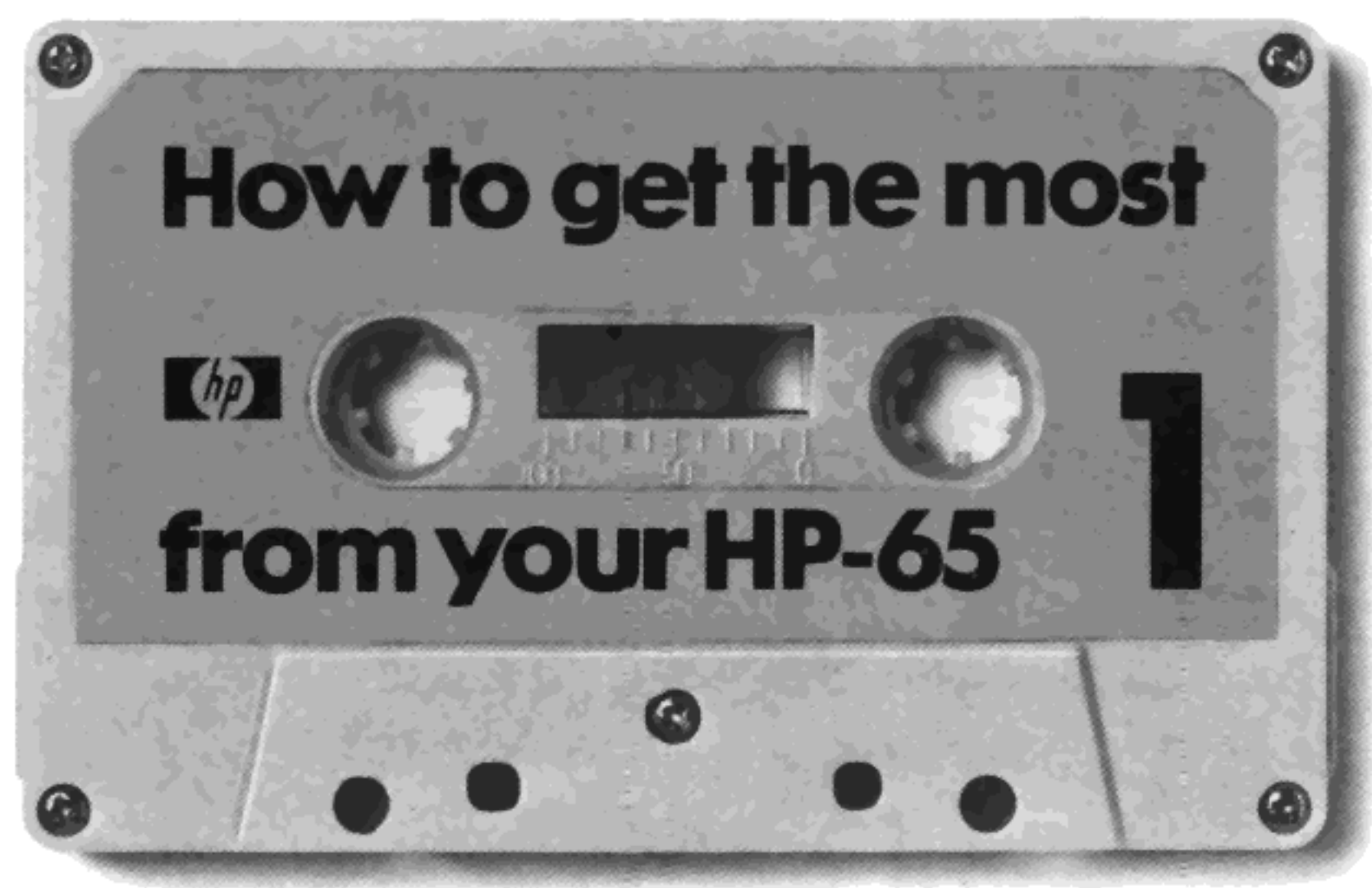


# Pocket Hardware.



# Pocket Software.



**Slot this cassette into your sound system, take the HP-65 in your hand- and learn how to be free.**

**Free from computers, terminals, and relying on other people, in other departments.**

**After a couple of relaxed evenings with this tape, you'll have the freedom of programmable computing power in your pocket.**



