

**Southwest
Ninety-Niners
Newsletter
contributed by
- Tom Wills -
SW99ers User Group President of Record
compliments of**



**TI99ers
On-Line
User Group**

www.ti99ers.org

NOVEMBER 1986

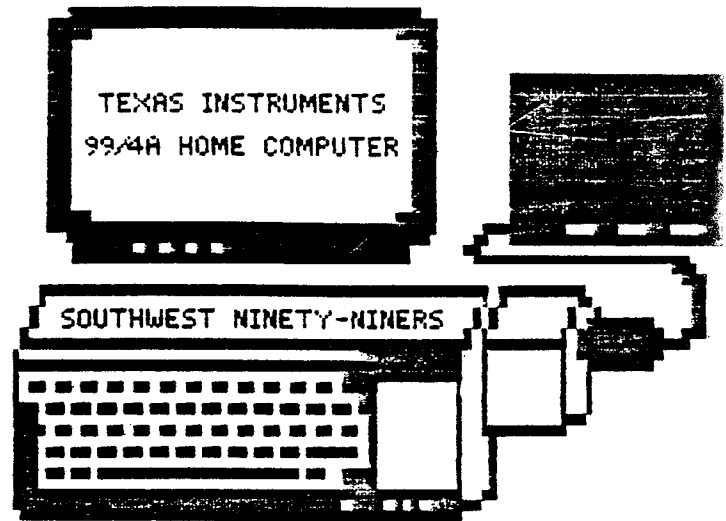
P.O. Box 17831 Tucson, AZ 85730

Officers

John McCleary - President
Ed Hallett - Vice President
Wesley Eng - Secretary
BJ Mathis - Treasurer

Newsletter

John McCleary - Editor
BJ Mathis - Assoc. Editor



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ATTENTION MEMBERS
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NEXT MEETING: November 4, 1986 at 7:30pm. Location-Tucson Fire Department Training Center on Ajo Way just west of Park.

WORKSHOPS: Basic - 2nd Thursday of each month at 7 pm (November 13th). Ex-Basic - 3rd Tuesday of each month at 7 pm (November 18th). Both at the Mathis Home - 5941 E. 26th - 747-5046

SPECIAL INTEREST GROUPS: Writer & Multiplan - 3rd Thursday of each month at 7 pm (November 20th). Mathis Home - 5941 E. 26th - 747-5046
Assembly Language & FORTH - 4th Tuesday of each month at 7:30 pm (November 25th). Rod Stallard's Home - 7575 E. Logan - 745-6071

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PRESIDENT'S CORNER
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In April of 1985 we held a Futures Workshop to aid us in determining where we wanted to go as a group. Since then we have done all of the things suggested at that planning meeting except "team program development". Although 12 votes were cast for this option we've had no success implementing it due to varying levels of programming experience, subject interest, and time limitations. Now is the time to hold another Futures workshop to provide us with new goals for the next year. So plan to join us Tuesday November 3, 1986 as we need you and your input. Yes, that is election day but the polls close at 7pm and results won't be available until much later that evening so join us.

We need your help. This month I'm appointing a nominating committee to help us select those individuals who will run for office and lead our club during the next year. Now is the time to assess your participation and get involved. Essentially the same people have been moving around as officers for several years. NOW it's time for some new blood. Don't saddle the same people with all the work, volunteer to run for an office. WE NEED YOU!

John McCleary * 296-8198

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Bytes & Jots

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Constitutions are available at the meetings. The constitution includes the latest revisions.

Several newsletters received this month have alluded to a new development from Miller Graphics and/or Craig Miller. It seems Craig made an announcement at the TI-Fair in Seattle. The only thing the newsletters agree on is that Craig is developing something new. He will explain his new ??? in January 1987.

We received the TI-Writer manuals, if you want one see me. We have a limited supply, and TI didn't like us ordering more than one at a time, so when they're gone, individuals will have to send for them on their own.

