted Securities. Price or yield of interest at maturity or discounted securities.
- Linear Regression – Exponential Curve Fit. Fits a set of data points  $x, y$  to a straight line and a curve. Determines goodness of fit.
- Multiple Linear Regression. Fits a set of data points  $x, y, z$  to a straight line. Also determines goodness of fit.
- Break-even Analysis. Calculates all values for linear break-even chart.

- Invoicing. Maintains net line totals, subtotal and grand total for invoicing.
- Payroll. Guide for writing a payroll program.
- Inventory. Guide for establishing an inventory program.



**CLINICAL LAB. AND NUCLEAR MEDICINE PAC I**  
No. 00097-13165

(available in English only)

19 programs on 19 magnetic cards.  
Available late 1976.

**Clinical Chemistry**

- Beer's Law. Converts between absorbance and % transmittance; solves for an unknown concentration given standard concentration and absorbance or % T of standard and unknown.
- Protein Electrophoresis. Given integration counts of a number of protein fractions, finds percentage of each. Calculation of weights optional.
- LDH Isoenzymes. Given values for the five LDH isoenzymes, finds activity of each as a percent of total. Compares results against normal values.
- Body Surface Area. Calculates an estimated BSA by method of Dubois or Boyd. Accepts either English or Metric units.
- Urea Clearance. Calculates urea clearance with option of correcting for BSA.
- Creatinine Clearance. Calculates creatinine clearance with option of correcting for BSA.
- Amniotic Fluid Assay. Performs calculations for the spectrophotometric estimation of bile pigments in amniotic fluid.
- Blood Acid-Base Status. Finds total  $\text{CO}_2$  and base excess from  $\text{PCO}_2$ , pH, and Hgb concentration.
- Oxygen Saturation and Content. Finds oxygen saturation and content in blood given  $\text{PO}_2$ ,  $\text{PCO}_2$ , pH, and body temperature.
- Red Cell Indices. Given hematocrit percent, red cell count, and hemoglobin, finds mean corpuscular volume, mean corpuscular hemoglobin, and mean corpuscular hemoglobin concentration.

**Nuclear Medicine**

- Total Blood Volume. Computes total blood volume by the radioisotope dilution method.
- Schilling Test. The radioisotope determination of vitamin  $\text{B}_{12}$  absorption.

- Thyroid Uptake. The radioisotope determination of thyroid uptake.
- Radioactive Decay Corrections. Finds the activity of a radioisotope corrected for decay over time.

**Radioimmunoassay**

- Radioimmunoassay. Computes least-squares regression line of logit of net counts vs. log concentration, including regression constants, correlation coefficient, and concentration for a given count.

**Statistics**

- Basic Statistics. Computes mean, standard deviation, standard error, and coefficient of variation for grouped or ungrouped data.
- Chi-Square Evaluation and Distribution. Computes the chi-square statistic for goodness of fit. For given  $x \geq 0$ , finds the chi-square density function  $f(x)$  and the cumulative distribution  $P(x)$ .
- t Statistics. Computes the paired t statistic and the unpaired t statistic.
- t Distribution. For a given  $x > 0$ , evaluates the t density function and cumulative distribution.



**MECHANICAL ENG. PAC I**  
No. 00097-13155

(available in English only)

- Vector Statics. Performs basic vector operations of addition, cross product, and dot product, and finds angle between vectors.
- Section Properties (2 Cards). The area, centroid, and moments of inertia of an arbitrarily complex polygon may be calculated using this program.
- Stress on an Element. Reduces data from rosette strain gauge measurement and performs Mohr circle analysis.
- Soderberg's Equation for Fatigue. Solves for any one of the seven variables of Soderberg's equation for fatigue.
- Cantilever Beams. Calculates deflection, slope, moment and shear for point, distributed, and moment loads applied to cantilever beams.
- Simply Supported Beams. Calculates deflection, slope, moment and shear for point, distributed, and moment loads applied to simply supported beams.
- Beams Fixed at Both Ends. Calculates deflection, slope, moment, and shear for point, distributed, and moment loads applied to beams fixed at both ends.
- Propped Cantilever Beams. Calculates deflection, slope,

moment, and shear for point, distributed, and moment loads applied to propped cantilever beams.

