

R-390 Reflector August '03 Edited

From billsmith@ispwest.com Fri Aug 1 00:49:29 2003
Subject: [R-390] Gain Problem

Aside from the frustration implied by the poster, there is not a little frustration in this reader. Rant deleted.

Several things to check jlap, they shouldn't be difficult.

(1) Complete R-390 documentation is on-line. I downloaded and printed it. It was difficult to line up the pages so that it could be printed front and back, but I took the effort and have a good manual as a result. Yes, I searched to find a utility to print the schematics, but free IrfanView has turned out to be invaluable for a number of other needs here also. Yes, I later found an original manual, but it is an earlier edition. Both, together are sound documentation for the receiver. Either are more than enough information to answer your question re the Local Gain pot.

(2) The 390/390a have similar, if not identical audio circuits. Seems the only thing that could cause loss of gain control would be a defective pot or bad ground connections to the pot. You will observe the Local Gain pot is located at the bottom of the receiver front panel. Have you examined the connections to make sure they haven't been physically bumped by moving the receiver around? The ground wire(s) to the pot may have broken.

(3) R-104, the 2500-ohm Local Gain pot may be defective. R-105, a 1200 ohm resistor is connected across the outside terminals.

(4) The wiring to the audio module may be damaged. You may have a broken ground wire inside a plug.

(5) A quick look at the circuit will show that there are no sneak paths around the Local Gain volume control. Audio from the receiver is wired directly to both the Line Gain and Local Gain pots.

The R-390/R-390a receivers may easily be classified as high-maintenance equipment, the best and most sophisticated of their age. They were also designed to be servicable according to the technology of their age.

73 de Bill, AB6MT billsmith@ispwest.com

From k06bb@elite.net Sat Aug 2 05:55:08 2003
Subject: [R-390] Correct Ballast makes a difference 8^)

Hi. Today the "correct" (3TF7) ballast arrived for my '67 EAC and the set is happily perking along with it installed. After installing it a visual checked showed that it had only just a couple very small spots glowing, same as I'd expect to see in a properly working ballast. The one that came in the set (3TF4) was glowing a nice cherry red along the entire length of it's filament.

In checking the tuning of the set, it doesn't appear to have made any difference in overall performance or calibration. That is about as I expected as the voltage applied to the BFO/PTO was about 11.5 Volts, not all that low for two tubes in series. (I didn't check to see what it is now). Now, back to DXing with the set.

From w2ec@attglobal.net Sat Aug 2 13:37:20 2003
Subject: [R-390] Correct Ballast makes a difference 8^)

Phil, hold onto the 3TF4, it is used in the Collins KWS-1 SSB transmitter and I'm sure someone with a KWS-1 may have a need for it at some point. 73, Ray W2EC

From buzz@softcom.net Sun Aug 3 04:52:43 2003
Subject: [R-390] FS 200 W audio amps

Listers, I still have a few 200W Altec Lansing 1590E solid state amps for sale. For complete specs see: <http://nleinternet.net/alteclansingunofficial/proelectronics/proamplifiers/1590E-Data.pdf> My price is a VERY conservative \$100 plus shipping from 89506. Thanks, Buzz

From kherron@voyager.net Mon Aug 4 01:28:09 2003
Subject: [R-390] R-390 for sale

Hi Guys,

I got a phone call today from a very nice lady in New Jersey that has an R-390 for sale. Here are the details that she gave me. This was her fathers radio and he was a meteorologist, and used it for a long time. It apparently has the covers on it but it is not in a cabinet. Here's the info off of the equipment tag: Signal Corps US Army Radio Receiver R-390/URR Serial Number 4766 ORDER 14214-PH-51-93 MFD. by Motorola INC. For Collins Radio Co. They also have a manual for a 390A (TM 11-5820-358-10). She tells me that the front panel is in excellent to new shape and she's going to try to get some pictures (no digital capabilities) so she can forward them and I can post them. This radio is for sale and she'd like to know what it's worth. If you can give me an idea, that would be nice and if you're interested in the receiver and manual, let me know and I'll forward the e-mail to her and give you her phone number.