# These magnetic strips make personal computing power possible.

MEAN, STANDARD DEVIATION,  
STANDARD ERROR

STD 02A

$\Sigma+$

$\bar{x}$

$S_x$

$S_{\bar{x}}$

$\Sigma-$



## Ready to use software:

complete, sophisticated programs, prepared by expert computer programmers, are pre-recorded on these strips. And it takes less than

2 seconds to store a program in the machine, ready to run.

Feed a strip through the built-in magnetic read/write head, and Whrr - your HP-65 is fully primed. All you do is key-in numerical data and touch a start key.

Programmed, the HP-65 performs the exact sequence of mathematical operations, serial calculations, counting, accumulations, logic comparisons and tests to give you precise results, in seconds, to complex problems.

1975 BUDGET PROJECTION

PRESENT  
STATUS

GROWTH  
RATE

INFLATION  
FACTOR

PROJECTED  
AMOUNT

$\Delta\%$



## Ready to write software:

your own programmed solutions to problems you work with repeatedly. Writing a program involves little more than solving a problem once: press keys for the opera-

tions, plus "start" and "end" program keys.

Each keystroke then stores an instruction in the program memory - again your HP-65 becomes a completely primed problem-solver. For your problems.

To record your new program, simply

feed one of these "blank" magnetic strips through the read/write head. Now write your program title and labels in the spaces provided, and you've just made a permanent addition to your personal "library" of programs.

# Straight away you can

## MEDICAL PAC 1 No. 00065-67004

1. Weight conversions
2. Length conversions
3. Volume conversions
4. English-metric conversions
5. Patient identification
6. Male vital capacity, male MVV, male FEF
7. Female vital capacity, female MVV, female FEF
8. Lung diffusion
9. Water vapor, gas conversions
10. Ventilator setup, setup corrections
11.  $\text{PaCO}_2$  normalization (Suwa)
12. Blood acid-base status
13. Virtual  $\text{PO}_2$
14.  $\text{O}_2$  saturation and content
15. Anaerobic  $\text{PCO}_2$  and pH change
16. Anaerobic  $\text{PO}_2$  change
17. Dead space fraction
18. A-a  $\text{O}_2$  difference
19. Physiologic shunt and Fick
20. Dubois BSA
21. Boyd BSA
22. Dye cardiac output
23. Fick cardiac output
24. Valve area
25. Anatomic shunts
26. Contractility
27. Stroke work

## EE PAC 1 No. 00065-67007

1. Reactance chart
2. Series resonant circuit
3. Parallel resonant circuit
4. Impedance of ladder network
5. T attenuator
6. PI attenuator
7. Wye-delta or delta-wye transformation
8. Minimum-loss pad matching
9. PI network impedance matching
10. Band pass filter
11. Active filter-low pass
12. Active filter-high pass
13. Butterworth filter design
14. Chebyshev filter design
15. Capacitance of parallel plates
16. Self inductance of straight round wire
17. Inductance of a single-layer close-wound coil
18. Skin effect and coil Q
19. Transformer design
20. Reed relay design
21. Impedance of transmission line
22. Transmission line impedance transformer
23. Microstrip transmission line
24.  $S \rightleftharpoons Y$  parameter conversion
25. Power supply rectifier circuits
26. Controlled rectifier circuits
27. Integrated circuit current source
28. Transistor bias
29. JFET bias and transconductance
30. Phase lock loop
31. Fourier series
32. Decibel conversion
33. Voltage to dBm
34. Wire tables Al & Annealed Cu
35. Heat sink