Version 3.3 of DM-1000 is now available for those who paid. BEAXS - Editor Assembler on disk by Paolo Bagnaresi (BA-Writer) arrived last week. As well as BA-Writer and BEAXS documentation on disk.

The Geneve can be ordered although it can not yet be shipped, the lowest price I've heard is \$410 including shipping.

We added several new books to the Lending Library. Some came with the system purchased by the group last month and some were bought from the donations through Group Orders.

If you do not have a subscription to MICROpendium you are missing out on the best publication I have seen for the 99/4A. It doesn't have slick color pages like the old 99er Magazine, but all the ads and even more information is there. They have been very punctual as far as delivery and have an excellent group of writers (C. Regena formerly of 99er Magazine and Compute will soon join them, too). Another publication that is supposed to be excellent is The Smart Programmer, although I have not yet seen one, the names of contributors are very impressive. There are several other publications around, some even on disk. If you are interested in Assembly Language I understand The Smart Programmer is really going into that.

A list of jobs and offices within the group has been prepared. If you are interested in working in any area within the group please let the nominating committee that John will be putting together at the meeting or one of the officers know. Please don't decide that since someone else is currently in that position that you shouldn't volunteer. Many of the current workers would like to work in a different position next year, are getting burned out, or would just like to at least give up part of their responsibilities. We need some new faces in the workers' positions. Thanks for the volunteers so far.

Leonard Taffs wrote an article for those still trying to figure out some of the basics of using the 99/4A. We hope this will become a regular column. Thank you Leonard. If anyone else has an idea for an article please feel free to contribute. Someone will type the article into the newsletter if you will just get it on paper somehow.

Ed Hallett got a phone call from Dave Romer, one of the developers of the Horizon RAMDisk. They congratulated Ed on not only figuring out the hardware modifications, but also the software modifications for increasing the size of the Horizon RAMDisk, much like some of their prototypes.

BJ * 747-5046

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CAN YOU EXPLAIN THIS?

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John Hale recently presented me with a printout of the following programs with the comments written all over the paper. Hope I deciphered it all correctly. If ANYONE can explain WHY? please call, write, YELL!, we will use it in the newsletter.

BJ

Timed Runs made in BASIC and X-BASIC
(Both programs written in BASIC)

100 PRINT TAB(7);"SUM OF 3 CUBES." : "FIND THE LOWEST 3 DIGIT NUMBER EQUAL TO THE SUM OF EACH OF IT'S DIGITS CUBED."	In XBasic
110 FOR HUND=1 TO 9	RUN 125 executes in 4.0 sec w/Expansion
120 FOR TENS=0 TO 9	Box Off
130 FOR UNTS=0 TO 9	3.8 sec w/Expansion
140 SUM=100*HUND+10*TENS+UNTS	Box On
150 IF SUM<>HUND^3+TENS^3+UNTS^3 THEN 180	
160 PRINT TAB(12);SUM	In Basic
170 END	RUN 125 executes in 11 sec w/Expansion
180 NEXT UNTS	Box Off
190 NEXT TENS	10.7 sec w/Expansion
200 NEXT HUND	Box On
	XBasic runs this program 2.6 times faster than BASIC. (Without Expansion)

100 PRINT "TEN-TIME"	In XBasic
110 FOR A=1 TO 10	RUN 110 executes in 13 sec w/Expansion
120 FOR X=1 TO 325	Box Off
130 NEXT X	12 sec w/Expansion
140 NEXT A	Box On
150 PRINT A-1;X-1	
	In Basic
	RUN 110 executes in 10.2 sec w/Expansion
(Note: High X=timer control	Box Off
supposedly a ten second timer	9.7 sec w/Expansion
	Box On
Basic runs this second program 1.25 times faster than XBASIC. (Without Expansion)	

** Expansion Box "On" improves both Basic and XBasic speed in most cases with short programs. (Tested with 32K in Expansion Box.)

