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- Brand new feature called "ZAP-PROCESSING", allows you to display and edit any type of data or program file in "ZAP" (byte-hexidecimal) format.
- Any character or symbol your printer can print, even dot graphics, can be used in mid-line printing with the Special Character feature.
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What looks like COBOL, writes like a Word Processor, and runs like BASIC?

The BASIC Answer TBA

The BASIC Answer is a BASIC text processing utility. It is designed to allow the BASIC programmer to construct code in a structured manner. "Source" code is created with a word processor or text editor which allows the user to exploit with powerful editing and movement features characteristic to these types of software. Source code can also be created by means of a BASIC interpreter. TBA is then used to process this source code into ordinary interpretive BASIC code. TBA must be used exclusively with LDOS 5.1 operating systems.

TBA utilizes labels in lieu of line numbers. Branching in a program is accomplished by means of a descriptive label as opposed to an arbitrary line number. This means that blocks of code, subroutines, and procedures can be called and referenced by names which reflect their function, such as @ SORT.NAMES, @ FIND. MINIMUM, @ CALC.MEDIAN etc. Labels may be up to fourteen alphanumeric characters in length. This allows totally relocatable BASIC routines without the renumbering problems.

TBA supports variable names of up to fourteen significant alphanumeric characters. This means that cohesive descriptive names can be applied to variables in order to greatly augment program readability and comprehension, especially in the case of code which has not been examined for a long time.

For example, a typical TBA statement might be:

IF ACCNT. OVERDUE # > Ø THEN
GOSUB @ PRINT.WARNING
rather than
IFA1 # > Ø THENGOSUB51ØØØ

Clearly the first line contains a veritable wealth of information when compared to the second.

TBA introduces the concept of "Conditional Translation". This feature allows co-existence of "machine-dependent" code within the same source. TBA can be instructed to ignore the irrelevant sections when processing.

TBA allows use of Global and Local variables (psuedo). Local variables are those which retain their value only in a unique subroutine. This means that variable tracking and conflict problems are minimized.

The BASIC Answer combines the self-documenting benefit of COBOL with the casual structure of BASIC in concert with the editing power of a word processor. Truly a timely combination.

TBA runs on the TRS-80 Model I or III and LOBO's MAX-80. Requires the LDOS 5.1 Operating System (LDOS must be purchased separately). Contact your local dealer or Logical Systems for more information. To get **The BASIC Answer** order catalog #L-21-030. $69.00 plus $4.00 shipping and handling.

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QUIZMASTER

QuizMaster is an educational/information question and answer program that can also be used as a game. Its basic operation is to display a question and four possible answers. It scores the operator's response based upon the speed as well as correctness from one of three skill levels.

QuizMaster randomizes the order of the answer to prevent memorization. The question sequence is never the same. Extended play provides a "sudden death" feature for the skillful user.

QuizMaster comes with three subject files of 1ØØ questions each; U.S. Information, General trivia as well as Fantasy and Science Fiction trivia. These files can be increased or edited, or the user's own specialty files can be created and utilized. Each file can hold up to 255 question/answer sets and the only limit to the number of files is the number of diskettes you possess.

QuizMaster is educational, interesting and addictive. QuizMaster runs under the LDOS operating system (not included) to utilize maximum efficiency. The QuizMaster system includes all the facilities necessary to establish and maintain a series of multiple choice questions on any subject. The system is comprised of several machine language modules for fast access and response times.

WORD PROCESSOR-LIKE INPUT EDITOR

For ease of entry an "input editor" allows full transparent cursor motion along with insert and delete modes, type over and fast cursor positioning. This feature is found in both the "Add" and "Edit" modes.

FIVE SUPPORT PROGRAMS INCLUDED

Five support programs are provided to create, extend, edit, print and maintain question/answer files. Also included is a program to reconstruct a file that has been damaged by disk I/O errors or faulty disk media. A packing module allows files that have been heavily edited to be compressed and use disk space more efficiently.

All features are easy to use and easy to operate. Everybody loves trivia and now you can control it.

