

THE R390 NEWSLETTER

P.O. BOX 421  
MOUNT HOLLY, NJ 08060

(Sorry, I left the mastheads  
at home!!! chris)

VOL 1 NO 3

WELCOME AGAIN to our ever-evolving newsletter. As you can tell this is the Gala Tube Supplier Issue. It is especially important to note in this issue (it of course should be noted concerning ANY supplier of parts and services) that we are publishing ALL sources for parts and services that come into publishing central. We have neither the time nor inclination to thoroughly research these sources, as we assume that the users group member who submits the information has already done so. (We're all in this together, right?!) So LET THE BUYER BEWARE!!! Consult sources as to prices and delivery times BEFORE YOU ORDER! In addition, some of the information might be dated. It goes without saying (I guess that's why I'm saying it) that if you find that any of the data are in error or if you have a problem dealing with a particular source PLEASE inform publishing central immediately so that we can publish an update in the next issue.

WORK IS going painfully slowly on the membership directory, but I hope to have it all together by the holiday season. If you have not already done so please send me a postcard with a listing of the receivers you are interested in or are using. Also, if you don't want to be included, please let me know that as well.

WE ARE STILL LOOKING FOR SOMEONE TO ORGANIZE THE MANUAL NEEDS AND WANTS. If you are interested in taking responsibility for getting members with manuals in touch with members without manuals, please contact me ASAP.

THE POST OFFICE BOX seems to be working out real well. A number of you have tried to contact me by phone and discovered the futility of that. I am not at home nearly as much as I would like to be these days. The best way to get in touch is to drop me a postcard or letter to P.O. Box 421; Mount Holly, NJ 08060. I am sorry that I do not get the opportunity to answer most letters due to time constraints, but all are read and all information is filed to be shared through the pages of our newsletter. Also, all comments and criticisms are taken into full consideration. This is your newsletter and your feedback and information makes it possible. I just compile it and share it. Once again, thank you for all your support and ideas as we go through the growing pains of any new publication.

ANARC REPORT. I met long-time R-390 person MATT STUTTERHEIM at the convention, and in spite of all the new equipment like the SONY 2002 and the new BEARCAT receiver, I think our URR receivers are still the best. You must admit you will never lose your R-390A under the papers on your desk, unlike some of the new pocket-rockets that have hit the market.

WHO IS THE USERS GROUP MEMBER WHO ALWAYS PLAYS THE NUMBER 390 IN HIS STATE LOTTERY?

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This issue brings to you perhaps the most important information for your continued enjoyment of your receiver: TUBE SUPPLIERS.

From NEAL PERDUE comes this source for all R-390 tubes. D.R.P. Electronics, P.O. Box 4357, Mpton, CA 90224. This company requests a \$15 minimum order. Any duds or gassy tubes are replaced free of charge, but Neal says he never received a bad tube in three years of dealing with the company. Prices are as follows, plus \$2 for shipping and handling: OA2: \$1.85; 6AK6: \$1.75; 6BA6W: \$2.10; 2625 rectifier for original power supply: \$2.50; 5814A: \$1.95; 6DC6: \$1.85; 6AK5W: \$2.50. The company has no export license so they will ship only to U.S. addresses. They ship via UPS and Neal reports that he usually gets his tubes 7 to 10 days after placing his order. If you have questions as to the

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availability of any particular tube, list your particular needs down the left hand column of your letter, preferably double-spaced, and they will return your letter with either a price quote next to each tube number or will note "no stock." Neal did a great deal of research into this particular company and he tells us that the company has a fairly good supply of 3TF7 ballast tubes.

DID YOU KNOW THAT THE 3TF7 AND THE RT-510 TUBE ARE INTERCHANGEABLE?????

And, just in case D.R.P cannot meet your needs, from Jim Kowalski comes this bit of information. Jim is an engineer for Radio Station WJCM, and he learns of tube suppliers through his vocation. He recommends RF GAIN, LTD, 100 MERRICK ROAD, ROCKVILLE CENTRE, NY 11570, Phone 1-800-645-2322. Jim has made several purchases from them and says that they have fast service and, while they require a minimum order of \$30, they do pay the postage. The company does offer a free catalog, and they list all the tubes needed for the R-390, including the 26Z5W, 3TF7, 6082, 6AK5, and the 6C4. Jim also notes that they accept checks.

