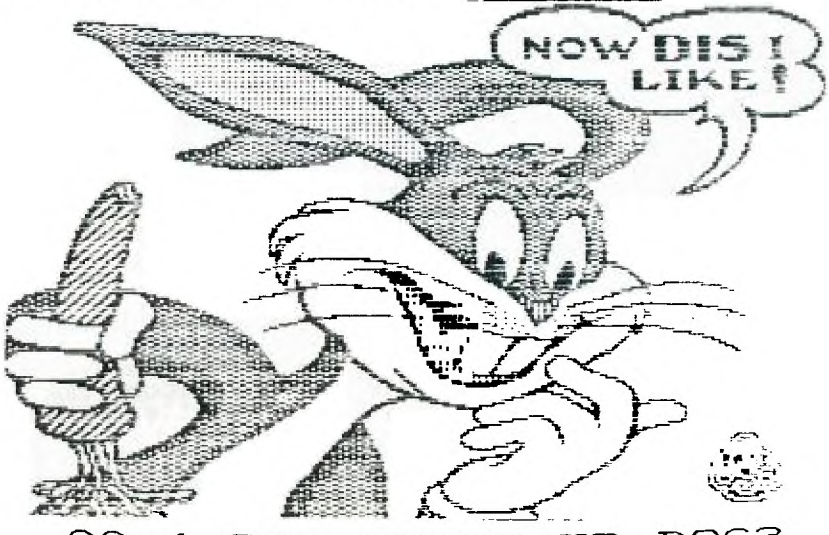
# NEWSLETTER 9T9

Texas Instruments
USERS GROUP
TORONTO

FOR THE TI-99/4A COMPUTER
and compatibles

9-9-9-9 T 9 RIGHT!

# JULY-AUGUST 1987 DOUBLE ISSUE




99-4 EH, WHATS UP DOC?

FROM:
9T9 Users Group
#100-2350 Carrard St. East
Toronto, Ont., M4E-2E2
CANADA

TO:

Edmonton 99' er Users Soc
P. O. Box 11983
Edmonton, AL T5J 3L1

9T9 EXECUTIVE COMMITTEE

PRESIDENT S
VICE-PRE..D
SECRETA..M

OFFICER AT
LIBRARY DIR

PAST-PRESIDENTS L
E

N E

Steve Micke
Associate E

M

FULL MEMBER
NEWSLETTER

All memberships a
subscription is
meetings, but wis
to our library.
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C O M M

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Members are enco
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9T9 USERS GROUP (TORONTO)

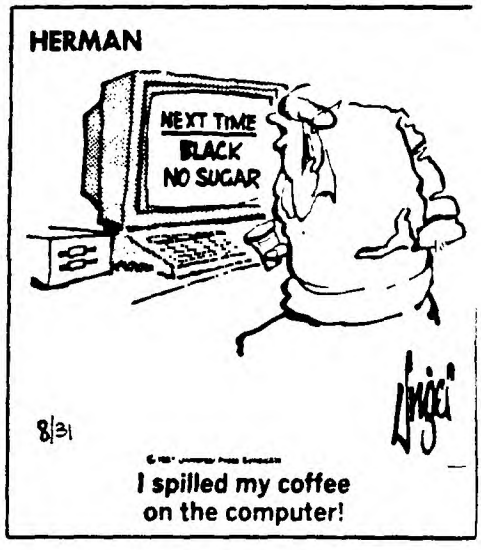
NEXT MEETING-TIME AND PLACE

TUESDAY, SEPTEMBER 29, 1987.

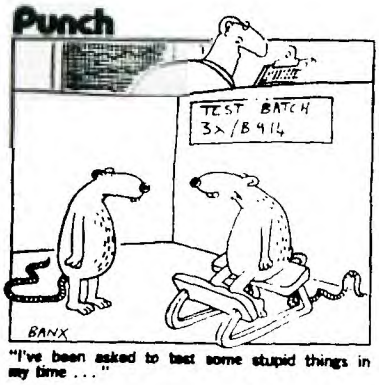
HIGH PARK-ALHAMBRA UNITED CHURCH
260 HIGH PARK AVENUE
SOUTH/WEST CORNER OF HIGHPARK AVENUE
AND ANNETTE STREET
PARKING OFF HIGH PARK AVENUE
SUBWAY TO HIGH PARK STATION AND TAKE
THE HIGH PARK BUS WEST THEN NORTH TO
ANNETTE STREET.

TIME 7:30 P.M.

"So much for computer dating




I spilled my coffee on the computer!




"I've been asked to test some stupid things in my time . . ."

FOR SALE

For sale: one TI console with built-in 32K, works fine, for $130
also, almost new Commodore model 1902 monitor, for $275.
Call Kemmy at (519)-945-9141, Windsor

# TId Bits, #11

-By Steve Mickelson, CIS 76545,1255; DELPHI SMICKELSON

Better late than...

This issue, an expanded one for July/August, was more or less ready to go to press two weeks ago. The delay was caused by problems Randy had with the city of North York, as to which school our next, (September), meeting will be, as well as which night is available. We wanted this info printed in this issue, as the inside postal workers appeared set to strike in September. As far as publications are concerned, it seems Bruce Ryan hasn't sent out an issue of his Ryte Data publication, since June, (which was April's issue!), I wonder if it has gone the way of Home Computer Magazine. I have been a charter subscriber of the R/D publication, and hope I haven't been burned for this years pre-paid subscrition! What's up, Bruce?

Another NAGgin Problem:

Speaking of late arrivals, club member, Bill Watkins called me re: a DS/DD full height MDI drive he ordered in December/86; received damaged in March and promptly returned; and finally got a replacement in mid-August. The firm he was dealing with was non-other than the National Assistance Group, (which Bill refers to as "NAG"), of Ft. Lauderdale, Florida.

This group, as some of you may well-remember, NAGged me a bit as well. I too, had ordered a couple of items; namely a Corcomp Disk Controller Card and Myarc 32K Card on two different occassions. In both cases, it took several letters, phone calls, and over six months, to process my orders. I have, both before and since, dealt with other groups; Texcomp, Triton, Disk Only Software, and others, and must say, from my personal experience, that avoid NAG, unless you think such slow turn-around justifies their sleightly lower prices. Also, if an item isn't available you don't receive a refund but their merchandise coupons, a procedure regularly practiced but not spelled-out in their sales literature. I feel NAG's performance hurts the reputation of other honest, above-board mail-order companies. By the way, the drive **did** work, when I tested it for Bill.

Anniversary:

This issue marks a landmark for me. It has been exactly one year since I took over the helm as Editor for the Newsletter. TId Bits has been around a month or so longer. I have re-printed an exerpt from Ron Albright/Jonathan Zittrain's T. Forum column in the August/'87 issue of Computer Shopper magazine. As you can see Newsletter 9T9 rated as "Newsletter of the Month". The kind words about it, seem to confirm that I must be doing something right, in that department.

New Members Priority:

I hope I can see to it, that we can have an expansion of membership, by the distribution of fact-sheets amongst our members. These can be posted at your local libraries, supermarkets and community centres. Expect such a detachable sheet in an upcoming issue of our newsletter. Further, I've uploaded some of articles on Compuserve and DELPHI, to give us a higher profile in the TI community. So far new members who have heard of us through our booth at computer fairs and in in various publications have offset those leaving, because they moved or changed computers, etc. I am still amazed how many new users we meet who have not heard of our club or thought we had folded long ago. For every used TI system sold, a new user springs-forth. Current membership of our group is still around 80-strong. I feel the much improved library has revived the club, but new seeking members is critical for our future.

Re: Broken Keys and Such:

A computer club can never get enough help. If you can offer any help with services, articles for the newsletter, writing a review or demo of a favourite/hated piece of hardware/software, or giving a demonstration or two, don't be shy. Read that Brok#n K#y article for an idea of how important **you** are to us.

Thanks to Randy Rossetto for his contribution to this issue of the newsletter, and to Blair MacLeod, as well. Thanks, also, to Steve Findlay, who volunteered his services as director of our loaning library of back-issues of other clubs' newsletters. This will relieve Gary of this task, so he can concentrate on disk of the month orders. Also, Steve, who frequents the various BBS', put me in contact with Bob Fowler. Bob sent me a "care package" of articles and E-mail from his BBS on several flippies. Several of the articles appear in this issue, and more will, later. I thanked Bob by sending him a package of back-issues of the newsletter.

BBS: News and Views:

We would like to wish Cy Leonard a farewell until next year. It appears that, as his BBS is shut down, Gary Bowser will pick-up the torch, as far as having a BBS. Gil Tennant still has a BBS for night owls and weekend modem users. And, I am happy to say the Science Centre has a special SIG for TI Users. The numbers for the various BBS' are on pages 3,9 and 13 of last June's issue of the newsletter.

-from Cy Leonard's BBS...

To : ALL
From : SYSOP
Title: NEW TI BBS

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IMPORTANT NOTICE

IN ORDER TO PROVIDE CONTINUITY, WHEN THE SWAP SHOP GOES OFF LINE AROUND SEPT 10 OR 11, GARY BOWSER WILL BE TAKING OVER AT 921-2731 WITH YOUR SAME NUMBERS AND PASSWORDS EFFECTIVE. HE WILL ALSO TAKE OVER THE SWAP SHOP MESSAGE BASE WILL BE RUNNING ON A 24 HOUR BASIS.

NEEDLESS TO SAY, YOU WILL BE IN GOOD HANDS! WE WILL KEEP IN TOUCH FROM SAFETY HARBOR AND YOU CAN REACH US AT 813/726-9192. BBS:813/725-4568. 48 SUGAR BEAR DR. SAFETY HARBOR, FL. 34695. (Please note new ZIP Code).

*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*+*
=-> CysOP <=-

Message #55 23:23 09/07/87 Public
Topic: Telecomm
To : ALL
From : SYSOP
Title: WHERE ARE THEY?

Just noticed some prominent names for the 9T9'ers have never signed on this board which has been running 24 hours per day for months! No modems? where is.....

## DOES YOUR NAME BELONG HERE?

Have you all gone to Big Blue?

Message #56 09:10 09/09/87 Public
Topic: Telecomm
To : ALL
From : SYSOP
Title: GARY BOWSER BBS

********** IMPORTANT **********
GARY BOWSER WILL PUT HIS NEW BBS ON
LINE WITH THIS MESSAGE BASE AND MEMBER
LIST FROM THIS BOARD, SO THERE WILL
BE DIRECT CONTINUITY. 921-2731
**********

-=> CYSOP <=-

Message #60 21:06 09/10/87 Public
Topic: Telecomm
To : ALL SYSOP
From : SYSOP REMOTE
Title: AU REVOIR

I would like to thank all the 'ol Swap Shop gang for their support this summer and of course a very special thanks for the great work Gary did on this program. It will sure get a work-out at our home base. Keep in touch... mail swaps welcome.

48 Sugar Bear Dr. Safety Harbor, Fl
34695 813/726-9192 BBS:813/725-4568

Thanks again everybody...TI lives on!

-Cy Leonard

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THIS WEEK'S NEWS. 09/09/87
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Watch this section for the latest news on the 9T9 UG new meeting place.

By end of Nov. I hope to have a 20mb hard drive and maybe also a 2400bd modem.

Right now we have over 800K for U/L D/L but later on I hope to get my old 90K drives to work and we will have some more room.

- Welcome to the ? BBS.

So far I have not got a name for this BBS. So I am going to have a Name Contest. All you have to do is leave a Public message to the SYSOP, stating that you want to enter the contest and leave a name and why you like this name.

The Judging will be held at the next club meeting, and the prize will be given to the winner at the meeting if there. If not there he/she will be called and arrangements will be made.

The winner will be announced on this BBS and the prizes may be as follows:

One Box of 10 diskettes and A higher access level on the BBS which will give you 70 minutes per call and access to the OFFICERS CLUB. Plus some more extras.

-=< SYSOP >=-

From >STEVE MICKELSON
Private (Y/N)? >N
To >ALL
Title >STILL WAITING/CLUB NEWS

I AM STILL WAITING FOR WORD FROM RANDY RE: WHERE AND WHEN THE NEXT MEETING WILL TAKE PLACE. I'VE DECIDED THE NEWSLETTER HAS WAITED LONG ENOUGH!!! I WILL GO AHEAD AND GET IT PRINTED MONDAY, THEN GET IT TO RANDY. BY THEN, HE MAY HAVE WORD FROM NORTH YORK AND CAN PUT EITHER AN INSERT OR LABEL WITH THE DATE, TIME, AND PLACE. IT IS TIME I STARTED LAYING-OUT THE SEPT. ISSUE ANYHOW. I WILL P... THE INFO. AS SOON AS RANDY CALLS. THE 9T9 USERS DO. HAVE A BOOTH AT THE NEXT COMPUTER FEST '87. IF YOU SEE RANDY THERE, ASK HIM ABOUT THE NEWS FROM N.Y. BOARD OF ED.