Thanks!! Kim Herron 1-616-677-3706

From davidmed82@yahoo.com Mon Aug 4 03:16:42 2003
Subject: [R-390] Isolation Transformer

I am being driven crazy by the earth leakage cutout thingies or whatever you call them. The leakage due to the line filters especially in older radios trips them all the time. Can anyone advise me where I can get an isolation transformer about 750-1000 watts. Thanks Dave

From sdaitch@ibb.gov Mon Aug 4 06:16:00 2003
Subject: [R-390] Isolation Transformer

Dave,

Without being too flippant, Newark and Allied have isolation transformers, but I suspect you might not like the price. Also, there is a place out in Van Nuys, I guess it is, C&H, that has some pulled (RFE) items, and they might have something more in line with pricing. 73 Sheldon WA4MZZ

From jbrannig@optonline.net Mon Aug 4 10:27:14 2003
Subject: [R-390] Isolation Transformer

Dave, This was on the Collins reflector. Jim Forwarded for W8ZR

From sdaitch@ibb.gov Mon Aug 4 13:17:34 2003
Subject: [R-390] Isolation Transformer

Hank, Nope, and it gets even better.

We left Greece end of April, medivaced out due to some family issues, and right now, as I type this, I can look outside and see the arid land of the IBB site in Kuwait. I volunteered for a two transmitter installation mission into Baghdad, and we've been here since the 27th, awaiting some clearance issues for TX locations in Baghdad. Learned a few hours ago that we will be headed out of here, Kuwait City, probably very early Friday morning. Sounds like a winner of the Harris combination. The 350K is one nice unit, as far as I am concerned. If I ever get to where I think I might be settling down with fewer and fewer moves, I think I'll try to get one. 73 Sheldon

hankkarn wrote: Sheldon, C&H is in Pasadena and APEX is in No. Hollywood 818-767-7202

From Ed" <ca.urso2@verizon.net Mon Aug 4 13:35:22 2003
Subject: [R-390] Isolation Transformer

C & H Sales Co.
2176 E. Colorado Blvd.
Pasadena, CA 91107
1-800-325-9465
(626)796-2628
FAX 626-796-4875
Web: <http://www.candhsales.com> 73, Ed KD6EU USA

From dwade@pacbell.net Mon Aug 4 15:33:00 2003
Subject: [R-390] Isolation Transformer

This is a truly awesome place to browse around any given afternoon. Work *used* to take me to Southern CA (I live in No. Calif) at least a couple times per month, but...alas...we have the California State Budget....nuf said... Dennis

From gkaufman@the-planet.org Mon Aug 4 16:47:38 2003
Subject: [R-390] Isolation Transformer

Dave - You can grab most any 2 large filament transformer with the appropriate wattage ratings and put them back-to-back. I used a pair of 56v/3A transformers for many years set up as 115:56<--->56:115 with good success while repairing AC/DC tube radios. There was about a 5% voltage drop over line voltage. Admittedly this may be tough if you really need a 750-1000 watt unit.

Also check with local hospitals - most any medical device in patient contact requires isolation. I've pulled some very nice isolation transformers out of discarded equipment. The medical engineering folks are often very helpful and might be willing to donate some discarded equipment that you can pull them from. - Gary

From ah7i@atl.org Mon Aug 4 16:39:14 2003
Subject: [R-390] Isolation Transformer

Have a pair of 240-120 (or the other way round if you like) here. IIRC 1KVA CCS but may be a little bigger. Can wire for isolation, step up, step down or 480V if you need... They are in Canton GA...destination ebay but I'm no where near that pallet yet so if interested, write... -Bob

From stevehobensack@hotmail.com Mon Aug 4 20:22:01 2003
Subject: [R-390] 3tf4 mod

