SASKATOON
TEXAS
INSTRUMENTS
COMPUTER
CLUB

SEPTEMBER NEWSLETTER
NEXT GENERAL MEETING AT:
SASKATOON REGIONAL COMMUNITY COLLEGE,
ROOM 114, 145 1ST AVE. N., 7:00PM
OCT 7TH, 1985
NOV 4TH, 1985
DEC 2ND, 1985
MAIL ADDRESS: 407-2010 22ND ST. W., SASKATOON, SASK., S7M OV1.
- -
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SYSTEM OPERATES AT SEVEN BITS, EVEN PARITY, AND ONE STOP BIT.
THE TELECOMMUNICATIONS FIELD, NEXT THING TO BEING THERE.
(THERE GOES OUR DISCLAIMER!!!).

EDITORIAL

ANOTHER SLOW SUMMER WITH MEETINGS ATTENDED BY ONLY THOSE
OF THE TRUE HEARTED DIE HARDS.
AS I HAVE STATED IN THE PREVIOUS NEWSLETTER, WITH THIS
ISSUE WE ARE NOW ESTABLISHING A NEW MEMBERSHIP LIST FOR THE
1985-1986 SESSION. FOR THOSE WHO ARE NOT AWARE, OUR SESSION IS
FROM SEPTEMBER TO AUGUST OF EVERY YEAR. NOMINATIONS FOR
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YOUR MEMBERSHIP, YOU RECEIVE ACCESS TO THE HARDCOPY AND
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MONDAY OF EVERY MONTH, UNLESS SPECIFIED. WE HAVE A PERIODIC
NEWSLETTER (ONCE A MONTH HOPEFULLY!!!), AND HAVE ACCESS TO
MANY USER GROUPS AND BBS INTERNATIONALLY. THEREFORE
INFORMATION IS NEVER LACKING!!
ALL OF THE ABOVE SERVICES ARE PROVIDED BY THE

VOLUNTEERISM OF THE COUNCIL AND ITS MANY MEMBERS. IF AT ANY
POINT YOU REQUIRE SPECIAL SERVICES, THEN WE ARE ALSO THERE TO

HELP ASSIST YOU.

WE ARE NOT A LARGE CLUB, ONLY SLIGHTLY OVER 30 MEMBERS
EVERY YEAR. OUR FEES ARE VERY REASONABLE ($10 - 12/YR) WHILE
OUR EXPENSES ARE AT TIMES VERY COSTLY; NEWSLETTERS, TAPES,
DISKS, RENTAL OF MEETING SPACE, STAMPS, AND MEMBERSHIP IN
OTHER CLUBS (IE. NATIONAL U.G.). SO WE DO NOT HAVE A LOT OF
MONEY AFTER THESE ARE ALL PAID FOR. IN FACT, SOME OF OUR
MEMBERS PAY FOR A LOT OF INFORMATION FOR THE NEWSLETTER OUT OF
THEIR OWN POCKETS. WHETHER THEY HAVE FURTHER SUBSCRIPTIONS TO
MAGAZINES, SOURCE, COMPUSERVE, TIMELINE, OR BY TRADING WITH
OTHER TI USERS AROUND THE WORLD, YOU CAN OBSERVE THAT THEY
TRULY ARE DEDICATED TO THIS CLUB. FOR THIS, I AM TRULY
INDEBTED.

SO PLEASE, TAKE TIME TO DETERMINE IF YOU CAN HELP OUT IN
ANY WAY TO THIS CLUB. WE NEED COMMITTES FOR VARIOUS PROJECTS.
BUT DON'T FORGET, IF YOU NEED HELP, DO ASK!!! JUST BRING YOUR
QUESTIONS TO THE MEETING OR EVEN TAKE TIME TO WRITE DOWN YOUR
PROBLEMS.

                                        - FRANCIS -

REMEMBER WHEN...

WE HAD A NEWSLETTER NAME CONTEST AND THE FOLLOWING WERE
SUBMITTED AT ONE TIME OR ANOTHER:

- LITTLE ORPHAN "99".
- 99 - THE GREAT ONE.
- 99/EH?
- 99/4A - CHIP OFF THE OLD BLOCK.
- SASKATOON'S -99 CELCIUS.
- TID BITS.
- THE GREAT WHITE NORTH (OR 99).
- MAKE MINE 99....
- 99 BOTTLES....

