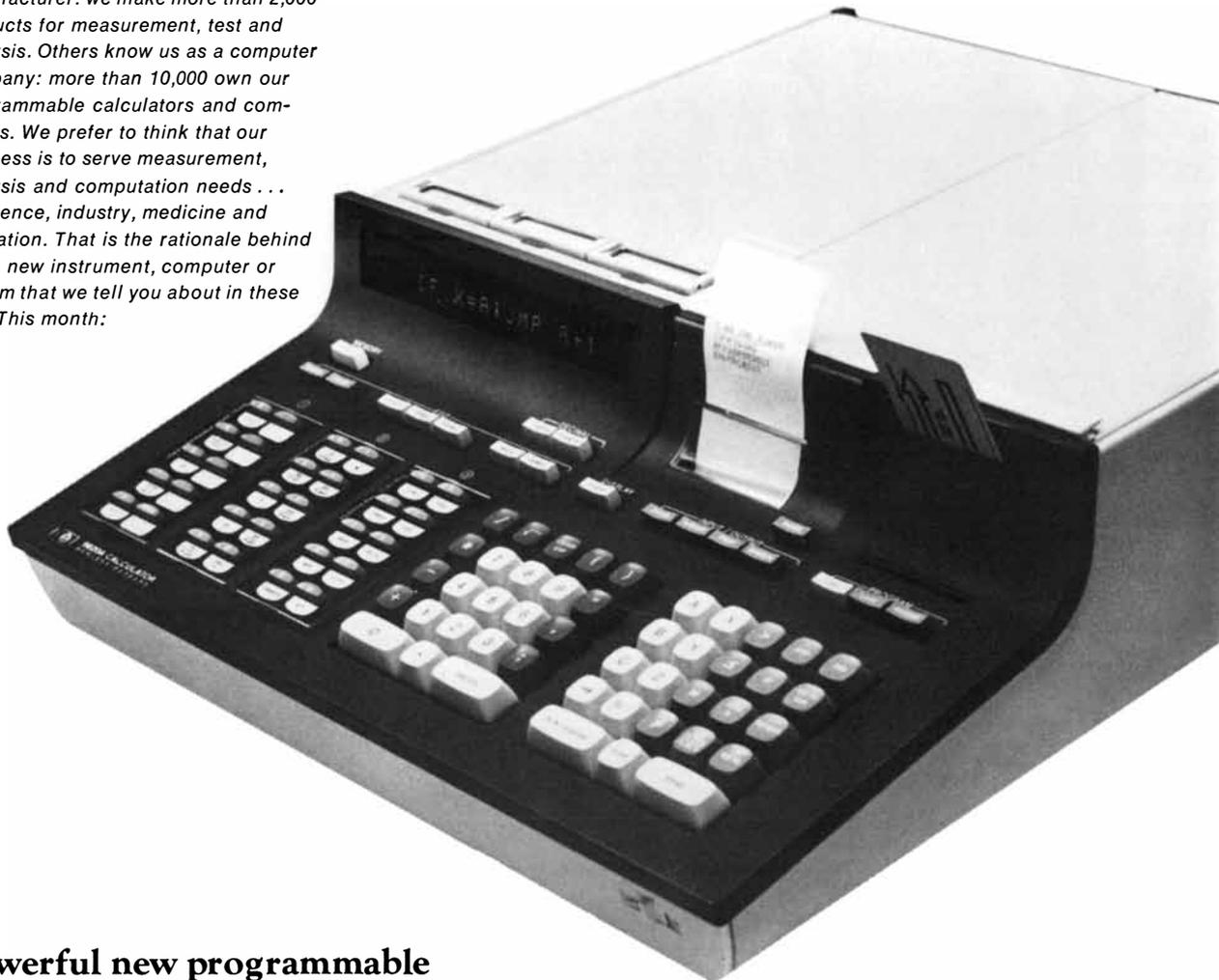


# Some things are changing for the better.

Many people know us as an instrument manufacturer: we make more than 2,000 products for measurement, test and analysis. Others know us as a computer company: more than 10,000 own our programmable calculators and computers. We prefer to think that our business is to serve measurement, analysis and computation needs . . . in science, industry, medicine and education. That is the rationale behind every new instrument, computer or system that we tell you about in these ads. This month:



## Powerful new programmable calculator converses in simple algebraic language.

Hardly a month goes by that doesn't signal the introduction of a new calculator with more power, more memory, more output flexibility. But are things really changing for the better when the improvements so complicate the use of a calculator that one must practically become a computer programmer before he can harness its power?

This is precisely where HP's new Model 20 makes its most significant contribution. It is easier to use, by far, than any other calculator. Its language is the most simple: algebra, the kind you learned in high school. Not only does it 'understand' algebra, it also 'speaks' it, using the same numbers, letters and symbols that you do.

You enter an equation just as you write it on paper including implied multiplication and nested parentheses. The Model 20 displays your entry for verification the same way you wrote it. For example:

```
(-B+sqrt(BB-4AC))/2A
```

It tells you what to do next (in the program mode):

```
ENTER A
```

Then you enter the values on the keyboard (for A, B and C in this example) and press a key to execute. The calculator immediately displays and prints the solution to ten significant digits, along with its English label if you desire:

```
REAL ROOTS
```

If you make a mistake, the Model 20 tells you so and identifies precisely what the error is . . . lets you correct it without redoing the entire line, let alone the entire program . . . and automatically adjusts program storage to occupy the least possible memory.

In addition to its conversational ability, the Model 20 changes things for the better not only through more power and more memory but through a hardworking line of Series 9800 Peripherals: X-Y Plotter, Typewriter and Card Reader, to name a few. Model 20 costs \$5,475.