## MATH PAC 2 No. 00065-67002

1. Octal arithmetic
2. Integer base conversion
3. Base conversion
4. Complex arithmetic
5. Complex functions  $z, z^2, \sqrt{z}, 1/z$
6. Complex functions  $z^n, z^{1/n}$
7. Complex functions  $e^z, \ln z, a^z, \log_a z$
8. Complex functions  $z^w, z^{1/w}, \log_z w$
9. Complex trigonometric and hyperbolic functions  $\sin z, \sinh z, \csc z, \operatorname{csch} z$
10. Complex trigonometric and hyperbolic functions  $\cos z, \cosh z, \sec z, \operatorname{sech} z$
11. Complex trigonometric and hyperbolic functions  $\tan z, \tanh z, \cot z, \operatorname{coth} z$
12. Complex inverse trigonometric and hyperbolic functions  $\sin^{-1} z, \sinh^{-1} z, \csc^{-1} z, \operatorname{csch}^{-1} z$
13. Complex inverse trigonometric and hyperbolic functions  $\cos^{-1} z, \cosh^{-1} z, \sec^{-1} z, \operatorname{sech}^{-1} z$
14. Complex inverse trigonometric and hyperbolic functions  $\tan^{-1} z, \tanh^{-1} z, \cot^{-1} z, \operatorname{coth}^{-1} z$
15. Polynomial evaluation (complex)
16. Intersections of a line and a conic section
17. Vector products and angle between vectors
18. Partial sum and partial product
19. Gaussian quadrature for  $\int_a^b f(x) dx$
20. Gaussian quadrature for  $\int_a^\infty f(x) dx$
21. Bessel function  $J_n(x)$
22. Kelvin functions
23. Euler  $\phi$  function
24. Gamma function
25. Incomplete gamma function
26. Error function and complementary error function
27. Confluent hypergeometric function
28. Gaussian hypergeometric function
29. Chebyshev polynomial
30. Legendre polynomial
31. Hermite polynomial
32. Laguerre polynomial
33. Sine integral
34. Cosine integral
35. Exponential integral
36. Fresnel integrals
37. Complete elliptic integrals



# Use these programs:

## MATH PAC 1 No. 00065-67001

1. Factors of an integer
2. Greatest common divisor, least common multiple
3. Arithmetic and harmonic progressions
4. Geometric progression
5. Functions of x and y
6. Quadratic equation
7. Cubic equation
8. Fourth degree polynomial equation
9. Fifth degree polynomial equation
10. Simultaneous equations in two unknowns
11. Simultaneous equations in three unknowns
12. Synthetic division
13. Rectangular, spherical conversions
14. Translation and/or rotation of coordinate axes
15. Angle conversions
16. Secondary values of  $\sin^{-1}$ ,  $\cos^{-1}$ ,  $\tan^{-1}$
17. Trigonometric functions
18. Hyperbolic functions
19. Inverse hyperbolic functions
20. Solution of a triangle (given a, b, c, or a, b, C)
21. Solution of a triangle (given a, A, C, or a, B, C)
22. Solution of triangle (given B, b, c)
23. Spherical triangle solution (given A, b, c, or a, b, c)
24. Area of a triangle
25. Area of a polygon
26. Circle determined by three points
27. Equally spaced points on a circle
28. Polygons inscribed in and circumscribed about a circle
29. Unit conversions: C $\rightarrow$ F; ft, in $\rightarrow$ cm; lb $\rightarrow$ kg
30. Unit conversions: mi $\rightarrow$ km, gal $\rightarrow$ ltr, yd $\rightarrow$ m, ac $\rightarrow$ ft<sup>2</sup>
31. Polynomial evaluation (real)
32. Linear and Lagrangian interpolations
33. Finite difference interpolation
34. Numerical integration (discrete case)
35. Simpson's rule for numerical integration
36. First order differential equation
37. Roots of  $f(x) = 0$  in an interval
38. Determinant and characteristic equation of a  $3 \times 3$  matrix
39.  $2 \times 2$  matrix operations
40.  $3 \times 3$  matrix inversion

