The new HP-97 Fully-Programmable Printing Calculator.



The most powerful personal calculators ever made by Hewlett-Packard.

The HP-97 and HP-67 fully-programmable

These are the most powerful personal calculators Hewlett-Packard has ever made. The HP-97 combines exceptional programming power—plus a battery-operated printer—all in one self-contained unit. The HP-67 provides the identical power of the HP-97 in the classic pocket size.

Exceptional power easily handles your lengthy, repetitive problems.

The HP-97/67 let you write programs of up to 224 steps. Every function (one, two or three keystrokes) is merged to take only one step of program memory. And there are 26 data storage registers to provide the memory you need for your problems. And you can record or load the contents of program memory or the data storage registers on a magnetic card. All this, plus: three levels of subroutines, ten user-definable keys, ten conditional/ decision functions, four flags, direct addressing to labels, relative addressing, indirect addressing.

You don't have to wait to get on a computer to handle those extremely difficult calculations you face daily.

The preprogrammed power of the HP-97/67 is equally versatile. Choose from trigonometric functions, exponentials, logs, statistical functions, angular conversions.

So easy to use you'll write programs the first day.

Keystroke programming makes programming the HP-97/67 as simple as pressing the keys needed to calculate answers manually. Merged operations further simplify the task (and expand memory power) by letting you see the complete operation right in the display.

A "smart" card reader frees your mind by automatically recording the display mode setting, angular mode setting, and the status of the four flags when you record your program.

Because many programs require editing of some kind, we added useful features enabling you to easily review programs forward or backward, to easily jump to any step in the program, and to easily insert steps or delete them.

An unparalleled program of owner support.

The HP-97 and HP-67 come with highlydetailed Owner's Handbooks and with a Standard Application Pac of 15 prerecorded programs in various disciplines. Owners are also entitled to a one-year subscription to the User's Library containing many other

programs. A periodic Newsletter keeps owners abreast of current information.



A major leap forward in personal calculators.

The HP-97 Fully-Programmable Printing Calculator.

Provides battery-operation and thermal printing — in one self- contained unit.

\$750.*

The new 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.

Quiet thermal printer lists your programs on tape for checking and editing.

With the HP-97, you can list a program, (stepnumber, key mnemonic and, optionally, the keycode), contents of the automatic memory stack, or the contents of the data storage registers. And you have three printing modes to choose from. With the printer switch set to MANUAL, the printer will operate only when the Print X key or a list function is executed from the keyboard or from within a program. With the switch set to NORMAL, the printer will record all entered data and functions. With the switch set to TRACE, the printer will list the stepnumber, function and result of each step of an executing program or the operation and results of a manual calculation.

The printer is a valuable aid in editing programs or long calculations. You don't have to remember what you've done or what remains to be done. You see everything at once, clearly, on tape.

You can operate it on batteries or AC.

The power requirement of the HP-97 thermal printing system is so low that it may be operated solely on batteries for 3 to 5 hours, depending on how much you use the printer. The AC adapter/recharger permits you to operate from electrical outlets while batteries are being recharged. You can use it in the office or in the field.

Compact in design and light in weight for easy portability.

Total weight of the HP-97 without AC adapter/recharger is only 1.13 kg. (2½ pounds). It's so small it will fit into a standard briefcase so you can take it with you, and operate it 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.)



Desktop keyboard and display adds extra convenience.

The HP-97 features large, conventionallyspaced keys that make it easy to key in data or programs. The keyboard also employs a seven-character buffer so skilled operators may use keys at high speed without danger of losing data.

The brilliant, large-size display of the HP-97 shows up to ten significant digits, plus two-digit exponent and appropriate signs. And the display is at a 45° angle that makes it easy to read while seated at your desk or standing at your workbench or drafting board.

The HP-67 Fully-Programmable Pocket Calculator.

Provides the identical power of the HP-97.

