



P.O. BOX 10281  
NORFOLK, VIRGINIA  
23513

THE FREE TCS LETTER IS A CLUB PROJECT OF  
THE TIDEWATER TRS-80 USERS GROUP

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Welcome to the TCS newsletter where you can find the answer to such important questions as, "Why is Startrek's ENTERPRISE like a piece of toilet tissue?" (Because they both go around Uranus looking for Klingons, of course.)

## NEWS

The FCC versus RADIO SHACK. Which ones are the bad guys? Who will be the winners? Answers: no one and everyone, respectively.

The facts are becoming easier to guess at (since Radio Shack has a policy of rarely admitting anything). When the TRS-80 (later known as the MODEL I) first came out, there were no explicit regulations concerning the allowable levels of electromagnetic interference (EMI) radiation emanating from personal computers. The FCC received so many complaints about the TRS-80 and similar devices, they adopted technical standards which in part limit EMI from personal computers to a level ten times lower than is allowed commercial computers. Many people falsely assume regulations only apply if an RF modulator is used to connect the computer to a standard TV set. But EMI can be propagated from almost any part of a computer (printed circuit board, components, cables, etc.) because the fast transitions of clock and data signals are rich in harmonics of higher frequencies.

The new standards take effect in January 1981 and the MODEL I will either have to comply with them by that date or production will have to cease. The new Radio Shack 1981 computer catalog RSC-4 claims the MODEL I "is still going strong" but it looks like the EMI problem is so severe it will be discontinued rather than attempt a modification to reduce the EMI. Some say production has already ceased and they are just trying to sell off their inventory of it by January.

The prospect of the MODEL I going away angers a lot of present owners because they are afraid that new software for it will stop as well. But that doesn't seem likely now that the MODEL III is here. Even though it isn't being billed as a replacement for the MODEL I, it seems obvious that's what it is. It has the same Z-80 microprocessor, the same cassette I/O scheme and baud rate, the same 16-line by 64-character screen format, and the same BASIC language including both the Level I and Level II versions. Of course, there will surely be some minor differences but we expect them to be improvements (for example, the Level I BASIC will support a printer). The MODEL III will have a place for built-in disk drives (double density no less), built-in lower case, single unit construction that a lot of people would rather have, and many other nice features that are more compatible with the MODEL I than the two versions (Level I and Level II) of the MODEL I is with itself. All in all, the MODEL III seems to be an improved MODEL I which will be approved by the FCC. Everybody wins.

All of RADIO SHACK's TRS-80 computers (there are five of them now), printers and accessories are highlighted in their new 1981 computer catalog No. RSC-4 which is available at your local store. The reason all five distinctly different models have the same name has something to do with preserving the rights to use "TRS-80" as a trademark. The TRS part stands for Tandy Radio Shack and if the general public ever fails to associate that trademark with that company, the US Gov't can take away certain rights and protection which is normally afforded by the trademark.

TANDY stockholders got a 100 percent stock dividend August 1st which is like a 2-1 stock split. Anticipation of it and the announcement of the three new TRS-80 computers sent their stock up from \$48 to \$61 a share in just two weeks. They finished up their fiscal year on June 30 with \$1.385 billion in sales and manufactured 45 percent of everything they sold. In a move to broaden that base, they are in the process of taking over LIKA CORPORATION in California so they will have their own printed circuit board manufacturing facility. The \$249 POCKET COMPUTER is the only one of the five TRS-80's which is not produced by Tandy/Radio Shack themselves. They won't say who the manufacturer is but some say it is made by CASIO while others say it is made by one of the big Japanese names.

Some of the new Radio Shack disk drives now being sold for the MODEL I are 40-track versions. There is a rumor that hard disks are ready for the MODEL II but the announcement is being delayed for a few months until a larger stockpile can be accumulated. And speaking of MODEL II, a version 1.3 operating system will be announced soon to replace the 1.2 version which has about a hundred errors that have been discovered so far. Unfortunately, the two will not be compatible.

