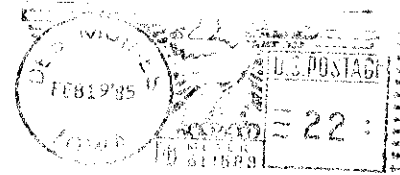

 * Central * VOLUME 3 NUMBER 02 *
 * Iowa * TTT HHH EEE 444 AAA FFF 000 RRR UUU MMM *
 * Users * TTT HHH EEE 444 AAA FFF 000 RRR UUU MMM *
 * Group * TTT HHH EEE 444 AAA FFF 000 RRR UUU MMM *
 * Newsletter * FEBRUARY 1985 *

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 * President...John Hamilton.....262-2749 Dues are \$12/YR for Individuals *
 * VP/Editor...Steve Robinson.....287-6270 \$15/YR for Families *
 * Secretary...Ron Rutledge.....987-1145 *
 * Treasurer...Mark Tallman.....279-7065 Meetings: 1st Sunday each month *
 * Software....Barry Christenen.....276-2443 Eastside Library *
 * Programs....Dave McBride.....262-9031 2:30-4:30 2559 Hubbel Ave *
 * Basic/Ed....Bill Claypool..... Des Moines, Ia 50317 *
 * Publicity...Harlan Warden.....984-6672 *
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CENTRAL IDWA 99/4A USERS GROUP
 ATTENTION: EDITOR
 BOX 3043
 DES MOINES, IOWA 50316

035
 MIAMI COUNTY AREA U. G.
 P.O. BOX 1194
 PERU, IND 46970

So you say your disk drive is sick? Can't read other peoples disks? Or do you just want to make your second disk drive work with the first one? Maybe the following info will cure some of your ailments.

To add a second disk drive all you need is and edge-card adapter board (figure 2 on the next page) and a special cable. Most people got the board and cable free along with their disk controller cards, some didn't. If you didn't get one your best bet is to find someone in your user group who has them but doesn't have a second drive and ask about buying them.

If you own a Shugart drive you will also need a replacement resistor pack. TI will send you the pack free of charge, just call 1-800-TI-CARES and tell them you need the replacement resistor pack for the TI 99/4A expansion box disk drive.

The board shown below is from a Shugart drive. "A" is the shunt pack and should not be removed. "B" is the resistor pack to be modified. Note that the corner that is clipped should be inserted nearest pin 1 (where the arrow points). If you don't know which type of drive you have, a Shugart drive has the 'flip' type door while a Tandon drive has a spring loaded door and a button which opens it.

Once you have the pieces it's a simple process. Follow these steps and you will soon have a two-drive system.

1) Remove your expansion box drive by removing the four screws which hold it in place. Remember to have the power off at least two minutes before working on any component in your system.

2) Disconnect the power and controller cables. The power cable is tough to get off so take your time and gently work it loose. You do not need to remove the metal case which covers the drive itself.

3) Remove the old resistor pack. If you have a Shugart drive install the replacement pack.

4) Re-install your disk drive in your expansion box.