From >STEVE MICKELSON
Private (Y/N)? >N
To >ALL
Title >COMPUFEST '87

THE COMPUFEST '87 WILL TAKE PLACE AT EXHIBITION PLACE, SEPT. 19 AND SEPT. 20. IT WILL BE TWICE AS BIG IN BOTH AREA AND NUMBER OF BOOTH'S SO WE WON'T HAVE TWO BLOCK LINE-UPS FOR HOURS TO GET ALMISSION, AS OCCURRED, LAST YEAR.

THE HOURS 10AM-6PM SAT; 10AM-5AMSUN AT THE ARTS CRAFTS AND HOBBIES BLDG. JUST INSIDE THE DUFFERIN GATES AT EXHIBITION PLACE, ON THE CNE GROUNDS. ALMISSION IS $4 PER INDIVIDUAL; $10 FOR A FAMILY OF FOUR; CHILDREN UNDER 5 FREE WHEN ACCOMPANIED BY AN ADULT.(YOU CAN GET $1 OFF EITHER THE INDIVIDUAL OR FAMILY ADMISSION PRICE WITH A COUPON FROM SEPT. ISSUE OF TORONTO COMPUTES.

HOPEFULLY, IN ADDISSION TO THE CLUB'S SYSTEM I WILL BE ABLE TO BRING MY 9640. SO IF YOU NEED NEW DISKETTES, A PRINTER, OR MODEM ETC, YOU COULD PROBABLY GET THE ONE YOU'RE LOOKING FOR, A A VERY REASONABLE PRICE FROM A VENDOR'S SPECIAL, AT THE FEST.

New Soft. Where?

Tenex has made available two new interesting software releases. Turbo Pascal, for about $80US and FORTRAN, price not known. The Pascal, if real Turbo, should make the TI software-compatible with a number of other computers. Required is memory expansion and Editor Assembler/ Extended BASIC. I guess because of this Turbo and the fact the Geneve will have Pascal, many P-Code Card users are trying to sell-off their cards.

The TI-FORTRAN has almost qualified for a special SIG on Compuserve. Among the various programs in this language is a KERMIT telecommunications utility for the TI. I don't know what sort of system configuration is need to support FORTRAN for the TI.

For those with Corcomp Disk Controller cards, comes the TI/IBM connection; a new cartridge which permits the reading of ASCII files, read from an IBM-formatted disk and writing of same in DV80 format, for TI-Writer. The reverse, also, is true. You require the CC Controller, Memory Expansion and two disk drives. Unfortunately, this cartridge, when "dumped", won't RUN in the Geneve's GPL interpreter. This gem sells for $50US(+shipping).

Software spin-offs, from the Geneve are: DM-1000, V3.6,(Beta), and PR-Base. Version 2.1. Both, will run on either the 4/A or 9640.

Geneve is up:

While on the subject of the Myarc Geneve, I am happy to say that my Geneve is running well enough to have done all the editing of this issue of Newsletter 9T9, through the 9640. The MDOS is working fine and MYWORD is a fairly complete utility. The editing functions are in 9640-mode while disk I/O's are in TI-mode. Three local members have the Geneve running, and another has one, on-order.

So far, it seems that you must have certain peripherals, in order to use the Geneve satisfactorily. You need a P-Box or equivalent, a good monitor, and a controller card with "fast" disk drives as a bare minimum, to get started.

The Geneve card draws quite a bit of power,(remember it does the work of several: a 640K RAM,keyboard interface,real-time card,80-column hi-resolution card,a mouse port,joystick port, P-Code interpreter,print spooler,etc.). This power-consumption may play a part in disk problems one user had with origional an TI PHP-1250 drive in the P-box. Either because of the current draw, (Paul Chalton's theory), or slower speed of the belt-drive, (my idea), the system fails to initialize or do file read/writes on these drives. Substituting one of my Shugart 455 half-height, beltless drives corrected the problem. These drives are both faster and two of them draw less current than one origional drive. I am not sure whether the final DOS will address this problem, but it appears that the 9640 in TI-mode is still too fast for the old 1250's. Whether or not the new third party boxes can cope with the needs of the Geneve is still not answered. Also, I am not sure whether the relatively slower belt driven DS/DD drives give the same problem, as the 125- series.

As far as monitors, the 9938 video chip generates a high resolution output, like the PGA or EGA hi-res boards for the IBM world. It is for this reason, a TV or Composite color monitor performs poorly, especially with MYWORD. I found a monitor, like the monochrome Amdek does fair, though my small 10" unit made reading 80 columns very tedious. Colour bleeding on composites, also was too much. The Geneve normally supports a resolution of 256 by 212 pixels, but has another mode with 512 by 424,(Refer to Vol.1 No. 1 Call Myarc).

Be prepared to invest in a good monitor. The Amiga and Comodore 2002 monitors have a 640x200 usable resolution,(the 640x400 spec. can't be used by the Geneve.). These two can be bought at Computers For Less for $500(Amiga) and $450(2002), and making a cable is not easy, ask Randy. Radio Shack sells a COCO monitor(which has sound,see last issue of TId Bits), also has a non-standard cable. This units has lower,640x192, resolution. Parts can be ordered to make a cable, for more info. contact Blair Birmingham at the Fairview store,(491-6555), or even Dave Rust,(remember him?),at the Bay/Cumberland Radio Shack. Another is the Thomson 4120, with a res. of 560x240. It has a green-only text mode and colour is available from Exeltronics,(in Canada),for $500 or Texcomp,( 1-213-366-6631),for $250US(+duty and shipping). Then, there is the more expensive Magnavox Pro 8CM873, which sells for $500US(UPS shipping included, duty-extra), from MICROTECH Peripherals, (1-203-325-1895). This unit gives a super 926x580 Res., with Green-text and colour modes.

Finally, you will need the MG,(Millers Graphics), replacement EPROM set, if you use a Corcomp Disk Controller and the RAM Disk EPROM, if you use the Horizon Ram Disk,(only one EPROM will support a maximum of two RAM Disks), for reliable operation of the Geneve.

Frequently, I'm asked why did I invest in the Geneve and not an IBM clone, which costs about as much, ($700 or so Canadian)? Also asked: why buy a clone, which isn't 100% compatible with the TI? In reply, I must say that the Geneve, as previously stated, is the equivalent of several peripherals all mutually compatible, as they exist within one card. Both in price and compatibility, the whole is better than the sum of its parts. The average IBM clone does **not** come with a PGA card, (for hi-res. colour graphics), which would add $600 to $700 to the cost. Most IBM-clones come with 256K RAM, which must be epanded by the user, for an extra $75. Then, to get the mathematical accuracy of the 9995, the clone needs a math co-processor chip for $300 or so. As for the speed comparable to the Geneve the turbo option adds another $50. In many cases, an joystick and mouse ports are extras, as well. So a bargain shopper may be able to save a few bucks here or there. But realistically, how many of our community are willing to read through catalogs and call all over, to find the best price on all these numerous peripherals, which gives no guarantee that the cards will work with each other, or with your software! So let's be fair in our comparisons!

The software I use; MYWORD, PR-Base, and Fast Term2 are all I generally use. I am interested in learning more about Multiplan or Lotus 123, and they will be around for my Geneve. The software I use, the IBM-style keyboard and 80 columns are the main reasons why I made my purchase. If the TI 99/8 ever made it to production, I probably would have bought it, with its smaller memory,(64K), 40 columns and higher list price. So, instead of seeing the 9640 as different clone of a TI-99/4A, I see it as a package of several useful peripherals for my TI-99/4A.

Anyway, I hope to be able to bring my Geneve to the September meeting and invite you to bring your favourite software for evaluation. I think this is the best and fairest way to present the 9640, rather than to run "canned" graphic programs.

Well that's about it for this TId Bits. Until next time. BFN.
P.S., this rather long article consisted of 273 80-column lines or 77 SECTORS on disk and I still have 73% of available RAM free in MYWORD!-(BYE For Now)-

from COMPUTER SHOPPER, AUGUST 1987 Page 375

**TI Forum**

**continued from page 374**

Newsletter of the month goes to the Toronto Users Group (#109-2356 Gerrard Street E., Toronto, Ontario M4E 2E2) and forwarded by Steve Michelson. I have always known the creativity of the Canadian users (as manifested by some super Fairware software offerings) and now I have to marvel at the quality of their newsletters. Marvelous and thanks, Steve.

# CLUB NEWS

-By Randy Rossetto

Programming Contest Winners:

The recent programming contest in which an existing Loans and Amortization programme in TI basic was to be modified and massaged to improvement came to an end at the June meeting with the awarding of prizes to:

Jiri Svoboda for 1st prize (4 boxes of disks), Keith Heffer for 2nd prize (2 box of disks) and Cecil Chin for 3rd prize. Each also received a 9T9 UG baseball cap.

Thank you all for entering the contest. The winning entries will be available all one disk (I understand, check with Gary Bowser) from the club library.

COMPUTER FEST '87:

Again it is time to think of a way to expand the 9T9 User Group and I can think of no better way than to attend the various computer faires in our area. One of the best has been COMPUTER FEST, sponsored by Toronto Computes! and Computerfest Productions. The main theme being "the computer show for the rest of us!" hits the nail on the head as this means - the home users, students, hobbyists, teachers and small buisness people.

The club will bw taking a booth at the faire (I hope you read this by the time the faire starts because I will be needing alot of help on this one over the two days).

DETAILS:
COMPUTER FEST '87
Saturday-Sunday, 19-20 September, 1987.
Arts, Crafts, Hobbies Building, Exhibition Place
near the Dufferin Gates
Entry fee not posted yet, approximately $4-5.00.
Check Toronto Computes! and local news for more info as released.

LOST and FOUND DEPARTMENT!!

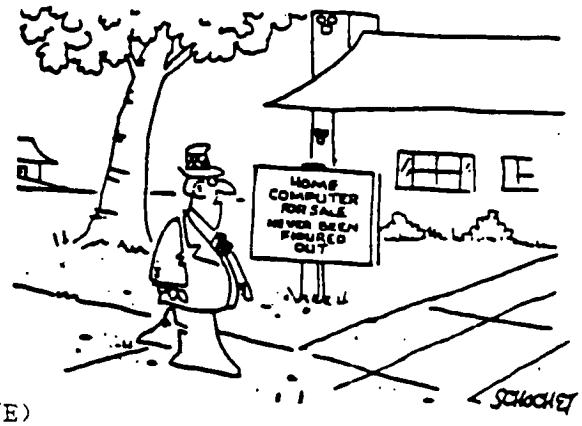
LOST - one member of the 9T9 User Group, namely John M. Fedyna, 1009 Kingston Road, Toronto, M4E 1T2, the last 4 issues of the newsletter have been returned from the Post Office marked "moved". Does anyone know John and if so have him get in touch with the Secretary to collect his back issues.

LOST - The club has lost it's VIDEO MODULATOR from the club's system carrying box. This has been missing for a few months now and I will now go out on the limb and ask those who have borrowed the club system to take a look around please and see if maybe it was left out of the box when repacked. The two people who borrowed it last were: Fred Spitzig and Gil Tennant. Please take a look guys and see if you have the club's
Video Modulator. Thanks.

FOUND - The time to get into Horizon Ram Disks again. How many more people would like to buy, build and have a Horizon Ram Disk? I am thinking of ordering another 5 or 10 bare boards again this fall, so if I can get 5 or 10 people interested give me a call as soon as possible, so that arrangements can be made to get the boards and the parts. I will firm up costs if the response warrants the activity! Randy Rossetto (416)-469-3468 between 7 and 10 p.m. only please!

Thanks to club member Bill Watkins of Tottenham, Ontario, here is a list of hardware part numbers and the exchange price from Texas Instruments in Richmond Hill, Ontario (416)-884-9181.

