

THE R390 USERS GROUP

A NEWSLETTER FOR URR USERS

VOL. 1 NO. 2

a tradition since March

PUBLISHER T.J. SKIP AREY WB2GM
TYPIST CHRIS HANSEN

HELLO AGAIN from the hub of the R390 publishing world. We are now seventy members strong. Once again thank you for the support and your continued supply of information for this exchange. Welcome our typist and staff grammarian Chris Hansen. The newsletter will be sent out from his local but please continue to direct all information, questions, threats, etc. to the publisher. In other words, don't shoot him, he's only the typist.

You will notice that we are now publishing 6 pages double-sided. This is in order to reduce shipping weight. Five pages single-side comes too darn close to turning the newsletter into a postage-due situation. Please keep sending ideas and information so that we might fill a full six pages in every issue. Next publishing session will be September 12, 1983. Support the group.

If H. CORNELIUS'S SSB modification in issue 1 was not your cup of tea you might take the advice of ROBERT ROTELLA and contact G.B. COMMUNICATIONS, 963 Birch Bay Lynden Road, Linden, WA 98264. They have developed an adapter that provides undistorted reception of SSB, CW, and RTTY -- sort of a teeny CV-157/URR. This unit mounts with no modifications to your rig, is completely solid state, and does not affect other modes of communication. It sells for \$25.00 plus 6% sales tax for WA residents. ROB is very happy with his.

I received a call from KEN ROMSDAT stating that his recently acquired R390 does not operate in the lowest MHz position. Operation appears normal in all other bands. If you have any advice you might contact KEN at 2541 Schroeder Av., Toledo, OH 43613. (Typist's note: Check to see whether any of the tuning slugs have fallen off the slug rack into their transformers. ch)

PSSST! HEY BUDDY! Looking for a good deal on a slightly used radio? DAVILYN CORPORATION 13406 Saticoy St., North Hollywood, CA 91605, tel. (213)787-3334/3338 has recently purchased a large quantity of R390 and R392 receivers. These rigs are guaranteed in working order and sell for \$285 for the R390 and \$250 for the R392. Go get 'em folks. Incidentally, DAVILYN is also a source for almost any surplus radio gear and assorted parts, including tubes. They do not, however, list the 3TF7 in their most recent catalog (available for \$2 at the above address). Look out, FAIR RADIO SALES. DAVILYN told me that they will soon begin advertising these rigs in popular ham radio magazines, so if you or a friend are in the market for an R390 or R392 you might want to act with some haste.

Looking for a source for coax fittings for all those plugs on the back of your URR radio?? Try KING'S ELECTRONICS CO., INC., Marbledale Road, Tuckahoe, NY 10707. I found all my connectors at ham radio flea markets. If you're not a ham, you might check QST or CQ Magazine to see when these activities are scheduled in your area. Flea markets are great sources for almost anything for your rig.

JERRY BERG tells of another source for tubes, including the much-sought-after 3TF7. GERBER ELECTRONICS, 128 Carnegie Row, Norwood, MA 02062, tel. (800)225-8290 (in MA (603)232-8100; in New England, NY, NJ (800)225-1800). The price (are you sitting down?) \$15.19 with a \$5 handling charge on orders under \$25. Your humble publisher, in concert with one of our subscribers is tracing down another source for this and many of the much-needed tubes for our beloved R390's, 392's, 390A's, et al. Watch these pages.

From CRAIG-HEALY comes this article he originally wrote for "LOWDOWN"

