

Newz From the Prez January of 1993

Wow, I almost hit a '2' instead of a '3' on my keyboard! Can you BELIEVE it is 1993?! Happy New Year! SPACE has safely seen itself through another year thanks to your support!

My support!? Well, yes, if you are receiving this newsletter, it probably means you paid \$15 at one time or another to support this club. This is appreciated. But there is more to supporting a club than just paying your dues (although that is a big part of it, let me say). Showing up at the meetings, participating in club activities and calling our BBS all come under the area of support.

The SPACE club still continues to bend over backwards to please the members. We threw a lovely Christmas party at the last meeting in which food flowed in abundance and free disks were thrown about like so many snowflakes falling from the sky! (How poetic I am, eh?) How come I didn't see EVERYONE!? If you missed this last meeting, you MISSED IT, it won't be back until another year from now.

I am playing a real emotional tug of war here - I don't want to sound like I am complaining all of the time, but I must be frank, the low attendance does discourage me. We have an unbelievable core group that shows up every meeting and is indispensable in getting things off the ground (like the Bob Puff visit). However, there is more than enough room on the band wagon and I would love to see more people and more input at the meetings. The meetings are suppose to be the function of this club, the main source of spreading information. Due to the lack of articles, I doubt if the newsletter is doing as much as the meetings are. PLEASE COME TO A MEETING! We miss you!

What's ahead in the coming months? It's all in the works! I would like to see a BBS month, a game month, and a movie month. Movie month? Heh heh, come to the meeting and find out!

See you at the meetings! And if not, well, Mike is addressing the post cards!

Nathan Block

Next Space Meeting Is

January 8th, 1992

December Meeting 1992 By Sherm Erickson

December meeting was called to The order (sort of anyway) when Nathan announced that the food was ready and the table was set. That set the tone for the meeting, where good food and good company was to be enjoyed by all. Thanks need to be said at this point to the MANY members who contributed to that table, and to those whose efforts helped make it the successful gathering it was. Another great Christmas party recorded for the SPACE club. Speaking of recording, Steve Nelson filmed the whole thing, a film we are looking forward to viewing.

Several new faces were present at the December meeting, always a pleasant site for us. It was also mentioned that transportation problems kept some of the established members away that night, and options were discussed to cope with this situation, which appears to be a long term problem.

A large software raffle and trivia game ended the evening on the same happy note with which it began. We as club officers wish everyone a happy and prosperous new year, and may the success with which the club ended the year rub off on all of you.

1992 By Sherm Erickson

Looking back on the year 1992 it seemed to me that perhaps we should take a minute and think about the accomplishments of our club during that time. A glance at the newsletters of '92 brings back happy memories galore. We have survived ten years as an organization and are still going strong, which in itself is no small victory. We gained a nearly complete collection of educational software and controller cartridges for the Atari as well as a Software Librarian to handle that part of the library. Then we should also mention the representation of our club at the three major electronics shows or Hamfests of '92 - Midwinter Madness. Aldrich and the show at the Civic Center downtown. All three were opportunities to

show the general public that Atari 8-bits are not dead, opportunities we did not let Larry Serflaten had to resign as BBS Sysop, which resulted in a new Sysop as well as a new location for the BBS itself. We witnessed our club pull together as a team to raise the money to bring Bob Puff here as a guest speaker. The importance of the team effort cannot be overstated. This is the mark of a truly successful organization. The birthday party in July and the Christmas party were again immense successes, due one more time to the contributions of all of us.

In closing, it must be remembered that a labor of love is still work, and to take time here to thank all the members whose tireless efforts make our monthly meetings something to look forward to. Here's wishing all of you the same success in '93 that you have helped bring the club in 1992.

Minutes of December Meeting Submitted by Mike Weist

Meeting opened at 7:40 p.m. All officers present including the new secretary, Mike Weist.

Nathan Block, club president, welcomed everyone to the meeting and the Space Christmas Party.