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CORCOMP TRIPLE TECH MODIFICATION PROJECT

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by EDWARD A. HALLETT

SOUTHWEST NINETY-NINERS

The CORCOMP TRIPLE TECH CARD comes WITHOUT an LED on the front of the card like the other cards for the TI EXPANSION BOX. This project consists of TWO DIFFERENT modifications. The first installs an LED that will light whenever the "CLOCK" portion of the card is accessed. The second installs a TRI-COLOR LED instead that will light one color whenever the "CLOCK" portion of the card is accessed and will light a second color whenever there is DATA in the "BUFFER" portion of the card.

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CAUTION: THIS MODIFICATION IS UNDERTAKEN AT YOUR OWN RISK AND MAY
VOID YOUR CORCOMP WARRANTY.

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The first modification is quite simple as CORCOMP made provisions for an LED on the TRIPLE-TECH card but never utilized it. On the very early versions of the card an LED was installed but was disabled. This was because the LED was apparently mounted in the wrong location on the card and would not line up with the PLEXIGLASS WINDOW of the TI EXPANSION box. The LED was, therefore, disabled by burning it out. To restore its operation install a new LED in place of the old one and bend its leads so that the LED lines up with the PLEXIGLASS WINDOW. On later versions of the card NO LED has been installed but the provisions for one are still there.

1. Install a 100 OHM RESISTOR in the location marked "R1" at the BOTTOM LEFT CORNER of the card.
2. Install an LED in the position marked "LED" next to U6. CATHODE end (flat side or short lead) in the lower hole.

NOTE: For proper alignment with the PLEXIGLASS WINDOW the LED should be positioned in line with U6 with the base of the LED butted up against the end of U6.

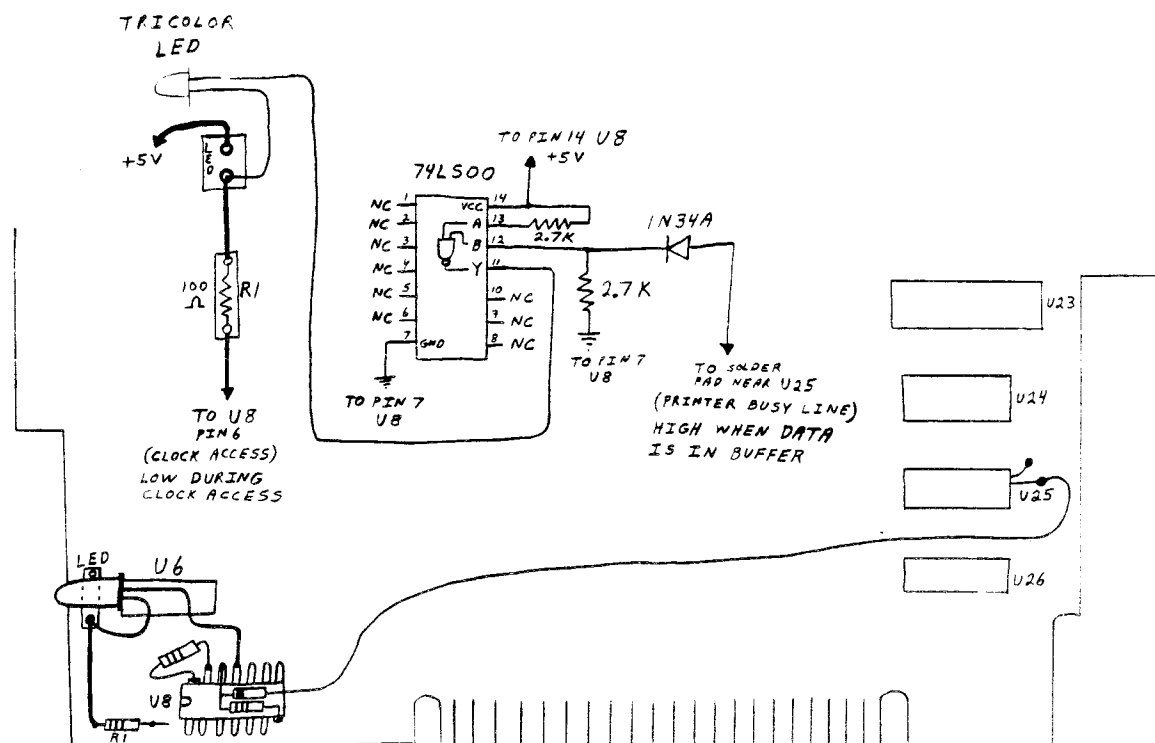
This LED will light momentarily whenever the "CLOCK" portion of the card is accessed.