\$450.*

The HP-67 is ideal for those who want the powerful features of the HP-97, but do not require a printing capability. The HP-67 is completely compatible with the HP-97. Programs recorded on one unit may be loaded and executed on the other—even the print commands. (e.g., when the HP-67 executes a Print X command, it pauses, and displays the current results).

Used separately—or together—these compatible fully-programmable calculators do the job faster and with less chance for error.



*Suggested retail price excluding applicable state and local taxes—Continental USA, Alaska and Hawaii.

The HP-97 and HP-67 give you each and ease of use for length

It's easy to create your own time-saving programs.

You can easily create programs to solve your own lengthy, repetitive problems and record them on blank magnetic cards supplied with the calculators. Using these cards you can, at any time, solve the same problem with different data at the touch of a few keys. The chance for manual keystroke error is substantially reduced and your mind is free for more creative work.

Program Memory.



222

223

224

You have 224 steps of program memory to work with.

Key in your program with the switch set to PRGM using the same keystrokes needed to calculate your answer manually. Each function (one, two, or three keystrokes) is merged thus requiring only one step of program memory.

Keycodes.

When you press the keys for an operation they are stored in the program memory as "keycodes". For convenience, keycodes for the digit keys are 00 through 09 respectively. For all other keys the first digit of the keycode denotes the row of the key and the second digit denotes the number of the key in the row. For example, with the switch set to PRGM and the calculator at the top of program memory press **1 LOG**. The display shows:

This operation occupies the first step of program memory as indicated by the step number 001. The keycode 16 identifies the sixth key in the first row of the left block of keys (f). The keycode 32 identifies the second key in the third row of the left block of keys (LOG). Keys from the right side of the HP-97 keyboard are preceded by a minus sign.

New "Smart" magnetic card reader makes every problem easier.

The magnetic card reader in both the HP-97 and the HP-67 does much more than record programs from calculator to card or load programs from card to calculator.

You can load the entire program memory, or selected portions, either manually or under program control. You don't have to stop your program to insert additional cards that may be required for extra-long programs. Under program control, the card reader can read subsequent cards automatically.



Programs can be permanently recorded by running a program card through the card reader.

You can record data from all registers onto a magnetic card. You can also load every data storage register or selected registers. You don't need to re-key in data for your programs. The card reader accepts data before a program is run or automatically during program execution.

When recording programs the HP-97 and HP-67 automatically record the angular mode setting, the display setting and the status of the four flags. You don't need to memorize a start-up procedure for your program or waste valuable program memory by including the procedure within the program itself.

In order to record or load all 224 steps of program memory or all 26 data registers, both sides of the magnetic card must be passed through the calculator. If the second side of a magnetic card is required, the calculator prompts you by displaying "Crd" whether you are recording or loading programs or data. And you can load either side first. The calculator will place the program or data in its proper location without additional instructions from you. You don't have to keep track of what's been loaded and what hasn't. The card reader remembers for you and eliminates possible confusion.



If the second side of a card is required, the calculator displays "Crd."

Editing is fast and easy

The HP-97 and HP-67 make it easy for you to correct or change your programs.

Moving to the Right Step. GO GO TO.

In order to correct or change a step in your program, you need to be able to display it quickly and easily. The GTO key followed by the decimal key and a three-digit step number lets you do just that, in either RUN or PRGM mode.

SST Single Step.

To help you find mistakes in your program, you can execute it one step at a time using the SST key in RUN mode. Or, in PRGM mode, you can use SST to step through each instruction and compare the keycodes with your program listing.

BST Back Step.

In RUN mode, press BST to display the contents of the previous step of program memory. In PRGM mode, use BST to back up one step at a time in your program.

Insert and Delete.

You can easily insert operations by positioning the calculator at the step before the intended insertion. Then simply key in the function or functions to be inserted. All subsequent instructions will be "bumped" down one step in program memory for each inserted operation.

DEL Delete.

