LEHIGH 99'ER COMPUTER GROUP
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Next meeting: 7:30 PM, Monday   Conference Room A-D, Second Floor
              July 20,1987   Sacred Heart Hospital
                                     4th and Chew Streets
                                     Allentown, Pennsylvania

SECRETARY'S CORNER

I do hope that everyone will bear with us with the transition of officiers. In order for our group to survive we need help from each of our members. We gain a lot from our group through the exchange of information and programs.

If anyone has any suggestions on the way the newletters library can be handle better, I would appreciate them. Give me a call anytime during the month and I will have the newsletters at the next meeting. These newletters from other groups contain a wealth of information in them.

RECIPE WRITER

For years I have been collecting recipes in a very unorganized fashion. Every cookbook I have has sheets of different size paper sticking out of them. This is fine until I need a certain recipe and have no idea where to look. RECIPE WRITER is a god send to an unoraganized cook like me. It is easy to use and not only stores recipes on disk but allows you to print then out and convert the size of the recipe. RECIPE WRITER written by Warren Agee is availabe in our disk library. It would be nice if every one who takes this disk out would return it with a disk of their favorite recipes, thus we would not only become more organized cooks but share with our group our favortie recipes.

WHEEL OF FORTUNE

For years we have been trying to to spark my 74 year old mother interest in our TI computer. but no program has gotten more than that's nice dear, until WHEEL OF FORTUNE.

The game is released as freeware by Terry Staph on a disk that also contains JOKERPOKER and BLACKJACK. WHEEL OF FORTUNE is a game made for two or three people and is fairly faithful to the television program. The puzzles are varied and challenging. This is one of the better programs written for the TI. The only problem I have found with this game is now my mother is monopolizing my computer.

If you don't have this disk I recommend you get it from our library or write to TERRY STAPH, Box 387, Pocono Pines, Pa., 18350.

MANUAL

From Ryte Datas Monty Schmidt comes a Technical Drive manual for the hard-core hackers among us. The 36 pages or so of the manual contain detailed, commented, assembly language listings of the Corcomp 9900 clock card, the TI RS232 card, and the TI Disk Controller card. the section on the controller card also contains a map of VDP memory used by the Disk Controller, a review of the format of TI disks, and descriptions of the various lowlevel access routines used by the cards. So if you are into the innards of the TI, this handbook has information previously unavailable. Cost: $17 plus $2 shipping. WRITE TO RYTE DATA, 210 Mountain St., Ontario,Canada, KOM 1SO

YU-CAN BUSINESS MANAGER

This program costs $24.95. It includes three basic programs.
1. A Mail List Program
2. An Inventory Management Program
3. An Invoicing Program

Mail List Program:

This program as with all the programs reads its data from a disk file one record at a time. So this program will work much easier if you have atleast two drives, one (DSK1) for the program disk and one for the data disk.

To get started you will need a copy of the program disk (you don't want to use your original), an initialized blank disk for data, Extended Basic and atleast one disk drive. Place the program disk in drive 1 and select Extended Basic. Business Manager will autoload. Select Mail List Manager, then select SET UP - NEW FILES ONLY. This will prompt you through the steps needed to set up a new data file.

Next get back to the main MailList Menu and select TO ADD/UPDATE/EXAMINE. This will prompt you for the drive your data file is in, it then scans the data disk and tells you the amount of remaining space and allows you to continue or use another disk. After you decide to continue, the program prompts you for the action you wish to perform (add,change,examine,or exit) then it asks for the data file name. Data input is prompted last name, first name, address #1, address #2, city, state (2 Letter), zip code, phone number and comment. This works very well.

Now that you have some data in your data file you can examine or sort your data. The sorts can be done on any one field.(ex. last name or city or phone no. etc.) Examination can be on a range of values. (ex. 8000 to 9999 zip codes)

The program allows you to print all the data to your printer or to print labels. When printing labels you can specify one to three labels per line. Also a nice feature is a small routine that stops the program and allows you to reset your printer without exiting the program totally. (Note: You will still have to read your printer manual to get the CHR$()'s needed to setup your printer. also one bug you use this same routine in the other programs and it returns you to this programs calling routine and not your other calling program.)