He introduced all the club's officers and thanked them all for their hard work during the year. He asked for a round of applause and asked them to step up and be the first to serve themselves at the serving table. He also thanked the Fitzpatricks for all their hard work, putting the Bob Puff Event together.

He also said that as a Christmas present, every Space Club Member would receive a free Christmas program disk.

He also made the announcement that Steve Nelson will be Space Club's official video photographer.

Meeting closed at 7:50 p.m. Party followed meeting.

Mike Weist Secretary

Christmas Party By Mike Weist

Well, what can I say! Another successful Space Christmas Party because of the hard work of the party committee and the good turnout of the membership. When I first made it to the Space meeting, I watched the Fitzpatricks running from the kitchen to the party room making sure everything was being prepared right for the Christmas Party. While in the kitchen Larry Serflaten and Sherm Erickson were hard at work preparing food items.

The Party room filled with people and food for the party. About 61 people showed up for the party. There was a mixture of adults, kids, and one baby. Nice to see some old faces showing up for the party like Pat Krenn. Glad you made it!

We had 4 membership renewals and 1 new membership.

There were some nice raffle prizes like Print shop, that were won by club members. Thanks to Steve Christopherson and Lance Ringquist for donating items to the raffle. For a while there, Nathan was looking for Joe Danko's coat to raffle off, but he couldn't find it.

The food was great(like it always is) Rachel Thompson was a hit like her lasagna was at the Space Birthday Party. Unfortunately I didn't get a chance to grab a piece because it disappeared so fast: A person could smell delicious pizza in the party room.

Where Nathan our President, comes up with all the trivia questions for the trivia contest part of the party is a mystery. I hope he doesn't run out for future parties, this is such a fun part of the party. I wonder how many computer clubs out there have fun club parties like us?

Well, last of all, February is the month for the annual Midwinter Madness show at Blaine Sports center. Might be a lot of bargains to be had. See you at next meeting in January!

Thanks Sherm Erickson By Mike Weist

Before Thanksgiving, I picked up a printer for one of our club's members. She wanted a printer that could make graphics. After finding out that the okidata 84 printer did have graphics capability, I offered it to Rachel Thompson (Shortcakes).

I had used it for a while before getting it to her and it seemed to work fine. But when she started to use it the printer ribbon snapped. Since I was suppose to stop up at Sherm Erickson's house in (God's Country) Ham Lake, I asked him if i could bring a guest. Sherm said sure, come on up. So Rachel and I packed up the truck with things including the Okidata 84 printer. We thought Sherm could help us out with the problem with printer.

When we arrived at Sherm's House he invited us in the house to get out of the cold. He directed us down to his computer center. What a set-up! Sherm could start his own bbs. He quickly looked at the printer with the broken ribbon and figured what the problem was. The printer ribbon was not correctly installed. In order to fix the problem, we had to transfer a ribbon from a okidata 93 printer to a Okidata 84 set-up. It seems that the printers are the same, but the Okidata 84 printer has bigger printer ribbon spools. WE transferred the ribbon from the Okidata 93 spool to the Okidata 84 spool. What a messy job. Anyway this was successful and the printer was up and running, printing out printshop graphics.

After this Sherm treated Rachel and I to refreshment and showed us some interesting computer programs. Thanks Sherm for the fun evening, can't wait to visit You again.

* THE 12-VOLT 8-BIT By Jeff Golden

Who says, "You can't take it with you". With the aid of the following modifications, it is possible to power your 800XL or 130XE from the car battery without affecting its 120VAC operation.

You can take along your favorite computer games for those long road trips, and if you are into writing travelogues, you can take along your TextPro disk and take notes along the way.

Now that your car has some programmable "computer smarts", how about getting carried away with a monitor-based instrument panel and a voice that nats at you when you forget to check the oil. Add in those instruments that you have always wanted, like a low oil sensor or a miles-per-gallon meter. This isn't as silly as it might sound. A 600XL with some cartridge software and a few extra sensors could do all that.

