



The

# FLASH



The Official Newsletter of the Mad River Radio Club

December 1994 / January 1995



## NEXT MRRC MEETING

The next meeting of the Mad River Radio Club will be at the QTH of Jim Stahl, K8MR in Orange Village, OH on Saturday, January 7, 1995. This is the eighteenth year that Jim has been hosting this post-holiday kickoff to the MRRC calendar year, and is well worth the drive to suburban Cleveland. A map to K8MR is included in this newsletter.

## MRRC CALENDAR

**December 2-4**

- *ARRL 160M Contest*

**December 10-11**

- *ARRL Ten Meter Contest*

**January 7-8**

- *North American QSO Party (CW)*

- *MRRC Meeting at K8MR*

(*see details in this issue*)

**January 14-15**

- *North American QSO Party (SSB)*

**January 21-23**

- *ARRL January VHF Sweepstakes*

**January 28-29**

- *CQ 160M Contest (CW)*

## From the 'Big Fish'

By Goose Steingass, WD8LLD

Hello again fellow MRRC'ers. Well, the first major portion of the 1994-95 contest season is already under our belts and from the sounds of some of the results reported on the weekly net, there have been some good scores turned in by the club in CQ SSB and SS. A big congratulations to the J6DX crew which included Steve, WD8IXE and Jeff, KU8E. From the sound of their score they are #2 in the world with 30.5M points. Jeff told me PJ1B only beat them by about 250 qsos and 60 mults. That is an incredible effort! Way to go guys!!

Hopefully the VP5VW crew (staffed by WD8LLD, WD8AUB, K8MFO and others) will place that well too. Can't report anything yet as I am writing this prior to leaving on the expedition. But I know that we will have had FUN!!!

The last FLASH looked really great with all the articles it contained. It was good to have a plethora of contributions from club members for this last issue. Let's keep up the good work, it makes Dave's work much easier, as I am sure that he will attest to!!! Remember that anything is welcome. No matter how unimportant you might think an idea might be, it could be just the right idea for someone that is in the process of putting together a new station. I know that we have picked up a lot of good ideas from the articles that have been written and as we continue to make improvements here at WD8LLD I will be contributing more to the FLASH. If you are worried about your writing prowess, have no fear Dave will do the necessary editing for you.

It is now time to be starting to think about the MRRC suite for Dayton. I will try to get in touch in the next few weeks with Mike, AA8FE to verify that he still plans to be in charge of the suite again this year. As in the past, we will need bartenders and helpers for both nights that the suite will be open. Please plan to devote some time to the suite this year. I know that there is a lot to do at the Hamvention, but remember this is your suite and any and all help will be very much appreciated. The suite is also very good publicity for that club as we are the home contest club at Dayton.

Another thing that I almost forgot. Don't forget that MRRC has a weekly net which meets Monday night at 8:30 on 3825 +/- the QRM. Feel free to come and join us to share your ideas and experiences. It is also an easy way to report your scores to Jim, K8MR after the contests. Hope to see you there.

Well that is about it for this edition of the FLASH. Sorry to make it short but have to finish packing for the VP5 trip. Good luck in the January contests and GO MAD RIVER!

The FLASH is the official newsletter of the Mad River Radio Club, and is published six times per year in even-numbered months. Submissions of material for the FLASH are welcome, and may be sent to the editor at the address of the last page.

The Mad River Radio Club is an ARRL-affiliated club of amateur radio contesting enthusiasts. The club area is centered on Findlay, OH, and serves the surrounding states. Membership in the MRRC is open to anyone. Dues are \$12 per year, payable to club treasurer KE8OC. Please make checks out to Tim O'Sullivan.

In addition to six in-person meetings per year, MRRC has an informal net every Monday evening at 8:30 PM Eastern time on 3825 KHz ± QRM. Everyone is welcome to check in for the latest club news and information.