- Helical Spring Design. Performs two point design for helical compression springs.
- Four Bar Function Generator (2 Cards). Program designs four bar systems which will approximate an arbitrary function of one variable.
- Progression of Four Bar System. Calculates angular displacement, velocity, and acceleration for the output and connecting link of a four bar system.
- Progression of Slider Crank. Calculates displacement, velocity, and acceleration of the slider and angular velocity and acceleration of the connecting rod for the progression of a slider crank system.
- Circular Cams. Computes parameters necessary for design of harmonic or cycloidal, circular cams with roller, flat or point followers.
- Linear Cams. Computes the parameters necessary for design of harmonic, cycloidal, or parabolic profiles for linear cams with roller followers.
- Gear Forces. Computes the reaction forces resulting from torque applied to helical, bevel, or worm gears.
- Standard External Involute Spur Gears. Calculates parameters necessary in design manufacture, and testing of standard, external, involute, spur gears.
- Belt Length. Computes belt length around an arbitrary set of pulleys.
- Free Vibrations. Calculates an exact solution to the differential equation for a damped oscillator vibrating freely.
- Vibration Forced by  $F_0 \cos \omega t$ . Finds the steady-state solution for a damped oscillator forced by  $F_0 \cos \omega t$ .
- Equations of State. Ideal gas relation plus Redlich-Kwong model of real gas behavior.
- Isentropic Flow for Ideal Gases. Replaces isentropic flow tables for ideal gases in converging-diverging passages.
- Conduit Flow. Calculate velocity or pressure drop for incompressible viscous flow in conduits.
- Heat Exchangers (2 Cards). Performs analysis of counter-flow, parallel-flow, parallel-counter-flow and cross-flow (fluids unmixed) heat exchangers.



**SURVEYING PAC I**  
No. 00097-13175  
(Conforms to U.S.A. practice)

19 programs on 26 magnetic cards.  
(available in English only)

- Traverse, Inverse and Sideshots.

Reduction on field traverse data with closure and area calculation.

- **Traverse Adjustment.**  
Adjustment of traverses by compass rule or Crandall's rule.
- **Intersections.**  
Bearing-bearing, bearing-distance and distance-distance intersections and offset from a point to a line.
- **Curve Solutions.**  
Calculation of parameters of circular curves.
- **Horizontal Curve Layout.**  
Calculation of field data for layout of horizontal circular curves.
- **Spiral Curve Layout.**  
Calculation of field data for layout of spiral transition curves.
- **Vertical Curves and Grades.**  
Station and elevation calculations for vertical curves and grades.
- **Resection.**  
Solution of the "three point problem".
- **Two Instrument Radial Survey.**  
Location of a point using a distance meter and theodolite.
- **EDM Slope Reduction.**  
Reduction of slope distances measured with an Electronic Distance Meter.
- **Stadia Reduction/3-Wire Leveling.**
  - a. Reduction of stadia-observations to distance and elevation.
  - b. Calculation of elevations for a line of wire levels.
- **Taping Reduction/Field Angle Check.**
  - a. Correction and reduction of taped distances.
  - b. Reduction of field angle data.
- **Azimuth of the Sun.**  
Calculation of the sun's azimuth from a solar observation.
- **Predetermined Area.**  
Location of one side of a land parcel to enclose a specified area.
- **Earthwork.**  
Calculation of volume by average end area and volume of a borrow pit.
- **Coordinate Transformation.**  
Scaling, rotation and translation of coordinates from one system to a second.
- **State Plane Coordinates — Lambert.**  
Conversion of geographic coordinates to and from state plane coordinates on Lambert projections.
- **State Plane Coordinates — Transverse Mercator.**  
Conversion of geographic coordinates to and from state plane coordinates on transverse Mercator projections.
- **State Plane Coordinates — Alaska Zones 2-9.**  
Conversion of geographic coordinates to and from state plane coordinates for Alaska zones 2-9.