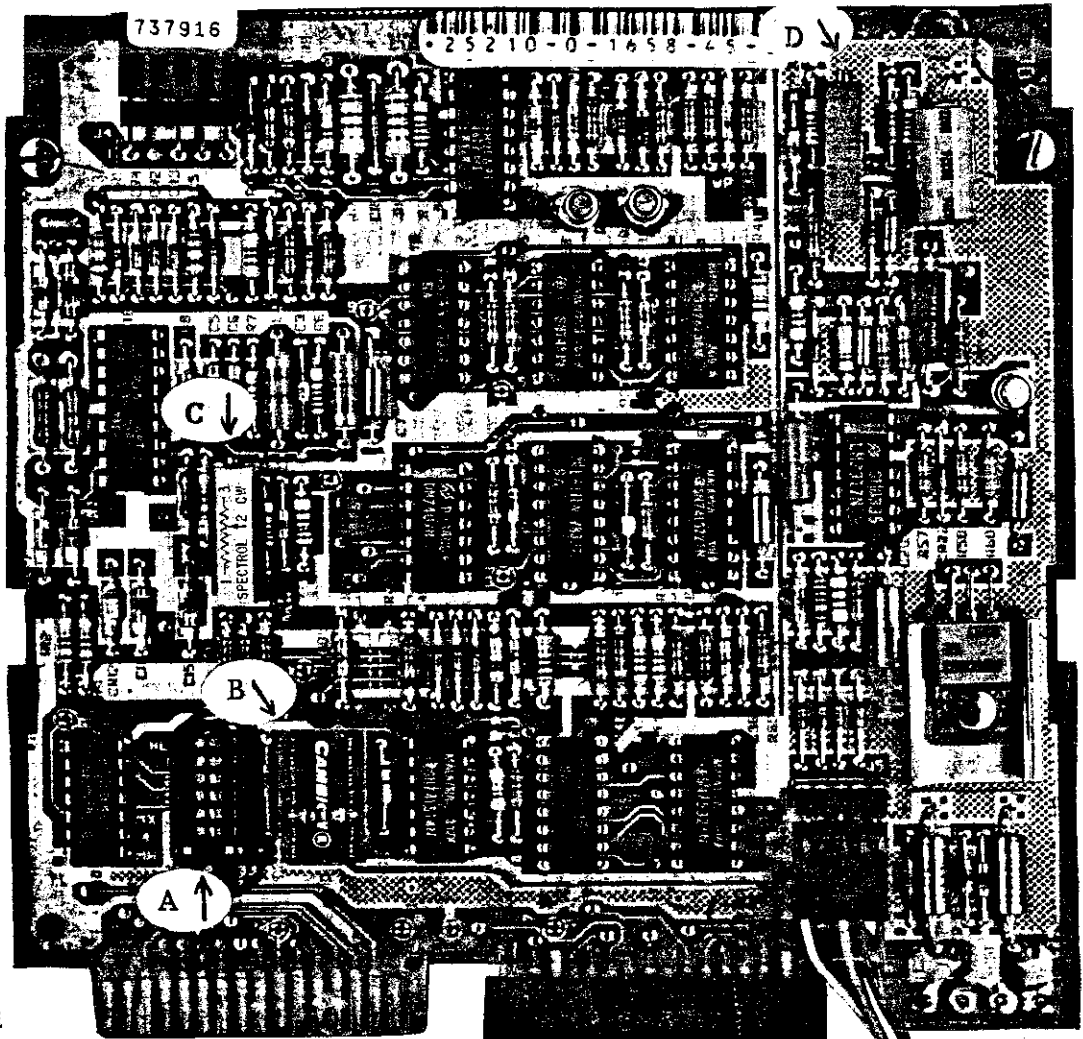


FIGURE 1

5) Connect the special cable to the controller and insert the adapter board in the free end. Connect the end of the external drive to the adapter board. Do not use the connector in the middle of the external drive's cable. This is for a third drive.

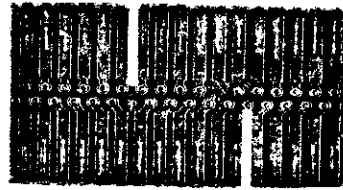


FIGURE 2



FIGURE 3

6) Power up your system and catalog a disk on both drives. Assuming both drives catalog OK, you are ready to go.

Now for the fun part. I was having problems reading disks from other people and even some of my own older disks. After alot of moaning and a little digging I discovered that the problem with my drive was that it was running a little slow. I suspect that the belt which spins the disk has become worn but I'm still waiting for a new belt I so I can't be sure. Regardless of the cause, the problem was speed. If you are having problems or just want to check your drive the following information may be useful.