## MRRC Club Scores

CQWW SSB				AA8U			J6DX	
K8MR	278- 70-159	162,590	S/O	35	8	15	464	11 11
AA8AV	282- 65-136	142,308	S/O 100W	211	23	62	1458	21 96
N8CQA	215- 54-110	85,444	QRP	117	28	80	1878	25 118
AC8W	85- 32- 62	20,868		582	36	128	4190	36 143
K8DD	380- 85-209	271,950	S/O Assisted	137	23	90	4379	32 146
NT8V	360- 71-214	264,480	S/O Assisted	130	11	38	3365	29 124
KA8D	200- 54-124	90,602	S/O Assisted	1212	129	413	15734	154 660
VE3ZTH	146- 119	48,909	S/O Assisted					
WD8AUB	78- 31- 66		S/O Assisted					
AA8U	1212-129-413	1,494,836	M/S (10 ops)					
N8ATR	987-125-419	1,377,952	M/S + WBXD,WA8BIN,WB8K					
WA8OSE	400- 80-245	342,235	M/S + N8JEC					
WB1Q	1168-116-372	1,471,808	M/M @ WD9INF QTH					
KP2A (op. KW8N)								
	4824- 38-156	2,279,000	20M ***NEW RECORD***					
J6DX	15734-154-660	30,391,504						

ARRL SS CW			ARRL SS SSB			
WBFN	1104-75-B	165,600	K8CC (op.WD8IJP)	1623-77-B	249,942	
KV8Q	802-74-B	118,696	AA8U	1612-77-B	248,248	
N8JEC	749-76-B	113,848	N8ATR	1292-77-B	198,968	
AC8E (op.K8MR)			AC8E	1216-77-B	187,264	
	435-72-B	62,640	K8MR	752-77-B	115,808	
AC8W	401-73-B	58,546	WA8OSE	325-77-B	50,020	
N8ATR (op.K8MR)			WD8AUB	40-27-B	2,160	
	347-73-B	50,662				
K8MR	370-64-B	47,360	N8JEC	1247-77-A	192,038	
W9OCF	278-61-B	32,696	AA8AV	1208-77-A	186,032	
KW8N	196-64-B	25,088	KE8OC	203-53-A	21,518	
NT8V	107-60-B	12,840	AF8A	118-58-A	13,688	
AA8AV	926-77-A	142,679	KW8N	2164-77-B	333,256	Multi
WD8LLD	775-75-A	116,250	WD9INF	1618-77-B	249,172	Multi
K8DD	227-62-A	28,148	NT8V	882-77-B	135,828	Multi
KUBE	222-61-A	27,084	KA8D	506-77-B	77,924	Multi
K8MFO	664-76-Q	100,928	KV8Q	446-75-B	66,900	Multi
K8AQM	516-75-Q	77,400	VE3ZTH	328-74-B	24,272	+packet
K8CC	274-63-Q	34,524				
N8CQA	185-68-Q	25,160				
AA8U	1071-77-B	164,934				
K8JM	917-77-B	141,218	Multi			
WD8AUB	921-76-B	139,992	Multi			
W8EDU	898-77-B	138,292	Multi			
NZ8O	646-75-B	96,900	+packet			

CQWW CW				K8CC			VP5VW	
K8MR	238- 78-157	150,870	S/O	66	13	15	886	18 78
VE3ZTH	167- 51-109	66,566	S/O/Assisted	269	22	73	1634	26 92
AA8U	141- 18- 44	11,966	160M	660	37	114	3023	33 126
K8GL	925- 37-126	435,862	20M	1196	38	126	3394	38 123
KV8Q	187- 26- 68	47,846	15M 100W	393	32	93	2288	31 103
K8CC	2667-157-469	4,379,496	Multi-Multi	103	15	37	625	24 74
VP5VW	11,850-170-596	22,355,710	Multi-Multi	2667	157	469	11850	170 596

Jim, K8MR is the official club scorekeeper. If you're going to use the mail, or can get into the Ohio PacketCluster system, send the score to Jim. If you are connected to the Great Lakes PacketCluster System (which covers MI and NW OH), send your score to K8CC. You can also to reporting scores via the Internet - send scores to [k8mr@barf80.nshore.org](mailto:k8mr@barf80.nshore.org).