**TOPOGRAPHIE** (Application Manual)  
French version No. 00097-13176

**VERMESSUNG** (Application Manual)  
German version No. 00097-13162  
(These two locally developed pacs are delivered without magnetic cards)

**PROGETTO CURVE STRADALI**  
Italian version No. 00097-13123



**CIVIL ENGINEERING PAC**  
No. 00097-13195

- **Vector Statics.**  
Performs basic vector operations of addition, cross product, and dot product, and find the angle between vectors.
- **Section Properties (2 cards).**  
The area, centroid, and moments of an arbitrarily complex polygon may be calculated using this program.
- **Properties of Special Sections.**  
Section properties for rectangles, triangles, ellipses circles and concentric circles are provided by this program.
- **Stress on an Element.**  
Reduces data from rosette strain gage measurement and performs Mohr circle analysis.
- **Bending or Torsional Stress.**  
Solves either the bending stress equation ( $s = Mv/I$ ) or the analogous torsional shear stress equation ( $s = TR/J$ ) interchangeably for all variables.
- **Linear or Angular Deformation.**  
This program solves for linear deflection under tensile load or the analogous angular deflection under torque. The solution is interchangeable between the five variables.
- **Cantilever Beams.**  
Calculates deflection, slope, moment, and shear for point, distributed, and moment loads applied to cantilever beams.
- **Cantilever Beams—Trapezoidal Load.**  
Calculates deflection, slope, moment and shear for cantilever beams with distributed trapezoidal loads.
- **Simply Supported Beams.**  
Calculate deflection, slope, moment, and shear for point, distributed, and moment loads applied to cantilever beams.
- **Simply Supported Beams—Trapezoidal Load.**  
Calculates deflection, slope, moment and shear for simply supported beams with distributed trapezoidal loads.
- **Beams Fixed at Both Ends.**  
Calculates deflection, slope, moment, and shear for point, distributed and moment loads applied to beams with rigidly fixed ends.
- **Beams Fixed at Both Ends—Trapezoidal Load.**  
Calculates deflection, slope, moment and shear for point, distributed, and moment loads applied to cantilever beams.
- **Propped Cantilever Beams.**  
Calculates deflection, slope, moment, and shear for point, moment and distributed loads applied to propped cantilever beams.
- **Propped Cantilever Beams—Trapezoidal Load.**  
Calculates deflection, slope, moment and shear for distributed trapezoidal loads applied to propped cantilever beams.
- **Six-span Continuous Beams.**  
Solves for the intermediate couples present at the supports

of continuous beams. Two to six spans are allowed.

- **Steel Column Formula.**  
Computes allowable loads for steel columns. Column ends must be constrained by welds, rivets or in some other means which prevents deflection and rotation.
- **Reinforced Concrete Beams.**  
Solves interchangeably between steel area, width, depth, concrete strength, steel strength and internal moment for reinforced concrete beams. Base on the American Concrete Institute code—ACI 318-71.
- **Bolt Torque.**  
Calculates the torque that will yield a specified bolt load or the load resulting from a specified torque. The shear stress in the bolt may be calculated as an option.

**BIBLIOTHÈQUE BÉTON ARMÉ — STRUCTURES** (Application Manual)

French version No. 00097-90148  
This pac, developed in France, is delivered without magnetic cards.

