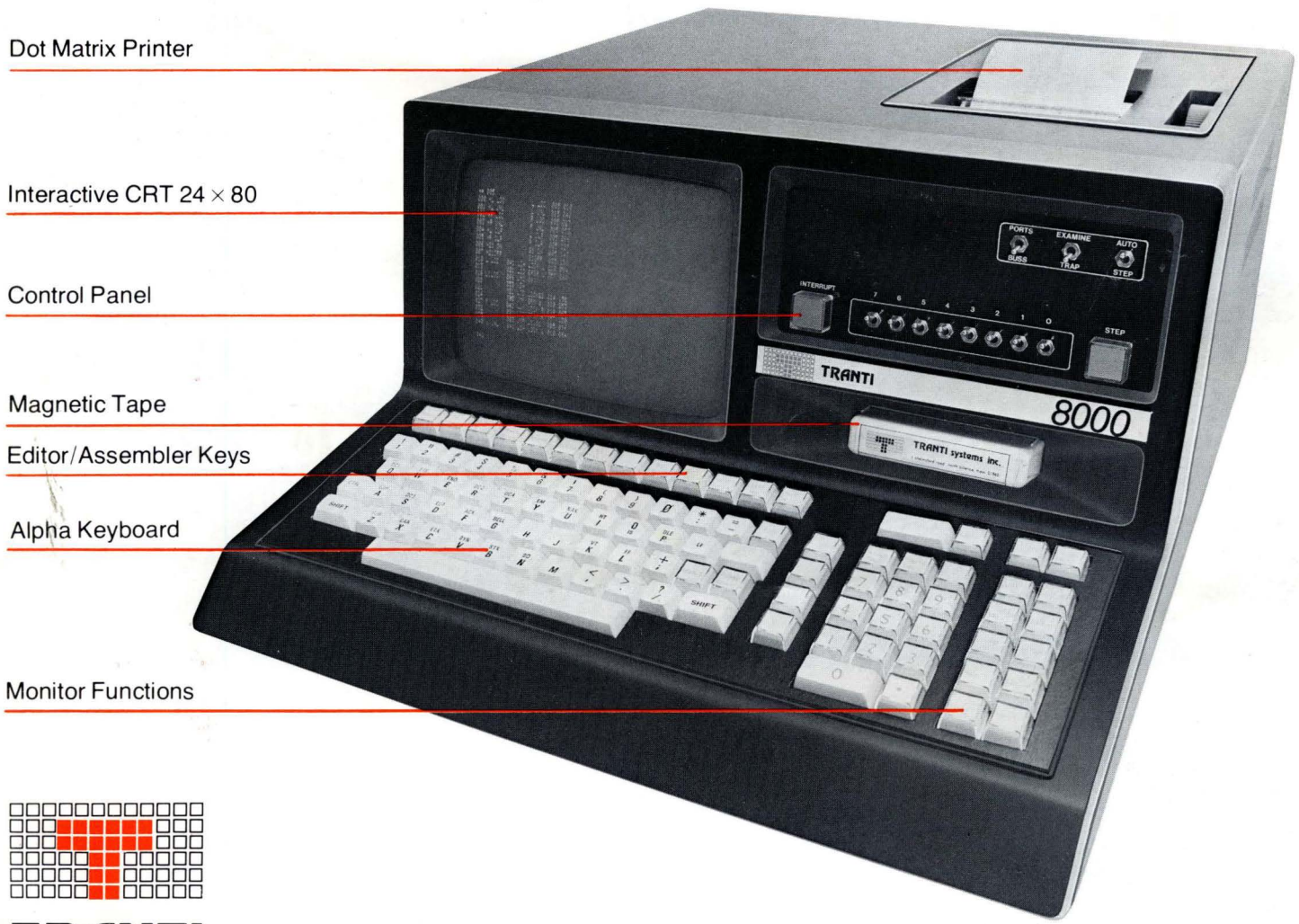
Tranti μScope PROGRAMMING SYSTEM

The Tranti Model 8000: Designed to double programming productivity.

The μScope is the first fully self-contained programming system to offer all the elements a programmer needs to write and document programs for any programming objective. Designed by software people, the μScope provides greatly improved efficiency and convenience to increase your programming output.



TRANTI systems incorporated

1 Chelmsford Rd., N. Billerica, Mass. 01862 (617) 667-8326

The μScope is easy to use, compact, inexpensive and adaptable for use with any microprocessor on the market. It is extremely user-efficient and offers universal I/O capacity to enable direct interface with any application.