Here is neat little mod that will let you use either a 3tf7 or a 3tf4 and is reversible. Above the IF deck mount a 25 ohm 5 watt resistor using a terminal strip. Wire the resistor to pins 2&3 on the ballast tube socket below deck. Short/solder together pins 7&8 on the ballast tube socket. Carefully cut off pin 9 of a 3tf4 ballast tube. Being careless here might crack the glass. Install the 3tf4 with the cut-off pin directly over the keyway (one space removed from normal seating). The 3tf4 will now engage the new resistor in the circuit. If you happen upon a 3tf7, simply install it normally. Remember to always plug the 3tf4 in the odd way, otherwise you will burn it out.

a few weeks ago I saw a posting where a diode could be used in series with the 3tf4. Anyone tried it? Steve.....KJ8L

From jlap1939@yahoo.com Tue Aug 5 00:13:18 2003
Subject: [R-390] Gain Problem Cont.

Friends, First of all, I would like to thank those who had a suggestion for my recent problem. To refresh, The PHONES jack on the front of my 390 non a was running wide open, rather than controlled by the LOCAL GAIN on the front panel. I failed to notice until I tried to use for SWL in chasing a station I found on the 600...The reason I missed it.. , the 390 was running through a fairly elaborate rec. amp/mon. and I was using that gain and the RF on the 390 to follow SSB/ham activity on 75M, (tho' I do remember thinking the background was more than "summer" noisy..)

I was using headphones on the 600, and just plugged them directly into the 390 when I tried the SWL. (By the way, they are 16 ohm...?? O.K. ?)

The "temporary "fix" until I can get some help to get it back out of the rack: suggested by one of our posters..Use the terminals #'s 10 and 13, for line audio. This would allow the line gain pot to control the output to whatever...!

In fact it works just FINE, and no noise at all from the receiver, which is very quiet and sen. now..I do need to add that I listen at a very low level, as I did in Mil. practice, w/'phones... QUESTION to all: Is this O.K. to do? Will I hurt the radio, or, less important, the headphones? Thanks very much for kind thoughts... My Regards, John (JLAP)

From w9ya@arrl.net Tue Aug 5 00:37:00 2003
Subject: [R-390] Re: R-390 digest, Vol 1 #812 - 3 msgs

Um, C & H is in Pasadena. There is/was a neat place in the San Fernando valley called Apex. They might also have what you are looking for. Bob w9ya

From ToddRoberts2001@aol.com Tue Aug 5 02:22:42 2003
Subject: [R-390] Engraved R-390A Front Panels Look Great

Wanted to let the group know that I received the R-390A front panels that I sent Hank back in May/June that he had arranged to have done for us and they look great! The lettering looks very nice and crisp and the paint finish is excellent. I know I had sent Hank some pretty shopworn looking panels and they turned out really first class. These will make some really sharp-looking radios! Thanks again Hank! 73
Todd Roberts WD4NGG.

From rodney_bunt@yahoo.com Tue Aug 5 03:49:16 2003
Subject: [R-390] R-392 power connector / lead

Does anyone know of a source for the 28v Power plug for the R-392/UUR ? I need a Power connector for a Collins R-392. (this is the 28v DC input plug) Electrical Special Purpose Cable Assembly CX-1597/U I live in Australia, so calling anyone is a problem, email addresses or web site, or reimburse some kind person would be most appreciated. Rodney VK2KTZ

From wwarren1@nc.rr.com Tue Aug 5 13:19:44 2003
Subject: [R-390] Engraved R-390A Front Panels Look Great

I agree with the complimentary sentiments already posted. My panel came back in great condition, and I love it. Mine was a silk screened (thus originally non-engraved) panel for a Motorola '56 contract (S/N 117X) radio. The radio had been stored on it's back in a garage for several years and had collected dirt and paint spray from the odd jobs the former owner did. It came back from Hank with a great gray background, crisp lettering, and excellent silk screening on the back.

10,000 thanks Hank for taking on this chore for the fraternity.

Tom, W4PG

PS: I went by the NSA Cryptography Museum at Ft. Meade, MD, about two weeks ago. Just inside the door is a display of a Motorola '56 contract, S/N 1411, single-fuser, silk screened panel just like my S/N 117X when I bought it from Charlie. They also had a SP600 on display plus about a dozen Enigma machines. I didn't know the USA had that many Enigma machines at all. But then I saw another 3-5 Enigmas at the Smithsonian Museum of American History on the Mall. Interesting.