Other uses include:

- **classroom testing**
- **procedure quizzes**
- **product knowledge and**
- **group entertainment**

QuizMaster runs on the TRS-80 Model I or III and LOBO's MAX-80. Requires the LDOS 5.1 Operating System. (LDOS must be purchased separately.) Contact your local dealer or Logical Systems for more information. To get **QuizMaster** order catalog #L-51-500. $39.00 plus $4.00 Shipping and Handling.

For information or ordering call (414) 355-5454

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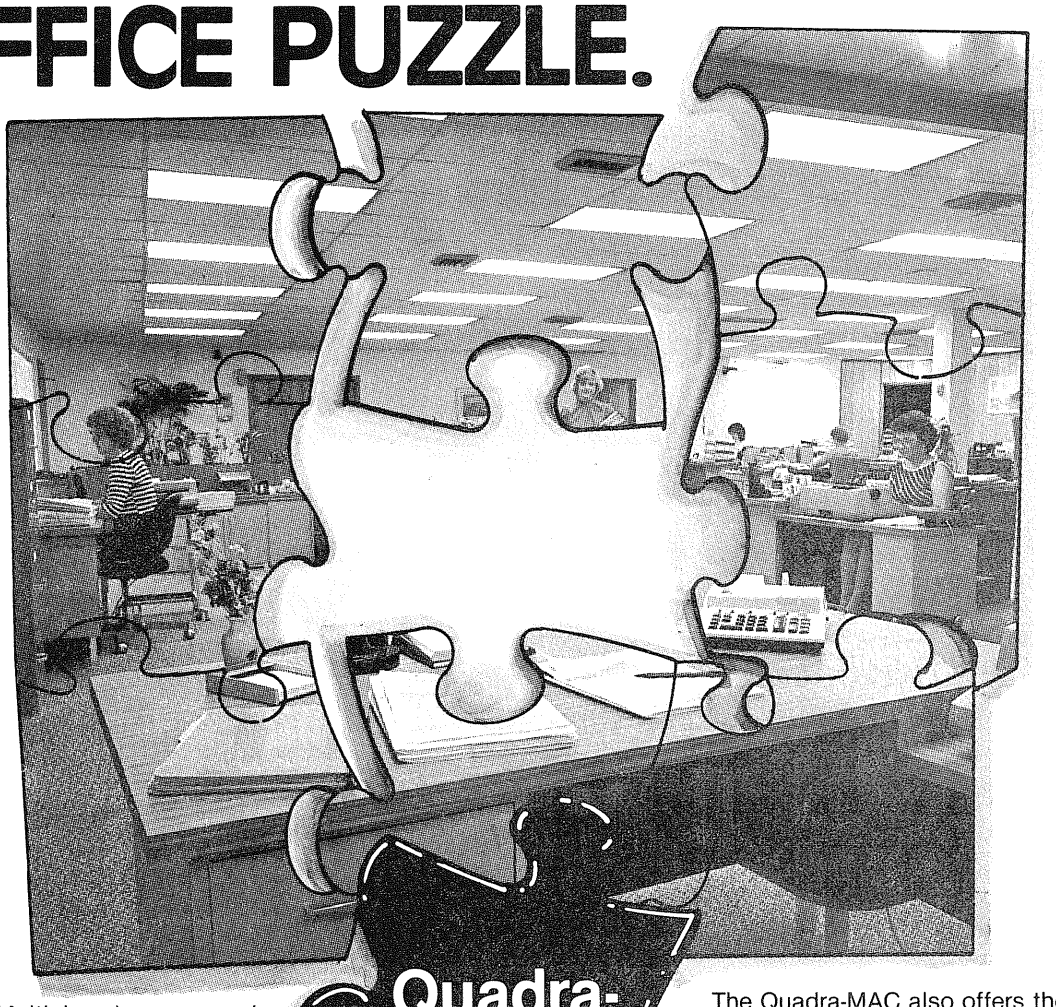
MULTIPLEXING, THE MISSING PIECE TO A BUSY OFFICE PUZZLE.