The second (ALTERNATE) modification adds a TRI-COLOR LED that lights one color when the "CLOCK" portion of the card is accessed and lights a second color when there is DATA in the "BUFFER" portion of the card.

1. Install a 100 OHM RESISTOR at the location marked "R1" at the BOTTOM LEFT CORNER of the card
2. Install a NAND GATE (74LS00) PIGGYBACKED on top of U8. Connect PINS 7 AND 14 to the CORRESPONDING PINS below. BEND PINS 1 THRU 6 and PINS 8 THRU 13 outward.

NOTE: Use ONLY a 74LS00 CHIP, DO NOT use 74S00 or 7400 CHIPS, as they are not compatible with the TRIPLE TECH and PRINTER circuitry.

- This LED will momentarily light one color whenever the "CLOCK" portion of the card is accessed and will light a second color whenever there is DATA in the "BUFFER" portion of the card or flash the second color as DATA passes thru the "BUFFER" to the printer. When the printer is ON-LINE the LED will light ONLY when DATA is in the BUFFER. (However, some printers will light the LED anytime the printer is switched OFF-LINE.) My STAR MICRONICS SG10 printer lights the LED ONLY when DATA is in the BUFFER, regardless of whether it is OFF-LINE or ON-LINE.



Page 5

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Tidbits From September Newsletters

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Compiled by Ida McCargar

from SFV 99er Times, CA:

Hidden statements in Basic: How to use the Control key and a letter to get Basic Commands

The 10 cent fix for modifying a tape recorder

Tutorial #2 on Assembly Language

KC 99er:

7 ways to store programs

The mysterious four voice ability of the TI, and an original composition

A musical Happy Birthday program

Several articles on FORTH ROM, Orange Co: And so FORTH #10

LA 99ers TopIcs: Article on file handling in FORTH with program

and for Halloween, from Tigercub #39

```
100 CALL CLEAR :: CALL MAGNIFY(4):: CALL SCREEN(2) !The Blob by Jim Peterson
```

```
110 CALL CHAR(96,RPT$("3C7EFFFFFFF7E3C",4)):: J=1
```

```
120 FOR L=1 TO 28 :: CALL SPRITE (#L,96,16,L*4+20,10,0,L+8):: NEXT L
```

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130 FOR L=1 TO 28 :: CALL MOTION(#L,0,L*J):: NEXT L
```

```
140 J=J*-1 :: GOTO 130
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THE TAPE CORNER

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by Leonard Taffs of the Southwest Ninety-Niners

This is a beginner's column written by a relative beginner who is still close enough to all the frustrations of trying to decipher "Easy Instructions" (written by people who seem to be out of touch with what it is like to be a beginner) to want to try to clarify some programming terms that can be confusing.

Just what are NUMERIC and STRING VARIABLES? What is a VARIABLE? If you have wondered what these exotic terms mean perhaps this column will help. Walk (or run) to your nearest TI, type in PRINT A, then press ENTER. Now type in PRINT A\$, press ENTER. How does the computer respond to these commands? Read on!

One way of explaining what a VARIABLE is, is to think of how we use the word "WHO" in referring to different people at different times. WHO=MARY when the conversation happens to be about Mary. WHO=FRED in a conversation when you are talking about Fred. "WHO" then can be described as a variable because the person that "WHO" = is not forever the same person. A VARIABLE then, is a symbol (usually a single letter) that represents a certain quantity or value. When you typed PRINT A or PRINT A\$ you were using variables. ('A' is an example of a NUMERIC VARIABLE, 'A\$' is an example of a STRING VARIABLE.) What happens if you type PRINT WHO, then press ENTER?