From drewmaster813@hotmail.com Tue Aug 5 18:10:15 2003
Subject: [R-390] Isolation Transformer

On the subject of isolation transformers Gary E Kaufman wrote: "You can grab most any 2 large filament transformer with the appropriate Admittedly this may be tough if you really need a 750-1000 watt unit."

Transformers from junk microwave ovens can also be used in this manner by connecting the HV windings together. One end has a terminal, the other is usually internally connected to the transformer's frame. Connect frame to frame, HV terminal to HV terminal. HV runs a couple or few KV; make sure that connection is well insulated and done with appropriate wire (salvage that from the junk microwave also).

These transformers will handle quite a bit of power and you can use 2 differing units to get a slight increase or reduction in net voltage. Time to don your dumpster diving duds! Drew

From AdamAnt316@aol.com Tue Aug 5 18:41:23 2003
Subject: [R-390] Line filter issues?

Recently, I have experienced loud buzzing noises on the lower bands of my R-390A. This noise interferes with all but the strongest signals on the BC bands, and is pretty much unnoticeable by the 3MC band. I am getting this noise whether the set is turned on or off, and whether the variac I have the set plugged into is turned all the way up or down, with the only cure being to unplug the setup completely (I found this out with a small transistor radio). I'm guessing that the line filter is to blame; is there a way to repair it, or does it need to be replaced entirely? If replacement is the only way, what would be best to use to do it? TIA. -Adam

From roy.morgan@nist.gov Tue Aug 5 19:24:33 2003
Subject: [R-390] Line filter issues?

At 01:41 PM 8/5/03 -0400, AdamAnt316@aol.com wrote: >Recently, I have experienced loud buzzing noises on the lower bands of my >R-390A. ... I am getting this noise >whether the set is turned on or off,

If the radio is turned OFF you still get buzzing sounds? Where are the sounds coming from?

>and whether the variac I have the set plugged >into is turned all the way up or down, with the only cure being to unplug the >setup completely

If there is no power to the radio and it is buzzing, there may be some problem with the grounds and power lines in your outlets.

> guessing that the line filter is to blame; is there a way to repair it, > or does it >need to be replaced entirely?

The line filter is soldered shut and is filled with goo (I think). It's a chore to get one open and fix things inside.

> If replacement is the only way, what would be >best to use to do it?

Replace the line filter with a small piece of metal into which is mounted a modern IEC RFI line cord connector. These are the things found on all modern computers and other equipment.. Some have RFI filtering and some don't.. New prices are very modest, and they can be found at hamfests for even less money. Roy

From AdamAnt316@aol.com Tue Aug 5 20:36:31 2003
Subject: [R-390] Re: Line filter issues?

Here's more on the issue. A couple of weeks ago, when testing a small homebrew amplifier/speaker combination to use with the diode load input, I noticed some buzzing coming from the speaker. At this point, the hum was not audible from the set's audio on any band, with much of it unnoticeable if there was a good signal from the receiver, or if the speaker was moved away from the set; it would go away completely when unplugging the variac setup I always use to power up my radio, and was still present when using no variac whatsoever. However, during a recording session of a local BC oldies station, the hum began coming through over the BC station with force. At first, I attributed it to the fact that I had taken off the Utah plate for display purposes, but putting it back on made no difference whatsoever. Earlier today, I decided to see if the noise was still coming through, and it was still present, so I began turning off various appliances in the house (none of the other line-powered BC sets I've tried have exhibited this interference), but this had no effect on the buzzing. I then tried using a small transistor radio tuned to the same station to trace the source of the buzzing. I got clear reception until I got within a few feet of the receiver. I thought that it was perhaps the homebrew variac setup which was causing the interference, but trying a commercial variac instead had no effect, and unplugging the R-390A from either variac got rid of the buzzing altogether. I can live with the problem for now, since it doesn't appear to be affecting most of the SW bands, but I would like to find a solution which wouldn't affect the look of the set too much (i.e. I'd rather not have a IEC connector present in the back of the set, but if there's no way around it, so be it; I'll just have to replace the molded plug on the new IEC cord with the military-style three-prong plug from the old one!). How hard is it to access the old line filter without displacing the rest of the radio? TIA. -Adam

(BTW: I tried sending this twice from AOL Web Mail, as suggested in the NoMIME FAQ, and it was rejected as spam by qth.net's filters both times. Strange...)