WHEN WE PAID $400 PLUS JUST FOR THE CONSOLE?

WHEN WE LABOURED OVER CASSETTES AND RECORDER SETTINGS?
REMEMBER WHICH CASSETTES WERE BEST TO USE?

WHEN LOADING A PROGRAM TOOK OVER 10 MINUTES ON TAPE?

WHEN THERE WERE ONLY 2 BBS IN TOWN?

WHEN WE HAD MANY MEMBERS IN OUR COMPUTER CLUB?

AND FOR THE VERY YOUNG AT HEART... REMEMBER THOSE OLD

CHICLET 99/4'S? THE FOREFATHER OF OUR BELOVED 99/4A'S? YEP,
THESE WERE THE GOOD OLD DAYS!! AND THANK GOD!!

TIMELINE.....

DM1000 - THE BEST DISK MANAGER YET!!!! THIS IS AVAILABLE
FROM THE OTTAWA TI 99/4 USERS GROUP AND WRITTEN BY BRUCE
CARON. FROM ALL SOURCES, YOU WILL CERTAINLY WANT TO GET RID OF
YOUR DISK MANAGER II!! IF YOU NEED AN ADDRESS, SEE OUR ARCHIVE
LIBRARY.
TIM MACEACHERN OF TINS AND DARTHOUTH, AUTHOR OF WYCOVE
FORTH, HAS PUBLISHED IN TINS NEWSLETTER THE ENTIRE SOURCE CODE
FOR THE TI RS232C PIO CARD. FULLY DOCUMENTED... ALL THE
WORKINGS!!!! ALL OF THIS IS AVAILABLE FOR $2.00 TO COVER
ENVELOPES, STAMPS, AND SWEAT. IT IS A 28 PAGE MAG GIVING ALL
THE SOURCE CODES. IT ALSO HAS 3 EXECUTABLE FILES IN IT.

TITLE OF BULLETIN: TI BULLETIN BOARDS

Here are a few BBS numbers pertaining to the TI99/4a.
This represents the majority CDN boards run on a TI and others with a
strong TI flavor. (TISIG). Any others? Post them here for all
to see!

City/Sysop/Phone number/Computer used/Notes
******
Dartmouth, NS/Terry Atkinson/TI 99/4A - TIBBS/ 24 hours.
Up/Downloads. (TINS)
*****
Winnipeg, MB/TecVoc School/204-885-7921/Comp. Unk./Closed in
School/204-885-7921/Comp. Unk./Closed in summer. TISIG.
*****
Winnipeg, MB/Tronica Info/204-582-5411/IBM./TI-SIG.
*****
Saskatoon, Sask/Ken Reid/306-384-3844/TI 99/4A (STICC).
*****
Edmonton, Alta/Tom Hall/403-424-3258/TI 99/4A (Edmonton 99ers)
*****
Mississauga,Ont/Steve Woods/416-826-4510/TI 99/4A-TIBBS/Dloads
*****
WhiteRock,BC/Sonny Saelieng/604-531-6423/TI 99/4A-TIBBS. 3-7pm
24hrs wknd/PACIFIC TIME 300/1200bps. Up/Downloads.
*****
Ottawa, Ont/Jane Laflamme/613-738-0617/TI 99/4A/Downloads.
Ottawa 99/4 UG.

This list from the Dartmouth TIBBS.

So, you have a set of joysticks kicking around that your kids broke the handle off of, eh? Well here is a little workshop procedure that will little workshop procedure that will make use of those dust-gatherers.

The work being described is for the TI original type of joystick. Others must be similar.

First, strip each of the joysticks down to parts. This involves removing the two screws from the back, opening up the casing and removing the joystick handle, plastic contact sheet and attached electronic circuit.

This circuit is the one you want to use for the project. Slide the plastic strip clear of the connector on the small circuit board. After having done this to both joysticks, you are ready for some solder work.

To make your project a little more solid and more professional, we will have to remove the connectors from the boards. There is only one connector on each board, small, black and looks the console end of the speech synthesizer, only smaller of course. This can easily be accomplished with a soldering iron that is designed for electronic work, that is..small and hot.