## Instrumentation quality tape recording at a bargain price.

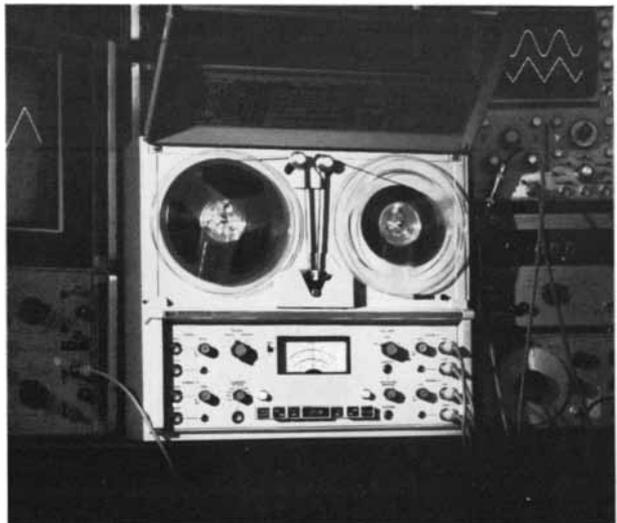
Most scientists would use portable instrumentation tape recorders for analog recording if only they performed as well as the big expensive laboratory machines. Unfortunately, their small size usually meant reduced performance.

Then came the HP 3960. Truly portable in size (50 pounds) and low in price (\$4,270 for a fully-equipped four-channel instrument), the 3960 actually outperforms most laboratory machines costing five times more.

If this sounds too good to be true, listen to some of the 3960's capabilities. At 15/16 ips, its FM signal-to-noise ratio of better than 200:1 lets you play back signals that would be buried in noise (ECG's for example) on many lab machines as well as on any other portable.

The 3960 lets you mix and interchange four FM direct record/reproduce channels at will. You have a choice of three electrically-switched speeds, for a time-base expansion of 16:1 or 10:1 . . . without signal degradation. Tape drive is bidirectional so that you don't have to rewind either to continue recording or to play back.

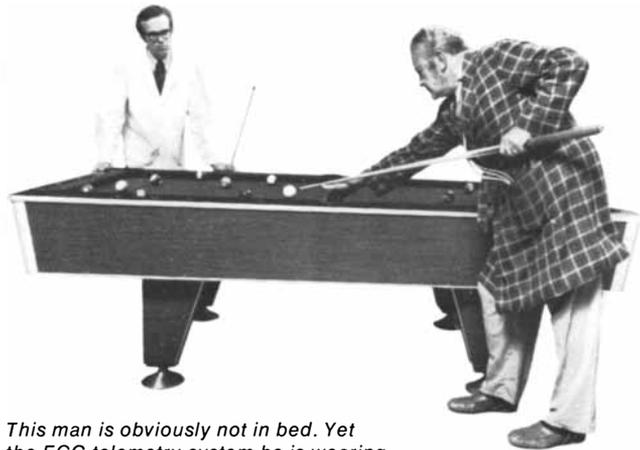
Built-in facilities let you calibrate the 3960's FM electronics without external equipment. And an integral peak-reading meter lets you optimize record level without using a scope. Options include a 5 to 30 foot loop adaptor, an interrupting voice channel, and an inverter for 12 or 28 VDC . . . all integrally mounted.



Write for Application Note 89, a tape recording handbook useful to scientists interested in tape recording techniques for vibration and test analysis, research and clinical medicine, acoustics, oceanography and other environmentally difficult research projects.

For complete information, write Hewlett-Packard, 1506 Page Mill Road, Palo Alto, California 94304. In Europe: 1217 Meyrin-Geneva, Switzerland; Japan: YHP, 1-59-1, Yoyogi, Shibuya-Ku, Tokyo, 151.

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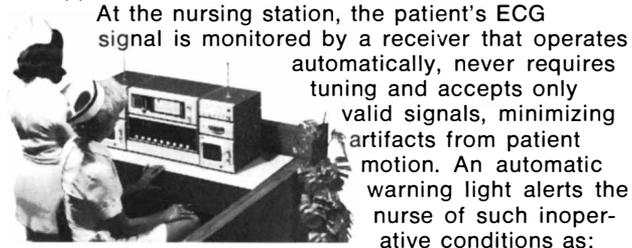


*This man is obviously not in bed. Yet the ECG telemetry system he is wearing enables nurses at a central monitoring station to keep close watch on his heart action.*

## Freedom with protection for the post-coronary patient.

Once the coronary patient is released from the intensive care unit, his recovery can often be aided by freedom to move about and mild exercise . . . provided his ECG can be continuously monitored.

With the new HP ECG Telemetry System, the post-coronary patient can be ambulatory. Wherever he goes, his heart action is transmitted to a receiver at the nursing station where it can be continuously observed. The transmitter is small enough to be carried comfortably in a bathrobe pocket, has a strong enough signal to reach the nursing station from 200 feet even through several masonry walls, and is rugged enough to operate reliably even if dropped.



At the nursing station, the patient's ECG signal is monitored by a receiver that operates automatically, never requires tuning and accepts only valid signals, minimizing artifacts from patient motion. An automatic warning light alerts the nurse of such inoperative conditions as: patient out of range, dislodged electrode, low battery power. It is completely compatible with HP patient monitoring systems. Because it doesn't require new wiring, the ECG Telemetry System is easily introduced into existing facilities. Price is \$1,800 for each patient unit. Write for our new illustrated brochure.

HEWLETT  PACKARD