Of course, a much better alternative is to turn in the score live on the MRRC net on Monday evenings, 8:30 Eastern Time on 3825 KHz.

de K8MR

## ARRL to drop NR?

A recent editorial in QST by ARRL Executive Vice President and Secretary David Sumner, K1ZZ, opened the door to the possibility that the 1995 Novice Roundup would be the last event of its kind. Mr. Sumner's editorial opined that the current NR format has outlived its usefulness in light of the "no-code" Technician license being the "preferred" method of entry into amateur radio.

Once we get beyond the initial shock of Mr. Sumner's premise, we see that he has a point. The NR is traditionally an HF-band contest, which prior to 1987 was completely CW. When Novice and Tech licensees were granted SSB privileges on 28 MHz, the nature of the contest changed, particularly during high sunspot years. Despite being "beginners", certain Novice/Tech operators learned to milk both HF CW and SSB for every QSO. (Several of these successful NR ops are family members of active contesters - KA1NRR is the XYL of perennial VT SSBer WB1GQR, KC4DWT is Mrs. N4AR, while KB5WWA is the son of K5GO.)

There seems to be two obstacles for "no-code" tech licensees to participate in NR. First, by FCC regulations they do not have access to HF frequencies where most NR QSOs take place. There is nothing that can be done about this - it is part of the incentive to upgrade. Second, their interests seem to preclude contest operating, being more focused on computers, packet, and local VHF/UHF operating. This factor seems to be what K1ZZ wishes to address - however, how can we create an open operating event for those whose interests seem to preclude such activity?

I, for one, would hate to see the current NR format head off into oblivion. I can well remember during my high school years as an Advanced Class licensee throwing together a DX60/SB301 and a 40M dipole just to work NR with my younger Novice brother. Also, during my college years, I prodded several of my fellow students who were Novice licensees to work NR from our club station. 300 QSOs later, several of them managed to pass the 13 WPM higher class code test. The NR has always been an excellent way to get one's code speed up in the shortest period of time, and provides many excellent operating opportunities for beginners.

In my opinion, there are several changes that would improve the current NR format:

1. Reduce the contest period from its current nine days to a single weekend. Activity is now too spread out - by concentrating the operating time, more people (including higher class licensees) might operate NR.
2. Give bonus points for NR QSOs on VHF/UHF to encourage the "no-code" Techs to operate. Perhaps score 1 point for HF SSB, 2 points for HF CW, and 5 points for VHF/VHF.

If you have an opinion concerning the NR, why not drop a letter to our local CAC representative (who is it now?). While you're at it, send a copy to K1ZZ too.

de K8CC

## A User's Guide to the K8MR MRRC Meeting

By Dave Pruett, K8CC

The upcoming K8MR Christmas Party and MRRC meeting will be the eighteenth one that Jim has hosted. Over the years, additional events have become part of the annual MRRC/K8MR weekend. Let me take you on a brief tour of these traditions, in case you make the trip on January 7. Suburban Cleveland is four hours or less away from most of MRRC territory, so you can depart at a very comfortable hour and get into the vicinity of K8MR by early afternoon.

For homebrewers and tinkerers, a stop at Electronic Surplus, Inc. is first on the agenda. This place has a wealth of stuff that is hard to find anywhere else, and is well worth the side trip. Once in the Cleveland area, take I-77 to Pershing Avenue east to Broadway Avenue. Go south on Broadway to Electronic Surplus, Inc, 5363 South Broadway, (216) 441-8500.

After perusing the bins of electronic goodies, it's time to get settled into a motel, most of which won't let you check in until mid-afternoon. I have had good luck with several motels at the I-271 and Chagrin Blvd interchange (see map). Try the Travellodge, telephone (800) 578-7878 or else the Holiday Inn, telephone (216) 831-3300. Both of these motels are within five to ten minutes of the K8MR QTH.