A Quadra-MAC (Multiplexor) can expand the capabilities, capacity, and speed of your office services with the minimum expenditure. The Quadra-MAC allows a company to hook up to four TRS-80 Model I and/or III computers to one hard drive. This immediately gives all of those computers the benefits of having their own hard drive but saves the company thousands of dollars because one hard drive can be shared by up to four computers instead of having to buy a hard drive for each unit.

The Quadra-MAC also offers the following features:

- Up to 100 foot cables (allows up to 200 foot radius between two terminals)
- Includes a DOSPLUS Operating System
- Compatible with most hard drive systems
- Full File Locking with Multiplexing Features (prevents the file from being altered by more than one operator at the same time)
- No connector or buffer box cost

The Quadra-MAC also allows each computer to use as much processor time as needed without affecting the other users because only the hard disk drive is being shared not the microprocessor.

In addition, each computer can run totally independently of the other computers without being affected by either hardware or software failure of another computer.

The Quadra-MAC is available for only $995.00 which includes the complete DOSPLUS Operating Systems. The cable costs only $2.50 per foot.

If MSS products are not currently carried by your local dealer, call Micro Systems Software for your closest dealer.

Dealer Inquiries Welcome.

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SPECIAL SOFTWARE REPORT

INTELLIGENCE
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If you want more intelligent computer software, then you should know about LISP. LISP is the premier language of Artificial Intelligence, applications of which include word processing, symbolic math, compilers and natural language processing. With special features that we have built into our interpreter, you can also use LISP to handle your more routine problems more intelligently.

To introduce you to LISP, we have included such programs as AIT's symbolic differentiator and algebraic simplifier to take some of the dirty work out of your math problems. This will leave you with plenty of time to get challenged by our poker player. Of course, a powerful LISP editor is included (written in LISP, naturally).

The primary reason for buying an AIT LISP system is our interpreter. That's because we've built in over one hundred LISP functions, including powerful and versatile I/O, trigonometric and exponential functions, function tracing, error trapping, integers, single and double precision floating point numbers, multi-dimensional arrays, files, strings and string functions.

In addition, the AIT interpreter is fast. That's important because your program can't execute any faster than the interpreter it's running on.

The entire system including the LISP interpreter, LISP editor, Poker Player, Math Package and manual sells for **$119.95**.

And to introduce you to our version for the TRS-80® MODEL III,* we are offering a very special price of **$79.95** until June 1, 1983.

For further information on the AIT LISP system call: **206/644-3068**, or write: **Artificial Intelligence Technologies 2121 N.E.152nd Redmond, WA 98052**

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Washington state residents must add sales tax.

206/644-3068

LISP INTERPRETER

"No, we're all okay, but our computer's gone."

It could have been a lot worse.

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80-USJ

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Special for Model I owners: the LX-80 Expansion Interface

Radio Shack may have forgotten you, but Lobo hasn't! Our LX-80 expansion interface (plus LDOS operating system) gives your Model I more features and more expandability than a Model II or III. The sturdy steel enclosure fits under your monitor and adds:

- 32k additional RAM
- Interfaces for standard Radio Shack minifloppy drives and Lobo high-performance disk systems
- Centronics-type printer port plus screen printer port
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- Plus a real-time clock, sockets for custom ROM, and a heavy-duty power supply for your keyboard unit

Discover the real power and potential of your Model I, with the bargain-priced Lobo LX-80!

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LDOS: the ultimate TRSDOS-compatible operating system

One of the few software products ever to receive a perfect box score from *Infoworld* magazine. The reviewer said: "LDOS 5.1 is awesome! . . . It performs nearly perfectly . . . a straightforward and simple system to use . . . the best manual for software I've ever seen or reviewed, bar none . . . This DOS takes the TRS-80 from the hobby category and endows it with features that many a so-called business system does not have. . . . LDOS offers unparalleled versatility and function."*

LDOS includes a powerful extended disk BASIC, smart terminal emulator, and many other useful utilities that make it worth far more than its low price. It runs on any Model I or Model III with at least one disk drive.