Inventory Manager: and Invoicing Manager:

Setup of data files is the same as in the Mail List Manager. And data input is similar only the prompts and data are different. The power of this and the invoicing program is that as you make up an invoice you use the description, update the balance, show the number shipped and backordered basis the data in the inventory data file. Likewise you can print inventory reports of all items, or just items with stock below the reorder quantity.

The program allows for invoices to be batch prepared and printed later or printed as entered.

In all the program is easy to work with. The documentation seems a bit skimpy, but the ease of use doesn't require a large manual. Some quirks that could become bothersome are the prnter setup return error, and the constant

```
          "PLACE PROGRAM DISK
           INTO DSK1.
           PRESS ENTER"
```

which is unnecessary if you are using DSK2 or DSK3 for your data disks.

One last point I'll make. I bought this program from Triton. Their service was good but I was disappointed that I only received a Xerox copy of the original manual (There was no colored hard paper cover and noticable Xerox shift in the copy and the book was put back together wrong.)

>M. S. DeNardo

REPAIR SERVICE

Richard Fleetwood, president of the Forest Lane TI User Group has a repair service available for TI equipment. He and Bruce palmer have been doing repairs on TI equipment for several years--all kinds, from cards to consoles. In fact Bruce worked out of Lubbock on the 99/4A system when it was being built, as a technician. So they know what they are doing. They will do most repairs on the console for $25, which sure beats the TI Exchangs Center price of more than $40. And Richard offers
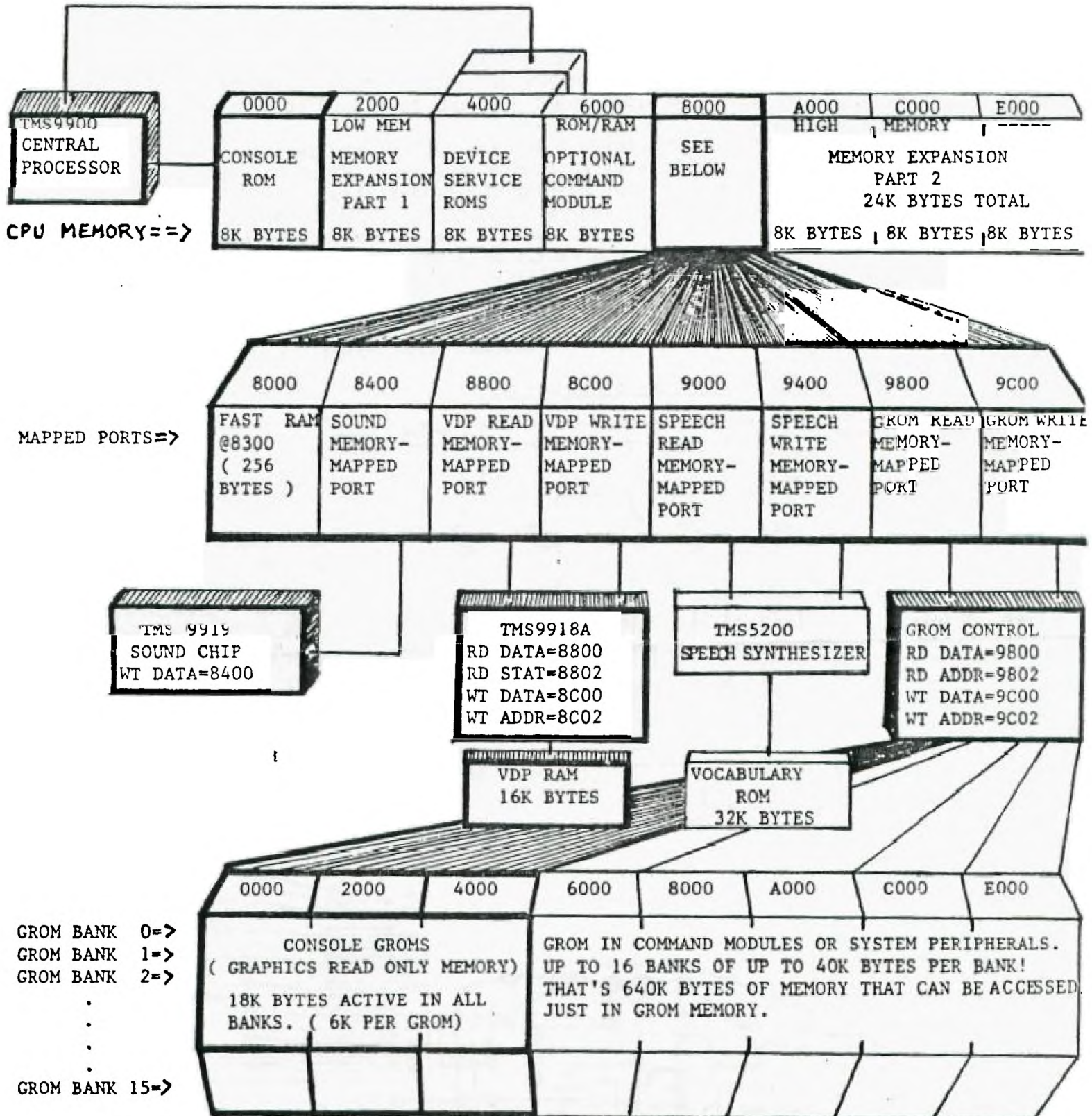
this deal: if the required repairs will cost more than the TI exchange price, then they will return the console or ship it to Lubbock as the customer request. Fair enough! Write before you send anything for repairs to get full shipping imstructions. The company is