PHA 2100 - $ 18.50 R. F. MODULATOR
PHA 4100 - $ 94.50 10" COLOR MONITOR
PHP 1100 - $ 13.00 JOYSTICKS
PHP 1200 - $ 80.50 PE BOX
PHP 1220 - $ 57.75 RS 232 CARD
PHP 1240 - $ 63.50 DISK CONTROLLER CARD
PHP 1250 - $ 86.50 DISK MEMORY DRIVE
PHP 1260 - $ 70.00 32K MEMORY EXPANSION
PHP 1270 - $ 70.00 P-CODE CARD
PHP 1500 - $ 46.00 SPEECH SYNTHESIZER
PHP 1600 - $ 63.50 TELEPHONE MODEM
PHP 1700 - $ 75.00 *RS 232 (STAND ALONE)
PHP 1800 - $ 80.50 *DISK CONTROLLER (STAND ALONE)
PHP 1850 - $ 94.50 *DISK DRIVE (STAND ALONE)
PHP 1900 - $ 94.50 *SOLID STATE PRINTER
PHP 2200 - $ 80.50 K MEMORY (STAND ALONE)
PHP 2300 - $ 94.50 *VIDEO CONTROLLER
PHP 2400 - $ 80.50 *P-CODE PERIPHERAL (STAND ALONE)
PHP 2500 - $ 95.50 T.I. IMPACT PRINTER
PHP 2700 - $ 22.50 *PROGRAM CASSETTE RECORDER
PHC 004/A- $ 57.50 CONSOLE (REPAIRED)




-*-Descriptions for these items from HISTORICAL records in Randy Rossetto's files!!

# THE BROKEN KEY

from the MAY 87, CIN-DAY "99" USER GROUP NEWSLETTER

I hav# had my comput#r almost four y#ars now, and it works v#ry w#ll #xc#pt for on# k#y. I suppos# I shouldn't complain, th#r# ar# 47 oth#r k#ys I can us#. B#sid#s, what diff#r#nc# can on# k#y mak#?

Aft#r giving it som# thought, I r#aliz#d that th# k#yboard on my TI is similar to our club. Th#r# ar# num#rous m#mb#rs in th# club, som# ar# mor# 'visibl#' than oth#rs. Som# m#mb#rs participat#, som# won't participat#, (or can't). I und#rstand thos# individuals, who du# to oth#r commitm#nts, can't participat#. I also und#rstand thos# individuals who do not participat# b#caus#' th#y f##l th#y can't mak# a diff#r#nc#. L#t m# assur# you, your participation do#s mak# a diff#r#nc#! P#rhaps you could r#vi#w a pi#c# of hardwar# or softwar# at a m##ting. W# can always us# an articl#, if it is important to you, it's important to oth#rs! How about donating a modul# or book to th# club so #v#ryon# can us# it? Th# possibiliti#s ar# not #ndl#ss, but th#y c#rtainly ar# many and div#rs#.

If th#r# is a moral to this story, l#t it b# that all m#mb#rs ar# 'KEY' m#mb#rs.

# THE GENEVE/AMIGA CONNECTION

-By Randy Rossetto

Recently, I was commissioned to make up a video/audio cable to connect the Myarc 9640 Geneve to a Commodore Amiga 1040 RGB monitor.

Thankfully, Walt Howe of the Boston Computer Society T.I. SIG investigated this connection problem and I was fortunate to pick up a data sheet detailing his findings at the Ottawa TI Faire, May 16, 1987.

This information details the modifications to the video cable that is supplied with the Amiga RGB monitor for use with the Geneve 9640.

Briefly, you disconnect and disgard the 23 pin DB connector (why they used this one I'll never understand, very non-standard, does Commodore always do things the difficult way?). Then you acquire an 8 pin DIN plug (male) and wire to the appropriate terminals as listed below. A seperate audio cable terminated in a standard RCA audio plug must be added to complete the cable. Be aware that (1) there are 2 different 8 pin DIN patterns available (do not use style "B") (2) to be safe cut off pin 1 on the plug ( this has +12 VDC on it to power the TI RF modulator) and (3) the large Amiga cable plus the seperate audio cable make it a tight fit for the jacket of the 8 pin DIN connector.

Three DIN connectors available are from Electrosonic (Toronto);
AMP - DD 8280 (vinyl jacket)
PREN - 71428-080 (plastic shell)
PREN - 71408-080 (metal shell)
The rubber boot will have to be disgarded when fitting the connector shell to the large Amiga cable.

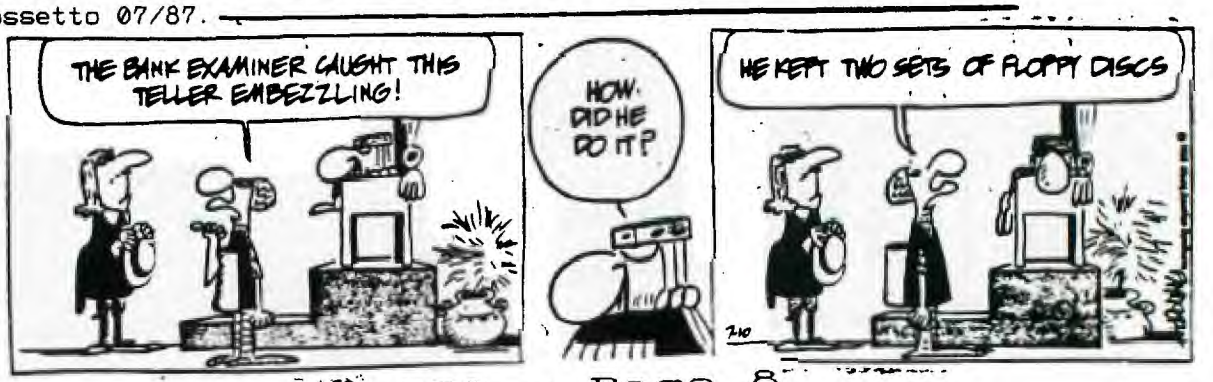
Overall the cable is about 3.5 ft long and very difficult to connect to the 8 pin DIN plug. Since the connections are now known for both the 8 pin DIN plug and the 9 pin D-submini (DB-9) connector (male) on the Amiga monitor (similar to the joystick/cassette port connectors), one can now make up a smaller diameter, lengthier cable assembly.

9640(8 pin DIN male)--Amiga Monitor(DB-9 female)

```
 1 -X-not used (+12 VDC)
 2 -GROUND for audio  video------- 1
 3 -AUDIO (seperate external cable- RCA plug (center pin)
 4 -X-not used (composite output)
 5 -RED RGB output---------------- 3
 6 -GREEN RGB output-------------- 4
 7 -BLUE RGB output--------------- 5
 8 -SYNC RGB analog output-------- 7
```

As you can see a minimum 6 wire cable preferably with an overall shield is all that is required to make up the monitor cable for your Geneve 9640

Randy Rossetto 07/87.



# TI-99/4A ERROR CODE REFERENCE CHART

The following courtesy BBBB BBS in Clinton, MD. (301-292-1482), thanks to Bob, the sysop there:

## TI BASIC ERROR CODES PERTAINING TO THE DISK SYSTEM

| #: | First Digit | Second Digit |
|---|---|---|
| 0: | OPEN | Can't find specified disk drive |
| 1: | CLOSE | Disk or Program is write protected |
| 2: | INPUT | Bad Open Attribute |
| 3: | PRINT | Illegal Operation |
| 4: | RESTORE | Disk Full or too many files open |
| 5: | OLD | Attempt to read past EOF |
| 6: | SAVE | Device Error |
| 7: | DELETE | File Error |
| 8: | N.. | |
| 9: | EOF | |

## EXTENDED BASIC ERROR CODES

| | |
|---|---|
| 10 | Numeric Overflow |
| 14 | Syntax Error |
| 16 | Illegal After Subroutine |
| 19 | Name Too Long |
| 20 | Unrecognized Character |
| 24 | $/# Mismatch |
| 28 | Improperly Used Name |
| 36 | Image Error |
| 39 | Memory Full |
| 40 | Stack Overflow |
| 43 | NEXT Without FOR |
| 44 | FOR-NEXT Nesting |
| 47 | Must Be In Subroutine |
| 48 | Recursive Subroutine CALL |
| 49 | Missing SUBEND |
| 51 | RETURN without GOSUB |
| 54 | String Truncated |
| 56 | Speech $ Too Long |
| 57 | Bad Subscript |
| 60 | Line Not Found |
| 61 | Bad Line # |
| 62 | Line Too Long |
| 67 | Can't CONtinue |
| 69 | Command Illegal In Program |
| 70 | Only Legal In Program |
| 74 | Bad Argument |
| 78 | No Program Present |
| 79 | Bad Value |
| 80 | Nil |
| 81 | Incorrect Argument List |
| 82 | Nil |
| 83 | Input Error |
| 84 | Data Error |
| 97 | Protection Violation |
| 109 | File Error |
| 138 | I/O Error |
| 135 | Subroutine Not Found |

## I/O ERRORS

| #: | First Digit | Second Digit |
|---|---|---|
| 0: | OPEN | Device Not Found |
| 1: | CLOSE | Write Protected |
| 2: | INPUT | Bad Open Attribute |
| 3: | PRINT | Invalid I/O Command |
| 4: | RESTORE | Out of Space |
| 5: | OLD | End Of File |
| 6: | SAVE | Device Error |
| 7: | DELETE | File/Data Mismatch |

## DISK MANAGER ERROR CODES

| #: | First Digit | Second Digit |
|---|---|---|
| 1: | OTHER | Rec not found |
| 2: | SEEK/STEP | Cyclic Redundancy |
| 3: | INPUT | Lost Data |
| 4: | PRINT | Write Protect |
| 5: | Nil | Write Fault |
| 6: | Nil | No Disk Drive |
| 7: | Nil | Invalid Input |
| 8: | Nil | |
| 9: | Special error code for Comprehensive tests. | |

## EDITOR/ASSEMBLER ERROR CODES
## X/B ERROR CODES

| | | | |
|---|---|---|---|
| ERRNO | >0200 | 2 | Numeric Overflow |
| ERRSYN | >0300 | 3 | Syntax Error |
| ERRIBL | >0400 | 4 | Illegal after Subprgm |
| ERRNQC | >0500 | 5 | Unmatched Quotes |
| ERRNTL | >0600 | 6 | Name too long |
| ERRNM | >0700 | 7 | $/# Mismatch |
| ERRBAS | >0800 | 8 | Option Base Error |
| ERRMOV | >0900 | 9 | Improperly Used Name |
| ERRIM | >0A00 | 10 | Image Error |
| ERRMEM | >0B00 | 11 | Memory Full |
| ERRSOV | >0C00 | 12 | Stack Overflow |
| ERRNWF | >0D00 | 13 | NEXT without FOR |
| ERRFNN | >0E00 | 14 | FOR-NEXT Nesting |
| ERRSUB | >0F00 | 15 | Must be In Subprogram |
| ERRRSB | >1000 | 16 | Recursive Subprogram |
| ERRMSE | >1100 | 17 | Missing SUBEND |
| ERRRWG | >1200 | 18 | RETURN without GOSUB |
| ERRSTR | >1300 | 19 | String Trucnated |
| WRNBSC | >1400 | 20 | Bad Subscript |
| ERRSPE | >1500 | 21 | Speech $ Too Long |
| ERRLNF | >1600 | 22 | Line Not Found |
| ERRBLN | >1700 | 23 | Bad Line Number |
| ERRLTL | >1800 | 24 | Line Too Long |
| ERRCC | >1900 | 25 | Can't CONtinue |
| ERRCIP | >1A00 | 26 | Illegal in Program |
| ERROLP | >1B00 | 27 | Only Legal In Program |
| ERRBA | >1C00 | 28 | Bad Argument |
| ERRNPP | >1D00 | 29 | No Program Present |
| ERRBV | >1E00 | 30 | Bad Value |
| ERRIAL | >1F00 | 31 | Incorrect ArgumentList |
| ERRINP | >2000 | 32 | Input Error |
| ERRDAT | >2100 | 33 | Data Error |
| ERRFE | >2200 | 34 | File Error |
| ERRIO | >2400 | 36 | I/O Error |
| ERRSNF | >2500 | 37 | Subprogram Not Found |
| ERRPV | >2700 | 39 | Protection Violation |
| ERRINV | >2800 | 40 | Unrecognized Character |
| WRNNO | >2900 | 41 | Numeric Overflow |
| WRNST | >2A00 | 42 | String Truncated |
| WRNNPP | >2B00 | 43 | No Program Present |
| WRNINP | >2C00 | 44 | Input Error |
| WRNIO | >2D00 | 45 | I/O Error |