OKIDATA CORPORATION has been awarded a million dollar contract to provide 2,000 Microline 80 printers to CPU Industries, Inc. That may mean a shortage of it's availability within the coming year. We've found it to be a dandy little printer for the price and wouldn't want to be without ours.

We went to the Personal Computing Show at Philadelphia this year hoping to see the new Radio Shack computers and line printers but Radio Shack wasn't represented there. We soon forgot about them though because there was so much else to see. It was an interesting experience to meet and chat with people you feel like you already know because you've seen their names in the magazines... Scott Adams, George Blank, Allen Gelder, etc. There wasn't a whole lot that was new but seeing things in person beats just reading about them in ads. Hearing ORCHESTRA-80 playing the theme from the Lone Ranger over six octaves in four voices just isn't the same as reading an ad and imagining what it sounds like.

If you ever get a chance to go to one of these shows, do it. But take money. Almost everyone has a show "special". We picked up 16K memory for \$35 a set, Verbatim diskettes for \$20 a box, and other goodies at special prices. You could get an SA-400 disk drive for under \$200 and good prices on other drives as well as printers, modems, etc.

## ERRORS

We didn't think Microsoft's BASIC COMPILER would work with NEWDOS but reader feedback says it does. Sorry about that.... Also on the front page of our last issue (July) we forgot that our Selectric doesn't have the "greater than" and "less than" symbols we meant to use in the statement which will prevent an error in an "ON n GOTO" or "ON n GOSUB". It should have read:

```
100 INPUT X : IF X < 0 OR X > 255 THEN 100
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## HINTS

Do you realize you have a HEX to DECIMAL converter at your fingertips any time you are programming in DISK BASIC? Just attempt to print a hex number (or calculation) using the &H prefix: ?&H3C00 will display 15360, ?&HA000 will display -24576 (that's handier than a chart or TI Programmer since all hex addresses above 7FFF need to be negative) and either ?&H3C00+&H80 or ?&H3C00+128 will display 15488.... The MPU-131 Programmable Unijunction transistor used in the LNW Expansion Interface is the same as Heathkit part number 417-823 or the SK3628 in RCA's universal replacement line.... The character generator that features lower case letters with decoders can be ordered for \$15.90 from National Parts by a Radio Shack DEALER (non-Radio Shack owned store) using part number 864-6673 or 804-6673. Also, it is supposed to be available for about \$19.95 from EMMANUEL GARCIA & ASSOCIATES, 203 N. WABASH, CHICAGO, IL 60601.... When using a GOSUB inside a FOR/NEXT loop, you have to RETURN before attempting to execute the NEXT statement or you'll get an error.... If hardcopy is to be optional in your next program, use the printer on/off switch to select it. IF PEEK(14312)=63 the printer is on and ready so LPRINT statements can be executed. Or, POKE 16414,141 and POKE 16415,5 to divert PRINT's from the screen to the printer and then return to normal with POKE 16414,88 and POKE 16415,4. If you do not want hardcopy, just turn the printer off and PEEK(14312) will not equal 63 so you can either skip the LPRINT statements and continue with the program. Or, you could divert the LPRINT's to the screen with POKE 16422,88 and POKE 16423,4 and then return to normal with POKE 16422,141 and POKE 16423,5.... A trick for NEWDOS users is to CALL 43BD to activate the JKL screen print function. In BASIC, use DEFUSR1 = &H43BD and then A = USR1(X).... Unlike early TRS-80 power supply units that were sealed, newer ones come apart with screws hidden under the rubber feet to make fuse changing easier. By the way, some Radio Shack repair centers will give away bad power supplies they encounter and you may get one that just has a blown fuse. They are handy to have as a backup and can be used with either the CPU, Expansion Unit or the LNW Research Interface.... MODEL II users need a password for DOS. Try F36, it will open all password protection including level 6.