For better or worse, computer talk uses math terms. A NUMERIC VARIABLE represents a quantity or numeric value such as A=10. Here 'A' is used as the VARIABLE and you have set 10 as the quantity. Note that the VARIABLE letter must be entered first (on the left side of the equation). If we use A\$ we're setting up a STRING VARIABLE. When using A\$= you must use quotations on the right side of the equation as in A\$="BANANAS". Try typing A\$=BANANAS (without quotation marks), and you will see why

you need quotations when you ENTER it. Space limitations necessitate limiting discussion in this article to NUMERIC VARIABLES. STRING VARIABLES will be discussed in more detail next time. It is very important to distinguish the difference between the NUMERIC and STRING VARIABLE because their use gives different orders to the computer. 'A=WHO' (NUMERIC VARIABLE producing a number PRINT A will give '0') and 'A\$="WHO"' (STRING VARIABLE producing letters instead of numbers PRINT A\$ will give 'WHO').

In math, alphabetical letters are used in formulas (computer language uses math terms) such as $A=B+C$. If letters confuse you, try substituting small numbers in your mind which are small enough you can add them in your head -- then $A=B+C$ can be $8=5+3$.

Earlier when you entered PRINT A you got a number response from the computer ('0', because you didn't tell the computer that 'A' equaled anything), now type $A=125$, press ENTER, type PRINT A, press ENTER, again. The computer will now give you the answer '125'.

Experimenting is a very good way to learn. Now try:

```
A=10    ENTER
B=A     ENTER
PRINT B ENTER
```

Ask the computer to PRINT A and see what happens, and then PRINT B. What about asking it to PRINT A,B? What happens if you ask it to PRINT 10? Can you understand why the computer gives you the answers you get? Try this:

```
A=5
B=6
C=A+B
D=C+3
PRINT A,B,C,D
```

A simple program for demonstrating the above:

```
10 CALL CLEAR
20 A=5
30 B=6
40 C=A+B
50 D=C+3
60 PRINT "PROGRAM VARIABLES ARE: A=5, B=6, C=A+B, D=C+3": : :
70 PRINT "A=";A
80 PRINT "B=";B
90 PRINT "C=";C
100 PRINT "D=";D
```

Notice in all these examples the VARIABLE symbol (the letter you are using for the VARIABLE) must come first! If you enter $10=X$ you are in trouble -- it won't work! Try it and see!!

One word of caution! Be sure to clear your computer memory between each experiment. You may get confusing results not agreeing with what you have been led to expect. (You clear the computer's memory by simply typing NEW and pressing ENTER.)

It has been fun (even if a lot of work!) writing this column. If it has helped some of you it will have been worth the effort. Please let us know whether this information is useful to any of you and any suggestions are most welcome! Have fun!!

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C'est la Vie, Ma Chere Geneve!

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by Joe Nuvolini, Pres, Front Range 99ers - October '86

First, I wish every success to Myarc with their new computer, the TI-99/4A follow-on, Geneve. With the home computer market in a shambles it is a bold move on their part. However, I have given some thought about how this new product will impact upon the current TI community. Will it strengthen it or will it weaken it?