Amardillo Bytes
1125 Easton Road
Callas, Texas
75218
(214) 328-9257

TI-99/4A MEMORY ARCHITECTURE
EDITED BY JOHN F. WILLFORTH

CRU BEING USED FOR BANK SWITCHING

TMS9900
CENTRAL
PROCESSOR

CPU MEMORY==>

0000	2000	4000	6000	8000	A000	C000	E000
CONSOLE ROM	LOW MEM MEMORY EXPANSION PART 1	DEVICE SERVICE ROMS	ROM/RAM OPTIONAL COMMAND MODULE	SEE BELOW	HIGH MEMORY MEMORY EXPANSION PART 2 24K BYTES TOTAL		-----
8K BYTES	8K BYTES	8K BYTES	8K BYTES		8K BYTES	8K BYTES	8K BYTES

MAPPED PORTS=>

8000	8400	8800	8C00	9000	9400	9800	9C00
FAST RAM @8300 (256 BYTES)	SOUND MEMORY-MAPPED PORT	VDP READ MEMORY-MAPPED PORT	VDP WRITE MEMORY-MAPPED PORT	SPEECH READ MEMORY-MAPPED PORT	SPEECH WRITE MEMORY-MAPPED PORT	GROM READ MEMORY-MAPPED PORT	GROM WRITE MEMORY-MAPPED PORT

TMS 9919
SOUND CHIP
WT DATA=8400

TMS9918A
RD DATA=8800
RD STAT=8802
WT DATA=8C00
WT ADDR=8C02

TMS5200
SPEECH SYNTHESIZER

GROM CONTROL
RD DATA=9800
RD ADDR=9802
WT DATA=9C00
WT ADDR=9C02

VDP RAM
16K BYTES

VOCABULARY
ROM
32K BYTES

0000	2000	4000	6000	8000	A000	C000	E000

GROM BANK 0=>
GROM BANK 1=>
GROM BANK 2=>
.
.
.
.
GROM BANK 15=>

CONSOLE GROMS
(GRAPHICS READ ONLY MEMORY)

18K BYTES ACTIVE IN ALL
BANKS. (6K PER GROM)

GROM IN COMMAND MODULES OR SYSTEM PERIPHERALS.
UP TO 16 BANKS OF UP TO 40K BYTES PER BANK!
THAT'S 640K BYTES OF MEMORY THAT CAN BE ACCESSED
JUST IN GROM MEMORY.

NOTE: THE HEAVY LINES INDICATE FEATURES INCLUDED WITHIN THE CONSOLE. I HOPE THAT THIS MAP WILL
BE OF SOME USE IN CLEARING UP THE MEMORY SCHEME THAT WAS DEVELOPED BY TI TO MAKE MAXIMUM USE
OF THE "GROM", AND THE ADDRESSING LIMITATIONS OF THE CPU (32K WORDS). FROM THIS DIAGRAM YOU
CAN SEE, HOWEVER, THAT THE TI-99/4A HAS HAD THE POTENTIAL SINCE IT'S INCEPTION, TO BE A GREAT
COMPUTING MACHINE.