Around 4 PM, people start to gather at the QTH of Tom Lee, K8AZ. Tom is a former MRRC member, and now part of the North Coast Contesters club. We'll not go into the history between MRRC and NCC here, suffice it to say that for this one weekend, the two clubs join forces in a celebration of mutual hospitality. To get to K8AZ, take I-271 north from Chagrin Blvd to Wilson Mills Road. Follow Wilson Mills east to where it dead ends at Chagrin River Road at the bottom of a large hill. Turn right and travel south for a short distance, then left again at the first opportunity, which is Brigham Road, and take this road up the hill. A mile or so (my guess) after you reach the top is County Line Road - watch carefully, because its not marked well. Continue 1/2 mile further (you should be able to see the K8AZ towers at this point) to Surrey Lane. Turn right onto Surrey lane - its about 1/4 mile to K8AZ. In case of emergency, Tom's phone number is (216) 729-8104.

Around 7 PM, a caravan of MRRC vehicles forms for the trip to K8MR. There are several short-cuts from K8AZ to K8MR, none of which are recognizable to an out-of-towner like me. Its best to follow the crowd.

The party at K8MR runs from 7:30 PM until whenever people get ready to leave. Cuisine is munchies and beverages, and attendees are encouraged to something to contribute to the cause. Around 10 PM, an "official" MRRC meeting is held, followed by more talk and good times. Things start to slow down as midnight approaches and people head home or off to crash at their motels.

See the map in this newsletter for directions to K8MR. Hope to see everyone there.

## MRRC News

Recently, poor 80M condx has driven participants in the Monday Night MRRC Net to go lower in frequency in order to be able to hear one another. As a contingency for this, an alternate frequency of 1880 KHz ± QRM will be tried, beginning at 8:40 PM if conditions warrant. At least we can expose ourselves to new forms of porcine agriculture (another fine turn of phrase from W8FN).

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Welcome back to Bruce, AA8U after completing a new QTH. Actually, Bruce only built a new house to replace the mobile home he was living in - the antennas all stayed the same, he just had to re-route the feedlines! AA8U was off the air (including the MRRC net) for most of the spring/summer, but the station was QRV in time for the 1994 CQWW SSB. Word from the AA8U guest ops is that the new operating room is very FB - we wish Bruce and his crew best of luck in their new digs.

- . . . -

A few weeks back on the MRRC Net, we listened to Bob, KW8N tell of his adventures at KP2A during the CQWW CW contest that resulted in a new North American record for single band 14 MHz. We always assume things go smooth with results like this, but Bob had to play repairman most of the weekend to a recalcitrant Amp Supply amplifier that would only put out 400W when it WOULD work. Makes you wonder how Bob would've done if the amp had worked all weekend...

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Our best wishes go out to MRRC member Doug Klein, WD8AUB, who came down with a serious case of *cigutera*, a form of toxic food poisoning, while DXpeditioning with the VP5VW crew. Symptoms include sensory reversal, temporary paralysis, and fatigue. After missing a week of work, Doug is back on the job - however, four to six months are typically required for all symptoms to go away. We wish Doug well, and hope he has a speedy recovery.