Once the connectors are removed, clean up the solder holes, ready for attaching a six lead ribbon cable. Prepare the ribbon cable first by seperating the six strands from each other down to a depth of about 1 inch. This will make working with it much easier. "Tin" the quarter inch bare end of each of the six leads (apply a little solder to the twisted ends). Carefully solder each lead into its hole in the board. The sequence of leads is not important at this point.

Once all six leads are fixed, on both boards, you are ready for the final step. Take a piece of circuit board (about 2" square) and mount the two circuits in a fashion so that one is on the top and the other on the bottom side of the circuit board. Ensure that the joystick cables are both coming away in the same direction.

In the ribbon cable, you have just installed, one lead is common and the remainder represent your alarm circuits. With a little exploration you will quickly find out which leads produce a -4 value and which produce 0, +4 and 18. Use this little routine to act as a test circuit. Connect the joystick leads to the joyport.

```
100 CALL JOYST(1,X,Y)
110 CALL JOYST(2,Q,R)
120 CALL KEY(1,K,S)
```

```
130 CALL KEY(2,L,T)
```

```
140 PRINT X;Y;K,Q;R;L
150 GOTO 100
```
Now all that remains is to choose a pair of leads and hook them up to a detector. Any thing that will make a contact will serve purpose. Radio Shack has several excellent magnetic switches for this purpose.

Write yourself a little programme to sound sirens and alarms, or phone th police, or any other action you can imagine.

This is the basics, you can run with it from here.

Regards,
Paul Meadows
(ed-He is from the Nova Scotia U.G.)

TI EQUIPMENT FOR SALE
_____

The following TI equipment is available: 1. SIX (6) PEB's with controller and 32k $175 (U.S) each. 2. FOUR(4) bare PEB'S $125 each. 3. MANY GAMES FOR UNDER $6.00 All prices are cash carry from Maplewood NJ, and are subject to higher bids. Shipping at buyers expense. OTHER EQUIPMENT AVAILABLE. Call 201-762-4696 for more details. (after 6:00 PM or weekends) or mail to:

KEVIN J. O'BOYLE
78 HUGHES STREET
MAPLEWOOD, NJ 07040
****

separate listing:

1. TI PEB, 32k and controller for $260 including postage.
2. optional Myarc RS232 for $81.95
3. These are U.S. prices.
Send check or money order to:
          TEXAMENTS
          53 Center Street
          Patchogue, NY 11772
or contact the TI SOURCE
516-475-6463.

Attention All BBS Sysops in Canada!

TimeLine wants to give you a FREE Time TimeLine account, a 15 dollar value...all you have to do is mention us on your BBS!! Any members who

know of BBS system's please contact them for this offer. The following

Info Should be provided when signing up:

    1) Name and Address of BBS sysop
    2) Name of BBS
    3) Phone Number of BBS
    4) What type of Computer it is run on.

We wish to have you join our online users group!! If you wish further
information, please feel free to contact TimeLine through system office
command or via (VOICE) phone call at the TimeLine head office re: (514)
681-2280 Thanks for your time and interest...

                                              - Charles Sinsofky
                                              system manager/T.U.G.

note: T.U.G. reserves the right to refuse any BBS a account on
TimeLine.

                              TI ARTIST

Introducing... TI ARTIST(tm)! A graphics drawing generation program
for the TI-99/4a computer. It is written entirely in assembly language
for maximum speed and performance. It's unique menu selection
technique features a picture oriented function selector for extreme
ease of use and understanding. TI ARTIST(tm) was also designed to be
used in conjunction with many other grapics programs on the market. A
conversions programs will allow you to transport your pictures from one
software package to TI ARTIST and back again! But that's not all... TI
ARTIST(tm) performs excellent screen dumps using an Epson compatible,
Okidata, or GP-100 printer! TI ARTIST(tm) is configured to run on the
TI-99/4a with memory expansion, disk drive and either Mini Memory,
Editor/Assembler, Extended Basic or TI Writer command modules. The
price... you may have seen TI ARTIST(tm) advertised previously for a
price above $30.00. But now, a special offer brings TI ARTIST(tm) to
you at the incredible price of just $19.95 plus $2.00 postage and
handling! Send check or money order to the following address:
                    TEXAMENTS
                    53 CENTER STREET
                    PATCHOGUE, NY 11772
24 Hour Bulletin Board Hot Line may be reached at 516-475-6463 TI
    SOURCE(tm). Mention the SOURCE when ordering!