SINGLE CHIP 32K MEMORY EXPANSION.....................................
   By Joe Spiegel of the Airport Area Computer Club

   Joe is still doing it. He has decoded around the ROM in the console using
diodes in order to make the use of the new 32K BYTE (single) Chip, the 62256
He has also designed a single sided board that can be etched by you, in order
to build this project.
   Joe will either send you an etched board for $3.00 (unbelievable), or a
complete unit ready to solder (4 wires to the U504 chip in your console), for
and get this, $25.00. Hey Joe! Your ruining the neighborhood. You know that
for him to do it at these prices, Joe is " doing it for YOU ". He will need
your old GROM connector back after you install the unit he builds for you.
   Joe, does your wife know that the family will not see you for the next two
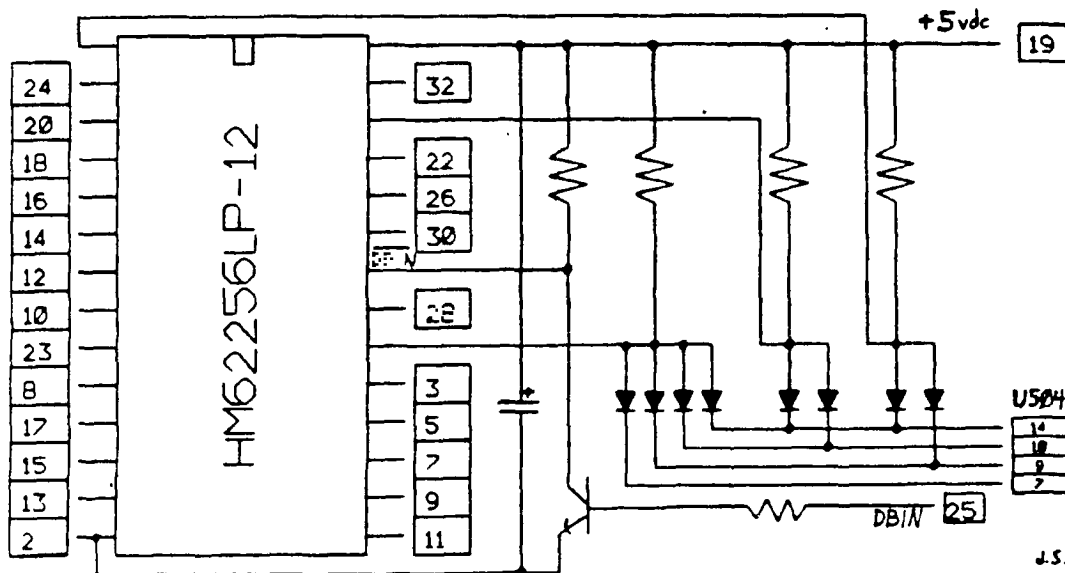years. Send inquiries to the :   AIRPORT AREA COMPUTER CLUB
                                      % JOE SPIEGEL
OR CALL JOE AT: 412 457-8284   P.O. BOX 710
                                      CORAOPOLIS, PA 15108

SINGLE RAM CHIP 32 K Expansion

Notes:

All resistors - 1K
All diodes - 1N914 or 1N34
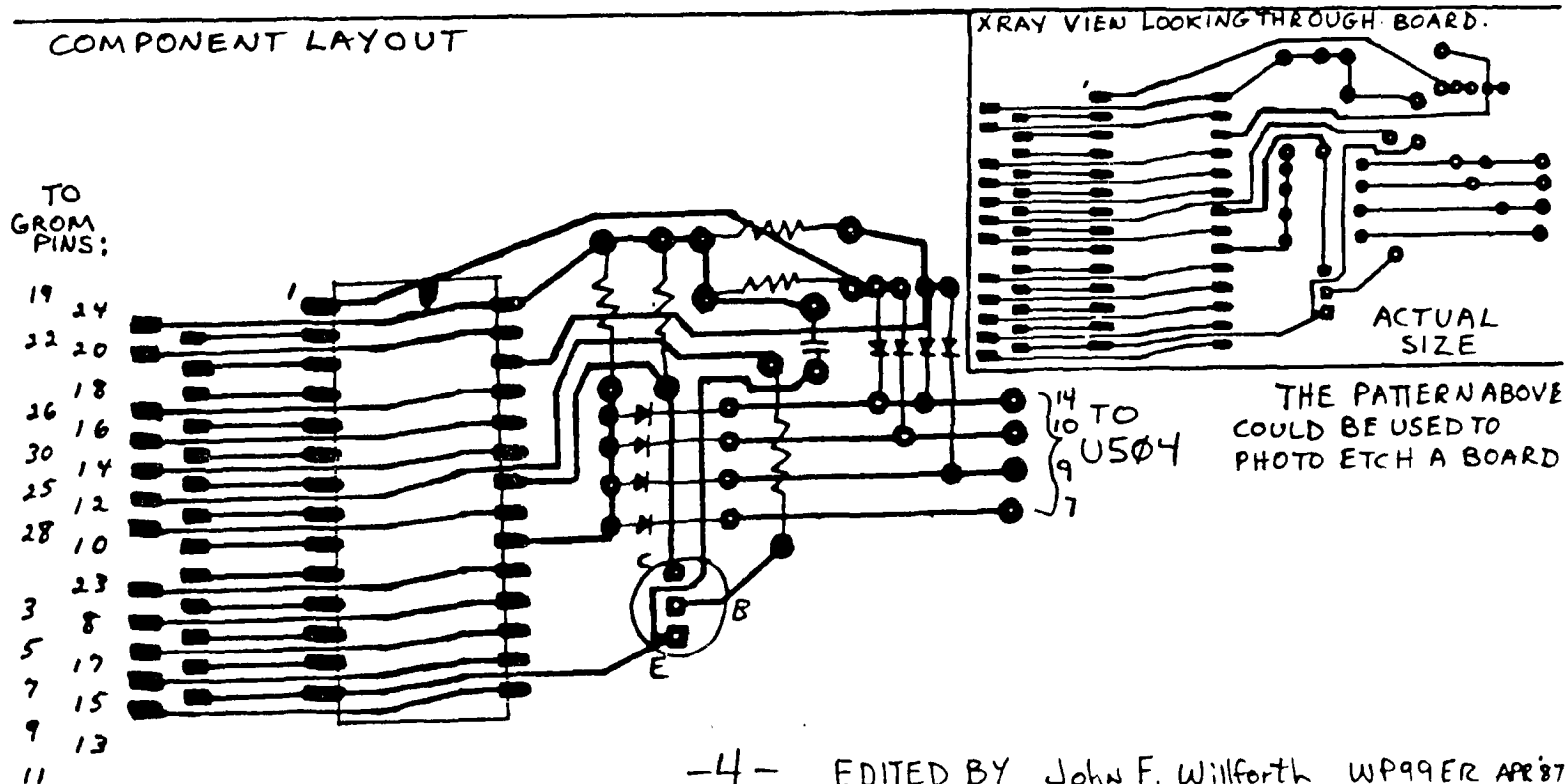Transistor - 2N2222 or 2N3904
Capacitor - 22 mfd Tantalum

   All pin numbers refer to connections
on the GROM port except the four lines
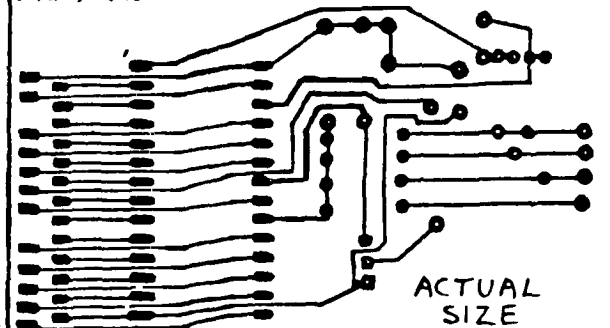going to U504 on the motherboard.

   The transistor and its base and
collector resistors may be omitted if
DBIN is obtained from U508, pin 9, on
the motherboard.

COMPONENT LAYOUT

XRAY VIEW LOOKING THROUGH BOARD.

ACTUAL SIZE

THE PATTERN ABOVE
COULD BE USED TO
PHOTO ETCH A BOARD

GEnie(tm)(The General Electric Network for Information Exchange) is
the newest kid on the block in regards to online information services.
In addition to a Texas Instruments RoundTable(tm), there are several
other manufacturer specific RoundTables available. GEnie also provides
multiplayer game playing scenarios, Computing Today magazine, EAASY
Sabre, the American Airlines reservation system, and more....all at the
same low base nonprime rate of $5 per hour for 300 or 1200 baud access.

