HEWLETT hp PACKARD

98 30

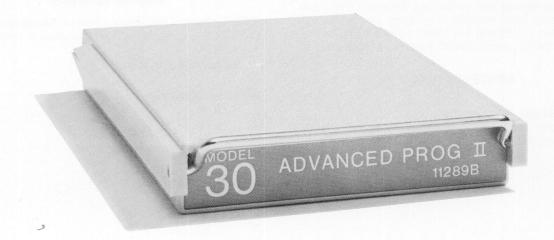**11289B
Advanced
Programming II Rom**

Technical Data*, March 1975

GENERAL

The HP 11289B, Advanced Programming II, Read-Only-Memory provides enhanced operation of the HP 9830A in commercial and large data base operations. The 11289 is available in the external plug-in configuration for the 9830. The wide variety of ROM's for the 9830 permits the expansion of the capabilities of the 9830 with little change in the read/write memory available to the user.

OPERATIONS

There are 7 operational commands that are included in the 11289 ROM which enhance the operation of the 9830 Calculator in commercial and large data base applications:

SEARCH
This command searches an array's column or row for a specific number and returns the location of the number. This is designed to rapidly search an index file for the location of records of information. For example, a two-dimensional array A has two columns, the first for a customer number and the second for the location of the customer information.

To find out what row Customer Number 856 is in, the command is SEARCH A, C, 1, 856, Z. This tells the calculator to search the first column of array A for the number 856. When 856 is found, the calculator returns the row number to Z. If 856 does not occur, Z is set to zero. This search requires about 1 second.

SORT
This command sorts an array by either rows or columns. There may be up to 5 secondary sorts after the primary sort. Sorts deeper than

6 levels can be accomplished by executing a sequential SORT. For example, SORT A, C, 1 sorts array A by column 1.

SORT A, C, 1, 3 sorts array A, primarily by column 1, and when there is a match in column 1, sorts secondarily by column 3. A 256-row column can be sorted in about 10 seconds. Secondary sorts take longer than primary sorts.

TRANSFER
This command allows string variables to be converted to numeric equivalents and back when necessary. This transfer command requires that the HP 11274B Strings Variable ROM be installed in the calculator.

STRING
This command expands formatting capability of the 9830 BASIC language. For example, it easily allows formats which insert $ signs as a leading character of a number or commas (or any other character) in any location within a number.

SERROR
This is the error recovery available in the HP 11297B Data Communications ROM. If an error occurs, the program will branch to a predefined location with the number of the error.

FLAGS
This is a series of three commands for setting, clearing and testing 16 flags. These flags are faster and use less memory than variables used as flags.

BEEP
This commands an audible signal within a program.

PROGRAMMING NOTE

The TRANSFER and BEEP syntax which is found in the HP 11279B Advanced Programming I ROM and the SERROR syntax which is found in the HP 11297B Data Comm. 2 ROM have been combined within the HP 11289B ROM. The simple addition of the 11289, without any change in the position of the 11279 and the 11297 ROM's already in the 9830, will allow the operation of programs that contain TRANSFER, BEEP, and SERROR syntax without any change in programming. However, if a program exists containing the TRANSFER, BEEP or SERROR, the 9830 configured with only the 11289 ROM will not recognize that syntax until the statements containing the syntax are recoded. Once the statements have been recoded, the 11289 will replace the functions of the 11279 and the 11297 ROM's as far as the TRANSFER, BEEP, and SERROR syntax is concerned.

SPECIFICATIONS

Memory
Adds 2048 bytes (1024 words)
Uses 5 words of user read/write memory — 4 words for error recoveries; 1 word for FLAGS

Power
Supplied by the 9830

Temperature
0°— 45°C Ambient

Weight
3 oz (85 g)

Dimensions
Width: 2.56 inches (65,0 mm)
Length: 4.80 inches (122,0 mm)
Height: 0.8 inches (20,5 mm)

PURCHASE PLANS

Contact one of the Hewlett-Packard worldwide sales and service offices for specific prices and plans in your area.

Service contracts available.

*Data subject to change.

Smallest available memory upgrade is 8K bytes for $2180 + $50 installation.

There are only 2 memory board slots in the 9830 therefore 1 existing board will have to be discarded. We are not able to give a credit on the old board.

Regards
Tim

HEWLETT hp PACKARD

(3/75) 10M

Sales and service from 172 offices in 65 countries.
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