## TI-WRITER ERROR CODES

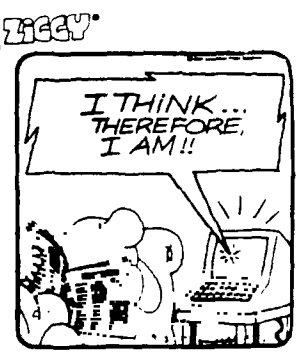
| | |
|---|---|
| 0: | Indicates Disk Controller not on; or that Diskette is not Initialized |
| 6: | No Disk In Drive; or disk is upside down; or Drive is Not on. |
| 7: | No Disk In Drive |
| 00: | Illegal use of LoadF, PrintF, or an error in using those commands |
| 02: | No file on Diskette with Filename as Used |
| 04: | Diskette is Full |
| 06: | PrintF Command in progress was interrupted, or: Disk Door Was Opened while red light was on |
| 07: | Invalid Filename (I.E., Name too long or using invalid characters) |
| 15: | Invalid Disk Drive Number, or Device |

## LOADER ERROR CODES

| #: | First Digit | Second Digit |
|---|---|---|
| 0: | OPEN | Device Not Found |
| 1: | CLOSE | Write Protected |
| 2: | INPUT | Bad Open Attribute |
| 3: | PRINT | Invalid I/O Command |
| 4: | RESTORE | Out of Space |
| 5: | OLD | End Of File |
| 6: | SAVE | Device Error |
| 7: | DELETE | File/Data Mismatch |
| 8: | | Memory Overflow |
| 9: | | Not Used |
| 10: | | Illegal Tag |
| 11: | | Checksum Error |
| 12: | | Unresolved Reference |

## SMALL PRINT - By SM

```
10 OPEN #1:"PIO"
20 PRINT #1:CHR$(10)
30 PRINT #1:CHR$(27);"A";CHR$(8);"x1"
40 CLOSE #1
```




EXECUTION ERRORS

| | |
|---|---|
| 0-7 | Standard I/O |
| 08 | Memory Full |
| 09 | Incorrect Statement |
| 0A | Illegal Tag |
| 0B | Checksum Error |
| 0C | Duplicate Definition |
| 0D | Unresolved Reference |
| 0E | Incorrect Statement |
| 0F | Program Not Found |
| 10 | Incorrect Statement |
| 11 | Bad Name |
| 12 | Can't CONtinue |
| 13 | Bad Value |
| 14 | Number too Big |
| 15 | String-Number |
| 16 | Bad Argument |
| 17 | Bad Subscript |
| 18 | Name Conflict |
| 19 | Can't Do That |
| 1A | Bad Line Number |
| 1B | FOR NEXT Error |
| 1C | I/O Error |
| 1D | File Error |
| 1E | Input Error |
| 1F | Data Error |
| 20 | Line Too Long |
| 21 | Memory Full |
| 22 | Unknown Error Code |

RS232C ERRORS

| | | |
|---|---|---|
| OPEN: | 00 | Device Cannot Be Opened |
| | 02 | Software Switch Error |
| | 06 | Hardware Error |
| INPUT: | 24 | Internal Data too large for Buffer |
| | 26 | CLEAR pressed or Hardware err |
| PRINT: | 36 | CLEAR pressed or Hardware err |
| OLD: | 50 | Can't load from specif device |
| | 52 | Can't use software switch with OLD |
| | 54 | Program too large to load |
| | 56 | CLEAR pressed or Hardware err |
| SAVE: | 60 | Cant save to specified device |
| | 62 | Cant use with SAVE (see 02) |
| | 66 | CLEAR pressed or Hardware err |
| MISC: | 43 | Executing Illegal Command |
| | 73 | " " " |
| | 83 | " " " |
| | 93 | " " " |

From the February, 1986, issue of HOCUS, the Newsletter of the Milwaukee Area 99/4 User Group of Wauwatosa, Wisconsin.

# INTRODUCTION TO LOGO

COURTSEY OF: MONTREAL TI99/4A USERGROUP - 1987.

Logo is the name of a philosophy of education. Its a learning environment that gives people a personal control of the computer. It transforms the computer into a flexible tool for learning, playing and exploring. Logo is an educational tool with no threshold or ceiling. Even very young children can control the computer in a self-directed way, even at their first exposure to Logo. At the same time Logo is a general purpose programing language of considerable power.

After more than 10 years of experience at M.I.T. has demonstrated that people across the whole range of aptitude enjoy using Logo to create original an sophisticated programs, Logo has been successfully and productively used from kindergarten to university.

Logo is a procedure language in that programs are created by combining commands into groups called procedures. These procedures are used as steps in other procedures and so on to high levels of complexity. Every step of a procedure may be a primative (Logo command) or any other used defined procedure. This is an interactive language as any Logo command whether primative or procedure can be executed from the keyboard without compilers, loaders, monitor, etc. Logo's data objects [individual variables pass directly as inputs to procedures and return as values] include not only numbers and character strings but also compound lists.

Most computer languages force programers to manipulate data in terms of sequences of operations on individual no. and char. strings. Logo lists on the other hand are functional units that can be transfered in a single operation and makes Logo a convenient language for application involving symbol manipulation. Another important feature of Logo is the area of turtle geometry. A Turtle is a cybernetic animal that liveves on the display screen and Logo tells it what to don on the screen. Turtle graphics are highly successful both as an introduction to programing for people of all ages and as a foundation of a computer based math curriculum. We will use turtle graphics as an introduction to the basic ideas of Logo. But first we will explore some basic commands. Press "ENTER" after every command.

First go into graphic mode by typing TELL TURTLE after you get the WELCOME screen.

Lets first make a square by typing the following.

```
FORWARD 40    ( moves the turtle 40 steps )
RIGHT 90      ( turns turtle 90 degrees to the right )
FORWARD 40
RIGHT 90
FORWARD 40
RIGHT 90
FORWARD 40
```

To erase the screen type CLEAR SCREEN. To make a triangle;

```
FORWARD 40
RIGHT 120
FORWARD 40
RIGHT 120
FORWARD 40
```

How could a child that cannot read or write make those commands? This was solved by using two letter commands.
FORWARD=FD RIGHT=RT BACKWARD=BK LEFT=LT CLEAR SCREEN=CS ETC.

To make a square or triangle this is a slow process. You can do this very easily by making a procedure, this will be now a new Logo command. Type TO SQUARE this puts Logo into edit mode. Now type in the commands.

```
FD 40
RT 90
FD 40
RT 90
FD 40
RT 90
FD 40
```

Now press BACK (FCTN 9) and you back into Logo. Clear the screen and now type SQUARE and after you press ENTER the turtle will draw a square. "SQUARES" now is part of the Logo language and can be used anytime you want a square. Now to define a triangle type "TO TRIANGLE" enter and type the following;

```
FD 40
RT 120  (the outside angle)
FD 40
RT 120
RD 40
```

Now press BACK and test the procedure. Clear the screen and type "TRIANGLE". A triangle will be drawn by the turtle. Lets try touse both procedures to make a house. Make the procedure "HOUSE", type in; "TO HOUSE" press ENTER.

```
SQUARE
TRIANGLE
```

Test it out by running "HOUSE". You will see the turtle draw a square and then a triangle to the left. You have to put the triangle on top of the square. That means that you have to start the triangle on the right top corner.
To edit type "TO HOUSE" and use the arrow keys to place the cursor under and press "SQUARE", now press enter. A new line will appear and type the following.

```
RT 90 (this is to turn the turtle north)
FD 40
RT 90
FD 40
```

Now press "BACK" and run "HOUSE". Now you have the square with the triangle upside down to the right of the square. You have to turn the triangle 180 degrees around the top right corner. Type "TO HOUSE" and with the arrow key move the cursor the last FD 40 and with the right arrow key go to the right of it. Press enter and now type "LT 180" and then "BACK".

Now when you run "HOUSE" the turtle will draw one. If you run "HOUSE" 12 times without clearing the screen and the turtle will make a nice flower design. Experiment with these commands to make more complex designs and have fun with LOGO.

## ARCHIVER

A Software Review -By Dick Beery

Courtesy Of: SPIRITof 99, Newsletter of the Central Ohio Ninety-niners Inc. - June 1987.

A friend recently complained that when people talked about "unpacking" files, he felt completely at a loss. This prompted me to review the perhaps most widely known and utilized program of this type, to briefly outline procedures for using it, and to mention some others that are currently available.

Since I am most familiar with Archiver, Version 1.2 by Barry Traver, I will go into the greatest detail concerning its application.

People who are unfamiliar with archival-type programs are often puzzled as to the need and advisability of using one. My personal reasons are twofold: I am a frequent user of computer bulletin boards, which ofter send part of their downloads in "packed" form, and I frequently "pack" related programs and files for storage.

Why do operators of BBS's use "packed" versions of downloads? Because in this way they can offer the user one large file instead of many small ones, thus eliminating the need for the downloading of many files, one after the other, in the case of long and complex programs. Examples might be games of utilities comprised of several programs and/or files, music programs and files by one programmer such as Bill Knecht or those identified with a single performer such as Chuck Berry, etc.

Why do I sometimes "pack" related programs and/or files for storage? For those of you who, like I, use disks with storage capacity greater than the SS/SD variety originally provided by T.I., this can be a great boon. My disk can be, and often are, double sided and double-density, which means that 1440 sectors of storage ave available per disk. When I have a game or utility which contains several programs and/or files whose names do not all begin with the same letter of the alphabet, these, when catalogued by the disk manager, will be scattered all over the disk. I regret to say that, at a later date, I often don't remember all these names, or even how many parts there were in the program. If I "pack" the entire contents of the program for storage (not for use--it cannot be directly addressed in "packed" format), then at any time I wish to transfer it to another disk or share it with someone (assuming it to be public-domain or Fairware, of course), I have everything in one place and easily accesible.

Surely, you say, this must be a complex procedure! Not so. I find it to be one of the easiest programs to use of any that I know. And one of the most reliable.

One common misconception is that "packing" is used to conserve disk storage space, to "squeeze" the program into a smaller area on the disk. With the exception of Combiner, mentioned below, which claims to do this, I do not know of any such claim for most archival-type programs, including the one currently being discussed here.

This version 1.2 of Archiver, is free to subscribers of Genial Traveler, and is Fairware to all others. It may be obtained from some BBS's and many users' groups, or by writing to:
Barry A. Traver
835 Green Valley Drive
Philadelphia, PA, 19128.
Some versions require the use of Editor/Assembler. This one loads directly from Extended Basic. The first screen gives details of title, authorship and the Fairware notice, plus the prompts for:
1. Store files ("Pack")
2. Restore files ("Unpack")
Since most first-time users will want to use option 2 to get at some tempting program they have received but cannot access in its present format (D/F 128), we will concentrate on that use. Once you have mastered "unpacking","packing" is easy to figure out.

Ok, you've pressed "2". You now see screen 2 which says:
Restore files ("unpack")
Input file? DSK .

After you have entered the drive number and exact filename, the drive you indicated will turn on, and you will see:
Output drive (1-6) ?

Enter that drive number and you will see:
Calculating . . . ., and the indicated drive will turn on.

In this version, you will then see a numbered listing of the names of all the programs and files contained in the "packed" file. You will be asked whether yo wish to unpack one file or all files. Normally you will unpack all files. The option of unpacking one file is very useful, however, when you are writing to a disk that already contains other programs. If Archiver finds the same filename on the output disk as the one it is unpacking it will skip that file and unpack only those whose filenames are different. In that way, your earlier file by the same name does not get overwritten. It's also convenient for unpacking a documentation file first so that you can see whether the program would be of sufficient interest for you to want to unpack the rest.

Once you have chosen "All" you can sit back and watch the program read one disk and write to the other. When the unpacking has been completed, you will see a message to that effect, and be asked whether you have other files you wish to unpack. Press "Y" to continue or "N" to return to Extended Basic.

Easy, wasn't it?

If you have only one disk drive available, get a copy of Unpacker from any of the sources listed above. It is also by Barry Traver, is a companion program to Archiver, and functions in exactly the same way, except that you are given prompts for inserting the Master and Copy disks. It will allow you to unpack a whole SSSD disk.

Version 2.1 is also available, and because of its being written in assembly language, is faster. It does NOT allow you to unpack only one file--a drawback, but does allow you to catalog your disk, which the earlier versions do not, and this is a real boon, as it is easy to forget the exact filename. It also does not list the filenames in the packed file, which I consider a drawback, in that I like to write the names on the disk sleeve togherth with the packed-file name, so that I know what all the parts are. It was written by Barry Boone, is said to be compatible with Barry Travers' Archiver Program, is Fairware, and can be obtained from the above mentioned sources or by writing directly to:

Barry Boone
Box 1233
Sand Springs, OK, 74063
You will find most Extended Basic Versions to be compatible and very similar. Usually, the newer versions fix problems in the earlier ones or in some way enhance these. Another popular version is 2.1, but I am unfamiliar with it, though I feel sure its use if roughly the same as that described above.