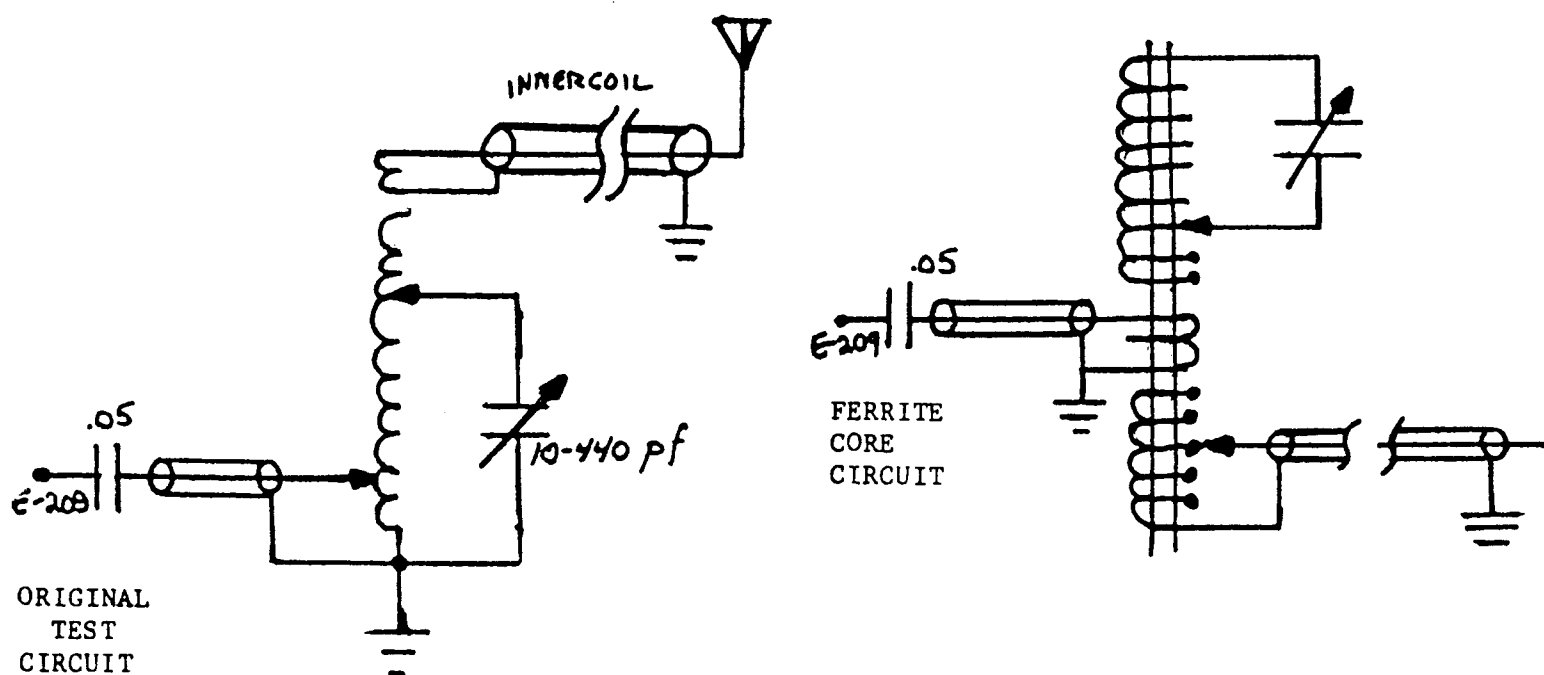
THE R390A ON LONGWAVE -- CHEAPLY

The R390A is a fine radio, and most of us are quite familiar with it. A major drawback is that it doesn't tune down below 500 kHz. Or does it? A look at the schematic shows that the local oscillator in the 500-1000 kHz range does indeed track all the way down to 0 kHz. Working backwards from the first mixer we find the first, and only bottleneck. The antenna coils and RF amplifier tuned circuits are the culprits. They stop at 500 kHz and go no lower.

As an experiment I removed the top covers from my rig and coupled a longwire antenna through a .05 mf capacitor to 'test point E-209'. This is easily accessible from the top and is found right in front of V202 (6C4), the first mixer. Voila! Most of my strong local LW stations came in, along with an assortment of BCB spurs, IM products, and other electronic garbage. This comes from injecting a broad spectrum of signals to the grid of this tube.

Next came some preselection in the form of a ferrite loop antenna. The loop amplifier output was connected to E-209 with a piece of small coax cable and the .05 mf capacitor. This gave greatly improved results. Very few BCB spur troubles, and an improvement in sensitivity. The loop amp offset the loss of the R390A RF amp.

The next experiment gave the best results of all, practically equalling the performance of a Drake R7A used for comparison. An old coil from a 1939-vintage RCA BCB transmitter was recovered from the junkbox. This is a large piece, with 70 turns of #16 solid wire around a 6-1/2-inch ceramic and phenolic form. A smaller coil of 19 turns of the same type of wire is mounted inside it. This small coil is rotatable to vary the coupling between the two coils. The older members of our fraternity will recognize this as a variocoupler, common in earlier years, but seldom seen today. This particular unit taps on every other turn on the main outer coil. It resonated nicely with a 10-440 pf capacitor, also from the RCA transmitter. The LW coax feed was hooked to the smaller, rotatable coil. One end of the main coil was grounded, along with the frame of the variable capacitor. The stator of the cap was connected to a tap about 3/4 up the main coil from ground. A tap point 2 turns up from ground was selected as the feed point for the radio. Optimum coupling between the small, inner coil and the outer coil varied from maximum at 200 kHz and below to a very small value at 400 kHz. This is probably more a function of the antenna I use than anything else.



These parts are difficult, if not impossible to get. I have no doubt that equal or better results could be had with ferrite toroids. An equivalent scheme would have a large toroid core with three windings. The first is the main tank circuit. Taps can be provided to increase the range of frequencies it will tune. The second is a link feed to the radio. The best number of turns can be experimentally determined and should remain the same over a wide range. The third is the antenna input, tapped for varying the impedance the antenna coax sees. The shield of the coax feed can be left ungrounded, only connected to the coil. I have found some noise reduction in connecting the coil across the coax in this fashion. The far end of the coax must be grounded, however. I have used an antenna tuner identical to this on the BCB with good results.