LDOS operating system (specify Model I or Model III) $129.00

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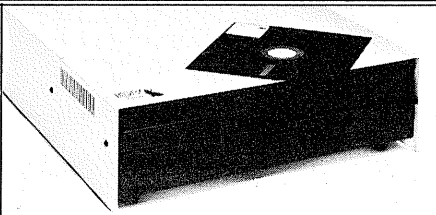

Add-on 8" floppies for Model II

Why pay Radio Shack prices to expand your Model II's disk capacity? The Lobo 8202C2 adds two 8" double-density floppy drives, for a total of 1.1 megabytes of additional storage. Installation and operation are identical, and you get the added benefit of Lobo's 1-year parts and labor warranty. **8202C2 dual-drive 8" floppy system for Model II $1269.00**

8" floppy systems for Model I and Model III

These rugged dual-drive systems attach to any Model I with LX-80 expansion interface, or any Model III, and add the mass storage you need for the big jobs. Double density recording stores 535kB on one side of the disk. Using the LDOS operating system (required) you get full compatibility with standard TRSDOS plus greatly increased capabilities.

8202C3 two single-sided drives (1.1 MB total) for Model III $1625.00
8202CX same as above, for Model I with LX-80 (sold separately) $1249.00
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5202CX same as above, for Model I with LX-80 (sold separately) $1549.00

Add-on minifloppy drives for Model I

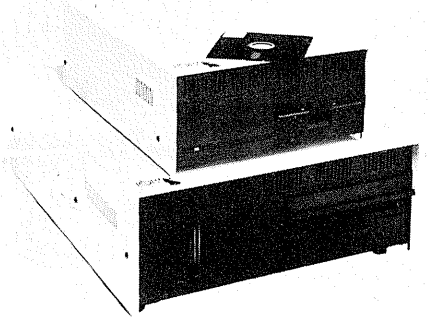
Completely compatible with all Model I hardware and software, but with an extra 5 tracks for data storage. Requires a Model I with either the Radio Shack expansion interface or the Lobo LX-80 (see left).

4401C Add-on 5¼" drive for Model I $305.00

High-capacity minifloppy for LX-80

An economical way to get a big storage boost for your LX-80-equipped Model I. The double-sided, 96 track/inch drive stores 720 kB, and eliminates most tedious disk swapping.

Model 4801C high-capacity 5¼" drive for LX-80 $465.00



Winchester disk systems for Model I and Model III

The ultimate mass storage devices! Enormous capacity and impressive speed give your system a dramatic performance boost. Add the impressive file-handling capabilities of LDOS (included), and you can outperform systems costing far more. IMPORTANT. Many Winchester disks now being sold have no provision for file backup. Lobo systems include a built-in high-density floppy drive that can store the entire contents of the hard disk on just 6 or 7 floppies. This backup drive is also usable for additional on-line storage of programs and data.

5¼" Winchester System

Compact and exceptionally reliable, with 4.8 megabytes of high-speed Winchester storage plus a 720 kilobyte floppy drive. The value leader in mass storage.

950T for Model III or Model I with LX-80 (sold separately) $2675.00

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- *Built-in numeric keypad with 4 programmable function keys.*
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003120 single-sided, 40 track; 180kB per diskette	**$ 690**
003420 double-sided, 80 track; 720kB per diskette	**$1,175**

Dual 8" Floppy Disk Systems

NOTE: Lobo CP/M permits reading and writing standard single-sided, single density CP/M disks with either of these systems.