Sort Without Moving Data

Here's a short program that demonstrates a very handy sorting algorithm
- the TREE SORT. Unlike most other sorts, the tree sort DOES NOT
change the order of the data! it simply creates a set of lists that
indicate where the next (alphabeitcally or numberically) record can be
found. As each rcord is entered, the list links are updated.

The Advantage is Safety

There are several advantages to such a sorting method. First, you
don't have to constantly re-arrange yuor data. This is important if
you are working on files that need to be kept in thier original order,
or for files that are sorted on several different keys at once.
Another good reason is computer failure. If you are working on your
data file and suddenly have a power failure, there's a good chance that
most of your data will be lost, or that it will be in a real mess since
your sort was only partly finished. Since no original records are
changed, the Tree Sort doesn't put the data in as much jepoardy.

The Disadvantage is Memory

There are some disadvantages, too. The biggest disadvantage is memory
space. The Tree Sort maintains two separate link arrays, one for the
left Link and one for the right link. These arrays must be equal in
size to your data stack. Also, the Tree Sort needs a rather large
temporary stack to operate. Usually you need a temp stack 75% the size
of your original data stack. For example, a file of 500 items, you
would need the following arrays:

                DIM D(500) - data array
                DIM L(500) - left link array
                DIM R(500) - right link array
                DIM T(375) - temp stack array

In otherwords, to sort 500 items you'll need to declare 1875 elements!
On the brighter side, the Tree Sort works almost as fast as the Shell
Sort and is really quite effective for medium size sorts.

Example Program

The program below not only sorts out random number data, it also prints
out the data in it's original order along with the left and right link
pointers.

```
210 REM 04/85 220 REM 230 REM *********** 240 REM *VARIABLES* 250 REM
*********** 260 REM 270 REM N - # IN ARRAY 280 REM D - DATA 290 REM LL
- LEFT LINK 300 REM RL - RIGHT LINK 310 REM STK - TEMP STACK 320 REM
330 DIM D(10),LL(10),RL(10),STK(8) 340 RANDOMIZE 350 REM 360 REM
```

```
************** 370 REM *GENERATE DATA* 380 REM ************** 390 REM
```

```
400 CALL CLEAR 410 PRINT "GENERATING DATA...":::::::::::: 420 REM 430
FOR L=1 TO 10 440 D(L)=INT(RND0)+1 450 NEXT L 460 REM 470 N=10 480 CALL
CLEAR 490 PRINT "CREATING LINKS...":::::::::::: 500 CALL
SOUND(150,1000,0) 510 GOSUB 670 520 REM 530 CALL SOUND(150,1000,0) 540
CALL CLEAR 550 PRINT "LINK TABLE":"===========" 560 GOSUB 1120 570 REM
580 PRINT "SORTED DATA":"============" 590 GOSUB 920 600 PRINT 610 END
620 REM 630 REM ********** 640 REM *TREESORT* 650 REM ********** 660
REM 670 P=1 680 J=0 690 X=1 700 IF P>N THEN 860 710 IF D(P)<=D(X)THEN
770 720 IF RL(X)<>0 THEN 750 730 RL(X)=P 740 GOTO 820 750 X=RL(X) 760
GOTO 710 770 IF LL(X)<>0 THEN 800 780 LL(X)=P 790 GOTO 820 800 X=LL(X)
810 GOTO 710 820 LL(P)=0 830 RL(P)=0 840 P=P+1 850 GOTO 690 860 RETURN
870 REM 880 REM ***************** 890 REM *PRINT IN ORDER* 900 REM
**************** 910 REM 920 P=1 930 T=0 940 T=T+1 950 STK(T)=P 960 IF
P=0 THEN 990 970 P=LL(P) 980 GOTO 940 990 T=T-1 1000 P=STK(T) 1010 IF
T=0 THEN 1060 1020 PRINT D(P); 1030 T=T-1 1040 P=RL(P) 1050 GOTO 940
1060 RETURN 1070 REM 1090 REM *PRINT LINKS* 1100 REM ************** 1110
REM 1120 PRINT "POS CONT LFLNK RTLNK":"--- ---- ----- -----" 1130 FOR
J=1 TO N 1140 DISPLAY J;TAB(8);D(J);TAB(17);LL(J);TAB(25);RL(J )
1150 NEXT J 1160 PRINT 1170 RETURN 1180 REM
```

Review of Advanced Diagnostics By Richard Roberts

Millers Graphics has finally released their long-awaited diagnostics
program for the 99/4A, and it would appear that it was worth the wait.
Actually, the program is three-in-one, as there are three distinct
major functions that the program will perform.