On page 1 of this article is a picture of a board from a Shugart disk drive. On it you will note two pods marked "C" and "D". Both pods have a screw-type adjustment in the end of them. The screw in pod "C" will be sealed. If you have a desire to send your drive to TI then break this seal. "C" is the adjustment for head-step timing and so far I haven't been able to find anyone who knows how to calibrate it. "D" is the motor-speed pod and this is where you will need to make an adjustment. If you have a Tandon drive you should find two similar pods, one of which is sealed and one which isn't. I can't vouch for it but the adjustment should be the same.

Figure 4 shows the underside of a Shugart drive. "F" is the motor capstan and "E" is the timing wheel. Note on the timing wheel the two sets of markings for 60 cycles and 50 cycles. I used the 60 cycle markings as that is what household lights run at and I needed no timing light.

The adjustments are very easy to make. Remove your drive per the instructions on page 1 and then remove the metal case which covers the drive. This can be done by prying the metal tab out which keeps the cover from sliding off by itself. Then re-connect the power and controller cables with the cover off. Next find a lamp (I used a trouble light) and put it around 3 feet from the drive for good lighting. Now power up your system leaving any second and / or third drive turned off.

If you have removed the resistor pack and no other drive is on your motor should run continuously. This makes setting the timing considerable easier. If not just keep press function QUIT. With the lamp shining on the drive you should now be seeing the 60 cycle band of the timing wheel looking somewhat like figure 3 except that it will be lighter and less defined. If you have ever watched a western and seen the wheels of the covered wagons appear to spin as the settlers evaded the indians you will have a good idea of what to look for.

Note the direction the "wagon wheel" is turning. If is stationary your drive is running at the proper speed. If the "wheel" is turning counter-clockwise the drive is running too slow, and if it is turning clockwise it is running too fast.

Using a small screw driver turn the screw in the motor-speed pod ("D") until the direction or speed of the "wheel" change. A change should be very noticable by turning the screw one-quarter turn. If you can't see a change after turning the screw a half-turn you are looking at the wrong thing. Be sure to keep track of the original position of the screw so that if you run into trouble you can at least get back to where you started.

Once you have adjusted it enough so that the wheel is stationary power your system down, wait 2 minutes, then re-install the drive.

If you need to replace the belt be careful not to touch the portion of the timing wheel or motor capstan that the belt rides on and as little of the belt as possible. The residual dirt and oil on your fingertips can cause the belt to slip. It was suggested to me that I use some sort gloves when doing any kind of electronic work. Also make great efforts to not to stretch the belt any more than is possible when putting the new one on. Put the belt on the capstan first ("F") and then around as much of the timing wheel as you can. Don't stretch the belt on, simply turn the timing wheel with your fingers until the belt is rolled on by itself.

If you need to order a belt, part #54161, you can call the Shugart order desk at 1-800-521-3387. The cost is \$5.50, plus any charges.

If you can provide any information on doing maintenance to any part of the TI please send it to the club in care of me.