Let me hasten to add a disclaimer at this point. If you manage to zap your computer, burn up the car, run off the road, or achieve some other undesirable result after following these instructions, we cannot assume any responsibility. You are strictly on your own.

The modifications have been tested and work on my equipment, but because of the wide variety of 8-bit devices and user skills, there is no way that we can assure you that the changes will work on your equipment.

Let me caution you that any connections to the car's electrical system should be properly fused and to check all voltages and polarities with a VOM before you connect any equipment. Furthermore, you should check the equipment for signs of overheating, particularly during the first hour of use, and never leave the equipment unattended while it is plugged into the electrical system.

Do not operate or connect the equipment after it has been subjected to rain or condensation.

Powering up the computer: The 800XL and the 130XE are powered with 5.18 volts of DC that is fed into the computer by means of a 7-pin male DIN plug. There are two ways of providing this 5VDC from your carbattery. The easy way is to obtain and modify one of the early XL power supplies, (the black and white XL supply that can be taken apart). The other, and more expensive way, is to make your own 12VDC power supply which is actually easier done than said.

If you have one of the old style XL power supplies, you can modify it in the same manner that is described below for the 1050 disk drive, otherwise we will need to replace the AC power supply brick with a similar sized brick that reduces the 12-15 volts of car power to 5 volts. This is easily accomplished by wiring a simple voltage regulator circuit and mounting that circuit in a ventilated plastic box. (See the wiring diagram).

Radio Shack has the perfect power supply box for this purpose, and it is highly recommended. (270-287). This box will insulate the heat sink both thermally and electrically. (The heat sink is charged at +5 volts). The other parts are also available from Radio Shack with the exception of a heavy duty heat sink.

The regulator will generate about 10-15 watts of heat that must be carried away from the regulator chip to prevent it from destroying itself. You may be able to buy a heavy duty heat sink at an electronics store, or you may want to fabricate one from heavy aluminum scrap. I used an aluminum bar 18" X 1" X 1/8". The bar was folded accordion style to fit into the case. The regulator chip was fastened to the center of the bar with heat sink grease in between and no insulators.

My regulator chip was mounted vertically with the pins projecting upward. The regulator mounting screw was also used to mount an L-shaped bracket which in turn was used to support a small circuit board above the heat sink. A coaxial jack was fastened to the case for the 12VDC input. A 2-conductor 18ga lamp cord and a DIN plug were run out the other end of the case for the 5V output.

Be sure to check your DC-converter brick for proper voltage and polarity before connecting it to the computer. The output should be between 5.15 and 5.25 volts at the DIN plug.

Powering up the 1050: This one is easy. All that we have to do is mount a 12VDC input jack on the 1050 case and then let the regulators inside the 1050 take care of the rest. See diagram. No circuit cutting or switching is necessary and the 1050 will still run under AC as well as DC. Wire the DC jack to the plus and minus poles of the AC rectifier as shown. The DC jack can be double-checked by connecting the 1050 to AC power in the normal way and then checking the empty terminals of the DC jack for approximately 11 volts of DC with the expected polarity.

Warning!! Plugging AC into the DC jack could damage the electrolytic capacitors and other components. I recommend covering up the DC jack with a piece of tape whenever the drive is not being used in the car.

Atari uses a negative signal ground which corresponds nicely with the majority of cars which also use a negative ground. To minimize possible shorts to the car body, I connected the negative DC line to all of the outer (exposed) rings of the coaxial DC plugs and connected the positive DC line to the center tips.

Plug the TV monitor and the computer into the cigar lighter using a Y adaptor. (AC/DC TVs usually come with a lighter cord). Using the lighter socket enables the driver to easily disconnect the system when parking the car, and it also enables the easy removal of everything when the vacation is over. Cigar lighter plugs can be bought with built-in fuse holders. The computer/disk drive combo needs a 5-amp fuse. It only draws about 2 amps, but there is too much of a voltage drop across a fuse that is smaller than 5 amps.