All together, the program has 24 functions, or commands, that can be
performed. These break down into the following categories:

> Sector editing > Misc Diagnostics > Command files

Under the category of sector editing, this program is much like the
well known DISKO, which was written by TI. The screen displays the
sector data in the same identical layout, but does include a "status
block" at the top of the screen, which displays information such as the
sector and track you are editing. The one dramatic difference is the
BYTE indicator, which will tell you precisely which byte of the sector
your cursor is located. That comes in handy when you know that you
need to change byte number 125, and can proceed directly to it, without
counting the bytes. Besides reading and writing to individual sectors,
you may also read and write to the track data locations, which precedes
the beginning of each track, and is outside the range of other sector
editor programs. While done very well, the sector editing part of this
program is plain vanilla, when compared to the functions of DISK+AID,
from MT Utilityware. When it comes to diagnostics, this program is
much more than plain vanilla. Perhaps the most desired function is the

ability to read the speed of your disk drive, in order to insure that

it is turning at the proper RPM. The program displays a graph, with
the optimum speed of 300 RPM in the center, and a pointer will move
left and right to indicte your actual drive speed. Moving in
increments of 1 RPM, you can graphically see whether your drive is too
slow, too fast, or just right. The safety margin ranges from 293-307
RPM. In addition to the motor speed diagnostic, there is also a memory
diagnostic, which will check, and re-check every RAM memory address in
your entire system, including Scratch Pad RAM, VDP RAM, Memory
Expansion RAM, and Mini-Memory RAM, if present. Counting every address
read and write performed during this test, there will be 963,072 memory
accesses, not counting the steps taken by the program to shift .itself
around inside memory, in order to maintain it's enviroment. That's
really awesome! One other diagnostic performed is to check the disk,
reading the information about each sector, and reporting any bad
sectors found, and any files that are fractured. Despite the functions
that have been described so far, I think the most promising, BY FAR, is
the command file function. This is a program function that, to my
knowledge, has never existed for the 99/4A to date. It is the same
concept that is used when creating batch files on the PC's, and is at
the heart of programming in dBase- II.

In a nutshell, any of the other
23 commands in Advanced Diagnostics can be programmed to perform a
complex series of functions. In fact, out of the 14 files on the
program disk, 11 are command files. Some command files are diagnostic
in nature, While others demonstrate the power of command file
programming. One example of this is a command file called BOXFORMAT.
Written with a word processor, such as TI-WRITER or the Editor
Assembler, the command file can RUN inside Advanced Diagnostics, and .
will format an entire box of 10 disks. There is really no way to
explain how this works, other than to show you the actual command file.
Listed below is the entire command file called BOXFORMAT.

```
[255][7]Beep[13][7]
Format a Box of Ten    [32]
Disks as SS/SD in the  [253]
[253][253][253][253][7]
Selected Drive         [10]
[253][253][253][253][7]
BE PA FD 1 S DISK_01 [13]
BE PA FD 1 S DISK_02 [13]
BE PA FD 1 S DISK_03 [13]
BE PA FD 1 S DISK_04 [13]
BE PA FD 1 S DISK_05 [13]
BE PA FD 1 S DISK_06 [13]
BE PA FD 1 S DISK_07 [13]
BE PA FD 1 S DISK_08 [13]
BE PA FD 1 S DISK_09 [13]
BE PA FD 1 S DISK_10 [13]
     [7][]
```