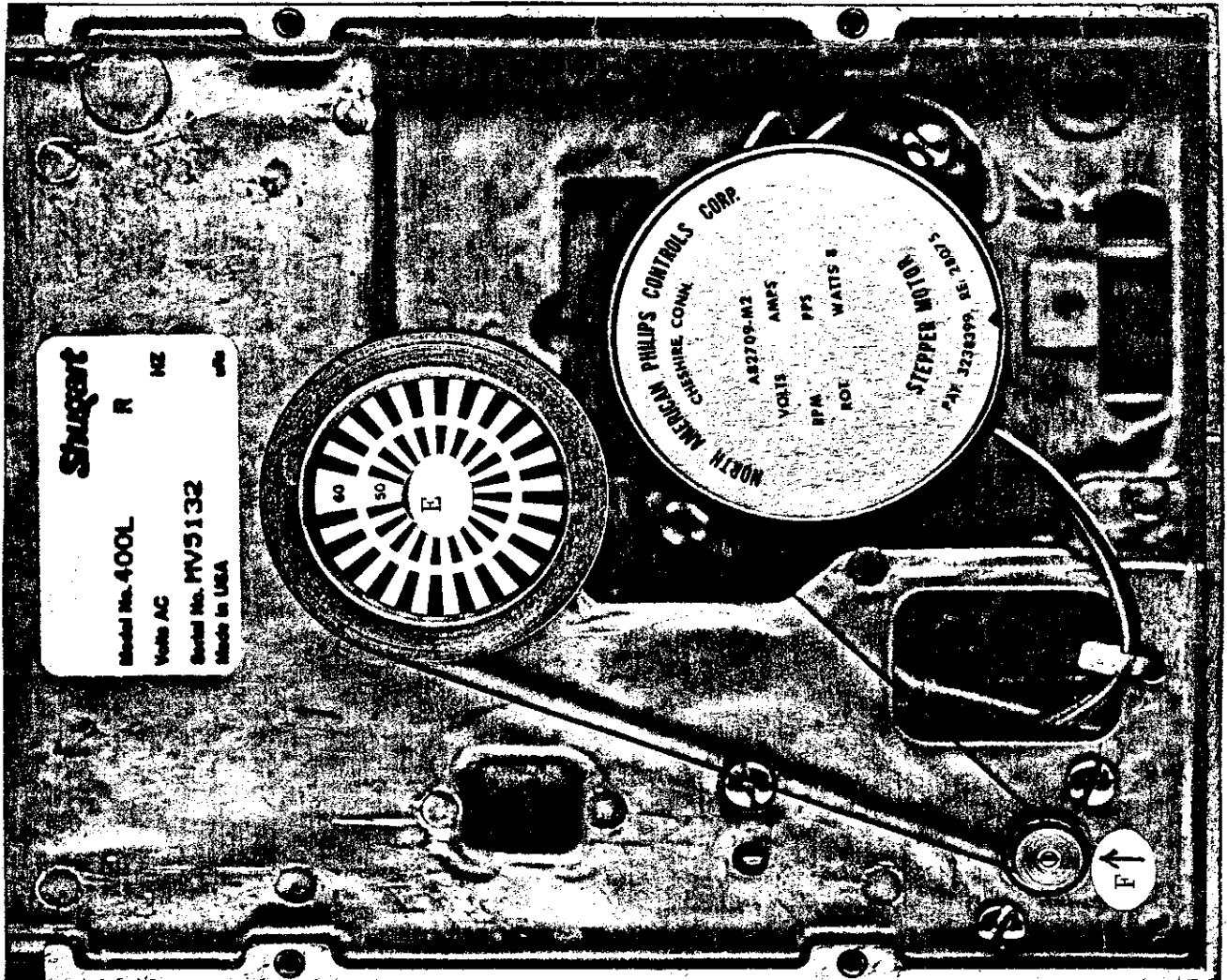


FIGURE 4

Nice turnout last meeting. I am glad to see that we have maintained such a strong showing for the 4A. Even though I own two other brands of computers, and use a third at work, I must admit my fondness for the TI (at least it is the one I use the most). Remember, the more you support the club, the more the club will support you and your computer.

If anyone happens to be looking for chips for the 4A, I have come across the following mail order firm. Here is what they have to offer (prices include shipping) along with some other supplies -

TMS 9900 - \$14		
TMS 9901 - \$ 6	keyboards - \$10	Centurian Enterprises
TMS 9904 - \$ 6	power supply - \$ 9	PO Box 3233
TMS 9918 - \$10	transformers - \$15	San Luis Obispo, CA 93403
all four - \$30	modulators - \$15	1-805-544-6616

I have not checked this out, but I am told that Radio Shack carries a RF modulator (277-1015 \$4.95) and a transformer (273-1515 \$6.99) that will work with the 4A. If anybody has purchased either of these, please let me know how they have worked and I will pass it on. Thanks.

The club has received a copy of Mini-Mag 99. We also received three extra copies that will be passed around at the next meeting (along with subscription forms). It costs \$15 for twelve months, but I suggest you look at the free copies before you order. While I am glad that another source of 4A material is available, I feel most of the information offered can be found in the newsletters we exchange (and they are free). Of course this is just my opinion and you should judge for yourself.