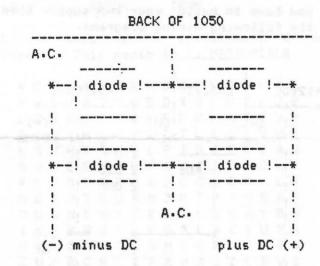
Operational notes: Disk boot errors may occur when the car's engine is not running. Starting the car generates a higher voltage that should take care of the problem. Also any dirt in the cigar lighter can cause similar problems. Run

the engine when you want to use the computer. Otherwise the combined current of the TV and computer may be enough to run the battery down in the middle of your Donkey Kong game.

One Final WARNING! It is illegal to operate a TV in the front seat of a vehicle. Put the whole thing in the back where it is impossible for the driver to see and/or assist in its operation. Even folks with the best of intentions will find it impossible to resist the need to twiddle the knobs when the kids are having difficulties. It could be your last twiddle.

Here are the detailed directions for modifying a 1050 disk drive. This also applies to modifying the "old" style 800XL supply.

1. Open the case and locate the four rectifier diodes. These are small black cylinders, 1/2" long by 3/16" diameter, mounted on the circuit board right next to each other.



- 2. Using care, use your voltmeter to determine the plus and minus poles of your rectifier diodes. These are labeled (-) and (+) in the above diagram, but could be different on your machine.
- 3. Wire a coaxial power jack to the plus and minus poles of the rectifier. The jack leads can be easily soldered to the appropriate diode leads. Do NOT attempt to run the wires under the board. There isn't enough room and the sharp pins will pierce the insulation.

Connect the minus lead to the outer ring of the jack and the plus lead to the center tip.

- 4. Mount the jack. I enlarged the hole in the 1050 case where the drive select switches are and mounted the input jack there. Tape the jack wires to the tall capacitor to prevent them from draping across the 1050 heat sink.
- 5. Reassemble the case and check out your work by plugging in the A.C. transformer. You should see a DC voltage of the correct polarity on the empty 12VDC jack.

If you have one of the old style XL power supplies, you can modify it in the same fashion as the above 1050 modification. The regulators in the XL supply will properly reduce the 12VDC to the 5VDC needed by the computer and the change can be made for the price of a jack and a piece of wire. I mounted my 12VDC input jack between the leads coming out of the old power supply.

If you have to build your own supply then use the following wiring diagram:

+12VDC	! L	M3:	17T	!		+5.	18VI	C
**	!			!	-*-		*	*
!	IN!			!OUT	!		!	(+)
!	-!	-		!	!		!	DIN
. !	-				Z		!	
!		!	ADJ		Z	220	!	
!		!			Z	MHO	!	
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Just in case the above diagram does not survive the file transmission and is out of alignment, the negative ground line is

common across both the input and output voltages.

The +12VDC input connects to the IN pin of the LM317. The O.1uf capacitor connects between the IN pin and ground. The 1.Ouf capacitor connects between the OUT pin and ground. The 22O Ohm resistor connects between the ADJust pin and the OUT pin. The 68O Ohm resistor connects between the ADJust pin and ground. The +5.18VDC output is present on the OUT pin.

As you can see, the circuit is a very simple one. About the only place you can go wrong is in identifying the IN, OUT, and ADJ pins of the LM317. Refer to the back of the package for the pin locations. They are numbered in an odd fashion.

The wiring for the DIN jack is shown on a label on the Atari Power Supply. Compare the voltages with a voltmeter between the Atari supply and your new supply. It is easy to get confused about which end of the connector you are looking at. It is also easy to short out and destroy a power supply, so be careful with your test leads around the metal collar of the DIN plug.