This is how each line works: Line 1: [255] tells the program to operate in

high speed. The [7] clears the command line (the same as pressing
FCTN-3), the word BEEP sounds a beep tone, [13] is a carriage return,
and [7] clears the command line again. Line 2,3 5: Data to be
displayed on the command line, informing the program operator what is
taking place. Line 4 6: A series of [253], each of which perform a one
second pause. Line 7-16: Each of these lines will format one disk
each. The first command on each line is a beep (BE), followed by a
pause (PA, requiring a key press to continue). During this pause, you
would insert the first disk, then FD is performed, which is the command
for "format disk". The "1" indicates single sided, the "S" indicates
single density, and the diskname follows. This process continues,
until 10 disks have been formatted, and the program operator had only
to remove and insert disks, and press any key to continue. Line 17:
This line performs another [7], and the final [] is a end-of- file
marker, returning control of the Diagnostic program to you.
Admittedly, what I have just described is hard to fathom just by
reading about it. Suffice to say, the command file concept is
powerful, yet easy to program, once you see a few examples. Other
command files included on disk include DSKCOPY1-2, which will format
the copy disk in drive two, and copy the master disk in drive one to
drive two. RWTEST will perform a complete read and write test on a
SSSD disk (can be changed to any disk format), and DIAGCONFIG is a
default configuration file which is automatically loaded upon initial
booting of the disk. This file can contain the complete screen color
scheme you like, as well as your printer output devicename, and any
other command you would like to include. Under miscellaneous
functions, CONVERT NUMBER will take your number, in any of three bases,
and display the equivalent in the other two bases. The bases used are
Binary, Decimal, and Hexadecimal. DISK DIRECTORY will display a
catalog of filenames on a disk, and FIND FILE will locate any file on a
disk, telling you the sector numbers where the program is located. The
manual that accompanies the disk is very complete, taking 20 pages to
describe the program, and the 24 commands. Another 13 pages are spent
discussing everything you ever wanted to know about floppy disk
controllers, including those things you were afraid to ask, as well as
those things you didn't even know existed! For instance, the term
"sector interlace" is something I was not aware of. This describes the
phenomena whereby sectors 0 and 1 are not actually next to each other
inside it's track, but is actually separated by THREE other sectors.
As things go, when the controller reads sector 0, by the time it has
digested it and sent it down the pike, the drive head has passed three
more sectors. Now, if sector 1 followed sector 0, the drive head would
have to wait until the disk revolved around again before it could read
it. Not so, with "sector interlace". In fact, track 0 would look like
this: 0 7 5 3 1 8 6 4 2 If you study that for awhile, the importance of
it will begin to sink in. All in all, if you don't learn something
from this program, then you don't need it anyway. In trying to keep
things simple, I think I've gotten carried away with myself, so in
closing, I should point out that the cost of all this is a mere $19.95

(plus $1.50 SH), and worth every penny of it. It's a very good example

of what can be done on the 99/4A, and demonstrates that this poor
orphaned machine of ours CAN be programmed to do anything that any
other so-called 64K machine can do. It's first class, all the way! You
may contact the company, to order the program, or receive additional
information, at the address below. Available by mail- order only.

Millers Graphics
1475 W. Cypress Ave.
San Dimas, CA 91773
714-599-1431

ROGER ROBERTS IS CURRENTLY PRESIDENT OF THE DALLAS TI99/4A USERS GROUP.   OUR
THANKS TO ROGER FOR THIS EXCELLENT REVIEW OF WHAT APPEARS TO BE AN
EQUALLY EXCELLENT PRODUCT.

Sorry for the above format in the last few pages. My TK-Writer expertise
is really showing!!! I will try to alleviate this on the next newsletter.

EXTERNAL KEYBOARD A SUCCESS

After reading so many article on the above subject, I decided to venture
forth and try it for myself. I can only tell you that it was a success. The only
problem is that I am still using the old keyboard (obtained from Radio Shack for
6.95). But I will easily be able to upgrade this in the future.
The procedure was very simple: I obtained all the necessary items before
proceeding. This included wires (ribbon type), an RS232 plug, screwdriver, and
a handy Ohmeter for checking correct wirings. I also required a proper schematic
diagram of the keyboard and keyboard port in the console. Please note that the
schematic that came with the keyboard from Radio Shack is not correct!!!
I then opened the console and proceeded to add-on the splicing of the new
wires. I then drilled and hacksawed a location for the RS232 plug. My choice
was near the voltage regulator underneath the module port. Choice was based on the
bulkiness of the RS232 plug. After checking to ensure all the connections were
correct, I just closed up my console and voila!... it worked.
I now have two keyboards: one on the console, and an external plug in
keyboard. Future modifications will be easy for upgrading to a finer keyboard
since all the 'wiring' for the keyboard port is now external on my machine. I
hope to this soon in the near future.
I will be bringing this in on the next meeting. It truly is nice to sit
back and type with your feet up on the desk!!!!!