- . . . -

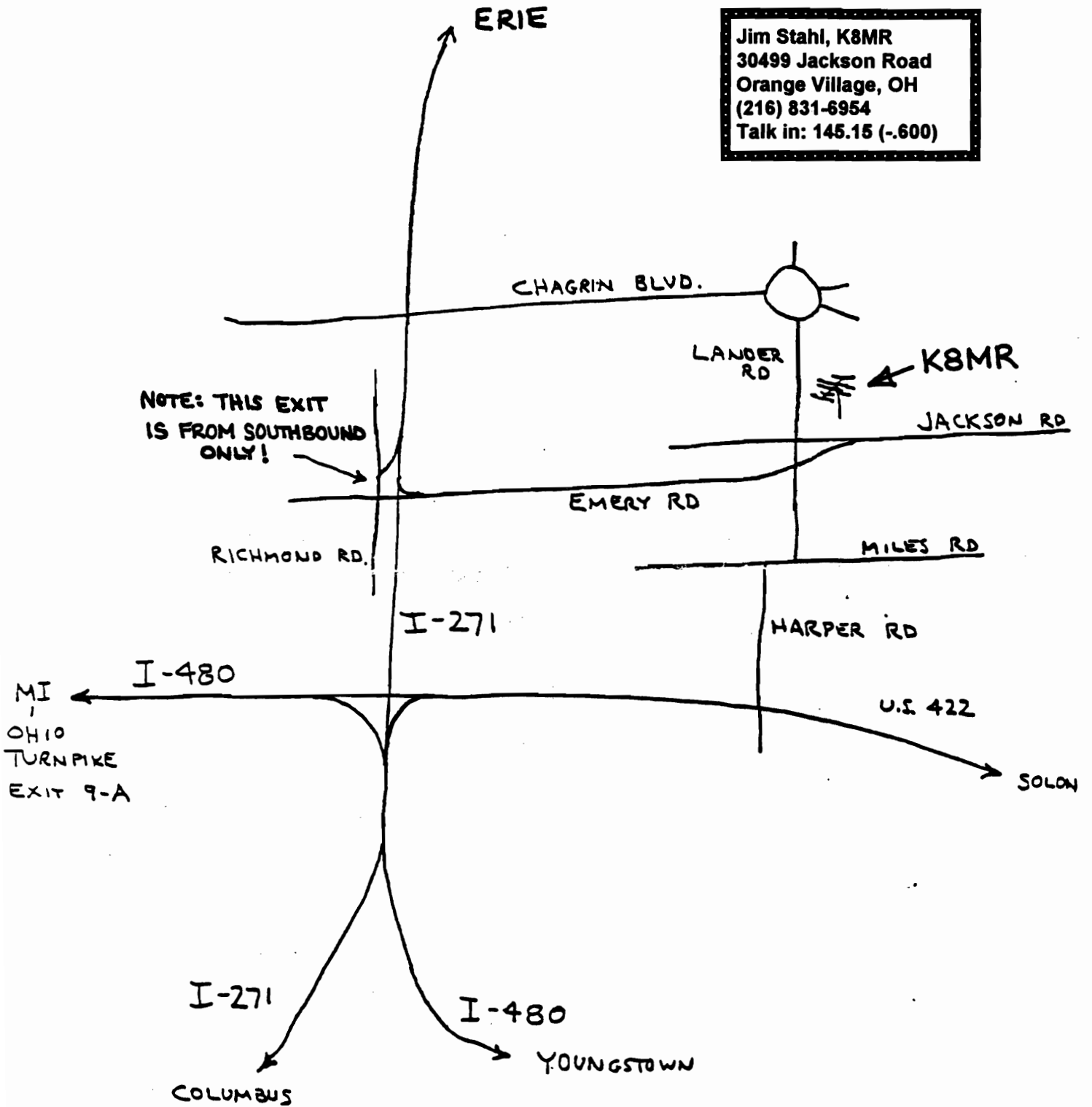
Congratulations go to MRRC member Don Chisholm, WX3M for being selected to represent his high school in the annual Hudsons Thanksgiving Day Parade in downtown Detroit. Don, a senior, was selected for this honor to march in the parade along with another student on the basis of their academic accomplishments. Thankfully, the weather cooperated and Don was QRV to participate in CQWW CW a day later with the crew at K8CC.

- . . . -

Jim, K8MR reports victory in his long-running battle with telephone RFI. Small 1 mH molded chokes (about the size of a 1/2W resistor) wired into the phone jacks did the trick. Jim ordered 100 chokes to get a quantity price, and will have a supply on hand at the Christmas Party which may be purchased by those with similar problems.