New products soon to appear include more Travel, Shopping, and new
Financial related products. There are many more products planned for the
future.

Now, why should YOU JOIN GEnie? I mean, isn't it the same as all the
others? If this were true, this would be the last line I could write!

Far from it! GEnie is VERY different. The entire structure is
unlike any around. Everything in GEnie can be done from Menus or Pages.
Each page is numbered and you can navigate easily and fairly fast. GEnie
also allows you to go to a specific page and submenu directly from Logon.

YOUR Texas Instruments RoundTable includes a Bulletin Board, Real
Time Conference rooms, as well as a Software/Textfile library.

The Bulletin Board function is rather unique. It is based on Topics
rather than direct messages to a specific individual. This allows you to
follow a specific item or idea along its way.

Structurally, there are specific sections called Categories set up
for RoundTable Business, Telecommunicating, Software, Hardware, Basic,
Forth, Assembly, Fairware, Gaming, Gram Kracker, TI-PRO, as well as a
Newsletter category. These pretty much cover the gamut of things in the
TI world. Under each of these categories is where each of the Topics are
entered and responded to. Anyone can start a topic, ask questions, and
provide answers.

Most of you are used to your local Bulletin Board systems in terms
of what to expect and how to react to a message base. GEnie's BBS format
differs from your local BBS in certain ways, but as I have done, you too
will understand and really appreciate the format.

The RoundTable RealTime Conference is available every Sunday evening
for the 4A and the PRO. These are general sessions and are always "free
for alls". Whatever questions you may bring with you will most likely be
answered during the conferences. This is a Great opportunity to meet and
talk with your fellow TI enthusiasts.

The Software Libraries are growing daily. At the time of this
writing, they have grown to over 630 files. A lot of the software is
Public Domain; the biggest selections are include Fairware and Krackerbox
programs. Just about every Fairware program can be found in the TI
RoundTable library, including the latest versions. We also have
virtually every Gram Kracker program that has been written. I don't have
the space to list every program in every library. Suffice to say that
there are quite a few and the list is growing. Also, please note that on
GEnie, the UPLOADS are FREE! Free uploading is available during Non Prime
time(Weekdays between 6 pm and 8 am., all days on Weekends and Holidays).

The file transfer process is also noticeably faster than most other
systems. GEnie utilizes their local network nodes for file transfer
which results in faster operation than that from the mainframe.
Consequently, the numbers just seem to fly by. Nice, especially when you
are charged for connect time.

Now the best part about GEnie...the PRICE! There is a one time start up fee of $18.00 to join GEnie, which includes a hardcopy user manual as well as the monthly LiveWire(tm) newsletter. Connect charges are $5.00 per hour for both 300 and 1200 baud during the non prime time hours specified earlier. 2400 baud is also available in over 65 cities throughout the U.S. at an hourly surcharge of $10.00. GEnie is also available during the daytime at a cost of $35.00 per hour for 300 and 1200 baud. The same 2400 baud surcharge also applies during prime time.

Sign up for GEnie is simple and fast. You do not have to order a starter kit. You simply sign up online. Just set up your terminal program for 7 bit, even parity, one stop bit, or 8 bit, one stop bit, no parity; and either 300 or 1200 baud. Also set your terminal to local echo(half duplex). To connect, have your modem dial 1-800-638-8369. After CONNECT, type "HHH" and CARRIAGE RETURN. At the "U#=" prompt, enter "XJM11999,GENIE", followed by a CARRIAGE RETURN. After you are logged on, GEnie will ask you several questions pertaining to your particular system. If you decide to sign up, GEnie will lead you through the electronic signup process, and will ask you for pertinent information. GEnie accepts Visa, MasterCard, and CheckFree. Within two business days following the succesful completion of the Sign up process, a GEnie representative will will call you with your new GEnie User ID#. In a few days following this you will receive your GEnie manual. One last bit of important information. There is NO monthly minimum billing. You only pay for what you use.

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LEHIGH 99'ER COMPUTER GROUP
P.O. Box 4837 * 1501 Lehigh St.
Allentown, PA 18103

EDMONTON USERS GROUP
PO BOX 11983
EDMONTON, ALBERTA T5J 3L1
CANADA   5/87