From ah7i@atl.org Tue Aug 5 21:12:59 2003
Subject: [R-390] Isolation Transformer

OK, I took a closer look at these transformers. They are Isolation transformers. 1KVA. 120 in and out. The taps may be changed for 240V in plus some other variations. Output taps may be changed as well for 100-125V

Have two of them. They are pretty with covers over taps showing arrangements for various voltages. No exposed terminals. They weigh 32lb. Packed will weigh 35lb.

How about \$55/each plus ship from 30114... I have fed ex ground account with pickup so it won't be too bad. estimate \$40 for cross country.. and around 20 for adjacent states. -Bob ah7i/w4

From wa4zlk@acer-access.com Wed Aug 6 03:59:37 2003
Subject: [R-390] R-392 power connector / lead

Hello Rodney, I got an R-392 power connector from Fair Radio Sales about a year ago.
<http://www.fairradio.com/> fairradio@fairradio.com They also had used audio output connectors (U-77).
Bruce WA4ZLK

From ba.williams@charter.net Wed Aug 6 01:11:25 2003

Subject: [R-390] Re: Line filter issues?

I don't have much help for you here, but I had a similar problem a while back. I have a nice 6' rack that had my R-390A in it near the top. There was a SP 600 beneath that, and a tube amplifier below the amp. A variac sat on the base of the rack below all of the gear with a lot of metal between it and the top of the rack. I had bought the Quantum QX Pro loop which is incredibly sensitive on MW/LW. Well, the rack made a great reflector in the shack with the loop located on a lower shelf unit so I put the loop on top of the rack. I have a swivel chair that sits kind of high up and I could rotate the loop well enough for the time being. I was getting terrible buzzing everywhere and the loop was just about unusable in this setup. I finally moved the loop and my LF receiver to the other end of the house where it is very quiet there. A few months later I brought the QX Pro back to do some testing with the R-390A again. The buzzing was gone. The only thing that I know of changing was the variac location. I had moved it to the side of the rack, sitting on the floor. Anyway, the buzzing is gone now. My guess was that the variac was causing the problems but I never checked into it.

From bjtatum@ev1.net Wed Aug 6 04:07:41 2003
Subject: [R-390] R-390A Variant

Hello-

I recently obtained a variant of the R-390A of which small relays = were installed on modules and 3 osc. output / inputs were available at a = rear panel plate, equipped with 3 BNC conn.and terminals to energize the = relays. The front panel tag is missing and I cannot recall the ID number = of this set. I believe this one is an all Collins made unit, and it is = only the second of this type that I have seen.About 8 years ago I = dis-assembled one of these, it was an all Collins module and mainframe = set, however the modification was done by another contractor.The front = panel ID tag reflected a new type number.

I would be interested in trading this set for a late model { = preferably EAC} if anyone is interested.It is complete with covers and = meters. Thank you, Byron WA5THJ.

From AdamAnt316@aol.com Wed Aug 6 04:37:13 2003
Subject: [R-390] Re: Line filter issues?