Since Texas Instruments exited the home computer market several years ago we have all looked for a replacement or follow-on to the 99/4A. Whenever news of one hit the presses there was an air of excitement and a lot of speculation in all of the TI oriented publications. Time after time our hopes were crushed when the news turned out to be nothing more than a "pipe dream". Well, now, after all our waiting, it appears that the long sought after follow-on is here! I am afraid, however, that its impact on the community is going to do more harm than good. When we first started looking for a replacement the 99/4A was not much more than a toy. We were fooling around with game cartridges and very basic programs. Data base management was done solely with Personal Record Keeping. The TE II was the only telecommunications package available and although TI-Writer and Multiplan were available, they were pretty expensive, and therefore not available to everyone. The truly good software was cost prohibitive to many. Today, that is not the case. Exceptional software developers like Paul Charlton, Tom Frerichs, Mike Holmes, Bill Warren, Ralph Fowler, Marty Kroll, Monty Schmidt, Will and Tom McGovern, Barry Traver, Bruce Canon, and the like have given us software that would rival that of the finest PC at a price far below their worth. PRBASE has given us the ability to manipulate data as well as any system will. Fast Term and 4A/Talk are exceptional telecommunications packages. DM-1000 and Marty Kroll's Disk Cataloger allow us to manage our program libraries. Monty's Techie BBS and Ralph Fowler's TIBBS let us keep in touch with each other both locally, within our own users groups, and nationally, between groups. TI-Writer, now in the form of FUNLWRITER (or BA-Writer) is as good a word processing package as there is available for any computer. Multiplan is now within the price range of all. This program will do miracles when it comes to manipulating figures and is limited only by your imagination. What it lacks in speed it makes up for in flexibility. There are programs too numerous to mention that will do virtually anything you want, and the sad part is that currently the best of these will not work on Geneve and will have to be rewritten before they can be, hopefully, used.

And how about hardware... CorComp and Myarc have given us double density capability. These same companies, along with Horizon, and others have given us additional memory. PRBASE took 22+ seconds to load from a conventional disk, loads in under two seconds from the Horizon ramdisk. Craig Miller has given us GramKracker as well as some exceptional software products. The old system that was limited to 48K can now be greatly expanded. Mine has 320K now and has room for much more. Clock cards, buffers and the like have given this system tremendous capability.

So what are we to gain from Geneve? Speed, of course, a bit more memory, more colors, better graphics are a few of the things. For me, I'm not sure they're worth the money if I have to give up 4A/Talk, Fast Term, Funlwriter and the like. I know of only one member of our users group, which numbers about 95, who currently plans to purchase Geneve. I would probably buy a PC before I bought Geneve, although I have absolutely no intention of doing that. I can do everything I want with my handy 99/4A, so why spend the funds on a PC, when I'll just have to start the software hunt all over at much higher prices, I might add. I would imagine that software unique to Geneve will be expensive also because of the limited market. I see the Geneve'ers as a small splinter group that will break with the current TI-99/4A community and go off

on their own. I wish them and Myarc success, but honestly feel that Geneve has come too late for most of us. When we were looking for a replacement we didn't recognize just how powerful and versatile the 4A was. Now we do and I think that most of us will hang on to them for a long time. C'est la vie, ma chere Geneve!

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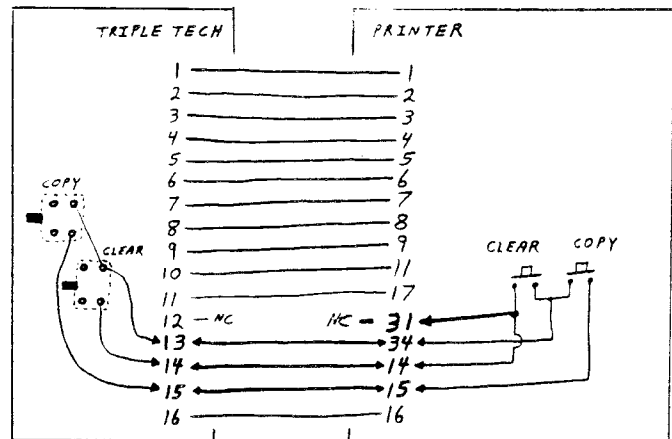
CORCOMP TRIPLE TECH REMOTE COPY/CLEAR SWITCH MODIFICATION

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by EDWARD A. HALLETT

SOUTHWEST NINETY-NINERS

For those who wish to have REMOTE "COPY" and "CLEAR" buttons for the TRIPLE TECH here is a NEW APPROACH! Pins 13, 14, and 15 of the printer jack of the TRIPLE TECH card are not used by the card. By connecting these three pins to the "COPY" and "CLEAR" switches on the card the REMOTE switches can be mounted on the PRINTER ITSELF! Pick up these three lines thru three UNUSED pins on your printer's PIO jack and run them to two REMOTE switches you install on the printer. By connecting a jumper between PRINTER PIN 31 (RESET) and the line from the clear switch the PRINTERS' internal BUFFER will be CLEARED at the same time as the TRIPLE TECH BUFFER. (PINS 14, 15, 34, and 35 are UNUSED on STAR MICRONICS SG10 printers)



Questions concerning this modification should be sent to:
EDWARD A. HALLETT, 5600 S. COUNTRYCLUB #64, TUCSON AZ 85706. Phone (602)889-6930.