**The 18th Annual K8MR Christmas Party and MRRC Meeting**  
**Saturday, January 7, 1995 at 7:30 PM**

**Jim Stahl, K8MR**  
30499 Jackson Road  
Orange Village, OH  
(216) 831-6954  
Talk in: 145.15 (-.600)



# Adapting the TS-830 for Positive Keying

By Randy Farmer, W8FN

In these days of hyper-sophisticated computer-controlled HF transceivers, many contesters still believe that the classic Kenwood TS-830S has yet to be equaled in the "bang for the buck" department, due to its combination of high performance and easy portability. Many of these small wonders are still in service, oftentimes being used for DXpeditions and Field Day while the big fancy radio stays at home. Unfortunately, one of the big advantages of the radio, its SWR-tolerant vacuum tube PA with its attendant grid block keying, is increasingly becoming a liability due to the difficulty of keying its -60 volt key line with the outputs of computer parallel or serial ports or simple integrated circuit keyers.

This problem showed up for me the Wednesday before Field Day this year, when I discovered that the "universal interface" for the computer to be used at the FD station WOULDN'T key the grid block line of my 830. As I was about to buckle down to building a negative keying interface into a DBM-25 shell, it occurred to me that it might make more sense to think about converting the radio for positive keying rather than go to the trouble of building a special computer cable that would work only with the 830. A few minutes of looking over the innards of the radio revealed that it would be an easy thing to convert the grid block input to positive keying. The modification takes four parts and about fifteen minutes of work, even if you're not particularly adept at fooling around inside radios.

## The Circuit

The figure shows the schematic of the positive keying mod. A PNP switching transistor is used to key the grid block line to ground. Any PNP that is rated for at least 100 volts  $V_{CEO}$  should work; I used a 2N5401, but an MPSA92 or MPSA93 will also do the job. All of these devices are available from Digi-Key. DON'T use a 2N3906 or 2N2907; they will not handle the voltage at the key line. Positive bias for the new keying transistor is taken from the radio's internal power supply. When the key line is open, the PNP transistor is cut off due to the positive base bias supplied by the added 22K resistor to the +12V supply. This positive bias appears at the key jack, so the keyer must be able to handle 12 volts open-circuit. When the key line is pulled to ground, the base of the transistor is at 0 volts and the base-emitter junction is forward biased, turning the transistor on and connecting the grid block line to the +12V supply via the 4.7K emitter resistor. The emitter resistor limits the current that can be supplied to the grid block circuitry to about 2mA. The keyer output circuit must sink about 0.5mA to ground, virtually all of it supplied through the 22K base bias resistor.

## Installation

Mount a 2-position terminal strip under the screw that holds the IF Output jack pair on the inside of the rear panel near the Key jack such

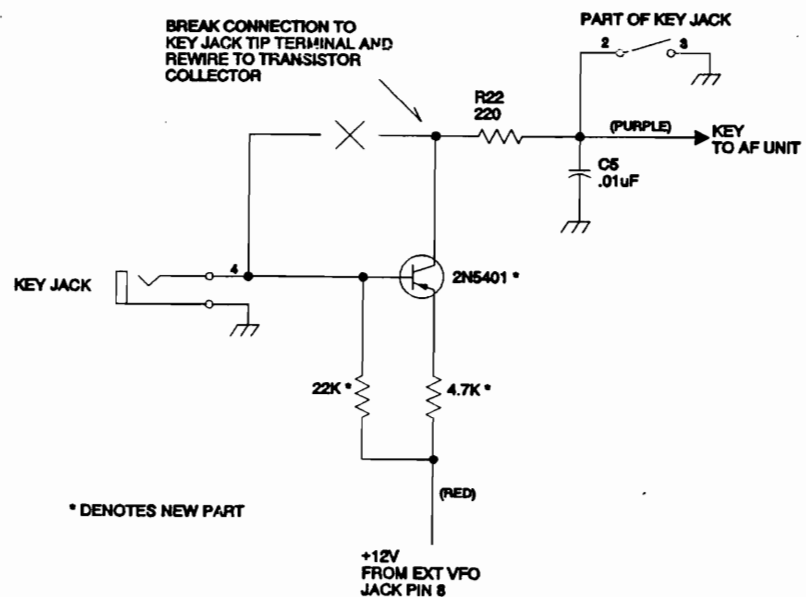
that the terminals are vertically aligned. Solder the 4.7K resistor to this terminal strip. Run a new wire from the bottom terminal of the new terminal strip to the +12V supply at pin 8 of the Remote VFO socket immediately below. R22, a 220 ohm 1/2W resistor, is mounted directly on the key jack between terminals 2 and 4. Carefully desolder (or clip) the lead of this resistor at terminal 4; terminal 4 is the terminal that does NOT have the bypass capacitor connected to it. Wire the PNP transistor's base to terminal 4 of the key jack and tie its collector to the end of R22 removed from terminal 4. Also connect a 22K resistor from the bottom terminal of the new terminal strip (the +12V line) to terminal 4 of the key jack. Finally, connect the emitter of the transistor to the top terminal of the new terminal strip. Verify that a keyer with positive keying output will key the radio (which it should if you haven't messed up somewhere along the line). Reinstall the covers and your