When you press f DEL, the displayed instruction is erased from program memory and all subsequent instructions move upward one step.

Printed tape simplifies checking programs or calculations.

With the HP-97 you have the additional advantage of a printed tape to help you with your editing. You can list your programs, as shown below, and easily check them for mistakes.

826	*LBLA	21 11
827	F87	15 23 00
828	SPC	16-11
829	RCLE	36 15
030	1	01
831	÷	-55
032	F82	16 23 00
833	PRTX	-14
C34	XIV	-41
835	F82	16 23 00
836	PRTX	-14

exceptional programming power ny, repetitive calculations.

Programming power you won't outgrow.

As your needs increase, you can be confident of your capacity to handle them—because the HP-97 and the HP-67 give you the power you need to solve the most lengthy and repetitive problems you are ever likely to encounter.

10 User-Definable Keys.

There are ten user-definable keys you can use for any special function you may require—such as defining portions of your program for subroutines or branches. They may be executed from the keyboard or from within a program. In addition, there are ten numerical labels (LBL 0 thru LBL 9). These user-definable keys and labels may be executed from the keyboard or from within a program.

PAUSE

If you need to key in data or load a card in the middle of your program or to see an intermediate answer—no problem. The PAUSE function initially interrupts program execution and displays current results for about 1 second. At that time, you can optionally enter data from the keyboard or load magnetic cards. The interruption is extended for as long as necessary. If you want the program stopped indefinitely, you can use the R/S (Run/Stop) function.

Direct Branching

Though program steps are executed sequentially in many programs, you have the power to transfer (branch) program execution to any part of program memory you desire.

GTO Go To.

When followed by a label designator (A through E, f A through f E, or 0 through 9) GTO directly branches program execution to the specified label.

Subroutines

When a series of instructions is executed several times in a program, you can save program memory by executing that series as a subroutine.

GSB Go Subroutine.

A GSB instruction followed by a label designator (A through E, f A through f E, 0 through 9) branches program execution to the label specified just as a GTO instruction does. But, using the GSB instruction, program execution is then "returned" automatically to the step following the GSB instruction when the next RTN (Return) instruction is executed (see following illustration.)

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



After a GSB instruction, RTN transfers program execution to the program step following the GSB.

Conditional Branching.



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. If the data test is true, the calculator will "do" the next instruction in program memory. (Remember "Do If True":) If the data test is false, program execution branches around the next instruction.



The next step is executed if x=y. Program execution branches around one step if x does not equal y.

Flags.

You can use the four flags in the calculator for tests in your programs. They can be set, cleared, or tested. When a flag is tested, the calculator executes the next step if the flag is set ("Do If True" again). The calculator branches around the next step if the flag is clear. Flags F0 and F1 are command-cleared flags. Once they have been set, they remain set until cleared using a CLF (Clear Flag) instruction. Flags F2 and F3 are test-cleared flags. They are cleared automatically following a test instruction and remain cleared until they are set again. Flag F3 is also a data-entry flag-that is, as soon as you enter a number from the keyboard or from a magnetic card, flag F3 is set.

Indirect Control.

The (i) key combined with certain other functions uses the number stored in the specially-defined I-register to control those functions. This indirect control gives you the power and versatility you need to complement the extra large program capacity and data capacity.

Indirect Addressing.

You can perform a direct branch or subroutine to a label specified by the current number in the I-register.

GTO (i) GSB (i)

These operations depend on the number in the I-register. If it is positive they perform a direct branch (GTO (i)) or a subroutine (GSB (i)) to the label specified.



Relative Addressing.

GTO (i) GSB (i)

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 steps specified by the current negative number in the I-register.

006 Instruction	-3.00
007	I-register
008	
009 GTO (i)	

Indirect Control of Data Register Operations.

You can also use the I-register to specify the address of a storage register.

STO (i)

This instruction stores the displayed number in the storage register specified by the value in the I-register.