A program titles Combiner, written by Nick Iannovelli, Jr. is available, I believe, either from the author, from the TI-West BBS or from users' groups or elsewhere. I have seen but not used it, though I am aware that one of its claims is the saving of disk space through compression. It is NOT compatible with any of the other programs mentioned in this article. That brings up an important point: check to see which archival-type program was used in packing.

This is sometimes indicated in the filename: those ending with /ARC or /PAC are associated with Archiver, and those with /DC with DCopy. Also, most packed programs indicate this in the information you will receive prior to, or at the tme of, obtaining the program.

I was unable to obtain the full name of the author Dcopy. The docs that accompany it list him as Howie R., and give his Compu-Serve ID as: 74216,1640

Some of the programs you get will be packed using this instead of Archiver, so you might want to have both available for use.

Its files are in I/F 128 format instead of D/F 128, and so are not compatible with Archiver. I have not used this program, but have been told that it will work with many programs written FORTH.

I hope this is more helpful than confusing. As I stated earlier, Archiver, the main focus of this article, is very user-friendly. I think you will enjoy using it.

P.S. Just had a chance to look at the new Genial Traveler (Vol. 1 No. 6) and thought it might be appropriate to include a quote here from that disk:

"ARCHIVERII is Barry Boone 's assembly language version of my ARCHIVER, a pack/un pack storage utility now used as a standard on Compu Serve, GEnie, the Source, Delphi, and many local TIBBS's." Barry (Traver) goes on to comment on the lightning speed at which it operates above. Just thought you might find this information to be of interest. Meanwhile, enjoy you packing and unpacking.

---

THE FOLLOWING IS COURTESY OF BBBB BBS, CLINTON MD.(301-292-1482):

The following is a listing of various pinouts for the TI-99/4A home computer:

---

Cassette Interface:
Uses a nine pin "D" connector like the Atari-type Joysticks.
General plug layout:
1 2 3 4 5
 6 7 8 9

| Pin | Use | |
|---|---|---|
| 1 | Cassette (CS1) Motor on line (See Note A) | (tip) |
| 2 | Cassette (CS1) Motor on line (See Note A) | (sleeve) |
| 3 | To record on tape recorder (See Note B) | (sleeve) |
| 4 | Not Used | |
| 5 | To record on tape recorder (See Note B) | (tip) |
| 6 | Cassette (CS2) Motor on line (See Note C) | |
| 7 | Cassette (CS2) Motor on line (See Note C) | |
| 8 | From tape recorder playback (See Note D) | (tip) |
| 9 | From tape recorder playback (See Note D) | (sleeve) |

Note A:
These two wires hook into a 1/16" subminiature phone plug and are attached to the "remote" jack on most portable recorders.
Note B:
These two wires hook into a 1/8" miniature phone plug and are attached to the "microphone" input.
Note C:
Note A applies for the second recorder also. But isn't used on the new white ti99/4A's
Note D:
Same as Note B. This normally connects to the "EARPHONE" jack on the recorder.
Note: There will be a total of six wires to EACH recorder unless there is a common connection.

---

Pinout for the Video connector:
Uses a standard 5 pin DIN connector and the following pin numbers are as on the
General Layout of plug when facing it:
1 3
 4 5
  2

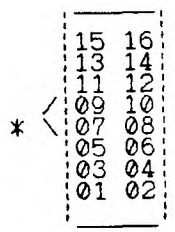
| Pin | Use |
|---|---|
| 1 | Power (B+) to modulator box. Not needed if video mon. |
| 2 | Video Ground |
| 3 | Audio output |
| 4 | Video Output |
| 5 | Audio (system) Ground |

Joystick port pinout:
Uses a nine pin "D" connector of the Atari-type.
General layout:
1 2 3 4 5
 6 7 8 9

| Pin | Use |
|---|---|
| 1 | Not used |
| 2 | Common line for "Player 2" joystick |
| 3 | Up direction |
| 4 | Fire |
| 5 | Left direction |
| 6 | Not used |
| 7 | Common line for "Player 1" joystick |
| 8 | Down direction |
| 9 | Right direction |

Note:
In hooking this up, player 2 joystick will connect to pins 2,3,4,5,8 and 9. T

## ** TI PIO CONNECTOR **

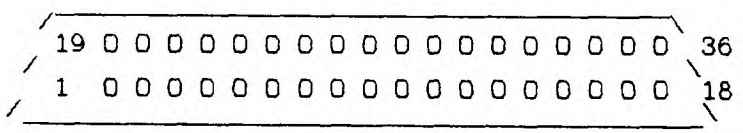



PIO PINOUTS AS VIEWED FROM TOP OF CARD.

1) HANDSHAKE OUT
2) DATA, LSB
3) DATA
4) DATA
5) DATA
6) DATA
7) DATA
8) DATA
9) DATA, MSB
10) HANDSHAKE IN
11) LOGIC GROUND
12) 1K-OHM PULL-UP RESISTOR TO +5V
13) SPARE INPUT BIT
14) SPARE OUTPUT BIT
15) 1 KILOHM PULL-UP RESISTOR TO +5V
16) LOGIC GROUND

* NOTCH ON SIDE OF CONNECTOR

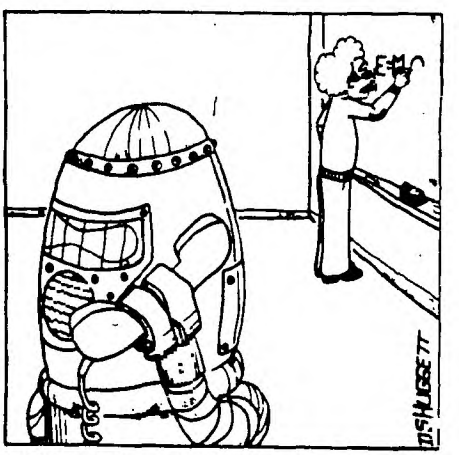
## CENTRONICS PARALLEL CONNECTOR




1) STROBE
2) DATA1
3) DATA2
4) DATA3
5) DATA4
6) DATA5
7) DATA6
8) DATA7
9) DATA8
10) ACK
11) BUSY
12) PE
13) SLCT
14) +-0V
15) OSCXT*
16) +-0V
17) CHASSIS GND
18) +5V

19) STROBE
20) DATA1
21) DATA2
22) DATA3
23) DATA4
24) DATA5 RETURN
25) DATA6
26) DATA7
27) DATA8
28) ACK
29) BUSY
30) INIT
31) INIT
32) FAULT
33) NC
34) LINE COUNT PULSE*
35) RETURN
36) NC

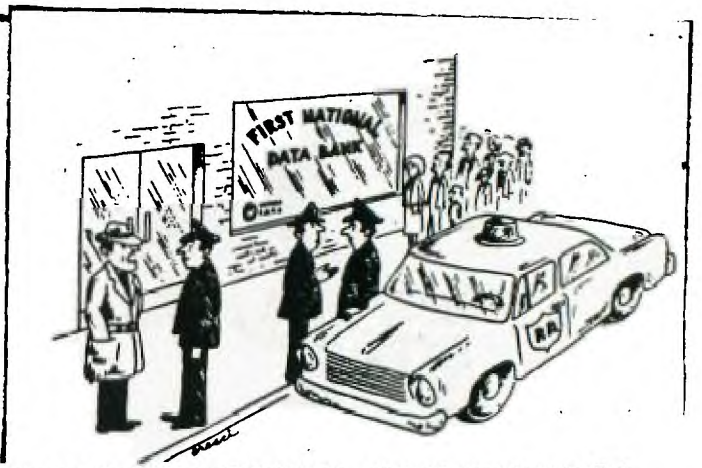
* GENERALLY NOT USED TODAY




"I have an older model, but it's very intelligent. . ."

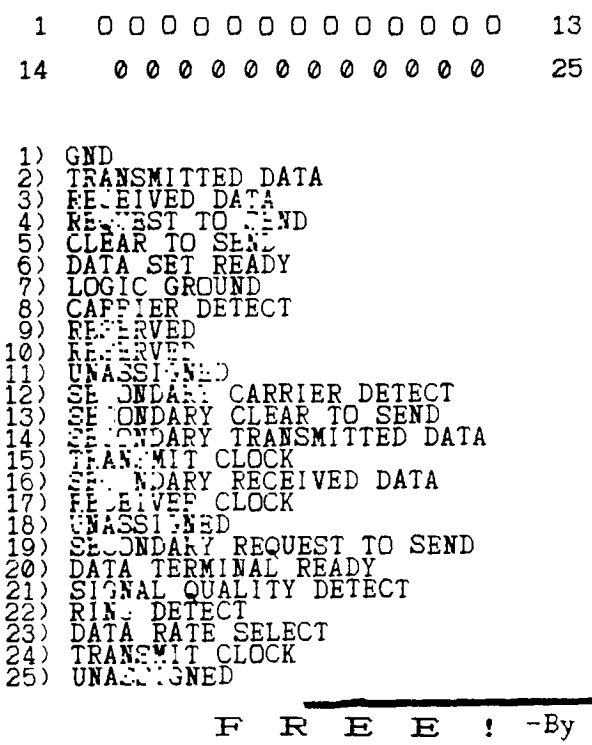
## RS232 TI CONNECTOR

1) PROTECTIVE GROUND
2) DATA TO UART0 (RD)
3) DATA FROM UART0 (TX)
4) NC
5) CLEAR TO SEND CRU OUT, U0
6) 1.8 KILOHM PULL-UP RESISTOR TO +12V
7) LOGIC GROUND
8) DATA CARRIER DETECT UART0
9) NC
10) NC
11) NC
12) DATA CARRIER DETECT UART1
13) CLEAT TO SEND CRU OUT, U1
14) DATA TO UART1
15) NC
16) DATA FROM UART1
17) NC
18) NC
19) DATA TERMINAL READY UART1
20) DATA TERMINAL READY UART0

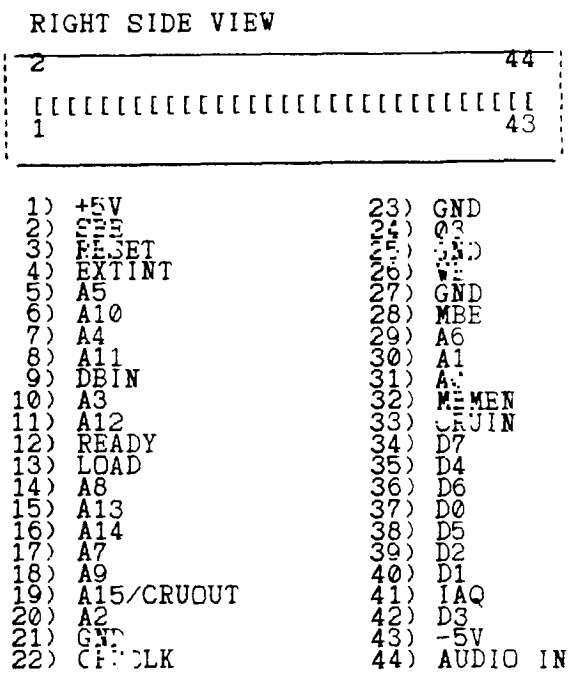



WHOEVER DID IT WAS A PROFESSIONAL. HE CAME ON-LINE WHEN THE MEMORY GUARD WAS OFF-DUTY, TRANSFERRED 32K BYTES TO HIS PERSONAL PROM CHIP, ERASED THE TELLER'S MEMORY, THEN ESCAPED IN A HIGH-SPEED MODEM.

RS232 SERIAL CONNECTOR (UNIVERSAL)




I/O PORT




# F R E E ! -By Jack SUGHRUE

## IMPACT - 99 ! TEXTWARE, SOFTWARE, and ELSEWHERE

### Happenings in the T.I. World Community

COURTSEY OF: Spirit of 99 - Central Ohio Ninety-Niners Inc. - June 1987.

FREEWARE has grown many limbs since its original releases on the 99er public. It is a concept whose time should have come but probably didn't.

The owners of the 99 needed software and experimentation and risk-taking on the part of many persons who were dedicated to this superb machine. It also needed supporters of these people. And although 99 owners generally paid from 1/3 to 1/2 less than other computers for the same or similar pieces of software (and in recent years considerably less than that: LOGO and Multiplan being excellent examples), it did not seem low enough for many owners. So the prices continued to drop. Now $39 cartridges sell for as low as $2.95. So it is little wonder that new developers of materials for TI hesitate putting in that initial investmnt of time and money. The low selling prices to a demanding audience, coupled with the Immense amount of piracy, has simply been too much for the commercial companies to try and make a go of it. (A few exceptions of commercial enterprises that sell excellent, unprotected, inexpensive sofrware would be companies like Asgard and Disk Only Software.)