**INGEGNERIA CIVILE 1**  
Italian version No. 00097-90150  
**INGEGNERIA CIVILE 2**  
Italian version No. 00097-90151



**GAMES I**  
No. 00097-13185

- **Game of 21.**  
This card game is also known as blackjack.
- **Dice.**  
This includes the game of "Craps" as well as a dice roller.
- **Slot machine.**  
The familiar one armed bandit.
- **Submarine Hunt.**  
Find and then sink the moving submarine with your depth charges.
- **Artillery.**  
Can you locate and destroy the moving target before it destroys you?
- **Space War.**  
Your mission: Search out and annihilate the 3 evil Alglogs before time and energy are gone.
- **Super Bagels.**  
Based on "Mastermind". How fast can you guess the secret number?
- **Nim<sub>k</sub>.**  
Who will pick the last object from the last pile, you or the machine?
- **Queen Board.**  
You and the calculator take turns moving a chess queen to its target. The one who moves last, wins.
- **Hexapawn.**  
You and the 67/97 command

armies of 3 chess pawns each. Caution: The calculator learns from its mistakes.

- **Tic-Tac-Toe.**  
Your best hope is to play the machine to a draw.
- **Wari.**  
You have a reasonable chance of beating the HP-67/97, but beware of a smart human. This ancient game is also known as Man-Kalah.
- **Racetrack.**  
Up to 5 players can race. Be alert to the differences between velocity and acceleration.
- **Teaser.**  
Changing from one pattern to the other looks easy, but...
- **Golf.**  
The HP Country Club course is challenging, but a duffer with his handicap can beat a champion.
- **The Dealer.**  
This shuffles and deals a deck of cards to 4 people; it also calls Bingo.
- **Bowling Scorekeeper.**  
Tired of keeping score and missing the game? Here's your answer for up to 10 bowlers.
- **Biorhythmus.**  
Calculates cycle values for any date, and tells which of the next 33 days are critical, maximum or minimum days.
- **Timer.**  
Offers 2 visible timers, a count-up and count-down timer, and allows splits to be taken.

Program Listings.  
Appendix A: Magnetic Card Symbols and Conventions.



**NAVIGATION I**  
(available late '77)

## HP-67

### Optional Accessories

In addition to the standard accessories shipped with your HP-67, Hewlett-Packard also makes available the optional accessories seen below. These accessories have been created to help you maximize the usability and convenience of your calculator.



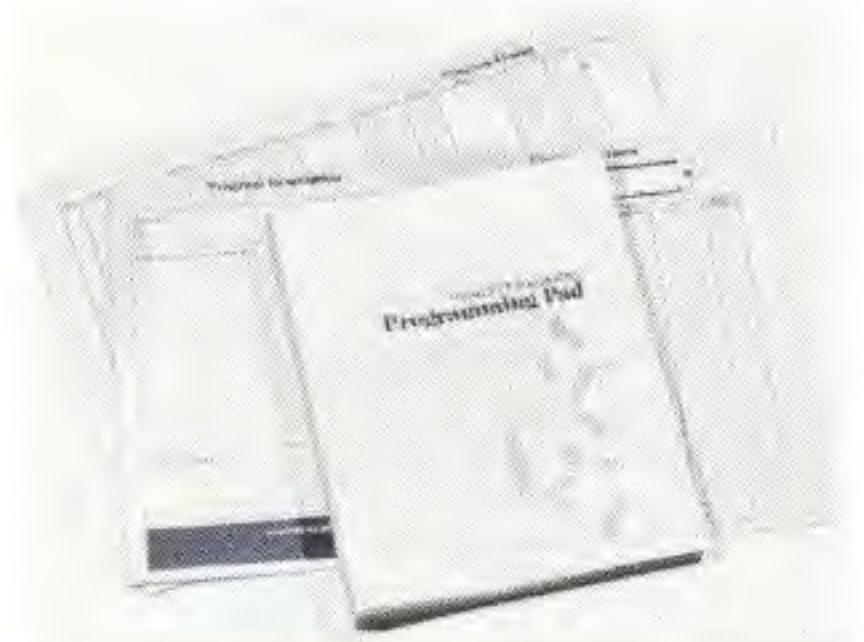
### Security Cradle 82015A

A durable locking cradle with a tough 6-foot long steel cable that prevents unauthorized borrowing or pilferage of your calculator by locking it to desk or work surface. The cable is plastic-covered to eliminate scarring of furniture, and you have full access to all features of your HP-67 at all times.