IT SEEMS THAT THE GOOD OLD DIODE TUBES ARE STILL AVAILABLE. If you operate out of a damp basement like I do, nice warm tubes are an asset, not a liability.

AND WHAT ABOUT TUBESTERS. These are solid state replacements for tubes. The primary source for these in hobby applications seems to be: SKYTEC, P.O. BOX 535, TALMAGE, CA 95481, Phone (707) 462-6882. Upon writing this company I was quoted a price for a full set of replacements for a Collins S-line ham station. I wrote again trying to explain our particular needs in more detail, but have received no response. Maybe one of our West Coast members might contact these folks so we can find out about the possibility of a "solid state" URR station.

IF ANYONE ASKS WHY YOU USE AN R-390 TELL THEM YOU REALLY LIKE "HOLLOW STATE."

HAMFEST HINT: Every now and then at a hamfest or even a regular fleamarket you might find a box of old technical books. You might want to check through these obsolete tombs of wisdom for old military receiver manuals, but also take note of any tube data books. These are usually full of vital information on the care, feeding, and operating parameters of most tubes. The data will be especially useful if you are planning on modifying a circuit containing that tube. Also, most tube data books contain conversion and replacement tables that might suggest alternatives when your last 6AK5 goes PHFFFT. You will find that these old books sell for pennies a pound, but will serve a useful purpose as you advance in years along with your vintage URR receiver.

A BRIEF MENTION OF TUBE SOURCES MENTIONED IN PREVIOUS ISSUES:

ETCO ELECTRONICS, NORTH COUNTRY SHOPPING CENTER, RT. 9, NORTH PLATTSBURGH, NY 12901

EDLIE ELECTRONICS, 2700 HEMPSTEAD TPKE, LEVITTOWN, NY 11756

TRANSELECTRONIC, INC., 1365 39TH STREET, BROOKLYN, NY 11218

FAIR RADIO SALES, 1016 EAST EUREKA, BOX 1105, LIMA, OH 45802

DAVLYN CORPORATION, 13406 SATICOY STREET, NORTH HOLLYWOOD, CA 91605

GERBER ELECTRONICS, 128 CARNEGIE ROW, NORWOOD, MA 02062

AMPERITE, 600 PALISADES, UNION, NJ 07087

AIRBORNE ELECTRONICS CO, 5028 CARTWRIGHT AV, NORTH HOLLYWOOD, CA 91601

Now, then, with all these sources we should be able to keep ourselves in tubes for quite some time.

But wait! Yet another tube source has been located, and it may very well be in your neighborhood. How's that again??? Well, pay attention, Dear Reader!

A very good source for tubes can be any of the older, more established TV repair shops. A quick check of a couple of local TV repair shops revealed quite a few tubes useful to my various tube-type receivers and transmitters. In all three cases I was led to believe that the proprietors were glad to get these things off their shelves. I even spoke to one gent who informed me that just a few weeks previous he threw out boxes of tubes (ARRRGH!!!). Also, one day I was dutifully following my wife on her rounds of the local garage sales, and I ran across a fruit basket full of tubes for \$1.00, half of

which tubes tested OK, and most of these were immediately useful. So, it pays to scrounge. In contacting the TV repair sources, I find that personal contact works better than phone calls.

If you really want to be a purist about these things you might look around the surplus lets for any of the military issue ELECTRON TUBE TEST SETS. These are numbered TV-7/U, TV-7A/U, TV-7B/U, and TV-7D/U, the manual for which is designated TM11-6625-274-35. I picked up by TV-7D/U for free from a local ham, but I understand they can be had for around \$5.

AH HAH!! Yet another tube source from Dick Truax, who recommends: DON SKINNER, WA8BIE; RFD 1; NEW CARLISLE, OH 45344.

This piece of information from Paul Gunn on connectors. Apparently, the UG-421/U connector plug, the one for the balanced input, is available from AMPHENOL under the part number KS 16288L2. Most major electronics supply houses and parts outlets for television repair people can order Amphenol connectors for you.