Yet another update on this project; it now seems as if this set is once again taunting my attempts to troubleshoot it's apparent issues. Earlier tonight, I decided to do yet another test on this set. After slowly turning it on with my General Radio Variac, it began buzzing once it warmed up, as usual. I then went inside my house, which is around 50 feet from my shop, to retrieve my pocket transistor radio. While in the house, I decided to turn it on, and I discovered that I was all of a sudden getting the same buzzing in the house that I had earlier been getting in the shop within a few feet of the 390A. I immediately suspected a dimmer-type toggle switch in our kitchen, which has a tendency to put out hash when not turned up all the way, and it was indeed at around 90% of it's brightness level (where it tends to stick when casually being turned on). Sliding it the rest of the way up eliminated the buzzing on the transistor radio; when I got back to the shop, the noise level on the 390A had fallen to normal levels. While this is somewhat of a good sign, I'm still wary of the set, since this definitely doesn't explain how the transistor radio was formerly able to pick up buzzing from the 390A unless it was unplugged from it's power source. I will continue to monitor the BC band noise levels to see if/when the problem returns. -Adam

From billsmith@ispwest.com Wed Aug 6 05:56:41 2003
Subject: [R-390] Re: Line filter issues?

Welcome to the world of low-frequency interference troubleshooting!

You will run across a number of strange stories and experiences, all as grey as the plains of Kansas in the Wizard of Oz. They're all caused by the Wicked Witch of the East and her switching broomstick.

First of all, the noise sources you are hearing are generally produced by square waves. Sources are a sparking contact, a light-dimmer turned almost all the way on (maximum current switching = good transmit power), a defective part that is arcing, etc.

The signal has many harmonics, and is generally coupled to the power line in the house. Of course it travels right outside the house to the power pole and down the street. It generally is a very complex wave, thus has many peaks and nulls. You'll have quite a time mapping it with a transistor radio on broadcast frequencies. Phasing and intensity will give you all sorts of indications, particularly when filtered through the ferrite-loop antenna of the radio which is itself very directional. Try walking down the street some time with a bad street light. You'll discover all sorts of peaks and nulls that seemingly have nothing to do with the offending pole (assuming you have already spotted the dimming light).

The secret is to use your 2m handheld tuned to the aircraft band. Or at any rate, a high-frequency receiver with an AM detector. The higher harmonics are attenuated somewhat, and are more easily adsorbed thus don't travel as far. Thus you will have a better chance of zeroing in on the real source of the noise.

If you can attach a small 3-element beam to the antenna, so much the better. This is essentially what is used by the electric company when a representative comes out with a noise sniffer. The unit is a regenerative receiver tunable from 300-350 MHz mounted on the end of a 4-element beam.

There are two ways of eliminating noise. One is to divert it, adsorb it; another is to attempt to ignore it.

Diversion, if you will, can be accomplished by good grounding. Remember, though, that any wire exhibits inductance with length. Even a 3-foot ground wire from a receiver to earth ground may be too long to provide a good "drain" because of its inherent inductance. Naturally, a 20-foot ground line from a second story to ground will not improve things, in fact, will not be effective except perhaps for frequencies below, say, 500 KHz. A good ground is never-the-less the first thing to install.

Another way is to attempt to adsorb the noise before it gets into the receiver. Radio Shack interference filters can be very effective. I don't have a catalog number handy, but look for the square devices. They are actually two "C" shaped sections held together by a snap-together plastic shroud. Wire is wrapped through them (as many turns as possible). Make sure the ends of two ferrite halves meet together, otherwise currents cannot circulate in the ferrite and the filter won't work as well as it might. They can be installed in line cords, speaker wire, control wire, even coax can be wound through them. If you install them on the back of a radio, keep the wiring between the filters and the radio as short as possible. The wire between the filter and the radio is unsheltered antenna!

They are also great for suppressing noise from a computer. Start by grounding the computer case. Then, unplug everything from the computer, turn it on, turn on the receiver, and plug in computer cables one by one, noting any increase in noise. Install filters on offending connections as close to the computer as practical. If you can't get them to make a difference, somehow the noise is traveling through another path and you'll have to search to find it.

You can attempt to "ignore" noise by use of common-mode approaches. This approach makes use of something called a balanced line. You will notice that the antenna input connections to the R-390 are

balanced, and so are the audio output connections. A full explanation of this approach is better found in text books, but basically the idea is that noise will be induced equally in two balanced lines. If the lines are connected properly, the noise can be nulled out. Wire telephone lines make good use of this approach.