### Reserve Power Pack 82004A

The reserve power pack attaches to the calculator's ac adapter/recharger to keep an extra battery pack freshly charged and ready for use. Comes complete with extra battery pack.



### Programming Pad 00097-13154

Each pad provides 40 worksheets to help you develop programs for your HP-67.



### Blank Magnetic Cards 00097-13141

Each pack of blank magnetic cards contains 40 HP program cards for recording of your programs. Any card can be labeled to indicate program title and functions of user-definable keys. Includes personal card holder.

### Multiple Card Packs 00097-13143

Consists of three packs of blank magnetic cards (120 cards total) with three personal card holders.

### Program Card Holder 00097-13142

Each package contains three program card holders like the one shipped with your calculator for carrying extra magnetic cards.

### Field Case 82016A

A sturdy weather-and-shock protector, the field case keeps you mobile by allowing you to carry your calculator on your hip - any time, any place. Constructed of a rugged leather-like material, the field case has belt loops for convenient attachment and extra pouches for program cards and Quick Reference Card.



### HP Application Pacs

Each pac provides approximately 20 prerecorded programs in a particular field or discipline. Each comes complete with a detailed instruction book and prerecorded magnetic cards.

To order additional standard or optional accessories for your HP-67 see your nearest dealer.

Availability of all accessories, standard or optional, is subject to change without notice.

## HP-97

### Optional Accessories

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### Blank Magnetic Cards 00097-13141

Each pack of blank magnetic cards contains 40 HP program cards for recording of your own programs. Any card can be labeled to indicate program title and functions of user-definable keys. Includes personal card holder.

### Multiple Card Packs 00097-13143

Consists of three packs of blank magnetic cards (120 cards total) with three personal card holders.

### Program Card Holders 00097-13142

Each package contains three program holders like the one shipped with your calculator for carrying extra magnetic cards.



