







### New Register Addressing

The first 26 data registers in the calculator can be addressed numerically or by a new short-form addressing technique in which the register contents are accessed by an alphabetic address from A to Z. Combined with implied multiplication and the enhanced AOS, this addressing mode makes possible the recall of variables by simply mentioning their names. Expressions such as  $ASinB - CD^2$  are entered into the Learn Mode exactly as written.

### Versatile Branching Instructions

In addition to transferring program execution directly to specific program addresses, branching can take place to any of 26 alpha labels and 100 numeric labels. Replacing keypad labels used by the TI-59 with numeric labels allows the TI-88 to expand its indirect addressing capabilities to include indirect transfers to label addresses. Relative addressing, another new branching feature, can be used in creating programs which are easily relocated in program memory without fear of affecting branching locations.

### Powerful Decision-Making Instructions

The new decision-making instructions allow the conditional execution of any TI-88 instruction; not just branching instructions. All six mathematical comparisons are available and can now be made against any data register instead of requiring a dedicated test register. The new user-response instructions allow interactive decision-making by the use of the [YES], [NO], [UNK], [ENT], and [CONT] keys. The TI-88 also has 24 user-defined flags and four system flags for use in decision-making. Decision-making instructions can be concatenated to produce highly sophisticated decision-making structures.

### New Advanced Instructions

Access to the 63 hierarchy registers and the presence of advanced instructions allow the user more intimate control over the inner workings of the calculator than ever before. Each of the 16 digits in a hierarchy register can be accessed with recall and store digit commands and each bit within each digit can be set, reset, flipped, or tested.

The program counter can be directly accessed, as well as the subroutine stack, the display, the AOS stack and other hierarchy registers. A special "unformatted" display mode allows examination and entry of numbers and program instructions in internal format. These features allow the programmer to use his own creative resources in ways never before possible.

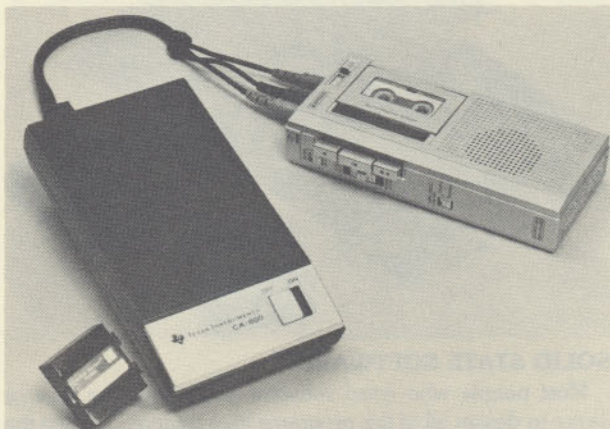
### Numerous Special Functions

Over eighty special operation codes allow execution of a multitude of powerful functions ranging from statistics and conversions to peripheral control. Also provided is an "OP" code to display (in English) the definitions of all of the other "OP" codes. These operations provide the professional with the extra edge he needs to quickly and accurately determine solutions to important problems in today's fast-paced world.

### PRINTER CONTROL

An important feature of the calculator is its capability to control an optional printer accessory. With a printer connected to the calculator, you can perform the following operations:

- Print the contents of the display at any time.
- Print alphanumeric prompts, operating instructions, and messages.
- Print program input and output.
- Print the contents of program or data memory.
- Print all labels used in a program.
- Print OP code and flag definitions, calculator settings, and alpha entry positions.
- Print tracings of keyboard calculations and program execution showing each function executed with its result.



### CASSETTE CONTROL

With the optional CA-800 Cassette Interface accessory and a cassette recorder connected to the calculator, you can record programs and data on standard audio cassette tapes in data file format. Four types of file recordings can be made:

- You can record programs on tape. This type of file allows the contents of program and data memory to be saved together. Program files may range in size from a minimum of eight program steps to all of program memory. When needed again, a program file can be read into any part of program memory.
- You can record data on tape. Data files are useful primarily for storing large quantities of information, but may be as short as one data register. When needed again, a data file can be read into any part of data memory.
- You can record the contents of a numbered *Constant Memory* module on tape, freeing the module for other use. When needed again, a module file can be read into a numbered or unnumbered *Constant Memory* module.

### SHARE PROGRAMS THROUGH PPX

There may be times when you need a complex specialty program, and you would like the convenience of having a ready-made program that is not a bother to obtain. This is where TI's Professional Program Exchange (PPX) can be of help.

Your yearly PPX membership will open the door to discovery of the many interesting programs written by others in your profession. As an active member, you are a part of a network designed to exchange TI programmable calculator programs within all professions. Using PPX as a vehicle to contribute and obtain programs, you can broaden your professional base while you increase your productivity.

© 2011 Joerg Woerner  
Datamath Calculator Museum