I used 2-conductor 18ga lamp cord for both the input and output lines on my supply. Using an input jack on the computer power supply allowed me to bring the power from the cigar lighter out to three identical 5.0mm O.D. coaxial plugs, one for the TV, one for the 1050, and one for the new 800XL supply.

Now, a few words on choosing a portable AC/DC TV to use as a monitor. Don't expect much from a TV while on the road. About the time someone gets interested in a program, you usually drive out of the station's range, and they don't have many stations out there in the boonies. Try to get a TV with an all-channel scan feature. This will enable you to find all of the available stations when you are far from home.

A TV weather report now and then could save you a lot of trouble on the road. One way of beating the lack of stations is to buy a set with a built in video tape player.

As to size: A 9" set with a tape player looks pretty small in the store, but it is a real monster inside of your car. Hopefully you have a motor home, or at least a van, otherwise you may want to get a 5" set.

Well that should just about do it. By now you should be out there in the car playing Donkey Kong. Just remember, "Don't leave home without your joystick"!

Parts List:

2	2 274-1567	DC Power Plugs
2	274-1565	DC Power Jacks
1	274-335	Fused Lighter Plug
1	270-1535	Lighter Plug Y-Adapter
1	2 feet of	18ga 2-cond. lamp cord

The above parts are all that you need if you can modify the old style XL supply. If not, you need the following additional parts:

1	276-1778	LM317T voltage regulator
1	272-1432	0.1uf capacitor
1	272-1434	1.Ouf capacitor
1	271-1313	220 Ohm resistor
1	271-021	680 Ohm resistor
1	276-159	Dual printed circuit bd.
1	276-1372	Heat Sink Grease
1	NA at RS	Heavy duty heat sink (See text above)
1	270-287	Power Supply Case
1	274-029	7-pin DIN Plug

You will need some small nuts and bolts to fasten the parts together. The screws that come with the DC Jacks are a little too short to be used in this application.

Enjoy.

(The above article was reprinted from the ZMAG9210)

From the Editor By Mike Schmidt

The deadline for articles will be the last day of the each month. That means I have to have it on my computer by that day.

Here's the answer to the Dec. Word Search. Title: OFF and ON

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-	-	-	-	-	-	-	-	-	-	-	F	F	0	K	C	I	K	

Words in puzzle:

BLASTOFF	LIFTOFF	KICKOFF	OFFERED
BALLOON	HANDOFF	CALDRON	PAYOFF
DEMONS	COFFEE	OFFEND	FALCON
EBONY	AARON	IRON	

Here's this months installment of Word Search. This month it is MARSUPIALS.

Y	0	N	K	A	N	G	A	R	0	0	B	U	E	X	H	X	X	
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A	C	X	M	D	E	P	M	Q	0	C	C	S	D	R	A	L	Y	
N	S	J	N	T	N	U	F	M	J	K	I	P	Y	C	S	A	I	
D	U	G	N	E	S	A	D	E	I	T	L	N	K	A	Y	B	B	
I	C	A	Y	S	J	E	I	K	0	A	L	A	E	T	U	Y	A	
H	V	E	0	A	H	0	J	N	N	X	C	В	N	A	R	P	N	
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Words in puzzle:

TASMANIAN DEVIL	BANDICOOT	CUSCUS WOMBAT
POUCHED MOUSE	ANTEATER	OPOSSUM QUOKKA
THYLACINE	WALLABY	DASYURE
TIGER CAT	ECHIDNA	KANGAROO

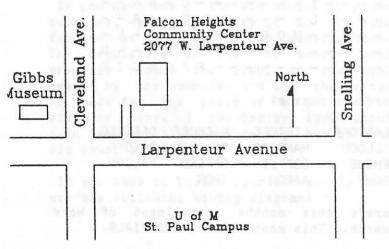
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Saint Paul Atari Computer Enthusiasts (SPACE) meets on the second Friday of each month at 7:30 PM in the Falcon Heights Community Center at 2077 West Larpenteur Ave. Doors open at 7:00 PM.

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