Want to save the life of all your tubes, especially that coveted ballast tube? L.G. Robertson says that the life of your tubes can be greatly extended by putting an A.C. thermistor between the line cord and the wall socket. These devices are available from most electronics stores under the names of "Workman Surge Stopper" for about \$5. When you turn on the receiver this device gradually heats up and slowly and gently supplies the power to your precious receiver. These devices were very popular in the age of predominantly tube-type TVs, and I have heard that in some cases they can double tube life.

To add another opinion to the ballast tube controversy, new member John Mohn says that the R-390 was designed to stay on a frequency plus or minus a few cycles for years and years with line voltage variations from 95 to 135 volts and ambient temperatures from 70 to 150 degrees. Unless you want to treat or use your set in the same manner, then it is okay to make one of the modifications to replace the 3TF7. John also feels that leaving the tube shields on has a definite value. "Why spend \$150 for a mechanical filter to go in between tubes and then take the tube shields off so that half the signal feeds around the filter in leakage from tube to tube." This is true whether it is RF, IF, audio, or power tubes. Or, as John puts it, "If you want cool tubes, why not just cut the filament leads and get it over with!"

SPEAKING OF COOL TUBES, I have seen a number of receiver owners using muffin or squirrel-cage fans to cool off their URR rigs. A general rule is to place these fans so that they draw off the hot air, as opposed to blowing air in over the tubes. Muffin fans show up at hamfests for \$1 or so, and they are also available through most major electronics suppliers. They have regained popularity with computer freaks, who use them to cool their chips. The only concern I can see is that this method of cooling might draw dust up into the rig. Anybody with more information on this, please share it with the group.

ANYONE OUT THERE WHO HAS ANY GENERAL KNOWLEDGE on the care and feeding of vacuum tubes (valves for our British audience) might want to write in and share it with your fellow surplus receiver fanatics. We have members who were born in the transistor age who could very well benefit from the wisdom of those among our group who come out of the age of tubes. I guess I'd have to say that my son comes from the age of IC's.

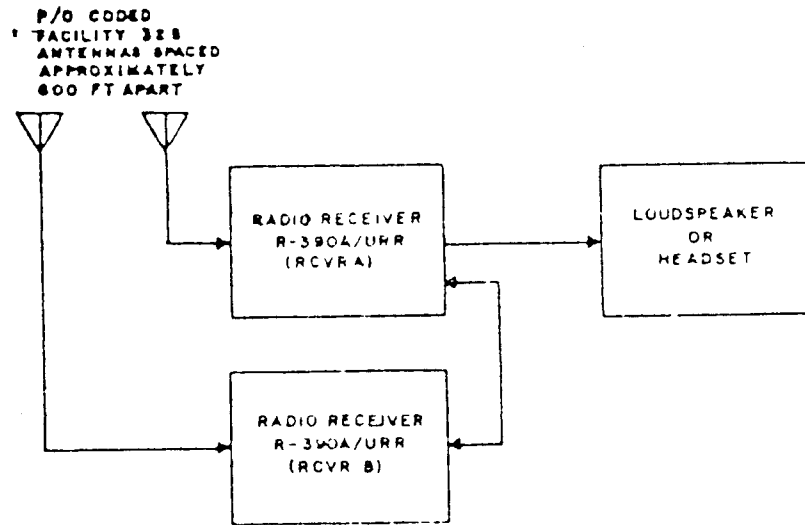
From Walter Schivo comes this tidbit concerning increased audio gain. Walt jumpered terminals 1+2, 2+3, 3+4 together to improve his audio. He said that with his particular receiver no noticeable change came from jumpering pins 6+8 as discussed in previous issues. Could this mean a pre-surplus audio modification of some sets? Anybody who might be able to explain this situation please write publishing central.