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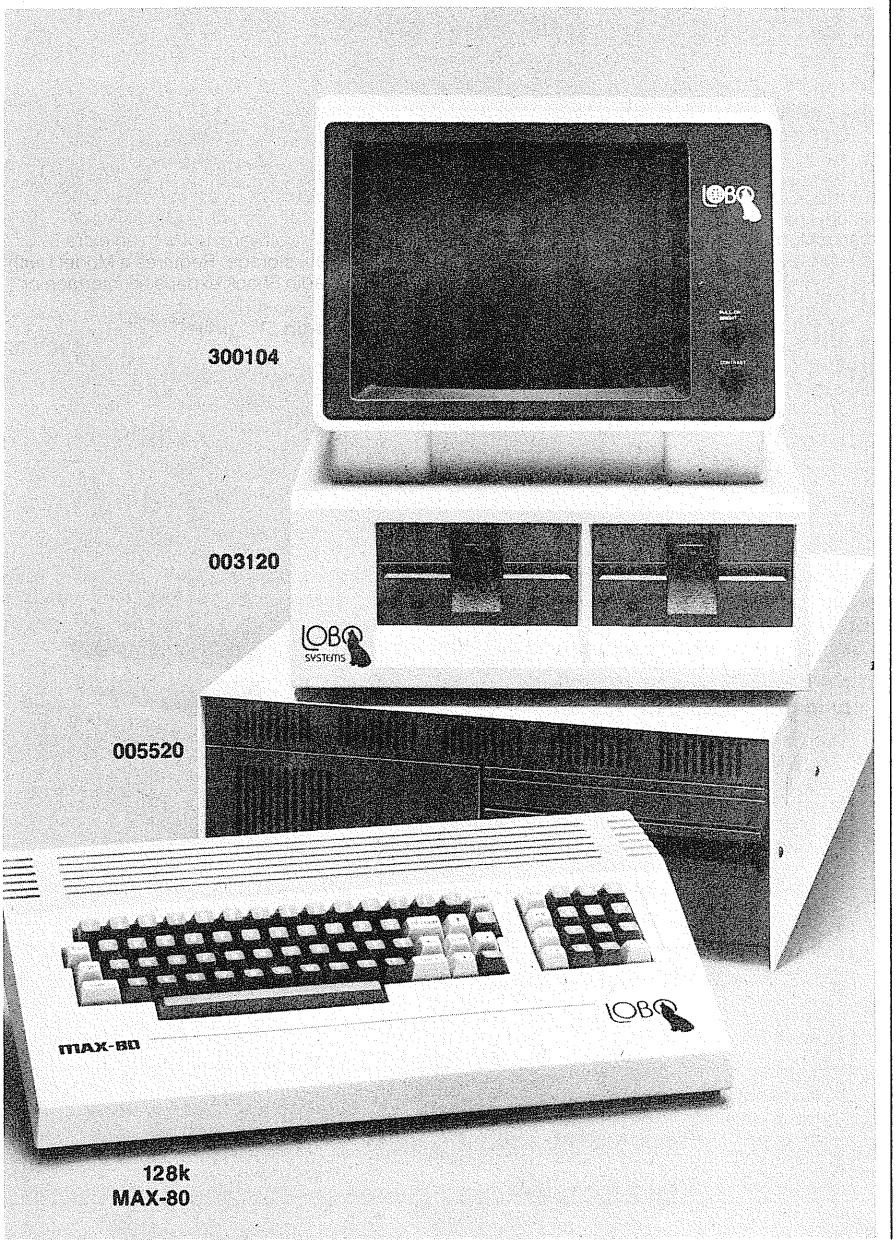

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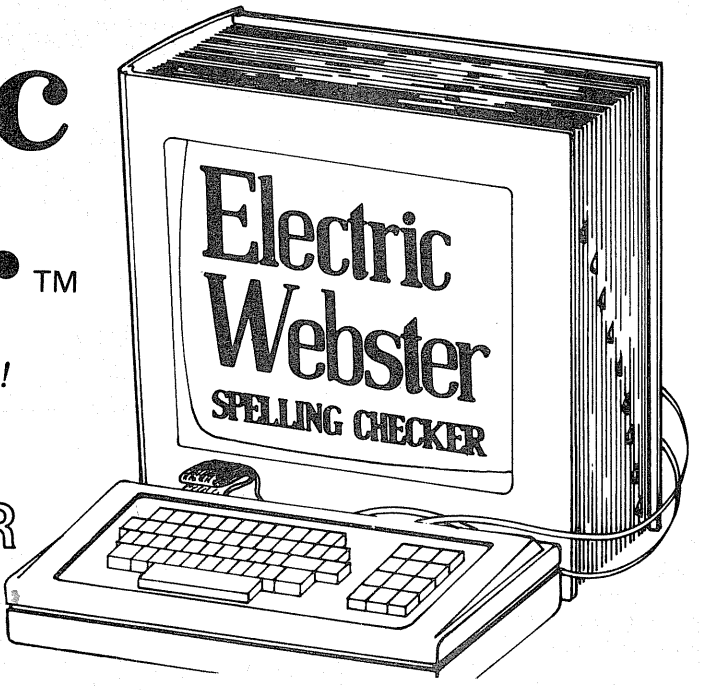