## TCS FREE BULLETIN BOARD

Free ad space is donated by TCS. A small percentage of any profits that result will be appreciated to help continue this service but there is no obligation.

**TRS-80 SPECIALIST NEEDED** - Full time, in-house program review and development, excellent opportunity. Must be proficient in 280 machine language programming for TRS-80 and intimately familiar with TRS-80 hardware, firmware and DOS. Send resume, programming samples and educational background to BILL COOK, EDITORIAL DIRECTOR, HAYDEN BOOK COMPANY, 50 ESSEX ST, ROCHELLE PARK, NJ 07662

**AMINOGLYCOSIDE DOSING PROGRAM** for the TRS-80, 16K, L2. Program estimates dosage of four aminoglycoside antibiotics, amikacin, gentamicin, kanamycin, and tobramycin. Program enables pharmacokinetic drug consults utilizing standard one-compartment pharmacokinetic equations. Dosing interval and elimination constant is dependent on estimated creatinine clearance. Documentation and reference provided. \$29.95 from J. A. BUTH, 1202 FOX ST, BOSSIER CITY, LA 71112

**CUSTOM PROGRAMMING** in BASIC, FORTRAN, and Nevada COBOL (under CP/M). Software made to customer specifications on either disk or cassette. Send your specifications or write for further information to JERRY M. BELL, 532 S. 2ND, FAIRFAX, OK 74637

**SAVE ON SOFTWARE** - Ramware Microproducts is allowing a five percent deduction off it's line of software on orders over \$20 (and we pay shipping). We carry 18 adventures (3 are new releases), 7 arcade games, 8 utilities, a newly released DOS by Randy Cook and many others. 9 page catalog from: ATTN: GREG NICHOLS, RAMWARE MICROPRODUCTS, 909 W. LOCKHART ST, SAYRE, PA 18840

**DISC DRIVES:** Two MPI B-52 drives, never used, must sell. \$355 each or best offer. Call STAN NACKDYMON (213)887-2868 (days) or (805)495-7954

**BETA-80 DIGITAL CASSETTE DRIVE**, new under warranty, 500K capacity, full feature file management operating system, 4 extra digital cassettes, standard cable and cable for E/I. Reason for sale, moved up to disc. List \$550, sale \$395. WM. J. SCHENKER, MD, 2086 ESSENAY, WALNUT CREEK, CA 94596 415/937-5868

**FOR SALE** - The famous DecWriter II LA-36, \$2,000 or best offer. Also, Radio Shack Line Printer I, \$500 or best offer. Only one of each. Please call 804/489-9412 (work) or 804/627-4838 (home) or write BOB BLINN, 123 WEST LITTLE CREEK RD, NORFOLK, VA 23505

**I WILL SELL ONE SET OF 16K MEMORY CHIPS** that are too fast for my older expansion interface. Paid \$75 for them but will sell for \$48. ART BOSSHART, 1658 C REORDAN COURT, KEY WEST, FL 33040

**PLEASE NOTE MY NEW ADDRESS** - I sell the PERSONAL ESTATE PLANNING program for 16K L2 (see Feb 80 Creative Computing) which is \$9.95 for cassette and documentation. Printer version also available. LARRY BUSS, 1109 CABRILLO CIRCLE, VISTA, CA 92083

**CLUB SEEKS USED SOFTWARE** - We will buy your used software in original form (on either cassette or disk) and with documentation. Send list and your asking price, then we'll send you a check for items we buy. WICHITA VALLEY TRS-80 USERS GROUP, PO BOX 4391, WICHITA FALLS, TX 76708

**USED SOFTWARE BOUGHT & SOLD ON CONSIGNMENT** - Recycle those no-longer-needed programs you paid good money for. SELLERS: Programs must be on original media with all documentation. Send list plus price you want. BUYERS: You pay seller's price + 10% postage & handling. Send SASF for current list of available programs. JACK DECKER, 1804 W. 18TH ST, LOT 155, SAULT STE. MARIE, MI 49783

**SERIAL PRINTER INTERFACE** - don't dedicate your RS-232 card and the memory it requires to drive a serial printer. Leave it free for modems or other uses. Instead, use the parallel port on either Radio Shack's or LNW's expansion unit by building a parallel to serial converter. Supports handshaking. Uses power from the expansion unit. Circuit board and instructions, \$24.95 from EHI CO., 7808 SHERYL DR, NORFOLK, VA 23505

**DISC