ENTER THE FREEWARERS! This is a small group of dedicated programmers and distributors who want the TI to remain in robust competition with the lesser machines (which had the broader commercial base). Thus DM1000, PREASE, FUNLWRITER, CFS, SCREEN DUMP, PRINTIT, etc.

A new and exciting era for the 99 buff had arrived! But every silver lining has its dark cloud. Gather round the fire, get yourself a glass of hot, mulled cider, and let me tell you a story.

When I was young man in the hearty spring of '86 I met a genius in person with wom I had carried on a small correspondence. His name is Barry Traver, and he had just begun a diskazine for the TI. It was (and remains) a unique and wonderful venture. We met at at TI Faire in lexington, Massachusetts. He happened to have with him FUNLWRITER. We had all heard of this wonderful program developed by Will McGovern and his father Tony in Australia and how it included Bruce Caron's Canadian DM1000. We didn't know at the time how profound an environment it was and is.

That night and the next I stayed up until four (though I had to be up at 5:30 to get ready to teach school). I could not resist playing and testing and changing and adapting this incredible envoronment. It was something I had not dreamed would be possible for the 99.

Within a week I had begun to devise a companion for this masterpiece: a single mster word-processing disk, a SECOND disk which would include automatic lfing by containing templates. It would have to have new codes and a master catalog and a desk calendar program and a screen dump and banner program and lots of printer-oriented programs (like Pig Latin and Key Graphics and and and and).

And probably a display-type program explaining all these sources. And some quicref charts and some mnemonic coding for quick understanding. And a complete operation manual ready to be printed off disk. And some more and and ands.

Was this possible with the already-condensed FUNLWRITER? Well, taking out the docs on my backup gave me 80 sectors. But my banner and Calendar programs alone were over 130 sectors. No good. And my Load/Cataloguer was 43! The Minidump was 14 (not TOO mini). And on and on. Plus I wanted a whole pile of new files and templates and codes that would access the control keys PARTICULARY the TL key which I had been using in a mnemonic way for three years and had neversut up a template for IFfing. Four sectors was the maximum I was ging to allow for ANY coding, ANY screen dump, and basic graphic-key structuring. It seemed an impossible task but after a few late nights I got int the groove. I thought of creating and condensing the environment during every free moment. I produced and reduced all the above to 2 or 3 sectors. Now my coding and basic templates were done and running smoothly.

The Load/Cataloguer - essential if I were going to continue operating within the given environment - was next. I scrunched it down to 11. Just about 1/4 of the original.

(I might pause here and mention that my original programs and the original PD programs I used did not have to be restricted when they ere all on separate disks. So each of them operated okey. But slower than the final results. And slower, still, because of all the disk switching and hunting for the right program from the right disk.) But not the new versions! Surprising as it seems, as I reduced I added more and more features. I didn't realize how inefficient and sloppy my files had been until space became an essential if I wanted anenhanced and very advanced word-processor. (And I did!) And still have access to my LM.000 and Editor/Assembler and my Danny Michael's screen dump through load interrupt. And a Debugger. And, I supposre Forth and c99 (though I have yet to use either and would probably have an even more efficient disk without either and certainly one that would operate everything with greater speed while providing greater space for more TIW files).

I keep a log of my time actually working on the computer (not of the thinking, reading, note-taking, etc. off the computer. To date I have put in just over [illegible] hours (actual computer time) to get the version I want and use. [MY version is new again today! Tony McGovern sent me another complimentary copy of his further updated version of 3.4 (which includes 3.5 DM1000).] I have been updating my own FUNLPLUS! files anyway, so I immediatedly reduced this new McGovern disk to just the word processor and DM and removed all the docs and even the E/A. (This is for my own personal use, remember.) This gives me immense room for two disk sides of favorite files. The one I released to FAIRWARE, however, because it contains free distribution of the complete FUNLWRITER, absolutedly needs the docs (so the buyer doesn't get as many of the files which he or she probably would not use with the frequency I use them, but they are nice to have). (The PD "Gothic"-type program, for example, or the three-column condensed envelope cataloguer.)

I called the multi-filed environment FUNLPLUS! and sent copies out to acquaintances and friends and users-groups for debugging, help, improvements, criticisms; including, of course, one to the McGoverns and one to Ottawa. The feedback was excellent, and I have made Version 4. (I had sent #3, had worked on and changed #1 and 2 alone.) I sent out the Freeware requests to user groups by mail and to which I spoke showing examples. I left copies with some user groups and was given space on "send postpaid mailer and initialized blank disk. If you like the full two-sided flippy of files send $7 to author."

I never received a single cent from the user groups where I left a copy in the library after demonstrating it. (Though I found out it was dubbed by many members and even used as demos and workshops because of its popularity.)

Because of the flyers and newsletter ads I received 43 blank disks (not all initialized and not all with sufficient return postage and not all usable!). I sent FUNLPLUS! to all, paying costs myself when needed.

Dear, Patient Reader, I must pause here to tell you a little about how I put out FUNLPLUS! Because I am a full-time teacher and husband and father involved in lots of things: town politics, local educational committees, user groups, writing conference and workshops, garden, dogs, and so on (a normal life, in other words) - it is not always easy to get out these FUNLPLUS! disks. It takes about an hour to complete each disk. First, I have to make a flippy. Then I load up my system and make a verified initialization. I don't want disks returned by frustrated users because of some fault that could have been avoided.

Then I [did] write a personal note to the user to show the buyer he or she is not dealing with a machine; take out my paper from the printer and load up the labels and load up my label program and make a label for the disk; prepare the mailer with another label and with (in indelible marker) a "Magnetic Media: Do NOT Xray or Bend" statement; put in the disk and letter and seal it with brown package tape; I put on my return address label and stamps; and mail it off.

The process takes about an hour for each. The cost fro everything (disks, electricity, labels, mailer, notepaper, stamps, permanent marker etc.) is about $3.10 per disk, according to my accountant son.

Thus, I spent 43 hours and $133.20 and got nothing in return on that one particular batch. This does not count the 5?+ hours it took me to create and edit and put together the flippied disk for the environment in the first place; nor does it count the disks I sent to supporters, nor the dozen copies I sent out to area newsletters for reviews, nor the copies I left in user-group libraries. So I'm out about $220. (I had a dream that I would make enough on this companino to possibly purchase a GENEVE, if and when it came out.) Eleven months later I still haven't gotten a single comment or penny from the unflippied disks sent to me with the (in many cases insufficient) return postage. Nor from any that I gave away (except to other FAIRWARE programmers, who have been tremendously supportive).

This is bad. Not good for my ego or pocketbook.

I decided to make up a flyer and charge $8, including mailing and buying the disk and flippying. That way, at least, I'll receive the money and be able to buy the disk and labels and stamps beforehand to prevent the mounting debt. I made up 500 flyers: $24.20.

I go to my regular user group (M.U.N.C.H.) in Worcester and demonstrate FUNLPLUS! Postive response and 6 people buy at $7 (reduced for members). Now I'm feeling better and my debt is back to about $200.

I pass out the flyers at an October 99er Fair in pawtucket, RI. A friend allows me to sell these FAIRWARE disks at his table. One man gets angry. "How can you call this Freeware?" (I had long since stopped calling it Freeware.) I said, "Just $7 for a 720-sector disk is hardly Unfairware." He picked up the disk, looked at it disgustedly, and threw it back on the table and walked away. He was not the last to give me the "Freeware pitch," though I told each hostile antagonist that I thought what I was doing was more than fair.

I sell two (to other programmers), trade one, give four away to programmer friends with whom I correspond but only get to meet at fairs (They, in turn, have readily sent their FAIRWARE items to me.) and hand out lots of flyers which later results in sales.

Meanwhile, I send the disk to a friend who owns a software company. After looking over my disk to see that it was legitimate and did all it claimed in the flyer, he willingly distributes my flyers FREE (He knows I'm a teacher with three kids in college at the moment.) with his orders. This means that I would get the orders directly. If any.

If any! Wow!

The $8 checks start coming in from the real, dedicated 99 crowd I felt was out there somewhere: Montana, New Jersey, Ottawa, Belgium, Ohio, Texas, Australia, Massachusetts, Louisiana, Iowa, Minnesota, Michigan. On and On. With supportive letters. Within weeks many of these same people send an ADDITIONAL $5 or $10, with very positive comments. Some even buy for relatives or friends. And this is a program that is totally unprotected. I also send MICROpendiam a copy. They write a short FREEWARE review. Very positive. And the checks started flowing from that direction, too.

The comments have been the greatest reward (though the reduction of that debt isn't so bad, either?) I guess I would really prefer FAIRWARE or SHAREWARE or PAYWARE or CHEAP-THOUGH-GOOD-WARE or GREATSTUFFWARE or anything to FREEWARE.

People really believe it is Free and they are WRONG! Nothing is Free! Everything cost somebody something! So, hurry to your nearest box of disks - the ones you use frequently - and pull out the ones you got "free" and look up the author and, if you've never sent a donation and an encouraging note, whip out the checkbook and pad and go to it. It may be one of the best investments you could ever make.

NOTE: This rewrite is done in March, 11 months after I wrote and edited the FUNLPLUS! companion and three months after I wrote the original draft of this article. I received two $8 checks today. I am now completely out of debt and have made a total profit of $26 and lots of new friends. I may get that GENEVE yet. Would I do it all ove again? Yup. But not the same way. I'd do it as I'm doing now. No more free in advance. I'd do it over because of the wonderful friends I've made, because of the things I have learned about computing, because of the fun of putting together something a lot of people like. Very rewarding. For my next project .....]

Please send comments about FAIRWARE/FREEWARE or any or your FAIRWARE materials you'd like me to review to: Jack Sughrue, Box 45, E.Douglas MA 01516.

EDITORS NOTE: The following file was submitted to me by a member of the 9T9 Users Group, using a borrowed EPROM and MDOS. He is still waiting for the upgrade for his V 95 EPROM, and V 0.0 DOS. The tests were conducted on dumps made from cartridges from his library. It may be noted that there are possibly several versions of the same cartridge and some listed here as not running in the Geneve's interpreter may run, if it is a different version and vice-versa; one listed here as running may not work, if it is a different version. It is hoped that later version(s) of the GPL interpreter will permit a percentage of compatibility closer to the 95% claimed by Myarc. The current value,( about 50 to 60%), is alot higher than nil, the value many of us had until recent upgades of MDOS were released. -SM

## REVIEWING PROGRAMS ON THE GENEVE 9640

The following is a list of programmes which I've found may or may not run on the MYARC "GENEVE 9640" computer. This may depend on your system's configuration. My system consists of a TI RS232 card and TI Disk Controller card along with 2 Shugart drives. The EPROM in the 9640 Card is version 97 and the M-DOS is dated July 26, 1987. In some instances, the different programmes would accept key stroke inputs vs joystick, or as in one particular programme, it was necessary to use the cursor key to prompt the game to run and accept joystick movement. Anyways, with the newsletter deadline rapidly approaching (tomorrow) here is the list. Feedback would be greatly appreciate, as well as other findings.