## STAT PAC 1 No. 00065-67005

1. Mean, standard deviation, standard error
2. Mean, standard deviation, standard error (grouped data)
3. Permutation and combination
4. Arithmetic, geometric, harmonic and generalized means
5. Sums for two variables
6. Basic statistics (two variables)
7. Moments, skewness and kurtosis (for grouped or ungrouped data)
8. Random number generator
9. Analysis of variance (one way)
10. Normal distribution
11. Inverse normal integral
12. Chi-square distribution
13. t distribution
14. F distribution
15. Bivariate normal distribution
16. Logarithmic normal distribution
17. Weibull distribution
18. Binomial distribution
19. Negative binomial distribution
20. Hypergeometric distribution
21. Poisson distribution
22. Linear regression
23. Exponential curve fit
24. Power curve fit
25. Logarithmic curve fit
26. Least squares regression of  $y = cx^a + dx^b$
27. Multiple linear regression
28. Parabolic curve fit
29. Paired t statistic
30. t statistic for two means
31. Chi-square evaluation
32.  $2 \times k$  contingency table
33. Bartlett's chi-square statistic
34. Spearman's rank correlation coefficient
35. Mann-Whitney statistic
36. Kendall's coefficient of concordance
37. Biserial correlation coefficient

## SURVEYING PAC 1 No. 00065-67021

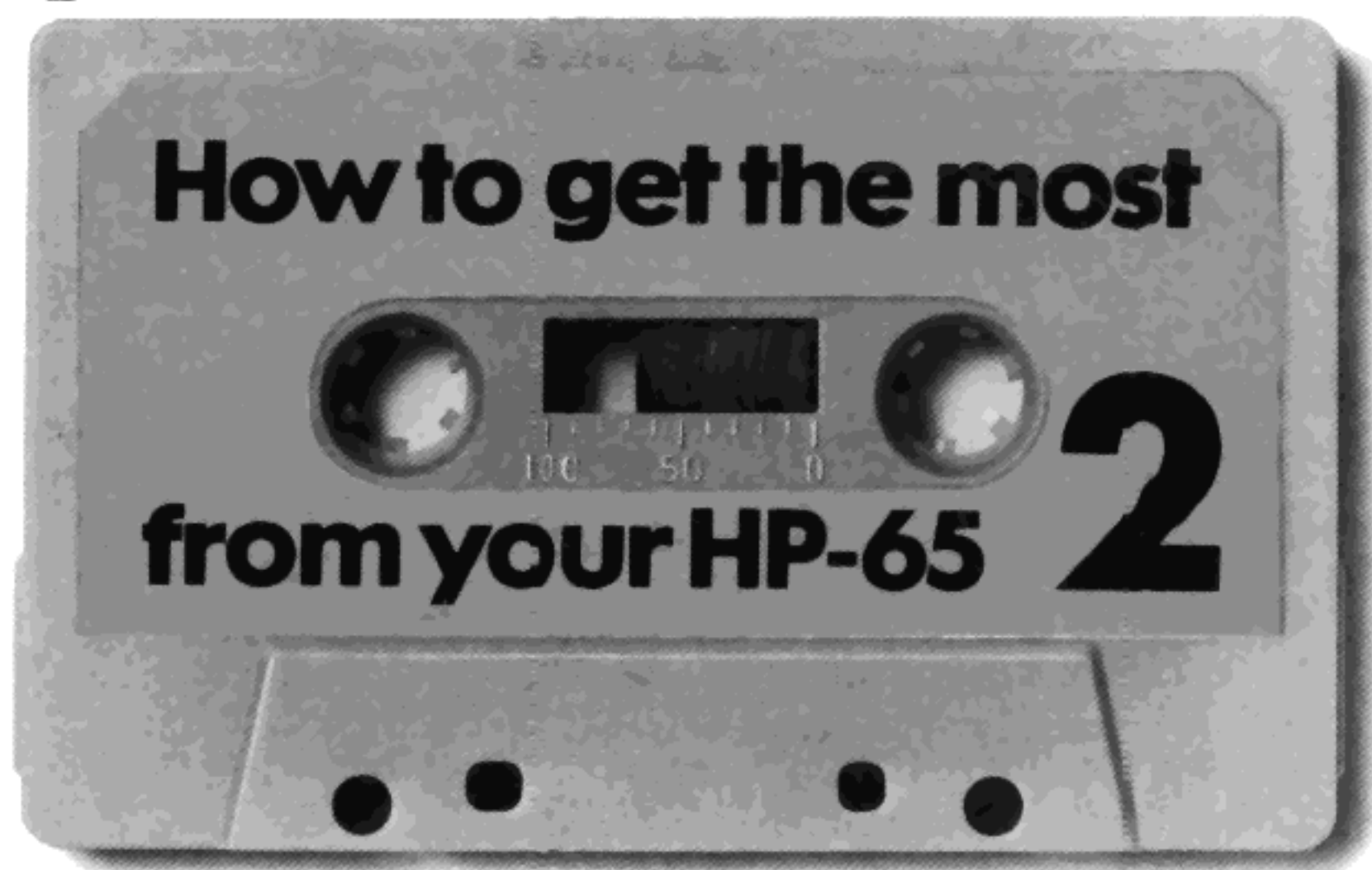
Introduction (U.K. Version)