CAPACITY PROBLEMS? (TRS-80 5-1/4" ONLY)**. Increase the capacity of your disc media by 100%. By using both sides of your diskette, this is not damaging to existing data on the media and has no degradation of performance. Include your diskette and send \$.50 for each diskette plus \$1.50 postage. TOM FRENCH, 8266 TANSY DR, ORLANDO, FL 32811

**MAIL YOUR FLYERS WITH OUR TCS NEWSLETTER** - The NOVEMBER issue will be mailed FIRST CLASS IN SEALED ENVELOPES to over 5,000 bonafide TRS-80 owners like yourselves. If direct mail advertising works for your type of product, you can avoid the trouble of printing flyers, folding them, stuffing envelopes, stamping them, addressing them, and maintaining a current mailing list. You also avoid the cost of envelopes and printing and it still costs significantly less than a bulk mail stamp for each flyer

\*\*\* You can have a FULL PAGE flyer printed from your camera ready artwork on the back side of one of our newsletter pages for only \$300 total cost. That's only about SIX CENTS each including printing, less than the cost of a bulk mail stamp by ITSELF.

\*\*\* If you would prefer a separate flyer printed on BOTH sides (187 square inches of area devoted to your product) the total cost will be \$375. That's still less than the cost of a bulk mail stamp.

\*\*\* If your business isn't that big yet, why not try an 8-1/2" by 3-2/3" MINI-FLYER for only \$125 printed on one side or \$150 printed on both sides. Even an individual can afford that price for 2,000 flyers mailed directly to potential customers because it comes to a TOTAL cost of only THREE CENTS each.

The NOVEMBER issue should be in the hands of readers before December 1st, just right for Christmas orders. The deadline for artwork is November 9 so you can make your flyer as current as possible. But reserve your space by sending a reasonable deposit as soon as possible. If all available space is already taken, please indicate whether you wish a refund or be included in the next issue (about February or early March) in which case there will probably be a reasonable increase in rates.

THIS IS THE LAST TIME THESE RATES WILL BE OFFERED. THE PRICE OF PAPER AND ENVELOPES HAS SHOT UP 35% IN THE LAST FOUR MONTHS AND HAS DOUBLED IN PRICE (100%) SINCE WE ESTABLISHED THESE RATES IN 1978. ALSO, WE ARE EXPECTING AN INCREASE OF 25% FOR A FIRST CLASS STAMP NEXT YEAR. EACH ISSUE OF THIS TCS LETTER COSTS SEVERAL HUNDRED DOLLARS MORE THAN IS RECEIVED FOR THE FLYERS WE INCLUDE WITH IT AND, PRESENTLY, THAT EXPENSE IS BEING COVERED BY THE SPONTANEOUS DONATIONS WE HAVE RECEIVED ENCOURAGING OUR PROJECT. BUT IT WILL BE NECESSARY TO INCREASE OUR RATES NEXT YEAR TO ET BACK TO A "BREAK-EVEN" SITUATION WHICH IS WHERE WE WANT TO STAY.

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## DOUBLE DENSITY IS HERE

We bought one of PERCOM's new double density adapters for disk drives at the Philadelphia show last month and we're very pleased with it. It's a circuit board about 4" square that plugs into your expansion interface in place of the 1771 controller chip. No other modifications are required. It contains a Western Digital WD 1791 double density controller chip, an empty socket for the 1771 single density controller chip originally in your expansion unit, and eleven other chips including a data separator circuit. We are using it with an LNW Research board and found that we had to install a set of extension socket pins because the surrounding IC's were in the way.

The system comes up in single density when power is applied so you can use any existing diskette and never know the adapter is installed. To use double density you must use "DBLDOS" which comes on a diskette with the adapter. It's track zero is single density so it can be read by the computer and it contains the information that will cause the adapter to switch over to double density so the remaining 18-sector tracks can be read or written to. Each sector is still 256 bytes so you really only get 80% more storage space instead of 100%. On an MPI 52 that means about 350K on each diskette. It's nice to slip in a disk with several fair sized programs and see that there are still 109 free grans left on one side and a 138 free grans on the other side.