An offer that I have no qualms about plugging is the one available from the Computer Shopper. You can get 6 months of their magazine (it contains articles, ads, tips, and a lot of "neat" stuff on all brands of computers) for only \$5. There will be an order form at the next meeting (I paid \$15 for 12 months and thought I got a great deal)!

CorComp is back in business. They have finally released their expansion system (32K, RS232 centronics port, DSDD disk controller) which is about the size of two speech synthesizers. Looks like a good product (see last month's review of their stand-alone disk controller). The best price I have seen for the system is \$325 from TENEX UNISOURCE. I have also seen 2 DSDD drives with case and power supply for \$175 from PRIORITY ELECTRONICS (not a bad setup for \$500). CorComp has scrapped their larger system (the one with the drives built in). Too bad, it looked pretty sharp.

Finally, FOUNDATION is offering through the club a special price on their 128K card and software for \$185.40 (includes shipping). More details at the meeting. That's it for this month. Hope to see a lot of you on 3/3.

>>>> Last Meeting <<<<

The last group meeting was held Sunday afternoon, February 3, and had what I thought was an extremely good turn-out. I gave a demo of Super Sketch, a graphics tablet, and Mark Tallman demonstrated 3 programs from the club library. The demos of programs from the club library will become a monthly event from now on, however, we won't make Mark give them all.

>>>> Next Meeting <<<<

The next meeting will be held Sunday afternoon, March 3, with the same hours, 2:30 to 4:30. We will again have program demonstrations from the software library. The remainder of the program was not available at the time this was written.

>>>> Address Request <<<<

We are still receiving a great deal of mail at the old address. Please note the NEW ADDRESS listed below. Take note USERS GROUPS!!!!

Central Iowa 99/4A Users Group
P.O. Box 3043
Des Moines, Iowa 50316

>>>> New Chairman <<<<

We now have a new Software chairman, Barry Christensen. He will be needing some help maintaining the library and making it available so do your part and help out. Dave McBride is the new Program chairman and will be organizing the meeting programs from here on out. The Education and Basic categories have been combined with Bill Claypool as chairman.

>>>> Library Additions <<<<

The following programs have been added to the club library and will be available at the next meeting. All require a disk drive and 32K memory card. FORTHXB requires the Extended Basic module, the remainder require the Editor/Assembler module.

FORTHXB - This is the Extended Basic version of Forth. It should be the same as FORTH except it requires a different module.

TERMINAL EMULATOR III - This is a 300/1200 baud emulator which was never completed by TI. It has been slightly enhanced but is still a little shakey at 1200 baud. It includes a documentation file.

MASSCOPY - A 3 pass or less disk copier that works even better than the FORTH copier does. It can copy the entire disk or only up to the highest numbered sector used.

DPATCH - A disk sector editor. It works even better than Disk Fixer except it doesn't have print capabilities. A small documentation file is included which lists the commands available.

 * MARKET PLACE PAGE 6 *

 >>To place a free ad call Steve at 287-6270 before 9 or see me at a meeting<<

The Computer Supply Store at 1014 Grand has the following items:

Hardware	Epson RX80 printer	225.00
=====	Okidata 92 printer	400.00
10% discount	Panasonic 1091 printer	305.00
available on	Silver Reed Exp-500 letter quality printer	349.00
most items	Printer cable	29.95
for club	Anchor Volksmodem (cables 11.50)	69.95
members!	Navarone Cartridge Expander	29.50
	Epson FX80 printer	359.95
	Eichner 60 5 1/4 disk file holder	12.95
	(same holder but locking version	16.95
Supplies	Ribbons: 82A or 10X ... 2.99 RX80 ... 6.99 Pro ... 5.40	
=====	15 lb 3500 sheets	24.40
	20 lb 2700 sheet fine-perf paper	22.39
	Elephant SSSD disks (box of 10)	20.00
	Verbatim SSDD disks (box of 10)	17.50

 WANTED WANTED WANTED WANTED WANTED WANTED WANTED WANTED WANTED WANTED

WANTED: Backup 99/4A console. Will take best offer, not interested in high-priced or beat-up machines. Call Madonna Nordaker at 262-8619 after 4P.M.