Well, what do you think of that, Campers??? Another band for your radio that you didn't even know was there. We are also looking for articles on various antenna strategies. Just what do you think is the best antenna for the greatest receivers ever made??? Write and join the contributing staff today!

!!
STEW MAC KENZIE is looking for a source for an audio module to replace the 27A7GT tube. Anyone who knows where these can be found might share it with the group.

%%
Whatsamatter, Bunky? Ya say ya can't get good audio response from an 8-ohm speaker because the government in its infinite wisdom chose another impedance? Well, take heart, dear friend, for all your problems can be solved by obtaining a 115-volt to 12-volt power supply transformer, available at any Radio Shack, part #273-1385, current price \$3.29. Just connect the primary (black) wires to your receiver and the secondary (red) wires to your 8-ohm speaker, and listen your little heart away.

DICK TRUAX says that a good source for hard-to-find connectors is COLONEL WAYNE RUSSELL, 9410 Walhampton Drive., Louisville, KY 40222. His list of available parts can be obtained by sending him one dollar.

PLEASE KEEP IN MIND that we also represent the users of the R392 and similar gear. If you know of any modifications or improvements that will work on this equipment please help to see that it gets into the pages of our newsletter.

+-----+
From DICK WALSER of AIRBORNE ELECTRONICS CO. comes the recommendation that when making the power supply modification (issue #1) you might want to use 2000-volt @2 amp diodes instead of 1000-volt jobs. Dick has had a lot of experience with this modification and he says that the 1000-volt diodes sometimes go "pop." Incidentally, he has a good supply 26Z5 tubes, and you can contact him concerning these and other parts by writing him at 5028 Cartwright Av., North Hollywood, CA 91601. Phone (213)766-2747.

Here's another question for you: Does anybody out there in newsletter land know what these URR receivers we hold so dear originally cost Uncle Sam??? Also, I have received a few requests for any history that anyone might be able to obtain on our equipment. Send your histories in for the next issue.

No issue of the R390 Users Group newsletter would be complete without some pertinent information from DALLAS LANKFORD, this time on meters. DALLAS gives us a source for meters in the STRUX CORPORATION, 100 E. Montauk Highway, Lindenhurst, NY 11757. He suggests that when you write them you try to provide them with as much information as possible, such as manual series and part number from that manual series. The going rate for both line and carrier level meters is \$20 each. Dallas feels that meter problems are probably common because under "normal" military use many URR receivers were operated 24 hours a day over a number of years. Upon replacing a defective carrier level meter, the replacement meter gave higher readings than normal, with strong signals pinning the pointer. Dallas tried both 10- and 15-ohm dropping resistors, finally settling on the

The above information on 3TF7 modifications comes from DICK TRUAX. Incidentally, some of you might be interested in the fact that the 3TF7 was later produced under the number 3HTF4. These and other tubes can be purchased from AMPERITE, 600 Palisades, Union, NJ 07087.

REMEMBER THIS IS A USERS GROUP!!! PLEASE CONTRIBUTE ANY AND ALL INFORMATION SO THAT WE MIGHT SHARE IT THROUGH THE PAGES OF THIS YOUR NEWSLETTER!

Also, most of you, when subscribing, told me what kind of receiver you have. If you have not sent this information in, it would be helpful, so that I might try and drum up more articles for your particular equipment. Or, for that matter, I might contact you to provide some information. Contrary to popular belief, I am not an electronics wizard, and I have only owned by R390 for less than a year. So, many of you have more knowledge than I have to share.

Many of the people in this group are BROADCAST BAND LISTENERS/DXERS (Try it, you'll like it!) NEAL PERDUE shares these tips concerning wiring your BCB AMPLIFIED LOOP antenna to your R390A. Much better nulls can be obtained when setting the AF gain control to a comfortable level (around 3 or 4) and using the RF gain as a volume control, usually between 8 and 9. The setting will, of course, vary slightly depending on your local situation and band conditions. Using MGC gives boost.

This could be called the 'pre-convention' issue. I will be attending the ANARC convention in Washington, DC July 15-17, and the National Radio Club convention at Poquonock, CT September 2-4. If you will be attending either or both drop a note to publishing central so we can plan to spend some time discussing the greatest radio receivers ever built.

THE R390 USERS GROUP, 104 West Franklin Avenue, Edgewater Park, NJ 08010

TELEPHONE (609) 877-5302. Publisher, Skip Arey; Typist: Chris Hansen.

All articles and information shared through this users group may be reprinted with the permission of the author only. The R390 Users Group newsletter is available at the cost of \$1.00 per issue. Back issues are available through the publisher at the same cost of \$1.00 per issue. An index will be published of back issues in the first issue of future volumes.

THE NEXT PUBLISHING DATE IS THE WEEK OF SEPTEMBER 11, 1983. GET YOUR ARTICLES IN EARLY. YOUR CONTRIBUTIONS OF MATERIAL MAKE THIS NEWSLETTER POSSIBLE.