DBLDOS allows you to copy any file or program from a single density diskette to a double density diskette or vice versa. When formatting a new disk in double density, you are allowed to specify 18 to 80 tracks which means it will work with the new "quad density" drives like the MPI 91 and MPI 92.

No diagrams were provided and part numbers were removed from the IC's so it took us five days to figure out what they were and draw a schematic. Companies like Percom should realize that some customers can not afford to have a unit fail once they start to depend on it. That means knowing what spare parts to have on hand even if someone else has to be called in to replace them. So they didn't protect anything, they just made us a little mad. We'll remember that, Percom.

A new voice-recognition unit known as the VET-2 is designed for use with the TRS-80 (Apple and Pet versions are coming) and costs \$895. It has a 98% accuracy but must first hear each person to use it repeatedly say the words it needs to learn for comparison. The words are stored in 40-word vocabularies on a disk which can be searched one at a time until the spoken word is found. It is available now from SCOTT INSTRUMENTS, 815 NORTH ELM, DENTON, TEXAS 76201.... If you have or plan to buy an IBM 50, 60 or 75 model electronic typewriter, you should inquire about the 50/80 INTERFACE (about \$250) and related software products from MEDIAMIX, PO BOX 8775, UNIVERSAL CITY, CA 91608 213/475-9949.... Elegant covers of cloth backed naugahyde vinyl in tan, blue or black are available in the \$5-\$20 range for all TRS-80 components and most disks and printers from other manufacturers. Call (904) 243-5793 or write COMPUCOVER, PO BOX 324, MARY ESTHER, FL 32569.... A new series of mini-floppy drives covers the range from 40 track single sided to 80 track double sided complete with case and power supplies. The unusual part is they offer a 14-day free trial and quantity discounts for clubs. Send for info and chart that compares specs with drives from eight other manufacturers. AEROCOMP, INC., REDBIRD AIRPORT, BLDG. 8, PO BOX 24829, DALLAS, TX 75224.... Should AC line voltage exceed high or low limits you set up, the POWER LINE INTERRUPTER will disconnect power from unattended equipment. It includes spike and surge suppression and response delays. \$142.95 for model with over and under voltage sensor, \$127.95 for under voltage only. ELECTRONIC SPECIALISTS, INC., 171 SOUTH MAIN ST, NATICK, MA 01760.... Programs previously saved at 500 baud can be loaded at 8000 baud (1K per second) by using FASTLOAD and a modified CTR-41 recorder so it will read during the fast forward mode. Unlike other schemes, it does not provide for high speed recording, just high speed loading so tapes are compatible with other systems. It is also capable of high speed search for programs. The interface is \$188 from PERSONAL MICRO COMPUTERS, INC., 475 ELLIS ST, MOUNTAIN VIEW, CA 94043

## OTHER NEW SOFTWARE

Ranchers and cattlemen now have a program to help make decisions in managing cattle feedlots and projecting the best selling price into the future. CATTLE FEEDLOT MANAGER (50) handles feed reports, weight reports, expenses, pounds of gain, profits, etc, and prints reports for over 100 feedlots. RANGE PROJECTION (\$50) prints a report to show you or your banker what expenses and profits will be for cattle before they are purchased. Call JEFF NOYNAERT (512) 684-6505 or write TODAY'S FUTURE, PO BOX 29251, SAN ANTONIO, TX 78299.... Allen Gelder has one of the neatest single step, trace and disassembler displays for use with TBUG we've seen. It's called SUPER STEP and is \$19.95. For \$44.95 you can get ACCEL which is a compiler for Level II BASIC which he imports from England. We saw it demonstrated at Philidelphia and though it takes some shortcuts, it is easier to use and uses so little memory