

HP advances in computed measurement



***For the first time,
long-axis precision plotting
and matrix printing
on a single machine.***

Systems designers who have had to choose between a plotter and a printer have inevitably compromised one function or the other. The alternative, installing both types of units, increases system cost and complexity. Victims of this quandry will welcome the HP 7245, a new, microprocessor-controlled plotter/printer that combines both functions in a single desktop unit.

An unusually capable plotter, the HP 7245 performs true-vector graphics at high speed. It can draw a graph with one axis as long as 5 m (16.4 ft.) and return to any point on the axis within 0.25 mm. Plotting steps can be as small as 0.025 mm with an addressable dynamic range of $\pm 1 \times 10^{\pm 99}$ scaled units.

An unusually versatile matrix printer, the HP 7245 can print 7×9 dot matrix characters at 38 cps in four orthogonal directions and with underlining, using any of eight character sets including the full ASCII set with control characters. It can set up and execute an 88-column format with up to 10 tabs. It can also print larger 14×9 dot matrix characters at 19 cps in a 44-column format.

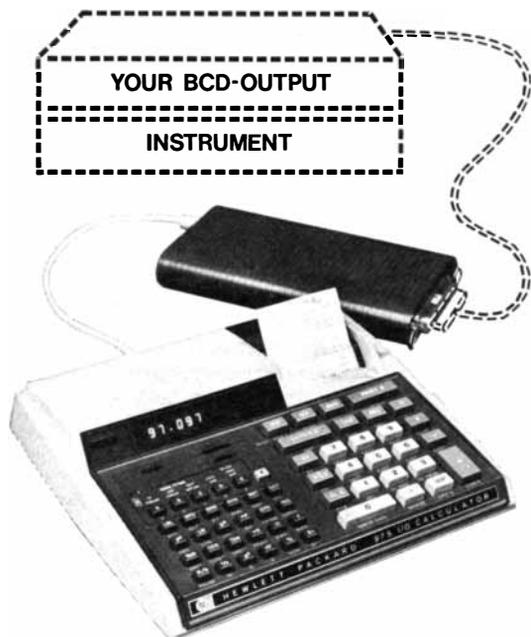
An unusually responsive plotter/printer, the 7245 can provide unattended graphics and printing in HP-IB (IEEE-488) systems. It responds to standard commands and control codes for both printers and plotters. A set of 46 programmable instructions—each a simple-to-use two-letter mnemonic—provides unit scaling, window plotting, graph rotation, and fast digitizing. A rare combination of design characteristics—bidirectional drive, high positioning accuracy, penless and inkless thermal printhead, and a 200-foot roll of paper—rounds out its capability to operate unattended.

Priced at \$4600*, the HP 7245 is limited in application only by the imagination of the user.

extend your possibilities.

Now you can automate your BCD-output devices for \$1375*.

Equipped with a simple, easy-to-connect interface, the HP-97S fully programmable printing calculator can automatically acquire and reduce data from most instruments with Binary Coded Decimal (BCD) output, and print the results. This gives original equipment manufacturers the opportunity to add computing capability to their products at an unusually low cost.



The HP-97S makes it economically and technically feasible to automate all kinds of instruments with BCD output, including electronic balances, photometers, thermal conductivity and pH meters, titrators, strain-gauge systems, and a score of other electronic devices.

With the HP-97S, automatic data acquisition and control is a matter of just two simple steps.

The first step is interfacing. In most cases all you have to do is provide a cable between your instrument and the 97S I/O connector. HP provides detailed documentation to help you get started. The *Installation and Operation Manual* includes technical specifications as well as clear instructions for simple interfacing. The 97S interface accepts up to 10 digits of BCD information at about one reading per second. Control is provided through two handshaking lines and four flag output lines. All lines are TTL compatible.

You can do the next step—programming—either by keystroke or with prerecorded magnetic cards. Even beginners find keystroke programming easy. The *Owner's Handbook & Programming Guide* tells how to write and record your own programs, step by step.

In many cases, you'll be able to use prerecorded programs from the extensive HP library. You'll get 15 thoroughly documented programs on magnetic cards with each 97S, for such calculations as moving average, curve fitting, polynomial evaluation, and matrix operations. Other Application Pacs of prerecorded programs are available to let you put the full power of the 97S to work in engineering, chemical, medical, and many other applications.

The HP-97S has the same exceptional calculating power as the HP-97 and 67, which includes:

- **keystroke power** for all the basic math functions, plus 10 user-defined special function keys.
- **programming power** through keystroke or magnetic card, with 224-step routines stored on a single card and automatic merging of up to three keystrokes per step.
- **memory power** in 26 data storage registers, four-register automatic stack, and last X register—with selective clearing and recording of all registers.
- **output power** on a quiet thermal printer which provides a hardcopy record of measurements and results, plus complete program listings by step number, mnemonic, and keycode.

And, like all HP hand-held and portable calculators, the HP-97S has no equal when it comes to logic and reliability.

The HP-97S costs \$1375* for a single unit, or \$1017.50* in OEM lots of 100.



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Mail to: Hewlett-Packard, 1505 Page Mill Road, Palo Alto, CA 94304.
Please send me further information on

- HP 7245 plotter/printer
- HP-97S fully programmable printing calculator

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

*Domestic U.S. prices only

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