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If this sounds too good to believe, you don't need to take our word for it. Take the word of the thousands of *80 Micro* readers who voted Electric Webster the #1 spelling checker. Take the word of the scores of professional software reviewers who have raved about Electric Webster. Or, ask your local computer or software dealer for a demonstration, and see for yourself!

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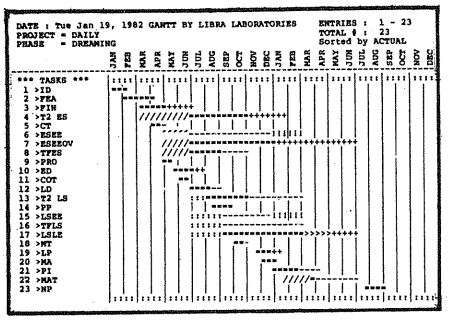

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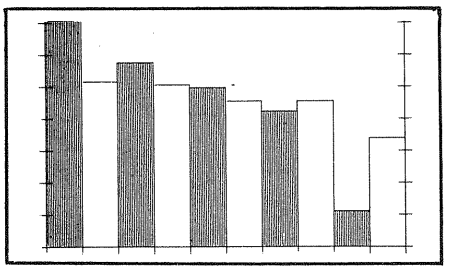

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The LOC. command locates succeeding instances of a given string or BASIC token. It is an invaluable aid when editing a large program. A new trace command is provided which lists the line being executed, as well as the current value of any variable(s) you select. A calculator-like command is available which displays the answer in 5 different representations, including hex, ASCII, and lsb,msb.

Other Features

Restore the DATA pointer to any DATA statement. Execute a string as a BASIC program statement. Call assembly routines without using DEFUSR. Reference lines by label or the value of a variable. Block move memory to scroll the screen right or left, or copy an array to another array —FAST! All this and **much** more is possible and easy to do with NEWBASIC.

Documentation

We don't skimp. You'll receive a thorough, quality user's manual with plenty of examples. You'll also get a handy reference card with a command summary. And several sample programs which demonstrate the power and simplicity of NEWBASIC.

Compatibility

NEWBASIC runs on a 48K RAM, 2+ disk-drive, TRS-80 Model I/III computer. NEWBASIC is compatible with most major DOS's, including DOSPLUS, LDOS, NEWDOS, and TRSDOS. It loads in low memory, below BASIC programs, so it does not disturb any high memory routines you may use.

Who Are We?

MSA was formed in 1980, but you probably haven't heard of us unless you own an LNW80 computer (we wrote LNW's enhanced disk BASIC). Our goal is to offer computer users outstanding software value for their money. We feel NEWBASIC is an excellent realization of this goal.

Pricing and Ordering:

NEWBASIC Version 2.0 is $39.95 + $2.50 shipping (foreign orders + $5.00 shipping, US funds only). (California residents please add sales tax). Both Model I & III versions are supplied on the same diskette. To order, send check, money order, or credit card (Visa, M/C) information to:

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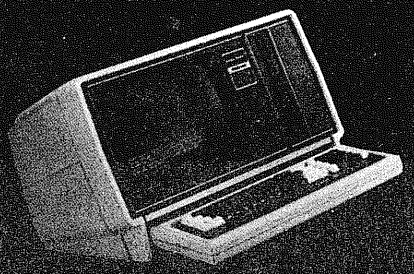