it works in a 16K machine. From ALLEN GELDER SOFTWARE, BOX 11721 MAIN POST OFFICE, SAN FRANCISCO, CA 94101.... A pair of professional programs for commercial radio stations are available for the MODEL I TRS-80. They are the ELECTRIC LOG which schedules up to 500 spot orders and automatically generates daily program logs, and ELECTRIC BILL which handles up to 500 accounts for billing, etc. Together they are \$1,995 and sample "dumps" plus other information may be obtained for \$5.95 from THE MANAGEMENT, BOX 111, ALEDO, TX 76008 or call (817) 441-8045. They also have FORTRANSLATOR for \$29.95 which is designed to aid in literal translation of Disk Basic Model I programs into TRS-80 FORTRAN.... Based on the popular Lunar Lander, an arcade game called GRAPHIC LANDER with machine language graphics controlled by the four arrows is available from RAMWARE MICROPRODUCTS, 909 W. LOCKHART ST, SAYRE, PA 18840.... Bunches of games are described (and some illustrated) in a 16-page discount catalog from SOFTWARE INNOVATIONS, 320 MELBOURNE RD, GREAT NECK, FL 11021.... There is a Version 2 of the B17 high speed cassette operating system which speeds up cassette I/O by a factor of four. It is \$20 plus \$2 shipping. Other products include bare MPI 51 for \$250, the character generator chip with lower case decoders for \$30, printers, supplies, etc. Call (313) 971-1404 or send SASE for list to ABS SUPPLIERS, PO BOX 8297, ANN ARBOR, MI 48107.... Get a large listing of software (mostly games, but not all) and an offer to sell your own original programs. Call DANNY FUGEN (919) 442-2844 or write SOUTHERN SOFTWARE COMPANY, 304 MORING AVE, ROCKY MOUNT, NC 27801....

## READER FEEDBACK

YEAS and BRAVOS to Alpha Technology (PO Box 58499, Raleigh, NC 27658) for good customer relations. They sell a refurbished Selectric-based printer/terminal mounted in a desk with space for TRS-80 components which may or may not be bought with it.... BOOS to Apparat (various addresses in Denver, CO) for ignoring their customers.

The Sep/Oct 80-US JOURNAL is a real bonanza for the machine language crowd: BASIC Z80 disassembler, adding new commands to Level II, how to gain control of the reset button, how to get a "screen print" in Level II like JKL in NEWDOS, how to use Scriptsit with the Stringy Floppy, etc.... In the Aug PROG/80 the most interesting articles were a comparison of Micronet and The Source, how to write relocatable machine language and a tutorial on FORTRAN subroutines. Soon PROG/80 will be combined with SOFTSIDE.... The latest issue of BYTE is 400 pages but not all that much for the TRS-80. The Aug issue contained excellent construction plans for a \$50 modem and several articles on FORTH language.... Jul and Aug issues of H&E COMPUTRONICS had an outstanding 2-part article on USR subroutines and how to use them. The are now starting their third year of publication. Their sister publication, MOD-II, is a 6-page newsletter for Model II users that was started in March and the third issue came out in July.... "Garbage Collection", that irksome delay which can last up to several minutes while your TRS-80 recovers previously used string space during array handling, has been explained elsewhere. But now you can find out what you can do about it in THE ALTERNATE SOURCE #5. Among the other excellent articles is a detailed explanation of the keyboard scan routine by Dennis Kitz and the first extensive review of NEWDOS/80 (to be done in three parts).... A 12/24 hour alarm clock program and a simple circuit to plug into the cassette port may appeal to the experimenter in you. It's in the Oct POPULAR ELECTRONICS.

Our favorite club newsletter, OCTUG, seems to have died. At least we haven't received one since the July issue which contained an editorial called "DEATH OF A NEWSLETTER" which was about the lack of articles and other inputs for it. Murphy's myth, "it's too good to be true", must have been a law after all.