| N A M E | RUNS (Y/N) | S Y M P T O M S |
|---|---|---|
| PACMAN | YES | |
| MS PACMAN | NO | JOYSTICK DOESN'T RESPOND TO THE DOWN MOVEMENT. |
| TI-RUNNER | YES | |
| BUR[illegible]ME | YES | |
| MIN[illegible] 49'er | YES | |
| BARRAGE | NO | PROGRAMME DOESN'T RESPOND TO JOYSTICK FIRE BUTTON |
| SPAC[illegible] XIII | YES | |
| Q*BERT | NO | YOU CAN HEAR THE PROGRAMME RUN BUT THE SCREEN IS BLACK |
| STARTREK | YES | |
| MIND CHALLENGE | NO | SCREEN IS IN A UNRECOGNIZABLE PATTERN AND THE SYSTEM LOCKS UP |
| FATHOM | NO | DOESN'T RESPOND TO ALL JOYSTICK MOVEMENTS |
| RIVER RESCUE | NO | ALL YOU GET IS THE TITLE SCREEN |
| WAR GAMES | NO | THE FIRST SCREEN IS ALL SCRAMBLED, YOU GET THE THE SECOND SCREEN AND MOMENTARY FLASHES OF THE FIRST SCREEN |
| [illegible] COMMANDER | NO | JUST THE INTRODUCTION SCREEN |
| WHEEL OF FORTUNE | YES | |
| SOCCER | NO | GARBLED SCREEN |
| ANTEATER | YES | |
| FROGGER | NO | |
| JUNGLE HUNT | NO | APPEARS TO WORK FINE UNTIL YOU NEED JUNGLE JIM TO JUMP. |
| PPPDDY | YES | |
| P[illegible]BBLE | YES | |
| DIG DUG | NO | |
| PROTECTOR | YES | |
| PARSEC | YES | |
| ALPINER | YES | |
| DEFENDER | YES | |
| CHAM[illegible] | YES | |
| CENTIPEDE | YES | |
| DONKEY KONG | NO | |
| JOYPAINT 99 | NO | DIRECTORY FUNCTION DOESN'T APPEAR TO WORK |
| TI-ARTIST | NO | DIRECTORY FUNCTION DOESN'T APPEAR TO WORK |
| DM1000 | NO | DISK INITALIZATION DOESN'T WORK, BUT WILL WITH A CORCOMP DISK CONTROLLER |
| DISK MASTER | NO | DISK INITALIZATION DOESN'T WORK, BUT WILL WITH A CORCOMP DISK CONTROLLER |
| FUNLWRITER | NO | THE SHOW DIRECTORY FUNCTION LOCKS UP THE SYSTEM |
| TI-LOGO | NO | BLANK SCREEN |
| SCOTT ADAMS ADVENTURE | YES | |
| INFOCOM GAMES | YES | * BUT SYSTEM LOCKS UP WHEN YOU "QUIT" |
| CSGD | YES | * DISK DIRECTORY FUNCTION WORKS ON THIS PROGRAM! |
| TI-WRITER | YES | * DISK DIRECTORY FUNCTION WORKS ON THIS PROGRAM! |
| POPEYE | YES | |
| BERLIN | YES | * YOU MUST FIRST USE THE DOWN CURSOR KEY TO T INITATE JOYSTICK MOVEMENT |

The above list is only what has been happening on my system. The above finding may not necessary appear on a different configuration.

# PRINTER FOR SALE

For sale: one gently used Gemini 10X Printer $200. Call Wes at 277-4981

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# FAIRWARE EXCHANGE

BY Robert Neal

The following is a condensed listing of the programs available through the Fairware Exchange. A complete descriptive 20 page catalog may be obtained by sending $2.00 (refundable on first order) or requested with your order.

**FAIRWARE EXCHANGE**
c/o Robert Neal
317 Hickory
Romeoville, IL 60441

This is the current catalog listing of the FAIRWARE EXCHANGE. Any and all programs contained are available at a cost of $2.50 per selection or a user may exchange a program not in the library on a one for one basis. Please note that there are several programs that require more than one disk for the complete program. These programs require an additional $1.00 per extra disk. The fee charged is not as a payment for the program, but is being accessed to cover the cost of the disk, mailer, postage and other associated costs. You are encouraged to send the author(s) of these programs payment for them if you find them of use to you.

The fine thing about FAIRWARE is that you can try the program BEFORE you buy it. Many of these programs are of commercial quality and if these were marketed as a commercial product, they would probably cost atleast twice the asking price of the author, if not more. Your support of these authors will only further prompt them to continue to produce such fine products. If we 4A users continue to take but never give, we shall soon see the pool of quality programs disappear.

The regular Fairware Exchange catalog listing is produced in several formats. First, there is a listing of all programs in the FAIRWARE EXCHANGE sorted by name, type and date added to the library. I feel that each of these may be useful in finding a particular type of software. The information contained on the report is the disk number, program name followed by the version number and a breif comment about the program plus the date it was added or the date that a new version was added to the catalog. You should be aware that following the program name, a number contained in brackets may appear. This number indicates the number of disks that this program requires, and an additional fee of $1.00 per each additional disk is required.

A second listing is by type only, and contains an expanded explanation about the program, plus any additional information required. The type of file is indicated by the letter that proceeds the disk number, such as G001, this would be of the catagory 'G' which is for games. Here is an explanation of the different catagories:

**G - Games.**
**H - Home and financial programs.**
**M - Miscellaneous.**
**P - Program languages.**
**U - Utilities.**

**Please note that I have attempted to compile a complete and accurate listing of all the programs contained in the FAIRWARE EXCHANGE library.** I do not assume any responsibilty for the quality nor usefulness of the programs, nor do I claim ownership of these programs. The FAIRWARE EXCHANGE is being offered as a service to the TI community and hopefully will aid the authors of these fine programs a chance to further expand their market of the programs and subsequently resulting in more contributions for them.

**Note:** At the present time, the first Fairware Update is being finalized as 16 new programs have been submitted to the Fairware Exchange library. Those who are on the Fairware Exchange mailing list will receive these updates from time to time, dependant on the number of new offerings being added. It is hoped that these updates will be mailed on a quarterly basis.

In addition to obtaining programs at the $2.50 fee, users may also obtain programs on a exchange basis by submitting programs not in the Fairware Exchange on a one for one basis.

When mailing checks, please make them payable to Robert Neal.

LISTING AS OF APRIL 1987

| Disk No. | Program Name | Vers. | Comments | Date Added |
|---|---|---|---|---|
| U043 | 64TERM | | Terminal program written in FORTH. 64 col. | 01/87 |
| H002 | 99 CALC | | A spread sheet program written in X/B. | 12/86 |
| H001 | ACCOUNTING | | | 12/86 |
| G012 | ADVENTURE PAK | | Several games for the ADVENTURE module. | 12/86 |
| H010 | BOOK KEEPING + | | | 12/86 |
| H006 | BUDGET-V | | | 12/86 |
| P003 | C99 [2] | REL2 | | 12/86 |
| U021 | C99 EXTRAS | | Collection of files for C99. | 12/86 |
| U022 | C99-FILES I | | Collection of files for C99. | 12/86 |
| U023 | C99-FILES II | | Collection of files for C99. | 12/86 |
| U034 | CARTOON KIT | | | 12/86 |
| H004 | CHECKBOOK MANAGER | | | 12/86 |
| M005 | CLINIC BBS [2] | 2.5 | BBS program, uses a/l routines from TECHIE. | 01/87 |
| G003 | COMPUTER CRAPS | | | 12/86 |
| H013 | CREATIVE FILING [3] | | Excellent data base program. | 02/87 |
| G010 | CROSSWORD | | | 12/86 |
| U015 | DIRECTOR '99' | | Library catalog program and more. | 12/86 |
| M006 | DISK COPIERS | | Assortment of disk copying programs. | 04/87 |
| U046 | DISK HACKER | | From the authors of Funl-Web writer. | 01/87 |
| U003 | DISK MANAGER 99 | 2.0 | X/B disk manager. Memory resident with menu. | 01/87 |
| U049 | DISK UTILITIES | 3.2 | A great sector editing program. | 04/87 |
| U001 | DM-1000 [2] | 3.5 | Disk Manager program. | 12/86 |
| U007 | EASY SPRITE | | | 12/86 |
| H009 | EE BONDMASTER | | Computes values of EE savings bonds. | 12/86 |
| H014 | FAST-TERM | 1.16 | Great terminal emulator program. v1.16r8j | 04/87 |
| H007 | FIN. DESC. ANALYSIS | | | 12/86 |
| U011 | FORTH DATA I | | Collection of FORTH programs. | 12/86 |
| U012 | FORTH DATA II | | Collection of FORTH programs. | 12/86 |
| H003 | FORTH MAIL [2] | | | 12/86 |
| U008 | FORTH SPRITE MAKER | | | 12/86 |
| U010 | FORTH-VOLK | | Collection of FORTH programs. | 12/86 |
| U039 | FORTHFONT | | A labeler program with font editor in FORTH. | 12/86 |
| U040 | FORTHPLAN | | A spread sheet program written in FORTH. | 12/86 |
| U038 | FORTHRITE | | A mini word processor written in FORTH. | 12/86 |
| U002 | FUNNELWEB [2] | 3.4 | TI-Writer loader and much more. Arpil 87. | 04/87 |
| U033 | GENEALOGY | | | 12/86 |
| U042 | GK DISK CATALOGER | | Disk catalog program written for the GK. | 01/87 |
| U014 | GRAPHICS LABELER | | Excellent labeler program. Uses CSGD files. | 12/86 |
| U018 | HYPHENATOR | 2.0 | Utility for TI-Writer. | 12/86 |
| M002 | JET-DISK [2] | | Childrens games and educational programs. | 01/87 |
| U009 | JP GRAPHICS | | FORTH drawing program. | 12/86 |
| P001 | MACRO ASSEMBLER | | Improved assembler program and more. | 12/86 |
| H012 | MAIL CALL | | | 12/86 |
| H006 | MAILLIST | | | 12/86 |
| U013 | MASS TRANSFER | 4.1 | Excellent terminal emulator program. | 12/86 |
| U031 | MENULOAD | | Excellent menu loader program for Supercart. | 12/86 |
| G002 | MINI-POLY XB | | Plays like the board game. | 12/86 |
| G004 | MY ADVENTURES | | Several excellent a/l text adventures. | 12/86 |
| H018 | MUSIC COMPILER | | Create music with editor and then compile. | 04/87 |
| U005 | NEATLIST | | A excellent cross reference list for X/B. | 12/86 |
| U037 | NOTEINDEX | | | 12/86 |
| P002 | PILOT '99' [2] | | | 12/86 |
| H008 | PR-BASE [2] | 2.0 | Great database program. | 12/86 |
| U036 | PTERM 99 | | A good terminal emulator program. | 12/86 |
| U020 | RAPID SCROLL | | Displays text in either 40 or 64 column. | 12/86 |
| U041 | REDISKIT | | Fast track copier. TI / COR-COMP controller. | 12/86 |
| G007 | S-O-X | | | 12/86 |
| U004 | SCREEN DUMP | | Will dump almost any screen, modules also. | 12/86 |
| U008 | SEQUENCATION | | | 12/86 |
| U016 | SIDE-PRINT | | | 12/86 |
| U032 | SIDE-WRITER | | An excellent utility to print SIDEWAYS. | 12/86 |
| U006 | SPRITE BUILDER [2] | | | 12/86 |
| U029 | SUPAR | 1.0 | 53 a/l routines from X/B. | 12/86 |
| U047 | SUPERBUG II | 2.0 | | 01/87 |
| U035 | SUPERDISK CATALOGER | | | 12/86 |
| H011 | TAXMASTER 87 | | Tax program for 1986. | 12/86 |
| M004 | TECHIE BBS [2] | 4.0 | | 01/87 |
| U027 | TI-DISK SORT | | Sorts DV80 files. Great utility. | 12/86 |
| U044 | TI-KEYS | | Keyboard macro program. | 01/87 |
| U045 | TI-RUNNER EDITOR | | Written in C99. | 01/87 |
| G001 | TI-RUNNER II | 1.0 | Complete set of screens for TI-RUNNER. | 12/86 |
| U023 | TI-SINGS | | Program the 4A to sing. Has sample songs. | 12/86 |
| U022 | TI-WRITER HELPER | | Various information for TI-Writer help. | 12/86 |
| U017 | TI-WRITER REWRITE | | Helper file for TI-Writer commands. | 12/86 |
| G005 | TI99-OPOLY | 1.4 | A well done version of Monopoly. | 12/86 |
| M003 | TIBBS [3] | 5.0 | | 01/87 |
| U028 | TOUCH PRINT | 1.1 | Printer utility program. | 12/86 |
| G009 | TRIVIA 99ER | | | 12/86 |
| G011 | TUNNELS OF DOOM PAK | | 6 different files for the TOD module. | 12/86 |
| U019 | UNIV. DISASSEMBLER | | Written in FORTH. | 12/86 |
| M001 | UTILITIES | | Assortment of utility programs. | 01/87 |
| U021 | VALWRITE | | Requires PRK module. | 12/86 |
| G013 | WHEEL OF FORTUNE | | Play the popluar TV gameshow at home. | 04/87 |
| G006 | WIT-GAMES [3] | | | 12/86 |

(EDITOR'S NOTE: Most of the above listing can be obtained through our club library. We DO encourage users to pay the respective authors for those programs which you use. This is not only FAIR, but encourages those talented individuals to continue to produce upgrades of the programs, as well as new software in the future. -S.M.)

# Yet Another Geneve Cable Article!

-By Steve Mickelson, Toronto 9T9 Users Group

Steve Mickelson, President/Newsletter Editor, Toronto 9T9 Users Group, 15 Kersdale Ave., Toronto, Ont., M6M-1C9, Canada. Permission to re-print granted, provided that the entire article is published; credit given to the author; and copy of the publication is sent to the author, at the above address. This article is for purposes of information only, the author and publication **cannot** be held liable for any damage as a result of attempting this project.