The Software Package

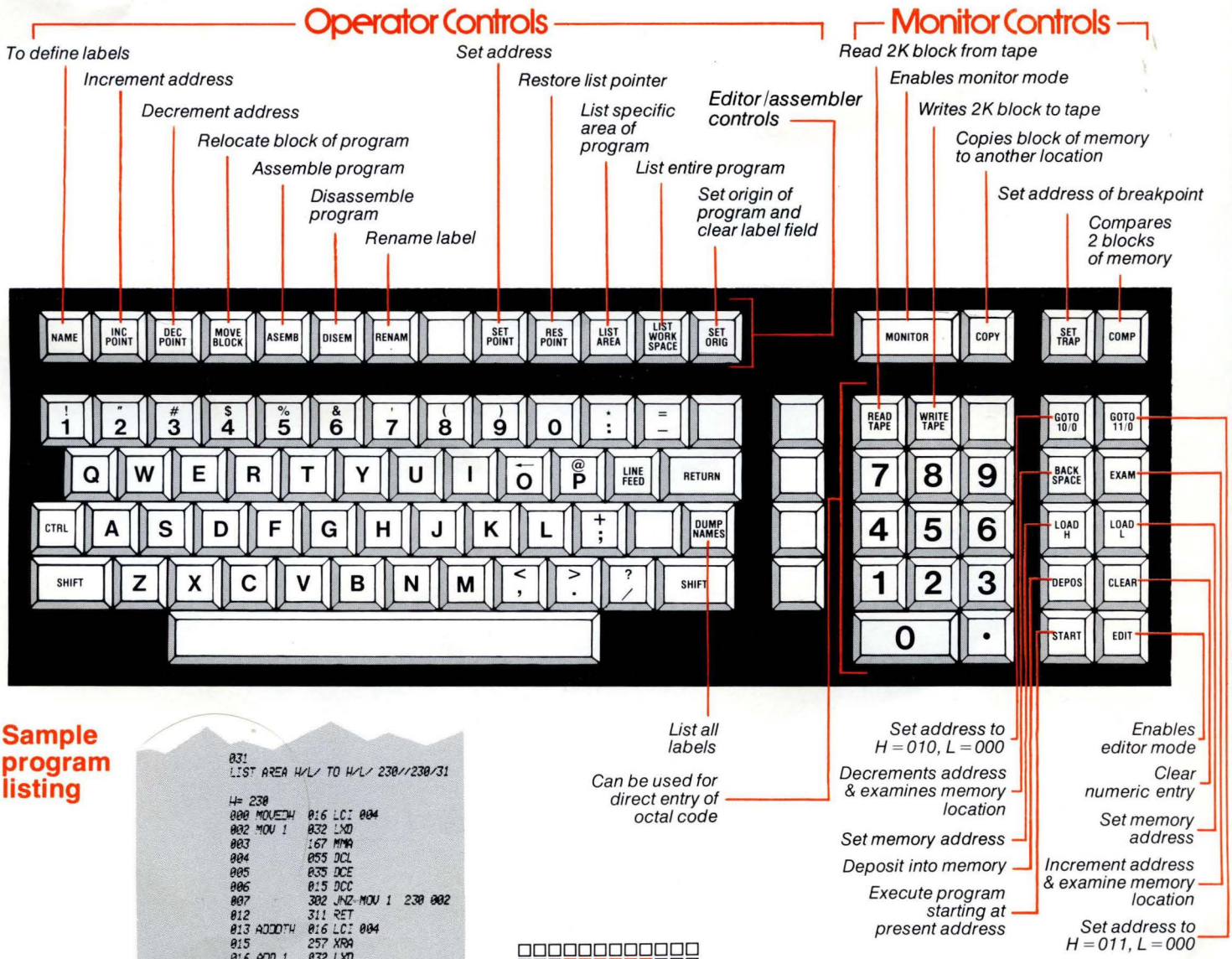
The software package is resident in ROM and consists of three parts: monitor, editor and assembler. The editor and assembler are interrelated since the software assembles the program as it is entered.

The Monitor—reads, writes and verifies magnetic tapes; copies and compares blocks of memory; allows direct entry or modification of any memory location; and has the capacity for multiple traps or breakpoints in the program. Entries are via numeric key pad rather than toggle switches and control keys are provided to set address, examine, backspace, clear, deposit and run.

The Editor—features control keys which facilitate program entry enabling the user to set program address, increment address, decrement address, label, list, move, assemble and disassemble programs.

The versatility and conveniece of the editor enables programmers to easily alter or rework existing or in-progress programs as the need arises. The programmer can also selectively list the entire program or portions thereof on the printer as required.

The Assembler—the efficiency of the μScope's assembler is unique in the industry. Since the assembler is designed to directly convert user entries into object codes, the only additional memory required is for labels. Typically, object code and labels will consume equal amounts of memory space, resulting in 50% efficiency of memory use. This efficiency ensures the programmer the ability to write extensive programs without running short of memory, and completely eliminates the time-consuming need to shuffle and reshuffle paper tapes.



Sample program listing

```
031
LIST AREA H/L/ TO H/L/ 230//230/31

H= 230
000 MOVEDW  016 LCI 004
002 MOV 1   032 LXD
003         167 MMA
004         055 DCL
005         035 DCE
006         015 DCC
007         302 JNZ-MOV 1  230 002
012         311 RET
013 ADDDTW  016 LCI 004
015         257 XRA
016 ADD 1   032 LXD
017         216 ACM
020         047 DAJ
021         167 MMA
022         055 DCL
023         035 DCE
024         015 DCC
025         302 JNZ ADD 1  230 016
030         311 RET
031         000 NOP
```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