We hope to have a directory soon of all the clubs who have newsletters to sell or swap with other clubs. We are receiving so many club newsletters now it is impossible to comment on most of them except to say they are where we get a lot of our information for the rest of this newsletter. So keep it up, clubs, and always feel free to take anything from TCS that you want. In fact, if you don't have a newsletter, you can copy ours and put your name on it and save us the postage.

PROGRAMMING TECHNIQUES FOR LEVEL II BASIC (by Barden, 1980, 220 pages, \$4.95) is a "cookbook" of Level II BASIC routines which illustrate some of the finer points of structuring programs. It is applications oriented to show the best way to use searches, sorts, graphics, strings, etc. Almost every program line has it's own REMARK statement so you can follow the action better. The accompanying text is liberally sprinkled with corny humor for ease of reading. Available from RADIO SHACK.

INTRODUCTION TO TRS-80 BASIC LEVEL II AND COMPUTER PROGRAMMING (by Zabinski, Prentice-Hall, July 1980, 208 pages, \$14.95) is a tutorial type of book for the beginner who has started out with Level II instead of Level I. It contains exercises with each chapter. Available from PRENTICE-HALL, ENGLEWOOD CLIFFS, NJ 07632

MICROPROCESSORS/MICROCOMPUTERS: AN INTRODUCTION (by Givone and Roesser, McGraw-Hill, 420 pages, \$22.95) discusses the fundamentals of digital computing, logic components, memory circuits, architecture, programming, interfacing and applications for those who want to learn why and how their computer works. Available from MCGRAW-HILL BOOK COMPANY, 1221 AVENUE OF THE AMERICAS, NEW YORK, NY 10020

## ODDS N' ENDS

The Post Office has returned the newsletters of two more of our readers. Does anyone know the whereabouts of D. JENKINS JR. (formerly of 209 Weems Lane, Winchester, VA) or T. HITE (formerly of 705 4th St, San Raphael, CA)?... Another source for disk drive repairs (SA-400, FD-200, MPI-51, etc) has come to our attention. Flat rate of \$35 plus parts or \$15 if no problem found and that includes courttest checks of head amplitude, motor speed, write protect switch and head cleaning. They also repair Base-2 and Microline-80 printers. Contact TOM FRENCH of ALL SYSTEMS GO, 8266 TANSY DR, ORLANDO, FL 32811 but call (305) 351-6527 between 7 pm and 11 pm before shipping any unit.... We've been informed that you can save 30-50% in commercial typesetting costs with a new service that has a TRS-80 interfaced to their equipment. To get instructions on how to format diskettes to send them (with either Electric Pencil or Scriptsit), contact DAVE KNOCH, PACSETTING SERVICES, 200-J NORTH CRESCENT WAY, ANAHEIM, CA 92801 or call (714) 956-0860....

THANK YOU ONE AND ALL FOR THE ENCOURAGING LETTERS, DONATIONS AND INPUTS. THE LAST ISSUE WAS IN JULY AND THE NEXT WILL BE IN LATE NOVEMBER. SEE YOU THEN...



MODEL II



26-4002  
64K 1 Drive  
\$3499.00

MODEL III



26-1061 4K I. .... \$630.00  
26-1062 16K III. .... 900.00  
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## CENTRONICS

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## COMPUTER SPECIALISTS

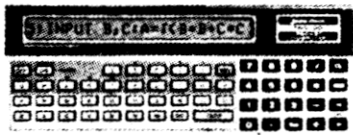
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26-1563 Scripsit - Disk. .... 85.00

NOTE: Call for availability of VIDEO TEX, Model III, Color, and other new products.

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Games 1-9 each. .... 14.00

### Pocket Computer



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26-3503 Cassette I/F. .... 45.00  
14-812 Recorder. .... 72.00

MODEL I



26-1054  
4K Level II  
\$552.00

COLOR



26-3001 4K. .... \$360.00  
26-3002 16K. .... 540.00  
26-3010 Color Video. .... 360.00  
26-1206 Recorder. .... 54.00  
26-3008 Joysticks. .... 22.50

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Products, Inc.**

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Star Trek. .... 9.00  
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\*TRS-80 is a registered trademark of the Tandy Corp.

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on All Items Sold.

Largest Inventory  
In the S.E. U.S.A.