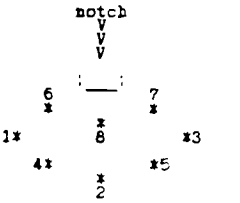
If you use a composite montor with your 99/4A, and will continue to do so on the Geneve, then ignore this article and just plug the same cable used on the 99/4A, without modification.

Although the Geneve monitor has been covered elsewhere, I think that this article will enhance articles published to date. Although prices for parts are in Canadian funds, the Radio Shack Catalog Numbers, (henceforth referred to as RS#), will be the same for Geneve owners, elsewhere. This article describes making a monitor cable for connecting the Geneve to a monitor, (e.g. Magnavox or Thompson), which has a D-style input connector, commonly used on IBM systems, (check your for type of connector and correct pin-outs). The cable described here, is specifically wired for a Magnavox Pro Monitor, (model 8CM873), and Thomson, (model 4120), hi-res. monitors, both have RGB inputs using a 9-Pin connector, with a RCA input for audio.

Parts list:

| Description | P. # | Price |
|---|---|---|
| 1-Tandy Keyboard Extension Cable | 26-1389 | $24.95 CDN |
| *1-9-Pin D-plug, female(DB-9) | 276-1538 | $3.99 CDN |
| 1-9-Pin D-plug hood/hardware | 276-1539 | $3.49 CDN |
| **1-Shielded RCA phono patch cord | 42-2351 | $4.99 CDN |

VIEW INTO PIN SIDE OF 8 PIN DIN




*Depending on the type of monitor, you may have to substitute a 9-Pin D-plug, male RS# 276-1537 @ $3.99 CDN

**This item may be found cheaper elsewhere, or one package split between two-thrifty or **even** four-frugal Geneve owners.

Tools required:

Pliers, Wire cutters, wire strippers, low wattage soldering iron, solder, and electrical tape.

Instead of using the non-shielded 3m/10ft. Archer Joystick extension harness, (RS# 276-1978), which has no shield and may generate herringbone patterns, (v- or s-shaped lines), on the monitor's screen; I used the Tandy 1.5m/5ft. Keyboard Extension Cable for the Tandy 1000, (RS# 26-1389). Note: This item is a "special order" item at many stores and may only be available from Tandy Computer Centres.

The Tandy cable has a couple of advantages; it is shielded and is already soldered to the hard-to-find/difficult-to-solder 8-pin DIN plug used for video output on the Geneve. Also, the DIN plug has deeper recesses on the solder-side, making for easier soldering than the ARMACO DD 8280, as suggested in other articles. As only two wires have to be re-loacated on the DIN plug, most of the difficult soldering has already been done by the folks at Tandy.

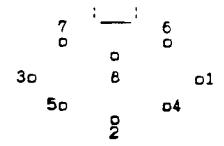
Let's begin:

First, cut off and remove the female-end of the RS# 26-1389 cable. On the male-end of the cable, the plastic sleeve must be pulled back by pushing the metal tab with a small screwdriver, at the same time pulling the sleeve away from the pin side of the plug. Using a soldering iron, two wires must be desoldered and re-located as indicated:

| Pin# | Wire Colour | Function | Reloacted? | Pin# | Function |
|---|---|---|---|---|---|
| * 1 | White | RF Mod. | Yes, to | 8 | Comp. Sync |
| 2 | Yellow | Ground | No | N/A | - |
| 3 | Black | Audio | No | N/A | - |
| * 4 | Green | C. Video | Yes, to | 7 | Blue, RGB |
| 5 | Red | Red, RGB | No | N/A | - |
| 6 | Blue | Green, RGB | No | N/A | - |
| * 7 | Not Soldered | Blue, RGB | see #4 | see #4 | see #4 |
| * 8 | Not Soldered | Comp. Sync | see #1 | see #1 | see #1 |

*Note: All wires remain unchanged, except the White, (Pin 1), and Green, (Pin 4), which are desoldered and relocated to the unused Pin 8, (White), and Pin 7, (Green), respecyively. The plug should look as follows:

| Pin# | Wire Colour | Function |
|---|---|---|
| 1 | Not Soldered | RF Mod. |
| 2 | Yellow | Ground |
| 3 | Black | Audio |
| 4 | Not Soldered | C. Video |
| 5 | Red | Red, RGB |
| 6 | Blue | Green, RGB |
| 7 | Green | Blue, RGB |
| 8 | White | Comp. Sync |

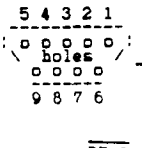



VIEW INTO SOLDER SIDE OF 8 PIN DIN OR INTO GENEVE CONNECTOR

That takes care of the cable to the Geneve Video out plug, you should look to see if shieild wire, (which is bare, without insulation), is soldered to metal case or ring which surrounds the plug, when re-assembled. You may now slide the plastic sleeve back in place.

As for the monitor plug, cut-off about 6 cm., (2 inches), of the wires and save for later use. Bare and strip the ends of the following wires and solder as indicated, (See ** footnotes before proceeding):

| Wire colour | Function | DB-9 Pin# |
|---|---|---|
| White | Composite Sync(C. Sync) | 7 |
| **Yellow | Ground | 1 |
| **Black | Audio | RCA Centre |
| Green | Blue, RGB | 5 |
| Red | Red, RGB | 3 |
| Blue | Green, RGB | 4 |



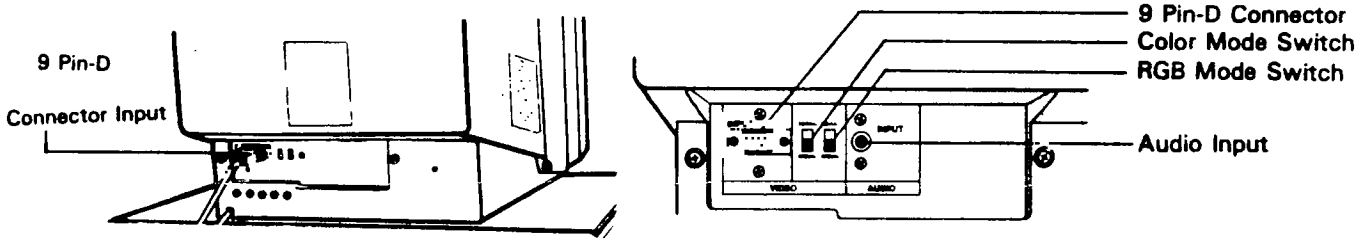

**PLEASE NOTE: Most analog RGB monitors have RCA audio inputs, similar to those used on tape decks and phonographs. Using a **shielded** phono patch cord, (a cable with male RCA plugs on either end), remove one end and bare the wires on the other. From the 6 cm., (2 inch), wires saved earlier, strip the ends of Yellow and Black pieces.

Solder one end of the short Yellow wire to Pin# 1 of the DB-9 Plug, as indicated above. The other end must be attached to Yellow wire on the video cable, **plus** the bared shield wire for the cable, **plus** the shield, (braided outer wire), of the RCA audio plug. Wrap this connection in electrical tape.

Solder the inner audio wire of the RCA cable to the bared-end of the Black wire. Tape this connection.

You may now enclose the DB-9 cable in the connector hood, with both the main video cable and the RCA audio cable exiting out the opening in the hood. If you have a multi-meter or continuty tester, you can double-check all connections for correct location and for shorts.

Pat yourself on the back for a job well-done and proceed to plug your new monitor to your Geneve.

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|---|---|
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| Speech Synthesiser | Plato |
| Peripheral Expansion Box with SS/SD Disk Drive | TE II |
| Also, one stand-alone SS/SD Disk Drive | Adventure |
| TI Disk Controller Card | Return to Pirates Isle |
| 32 K Memory Expansion Card | 50 Disks of software + |
| RS-232 Card | Utilities |
| MM-101 Direct Connect(300 BPS) Modem | |
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from the author of BA-Writer and Editor-Assembler on Disk

San Donato Milanese, June 3, 1987

9T9 Users Group
#100-2356 Gerrard St. East
Toronto, Ont., M4E-2E2
CANADA

To the attention of Mr. Steve Mickelson, President.

Dear Mr. Smickelson,

this letter is intended to thank you for having sent me the "NEWSLETTER 9T9" of May 1987. There, you published an article I wrote about the italian TIers attitude toward program sale and exchange.

I enjoyed your newsletter: "bravissimo!".

I lived in Toronto for 6 months as a "landed immigrant" 15 years ago. I liked Toronto. I shared a house at Bloor and Dufferin with other canadians (boys and girls), and, I can assure you, we had a lot of fun. Being a pharmacist, I worked in a small canadian pharmaceutical company, "NOCO DRUGS". Pay wasn't good, but I was very young, so that did not matter at all. Then, I had to go down to the States (Madison, Wisconsin), where I attended the "Graduate School of Pharmacy". Sure this letter brings me back my memories!

Back to TI-99/4A. I read with particular interest the articles you published about the new Geneve Myarc computer. My friend Massimo Cariboni and I have ordered one unit each from Texaments, NY, and we can't wait to have them here in Italy. May TMS 9900 family computers have a long life!

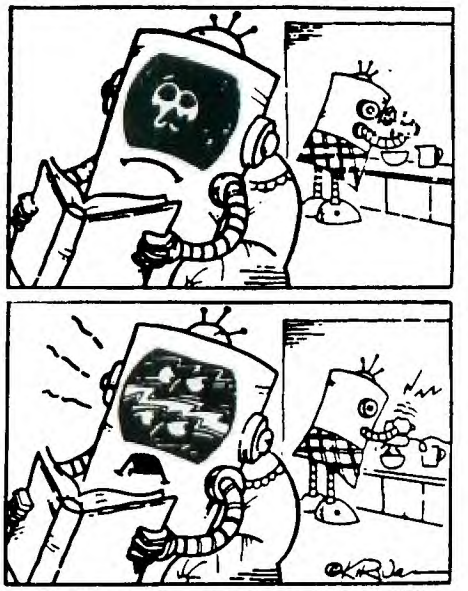
Greetings to all the members of your UG.

Yours truly,

Paolo Bagnaresi

Paolo Bagnaresi
Via J.F. Kennedy 17
20097 San Donato Milanese, Italy
Phone 514.202 (Milan area code : 2. Calling from U.S. dial 011-39-2 first).

**the martian comicals**



"Hey! You gonna use that mixer all night??"

## TI DIAGNOSTIC MODULE

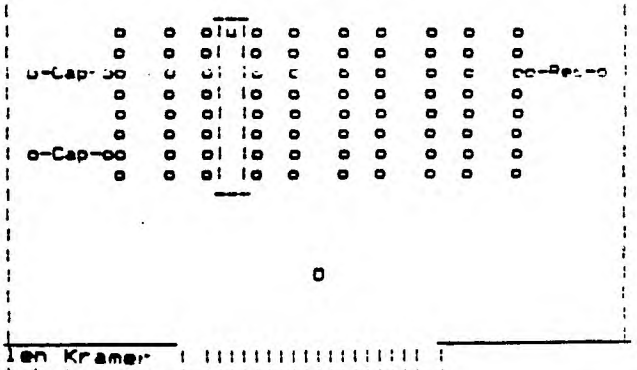
While looking through the Grom list that TI sent I found a Grom call DIAG so I sent for it. Was I ever surprise when it turn out to be the Cartridge type TI Diagnostic Module that TI had made a long time ago. Dennis made the Module up for me, below is the part list.

The module does a keyboard test, mathemetical test, graphic test, and several other tests.

Part List for MODULE from Texas Instruments Inc. 1-806-741-3064
P.O.Box 53
Lubbock, TX 79408
Attn. Dealers Parts

| | | | |
|---|---|---|---|
| 1015960-2006 | GROM,DIAG 006 | 1 | $5.40 |
| 1037200-0004 | PCB | 1 | $1.96 |
| 1056411-0101 | GROM MOD B/C Snap | 1 | $0.34 |
| 1056412-0101 | GROM MOD T/C Snap | 1 | $0.38 |
| 1500773-0033 | RES 100 OHM | 1 | $0.02 |
| 1501701-0122 | .1 UF CAP | 2 | $0.14 ea |

Part #1037200-4 Single side board



(fromTopIcs - LA 99ers)

This is one of many articles sent to our club by Ellen Kramer of Ringwood, NJ. I haven't gone through them all yet but many of them I have seen in other newsletters, and some have been published. Next month I'll include the balance of her goodies.

Thanx Ellen ... Chick