Format of User Instructions

Entering a Program

1. Summation of traverse angles
2. Bearing and distance from coordinates and vice versa
3. Traverse using internal angles
4. Traverse by bearings
5. Coordinates of offset points
6. Intersection of two straight lines
7. Solution of a triangle using angles
8. Solution of a triangle using bearings
9. Point coordination using measured lengths
10. Stadia tacheometry
11. Cosine formula
12. Interpolation of height in a square
13. Interpolation of height in a triangle
14. Area from coordinates
15. Cross section area - unequal side slopes
16. Volume from grid of levels
17. Resection
18. Change of grid
19. Reduction of EDM measurements to the spheroid
20. Trigonometrical heighting
21. Refractive index - radio waves
22. Refractive index - light waves
23. Scale factor
24. (t-T) correction
25. Azimuth by attitude
26. Elements and coordinates on a circular curve
27. Coordinates round a clothoid curve
28. Clothoid deflection angles
29. Vertical curve heights
30. Intersection by variation of coordinates
31. Least squares straight line fit.

**Learn how to  
program the HP-65.  
Test it on your own  
problems for 15 days  
without obligation.  
This free sound  
cassette shows  
you how:**



To Hewlett-Packard Ltd., King Street Lane, Winnersh,  
Wokingham, Berks, RG11 5AR.

Send by registered post, the HP-65 complete with standard accessories and free cassette. I understand that the price includes all taxes and shipping and handling charges to U.K. addresses, and that if not completely satisfied, I may return unit and standard accessories at the end of 15 days for complete refund.

Tick below.

- ☐ Cheque is enclosed for £442.80. (£410 + £32.80 VAT).
- ☐ Purchase order or company confirmation is enclosed for £442.80. (£410 + £32.80 VAT).

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All prices quoted include VAT and are correct at the time of going to press. Prices are liable to change without notice subject to Government approval (November 4, 1974).



# The HP-65 is the first and only fully programmable pocket calculator.

★ Anywhere you go, you can have a personal computer with you. The HP-65 weighs but 11 ounces, operates on built-in, rechargeable battery-pack - but performs completely programmed calculations.

★ Like a computer. And with most of the capabilities of true computer programming, such as testing by flags, testing by arithmetic comparison and decrementation to zero, which allow programs to branch to subroutines

or to loop the memory directly.

★ Its 100-step program memory, boosted by pre-programmed functions (the programming features just mentioned, plus log, trig, geometric conversions, mathematical, and data-manipulation operations) - and up to 15 sub-routines and 9 addressable memory registers provide capability for a virtually unlimited range of computations.

★ You "write" programs through

keyboard controls, which include complete facilities for easy, rapid editing, correcting and program modification. You'll be amazed how simple it is to produce your own powerful programmed solutions.

★ Programming brings unprecedented accuracy and speed to the repetitious, error-producing tedium of extended calculations. Now the HP-65 puts the power of programmed computation at your fingertips, wherever you are.



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