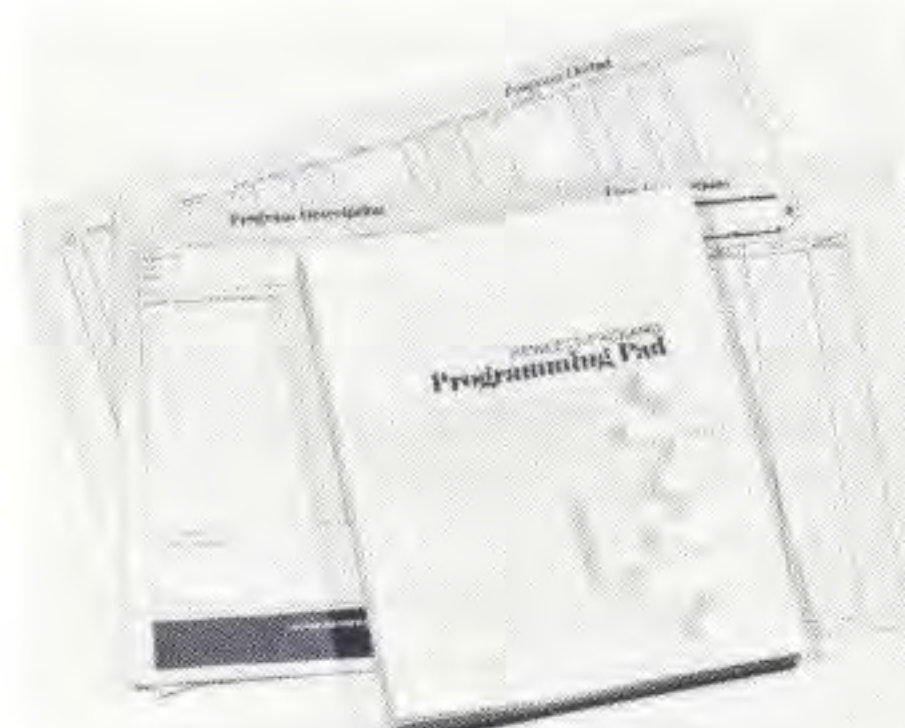
### Security Cable 82044A

A tough, 6-foot long steel cable that prevents unauthorized borrowing or pilferage of your calculator by locking it to a desk or work surface. The cable is plastic-covered to eliminate scarring of furniture, and you have full access to all features of your HP-97 at all times. Comes complete with lock.



### Reserve Power Pack 82037A

The reserve power pack attaches to the calculator's ac adapter/recharger to keep an extra battery pack freshly charged and ready for use. Comes complete with extra battery pack.



### Programming Pad 00097-13154

Each pad provides 40 worksheets to help you develop programs for your HP-97.



### Paper Rolls 82045A

Each package gives you six rolls of special Hewlett-Packard thermal paper for your HP-97 printer.



### HP-97 Application Pacs

Each pac provides approximately 20 prerecorded programs in a particular field or discipline. Each comes complete with a detailed instruction book and prerecorded magnetic cards.

To order additional standard or optional accessories for your HP-97 see your nearest dealer.

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# Valuable supplementary assistance when you buy an HP-67 or HP-97.

## The HP-67/HP-97 Users' Club

Administered by Hewlett-Packard as a customer service, the HP-67/HP-97 Users' Club is dedicated to making programs contributed by HP-67 and HP-97 users available to others. In addition, all programs in the HP-67/HP-97 Application Pacs are included in the program Library and are available on an individual basis.

You will want to take advantage of the benefits of subscribing to the Library. With the many programs available in a wide variety of application areas, the program solutions you require may have already been developed. The savings in time and effort can be tremendous. You won't have to: research the application; program the solution; debug the program; or complete the documentation. Programs from the Library can also serve as a source of programming techniques in your application area. Finally, it can be interesting, just plain fun, or even inspirational, to observe the many different tasks that your calculator is being used for. (Games, for example, is always a popular category.) A one-year subscription to the Library costs US \$ 9.00 or equivalent. You will receive the Catalog of Contributed

Programs, a periodically published newsletter and updates to the Catalog. The Catalog of Contributed Programs includes the following:

**Application Section.** Includes an application category table and lists each program by category.

**Abstract Section.** Includes a short abstract of each program in the Library. The abstract provides information to enable you to determine if the program will meet your needs. Also the contributor's address is listed here.

**Contributor's Guide Section.** Explains the proper documentation procedures to submit a program for acceptance in the Library, and what you will receive when the program is accepted. Your programs are important for ensuring the Library's success. You are encouraged to submit any program you feel will be of value to others.

Programs may be purchased from the Library for a US \$ 4.- or equivalent handling charge. The Library fills program orders by photocopying the following standard documentation submitted by the contributor:

**Program Description I.** Gives a description of the program and explains any special operating

procedures, warnings and limits.

## Program Description II.

Provides a sketch of the problem (if applicable), and shows sample problem(s) with solution(s).

**User Instructions.** Gives step-by-step instruction to the user on how to run the program.

**Program Listing.** Gives step-by-step listing of the program with comments. (Pre-recorded magnetic cards are not furnished by the Library.)

## The KEY NOTE Newsletter

KEY NOTE is a newsletter designed to help HP-67 and HP-97 owners make better use of their calculators and keep them informed of new and important developments. Items regularly appearing include: programming techniques for beginners; advanced tips and techniques; User's Club information; application stories; spotlight on games; software updates and corrections; and answers to frequently asked questions. In addition, KEY NOTE is used to announce new Hewlett-Packard products, price changes, and other information of interest.

KEY NOTE is published periodically and is FREE to the owners of HP-67 and HP-97 calculators.