TS-830 has now been dragged into the 1990s with all of its original virtues intact.

## EDITOR'S NOTE:

Randy's keying conversion for the TS830 is ideal from the standpoint of standardization and eliminating surprises during setup of a multi-station where equipment is brought in (are you listening, N8CQA?). In addition, this design can be adapted to most any type of negative-keyed radio (ex: Drake C-Line) with a little ingenuity. Simply remove the key lead from the key jack, and connect it to the collector of the 2N5401, while the base goes to the original key jack. The +12V shown at the bottom of the schematic can be most anything - a half-wave rectifier and filter capacitor from a 6.3VAC tube filament will produce almost +9VDC which will work fine.

de K8CC



## TS830 POSITIVE KEYING MODIFICATION

W8FN  
30 SEP 84

## Treasurer's Report



Its been kind of slow, fiscally, in MRRC land, what with no meetings our dues collections since the last report. The only open fiscal items are to reimburse K8CC for the past few *FLASH* printings, and to finalize the Dayton Hospitality Suite tally with AABFE. If anybody knows how to get in touch with Mr. Breuning, please let me know!

<u>Balance reported 10/94</u>	\$807.32
<u>Income</u>	
None	
<u>Expenses</u>	
Mailing Labels	\$10.00
Checking Account Maintenance (Oct-Dec)	\$9.00
<u>Balance 12/94</u>	\$788.32

Respectfully Submitted, Tim O'Sullivan, KE8OC

## From The Editor

By Dave Pruett, K8CC



Well, here we are in the midst of the contest season. As I sit typing this, at mid-day of the Saturday of the ARRL 160M Contest, my "hired gun" (Ken, AA8AV) is asleep in the next room, resting for the second night of battle. Perusing his dupe sheet, I count 23 calls that I recognize as MRRC (plus K8CC makes 23) - 18 Michigan and 15 Ohio, so the MRRC 160M Challenge is definitely up for grabs at this point. Judging by the amount of planning that went on up here in Michigan, our little intra-club competition has generated a LOT of activity, which is GREAT!

Mother Nature and her ionosphere have done us few favors so far in this contest season, dishing us up a geomagnetic storm for the CQWW SSB contest, and an encore four weeks later for CQWW CW. Both modes of SS were relatively quiet, but the high bands were poor and the low bands went long at night. Sorry to say, we better get used to it - this is life at the sunspot low. However, it is gratifying to find that there are still lots of QSOs to be made.

After our big issue last time, it is hard to up the ante for the encore. Also, with all this contesting going on, people have less time to write. Nonetheless, please keep the stuff flowing - as Goose stated in his editorial, we'll take items in almost any form, and I can clean up artwork or prose. Don't let time or lack of computer expertise stop you - get it in, and we'll make it look good.

Hope to see everybody at the MRRC meeting at K8MR's.

73, Dave, K8CC

Deadline for publication for next issue: **FEBRUARY 1, 1995**

Log Deadline for ARRL 160 Contest:

**January 4, 1995**

Don't forget to mail in your log for the ARRL 160 Challenge!



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