RCL (i)

This instruction recalls the contents of the storage register specified by the value in the I-register.



These four instructions perform storage register arithmetic upon the contents of the storage register specified by the value in the I-register.



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. If the contents equal zero, program execution branches around the next step in program memory.

Unparalleled owner supportevery step of the way.

Detailed Owner's Handbooks are outstanding instructional guides.

You quickly learn all the powerful built-in functions available to solve your problems. And nearly half of each handbook is devoted to programming instructions—taking you from simple counting programs to the complex programs used in our Application Pacs in short, easy lessons. If you're a beginner, you'll appreciate the step-by-step explanations and wealth of sample problems. If you're an old hand, you'll appreciate the function index and programming index that make it easy to find the information you need quickly.



15 Prerecorded programs in our Standard Application Pac help you get started.

You can use these programs immediately. Simply load a program into the calculator and get results at the touch of a few keys. Each program is documented with complete operating instructions including the equations used, sample problems, and program listings with comments. What is more, where fundamental programming techniques are used, the Standard Pac explains what is happening and why the technique was used. You learn how to program using the fewest number of steps for your problems and making full use of the powerful features on the calculator.

- 1. Moving Average Follows trends in data.
- Tabulator Adds columns and rows simultaneously for tabular data.
- Curve Fitting Fits straight lines, exponential curves, logarithmic curves or power curves to data.
- Calendar Functions Calculates days between dates, a future date or past date, or day of the week.
- 5. Annuities and Compound Amounts Solves problems involving annuities or

compound amounts. Both ordinary annuity and annuity due problems with and without balloon payments are covered.

- Follow Me The programmable program. Perform a sequence of calculations once and that sequence is automatically programmed —without switching to program mode.
- Triangle Solutions Solves for the unknowns of any defined plane triangle.
- Vector Operations Addition, cross product, dot product, and coordinate transformation for two-dimensional and three-dimensional vectors.
- Polynomial Evaluation Solves cubic and quadratic equations and evaluates up to third degree polynomials for arbitrary real values of x.
- Matrix Operations
 Finds determinant and inverse for 3 x 3 system. Also, allows multiplication of 3 x 3 matrix by column matrix.
- 11. Calculus and Roots of f(x) Approximates the derivative of a function at a point, evaluates a function at a point, and approximates the integral for a finite interval for a user specified function f(x). Also, approximates real roots of f(x).
- 12. English—SI Conversions (Metric Conversions) 20 common unit conversions.
- Arithmetic Teacher Generates addition, subtraction, multiplication, and division problems for preschool and elementary students.
- Moon Rocket Lander Exciting action game simulating landing a rocket on the moon.
- Diagnostic Program Checks calculator functions.

In addition to the Standard Pac Handbook and prerecorded cards, you receive a headcleaning card, 24 blank program cards for your own programs and a program card holder.

Application Pacs provide prerecorded solutions to your problems.

The solution to many of your problems may already exist. Our wide-ranging Application Pacs offer prerecorded programs in disciplines such as mathematics, statistics, clinical lab and nuclear medicine, business and finance, electrical engineering, statistics, mechanical engineering, and surveying. They are ideal for those who want to save time or for those who prefer not to write their own programs. These programs quickly transform the HP-97



and HP-67 into special-purpose calculators to solve lengthy and repetitive problems at the touch of a few keys. Each pac contains 20 or more prerecorded program cards, a fully documented instruction manual, and a program card holder.



Pre-recorded program cards are easily entered into the HP-67 in the slot on the right side.

Users' Library and Newsletter provide invaluable information and assistance.

The Users' Library provides a low-cost way to obtain any of the hundreds of Application Pac programs, as well as programs contributed by other owners, which you can record on blank program cards. The Catalog of Contributed Programs lists and describes the programs currently available, and is updated periodically. A year's subscription to the Catalog of Contributed Programs is only \$9.00. With your first catalog you'll receive a coupon for three programs of your choice a \$9.00 value.