In a previous issue the membership expressed the desire to know just what the original market value of these wonderful radios might be. According to John Mohn the military came out with a directive that ordered all "high-value" items tagged with their "acquisition" value. John recalls seeing R-390A's tagged at \$2795, that's in pre-inflation dollars

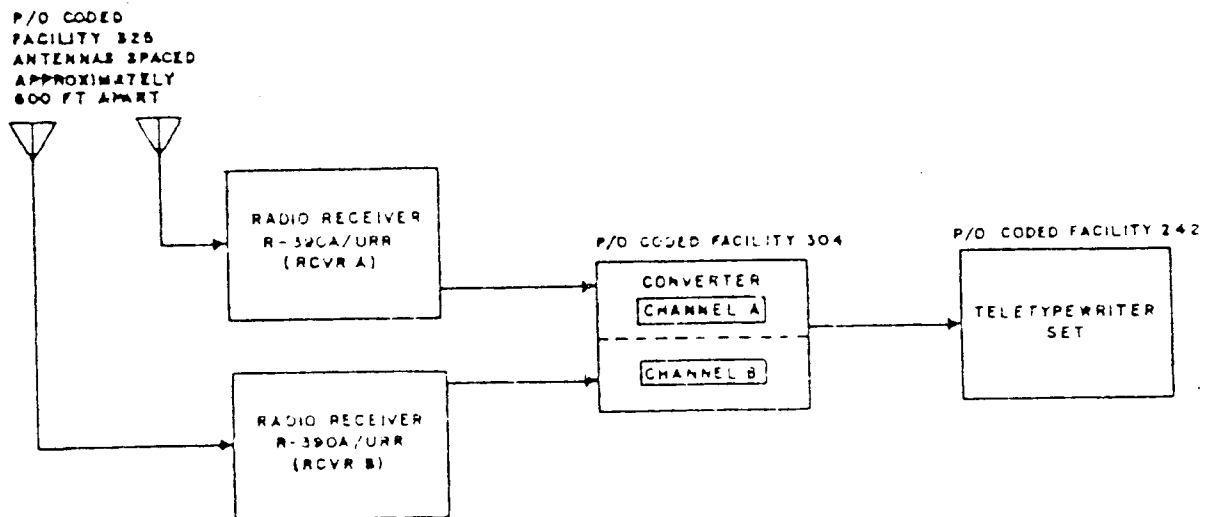
(possibly up to ten to one for you non-financier types). Patrick A. Mulreany purchased an R-389 from Davilyn Corp. that had an acquisition value tag of \$3930. Matt Stutterheim believes the cost to Uncle of the later R-390's must have run much higher than these figures. So, it appears that these radios we hold so near and dear really are Cadillacs and if we paid what the govmt paid we could easily have bought a Cadillac instead (but who would want to, right?). Incidentally, the RACALs with which Uncle Sam is replacing the R-390A's run around \$9000. Which might explain an unsubstantiated rumor that a little man from the Navy has been running around to surplus outlets buying URR receivers for spare parts.

Bill Neil adds another figure to the price of a radio from a Department of the Army Technical Bulletin TB SIG 322-303, listing the 1969 price of an R-390 as \$950. Sounds like a case of the government listing two prices depending on who sees the bill. Anyway, I am sure that others in our club will tell of other prices. That's what this newsletter is all about, sharing all information so that we might be better informed.

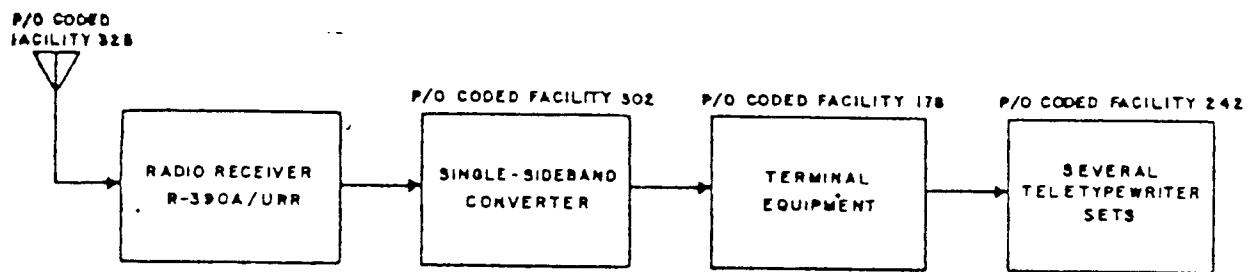
And now, from that selfsame document supplied by Bill Neil we give you block diagrams of actual URR applications.