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BUYER'S GUIDE

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The following information is provided as a service to our members. The items listed are for sale by the individuals indicated and are subject to prior sale. The group assumes no responsibility for items listed and makes no claims as to their condition or interface capability with the TI-99/4A computer. Only computer related items will be accepted for publication in this newsletter.

TI-99/4A Console, Cassette cable and two games \$60. Call Ejaz 623-8257.

TI-99/4A Console \$50; PE Box (empty) \$150; Extended Basic \$30; TI LOGO \$15; (plus the following cartridges) Tax/Investment Record Keeping; Attack; Number Magic; Car Wars; Tombstone City; and TI Invaders. Documentation and cables included. Call and make an offer John 296-8198.

Hunt the Wumpus command module \$3. TI Program Cassette Recorder w/cable \$25. Call Mike 722-8620 evenings and weekends.

TI 99/4A Console, PE Box, RS232, 32K Memory Expansion, Disk Drive and Controller, Speech Synthesizer, External Disk Drive with room for one more, original TI-99/4 Color Monitor (13"), Centronics printer, Super Sketch. Software: TI-Writer, Extended Basic, Multiplan, Editor/Assembler, Forth, Disk Fixer, Adventure, Parsec, Munchman, Moonmine, TI Invaders, Car Wars, Music Maker, and many more. Books: Compute's Guide to the TI-99/4A, Introduction to Assembly Language, Starting Forth and many more. Entire setup: \$600. Call Tom Alquist 747-7628.

Sakata SG1000 high resolution green monitor composite video w/video cable \$60. Call George 742-3091.

TI-99/4A Console, PE Box w/CorComp DSDD Disk Controller Card, RS232 Card, and 32K Card. One SSDD Internal Disk Drive, one DSDD External Disk Drive, 13" Color TV, TI-Writer, MULTIplan, Editor/Assembler, Personal Record Keeping, Personal Report Generator, Personal Real Estate, Securities Analysis, Household Budget Management, Tax/Investment Recordkeeping, one year of Home Computer Magazines, over 50 disks with several programs including TI-Artist. Instruction manuals and documentation included. Selling as a unit for \$600. Call Art Galvan 748-8930 after 4pm.

TI-99/4A Console, TI Joysticks, Thermal printer, Cassette Recorder, 12" TV(BW), Selling all for \$125 or best offer. Call Paul Garrison 747-3884 (Days) or 573-0572(Evenings).

Star Micronics Thermal Printer w/4+, 100' rolls of Thermal paper & instruction book. Requires parallel RS232 hook up - \$100 o.b.o. Shugart SS Disk Drive PHP 1250 for use in PE Box w/TI Disk Controller Card PHP 1240 & TI Disk Manager 2 - \$100 o.b.o. Manuals and ribbon cable included. Call J.F. Hale 296-5602 evenings.

Modem Signalman Mark III \$30. Call Art Galven 748-8930 after 4pm.

From the SOUTHWEST NINETY-NINERS - PE Box (Empty) \$100, TI Drive & Controller \$100, Tax/Investment Record Keeping \$3, Video Chess \$8, Typing Tutor \$7, TI LOGO II \$10, TI-Writer \$17, Data Base Management Module \$30, Securities Analysis \$12, Personal Report Generator \$7, Mini Memory \$20, Parrallel Ribbon Cable \$8, Joystick Adapters \$3 ea, Monitor Cable \$3. Call BJ 747-5046.

HAPPY THANKSGIVING NINETY-NINERS