The HP-67/97 Newsletter, free for the first year, passes along programming hints, answers frequently asked questions, and carries other important news and information of interest to HP-67/97 users. It also announces new Application Pacs and describes new accessories.

If you have a difficult problem or a simple question, you may call Hewlett-Packard toll free at 800-538-7922 (in California: 800-662-9862). You'll receive all the assistance you need.

A complete range of preprogrammed functions and features.

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

The HP-97 and HP-67 print and display in fixed decimal and scientific notation, common in many scientific calculators. They also print and display in engineering notation, where values are displayed with exponents that are multiples of three. This is useful in working with many units of measure, such as kilo (10³), nano (10⁻⁹), etc.

All the mathematical functions you need.

The calculators give you all the most-used exponential, log and trig functions—including sines, cosines, tangents and their inverses in three angular modes; natural and common logs and anti-logs; pi; related arithmetic functions; coordinate conversions; angle conversions; angle addition.

The statistical functions you need.

Two variable summations (n, Σx , Σx^2 , Σy , Σy^2 , Σxy) are stored for easy access. What's more, you can adjust or correct input data without having to repeat an entire calculation. With your data keyed in, you can calculate the mean and standard deviation or use the summations to compute other statistical functions.

Additional functions are very helpful when writing programs.

ABS

Use the ABS (absolute value) function in your program to find the magnitude of a number.

INT FRAC

Use the INT (integer truncation) function to truncate the displayed value to an integer. Use the FRAC (fractional truncation) to truncate the displayed value to a decimal fraction.

RND

Although the calculators keep numbers internally with 10 digits multiplied by a two-digit exponent, you can specify that the rounded value displayed be used internally by pressing f RND.

26 addressable memories simplify calculating and programming.

Displayed values may be stored in any of 26 addressable memories and later recalled to the display. A four-register automatic memory stack and last x register increase flexibility.

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 engineering and finance. Some of its more obvious advantages include:

Each function is evaluated immediately after the function key is pressed and the result is displayed. This immediate positive response allows you to proceed with confidence at each step in a lengthy calculation. You don't have to keep track of complicated hierarchies.

Hewiett-Packard has built in four data manipulation functions ($R \downarrow$, $R \uparrow$, $x \rightleftharpoons y$, and Last x) that allow you to review, or change if desired, any intermediate result. You don't have to restart calculations or proceed with uncertainty.

RPN encourages and assists you in approaching calculations naturally and consistently. For example, how would you evaluate the following expression without a calculator: 2 × (3 + (4 × 5))? The "natural" approach would be to start by evaluating 4 × 5, adding 3 to the result, and multiplying that intermediate answer by 2. This is exactly how you would solve the problem using RPN. You don't need parenthesis keys. Intermediate answers are displayed and stored automatically in a four memory stack so you never need to write them down and risk errors. And because only intermediate results are stored, the size and complexity of problems that can be handled with RPN logic are virtually unlimited.

And RPN also helps you when you program because you don't use parentheses that waste valuable program memory. And because there are no pending operations to worry about, editing takes less time. Overall, RPN lets you slide through the most complicated programs the same easy way it lets you slide through complex calculations—with complete confidence.

HP-97 and HP-67 Keyboard Features Summary:

Angular Functions: Sin, Cos, Tan, Sin⁻¹, Cos⁻¹, Tan⁻¹; Hours-Minutes-Seconds Addition; Hours-Minutes-Seconds Conversion to Decimal Hours; Degree/Radian Conversion; Polar/Rectangular Conversion; Degrees, Radians, Grads Angular Modes.

Logarithmic Functions: Log, 10[×], Ln, e[×]

Statistics: Summations n, Σx , Σx^2 , Σy , Σy^2 , Σxy ; Deletion of Unwanted Data; Mean; Standard Deviation.