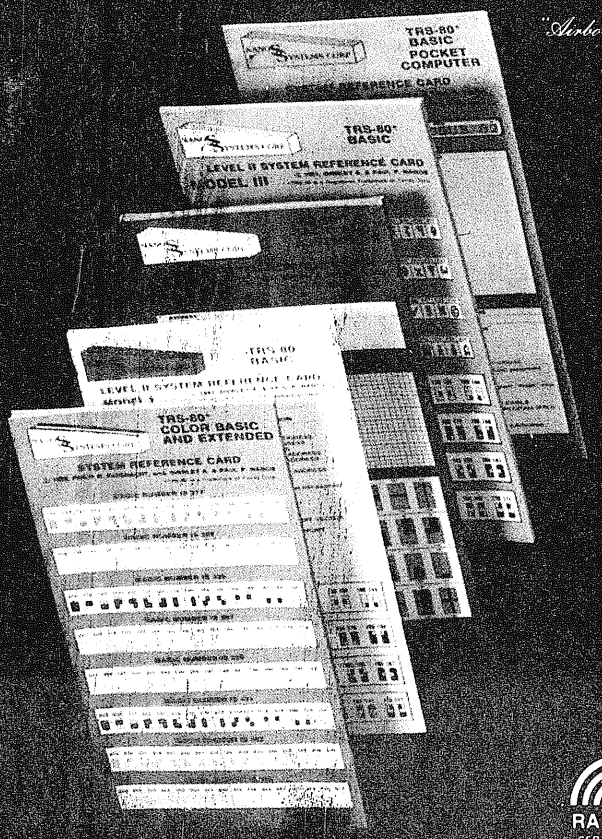

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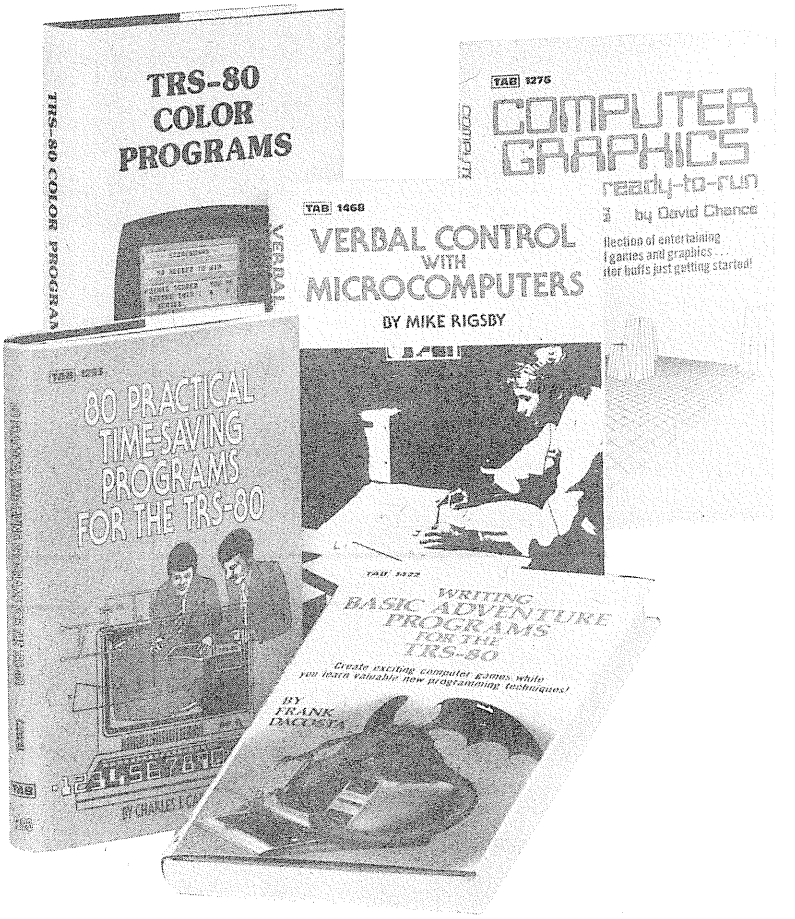

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