WANTED: Statistics module ... will pay up to \$10. Call Bob Klein at 967-4140.

 FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE

HALF PRICE SALE!!!: Infocom adventures "STARCROSS", normally \$35, and "WITNESS", "INFIDEL", and "CUTTHROATS" normally \$40, for HALF PRICE. Might trade for another Infocom adventure. Call John Hamilton at 262-2749 after 6.

FOR SALE: Peripheral expansion box, disk controller card, disk drive all in great condition for \$250 or best offer. Call Mark Tallman at 279-7065 after 6.

FOR SALE: New TI 99/4A console, wired controllers, joystick adaptor, 12' Video Extension Cord, Cassette cable, plastic cover, Cassette'n'Game file, 3 extra TI 99/4A books, Adventure w/3 extra tapes, Football, Alpiner, Parsec, The Attack, Video Graphs, Music Maker, Personal Real Estate, Personal Record Keeping, Home Financial Decisions, Securities Analysis, and Household Budget Management (all new and unused). To be sold as a package only, at less than "SALE" prices ... \$275.00. Call Fred Lloyd at 225-2263 or 245-2105.

FOR SALE: Parsec module ... asking \$5 will take best offer. Call John Abraham after 6 PM at 270-0635.

FOR SALE: All 99 newsletter tips, EB command summary, disk map, and a Basic sort Assembler sort (22 pages with folder) mailed to you for \$4.00. Send to John Hamilton, 4228 E Clinton, Des Moines, Iowa, 50317.

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== Upcoming Program == Director - Dave McBride 262-9031 after 6

For our February (March)? meeting we plan on having a presentation of the Scott-Foreman education modules demonstrated by Bob Ryherd. Bob has an address to order these modules at a very good price and he will demonstrate several different modules at our next meeting. Some of the modules he has are; 1) Reading Rainbows 2) Reading - Beginning 3) Frog Jump 4) Picture Parts and 5) Addition Subtraction 1 2. If you are interested in possibly acquiring these cartridges for your children, plan on attending to preview these. These programs are mostly for lower elementary or preschool but Scott-Foreman has a large variety of education software for all ages.

== TI WRITER + MULTIPLAN SIG == Director - Madonna Nordaker 262-8619 after 4

We're at the start of a new year .. have excellent new officers and planners. begin!! I "volunteered" to help with TI Writer and TI Multiplan. Both are great programs. What I lack in knowledge I will make up for with enthusiasm and a handy telephone to ask the right person the answer to questions our group can't answer. Would like to saysomething to those of you who think they won't bother to learn any more on their TI because they plan someday soon to get another computer. **YOU'RE WRONG !!!** I have another computer. Bought it last fall. It's great - has Wordstar, Super Calc 2, Data Base II and a library of hundreds of prgrams just waiting for me to learn about. Everything I've learned and am continuing to learn about on our TI has made it much easier to learn about my new computer. Also, what I learn on it makes TI look better and explains things I didn't understand before. I have to admit I really get a kick out of learning and struggling and goofing and then finally getting something right. Use your TI - things you learn on it transfer very nicely and why waste money and time already spent. I'll be having TI Writer and Multiplan SIG meetings at my home - (2315 E. 13th) from 7:00-8:00 PM, on Thursday March 7th. Please call if you want to come. If another meeting night is better we can sure change to it. If you're interested but can't make our 1st meeting call and let me know.

== NEXT MONTHS NEWSLETTER ==

Thanks to all of you who sent in an article for the newsletter, we actually had more articles than pages ! Next months edition will contain a review by Dave McBride on Navarone's Data Base Management package, a report from the various SIG group chairpersons on what their agendas will be, and space permitting a pickpocketed program or two.