Convenient Math Functions: $+, -, \times, \div, y^{\times}, x^2, 1/x, \sqrt{x}, N!, \%, \% CH, \pi.$

Number Alteration Functions: Integer Truncation; Fraction Truncation; Absolute Value; Rounding.

Display: Fixed decimal, scientific, engineering notation. Displays up to 10 significant digits plus 2-digit exponent and appropriate signs.

HP-97 Printing Features:

Print Mode Switch

Selects printing modes. You can print only when you want to; digit entries and functions automatically; or digit entries, functions, intermediate, and final answers automatically.

Print X

Prints the displayed number.

Print STACK

Prints and labels the contents of the stack registers.

Print REG

Prints and labels the contents of the primary data storage registers.

Print PRGM

Prints contents of program memory.

SPACE

Advances paper one space without printing.



HP-67 and HP-97 Common Programming Features Summary:

Capacity:

224 steps of program memory (all functions are merged and occupy only one step of program memory); 26 data registers; Four register automatic-memory-stack; Last X register.

Card Reader Features:

Record/Load all data registers; Load selected data registers; Record/Load entire program memory; Merge program subsections; Angular mode, flag settings, and display status are recorded with program recording and reset with program loading; User is prompted for proper operation when loading; Card reader operations can be initiated manually or under program control (except program recording).

Addressing: Label addressing; Indirect addressing of labels and data storage; Relative addressing; 10 user-definable keys or 20 user-definable labels; Three levels of subroutines (GSB).

Conditionals: $x=y, x\neq y, x>y, x\leq y, x\neq 0, x=0, x<0, x>0$; Four flags; Increment decrement storage registers and skip on zero.

Editing: Single step execution; Single step and back step inspection of a program; Insert/Delete editing. Position the calculator at any step in program memory (GTO • nnn).

Other Programming Features: PAUSE to review intermediate results, key in data, or load magnetic cards.

HP-97 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: 15°C to 40°C (59°F to 104°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 operating temperature range: 10°C to 40°C (50°F to 104°F)
- Paper storage temperature range: -40°C to 30°C (-40°F to 86°F)
- AC Power Requirement: 90-127V or 200-254V, 50 to 60 Hz
- Battery Power Requirement: 5.0 Vdc nickel cadmium rechargeable battery pack

HP-67 Specifications:

- Calculator length: 152.4 mm (6")
- Calculator width: 81 mm (3.2")
- Calculator height: 18 to 34 mm (0.7 to 1.4")
- Calculator weight: 342 g (11 oz)
- Recharger weight: 142 g (5 oz)
- Shipping weight: 1.4 kg (3 lb)
- Operating temperature range: 10°C to 40°C (50°F to 104°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)
- AC Power Requirement: 86-127V or 172-254V, 50 to 60 Hz
- Battery Power Requirement: 3.75 Vdc nickel cadmium rechargeable battery pack

The HP-67/97 Fully-Programmable Calculator's 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 with handle.
- Programming pad.
- Users' Library and newsletter subscription card.
- 2 rolls of thermal paper (HP-97 only).

Optional Accessories (Details sent with calculator)

- Application Pacs complete with prerecorded cards, card holder, and detailed instruction manuals.
- Security cable and lock (HP-97) or security cradle (HP-67) lets you secure your calculator to your work area.
- Reserve Power Pack provides a spare battery pack and keeps it fully charged independent of the calculator.
- Blank program cards and holder.
- Program pads.
- 6 rolls thermal paper (HP-97 only); each 24 meters (80 ft.) long.

Full One Year Warranty*

The HP-67 and HP-97 and their accessories are 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 or accessory is returned, shipping prepaid, to Hewlett-Packard's Customer Service facility. (Refer to shipping instructions.)

This warranty does not apply if the calculator or accessory 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 expressed warranty is given by Hewlett-Packard.

Hewlett-Packard shall not be liable for consequential damages.

* A copy of the complete warranty is available upon request.



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