A VOICE SIGNAL SPACE-DIVERSITY RECEIVING SYSTEM



B TELETYPE SPACE-DIVERSITY RECEIVING SYSTEM



C. SINGLE-SIDEBAND RADIO TELETYPEWRITER SYSTEM

TB 316 322-303-1

These diagrams lead me, and I am sure others, to wonder about just how one goes about wiring up a couple of URR's for diversity reception. Chris Hansen has a couple of words to say about this. The major reason for diversity reception is that if one has two antennas spaced at a wide distance, each antenna feeding into its own receiver, chances are good that reception differences between the two antennas will cancel each other out, and produce a more readable signal with less fading overall. The type of receiver used on each antenna is immaterial, normally. You may use two different receivers if you like. Some warnings: Don't try this unless you have a rather large back forty -- the antennas must be spaced 200 meters apart or more. Make sure that the two receivers you're using are on opposite sides of your shack to minimize mixing of RF between the two receivers. Of course, this lets out diversity-DX unless you have very long arms or are willing to DX on one of the two receivers, running to the other one when you get a signal on the first and tuning the second receiver to the same frequency. You can feed the signals to the two sides of a stereo jack so that each ear gets the signal from one receiver only, and you can use your brain as the "mixer". It is also possible to construct a mixing amplifier or use a stereo amplifier (keep the treble and bass controls to the minimum setting) as a mixer. This method was devised as a way to help the military communications system (especially the teletype setups) get better reception overall. The military gets away with it because most of the time our precious R-390's were set to one frequency for most of their operational life and locked there. So put those pictures of frazzled privates running from one receiver to the other at the behest of a calm communications officer out of your minds! The two receivers used in diversity reception were locked in place and just had to be turned on (if they were indeed ever turned off!)

A QUESTION for the Users Group Book of Records. What is the most flights of stairs anyone has had to carry a military surplus URR receiver up? My personal record is three flights and I had to see the doctor after that. (I live on a fifth-floor walkup, and my R-390 is up there with me. However, I had help carrying the receiver up the stairs. Does that count? I suppose I'll have to carry it down someday, though. I should get the truss now, I guess! Chris Hansen)

Larry Cohen (a non-member, but I am working on him) regularly uses an R-390 the front panel of which was at one time sprayed with machine-gun bullets! How's that for realism, fans????!!!

#### THINGS OUR MEMBERSHIP IS LOOKING FOR DEPARTMENT

Ron Musco, P.O. Box 118, Poquonock, CT 06064 needs a top cover for his R-390A.

Jim Kowalski is looking for a copy of the manual for the R-390 (not-A). He also has a copy of the manual for the R-389 that he will give away to the first taker who sends him a dollar for postage. Jim's address: P.O. Box 1181; Sebring, FL 33870.

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OKAY GROUP, we opened a great can of worms by looking for the price of the R-390. Let's open another can by trying to find out just how old these rigs are by their serial numbers. I am sure that if we can discover a few receivers' birthdays in relation to their serial number we will give most of the club an idea of how old their particular receiver might be. Anyone with information, or for that matter, anything that might be of use to the group can send it to publishing central.

By the way, we could use a few more articles pertinent to the R-389 and the R-392. A lot of these rigs are in use, so please share what you've got with the group.

Craig Healy suggests that someone start a "junkyard" for old URR rigs. What a great idea! If anyone has the time or inclination we will be glad to advertise the effort right here in these pages.

Bob Lombardi says that CW selectivity is not quite as good as the wider bandwidths because the mechanical filters on the R-390A are not used. A single crystal is resonated with different loads to get the 0.1 and 1 kHz positions. The manual says that this is a 455 kHz crystal. Bob thinks it might be possible to make a crystal lattice filter with two or more of these crystals and thereby improve CW selectivity. A most interesting idea; does anyone want to try to tackle it???

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

EDITOR'S NOTE: The mailing list (as well as the typing and information storage) of the R-390 Newsletter is now computerized. Check your mailing label; if corrections are needed please send the label with corrections indicated to: CHRIS HANSEN, R-390 NEWSLETTER, P.O. BOX 1226, MADISON SQUARE STATION, NEW YORK, NY 10159. The second number at the top of the label is your ID number; the first number is the issue number of the last issue on your membership. All those with a "3" in that space this issue are due to renew.