Unfortunately, Collins took the balanced line approach very seriously and established a ground at center of the two balanced antenna inputs. In fact, instructions to adjust a capacitor divider that establishes this ground are provided in the alignment instructions. The ground point in the receiver is away from the back of the cabinet, and there are all sorts of sneak paths that may be particular to an installation which disturb the balance at RF frequencies. At any rate, while not perfect, it doesn't hurt to attempt to feed the receiver with a balun at the balanced antenna terminals. You will know if you are effective, if you can short a section of coax that feeds the antenna line to the balun and the receiver falls absolutely silent on all frequencies. The receiver here is quiet, although some strong broadcast stations can still be heard when the receiver is tuned on frequency.

The same approach can be used on the power line and the audio lines. Power Isolation transformers are used in some commercial broadcast installations to balance power lines. There, the center-tapped secondary of the isolation transformer is grounded. If you have an isolation transformer without a center tap, a virtual ground can be established with capacitors (.5 mfd, AC rated) from each secondary line to ground. The capacitor value isn't critical, but make sure the caps are rated for very high peak voltages. Good to protect them with MOV's too.

Audio lines are probably better protected with Radio Shack filter chokes, but hum (developed from "ground loops") and some noise can be eliminated by use of transformer input to external amplifiers.

Hope this helps, or at least provides food for discussion. 73 de Bill, AB6MT billsmith@ispwest.com

From federico@dottorbaldi.it Wed Aug 6 16:11:55 2003
Subject: [R-390] R-390A Variant

Hi to all, probably it is part of a system developed for Apollo missions (land based obviously) that employs an external frequency synthesizer by MANSION Laboratories. At the moment I don't remember the name (R-1490/URR??? probably wrong) and I'm in my holiday home so I can't check. 73 de Federico IZ1FID Visit my webspace voted to military surplus radio : www.dottorbaldi.it/militaryradio
See also : <http://www.geocities.com/pa0jta2/hamshacks.html>

From wf2u@starband.net Wed Aug 6 16:49:50 2003
Subject: [R-390] R-390A Variant

Byron, Your receiver is an R-1247/GRC-129 Receiver, modified from the R-390A by Manson Labs.

This equipment was part of the AN/GRC-129 system which had 2 R-1247 receivers for dual diversity. The 2 receivers had the CV-1694/GRC-129 Single Sideband Converter, (Manson Labs) connected to them, The CV-1693/GRC-129 is the 1 MHz step synthesizer and the O-1203/GRC-129 is the 1 KHz step synthesizer locked to the same frequency standard. With the 2 synthesizers the receiver is tunable within its normal frequency range in 1 KHz steps. The frequency still has to be dialed in the receiver, because the RF stages and mixers have to be peaked up at the frequency of operation. The receiver can be operated normally, too. Both synthesizers and the converter were built by Manson Labs, but the synthesizers were also made under contract by Hallicrafters, in their last throes of death...

The system transmitter was the modified (for sideband) T-368, under the nomenclature T-946/GRC-129, driven by the O-1555/URC synthesizer. 73, Meir WF2U Landrum, SC

From roy.morgan@nist.gov Wed Aug 6 16:41:02 2003
Subject: [R-390] Re: Line filter issues?

At 11:37 PM 8/5/03 -0400, you wrote: >Yet another update on this project; ... a dimmer-type toggle switch

Adam, It Could Be that the buzzing has always been from that dimmer, and the power cord on the R-390A, with it's line filter working, was acting as an antenna to radiate the noise coming in from the power line.

ALL dimmer type devices are suspect: touch-lamps, floor standing lamps with dimmers, wall mounted dimmers, even halogen lamps (some of them have a diode in their base to reduce the wattage consumed.) Touch lamps are notorious for causing trouble because they make the RFI even when not lit.

You will learn a lot about RFI control if you make attempts to quiet such devices by the use of inductors and capacitors. Roy

From billsmith@ispwest.com Wed Aug 6 16:55:22 2003
Subject: [R-390] R-390A Variant

Are any GRC-129 systems extant? Our clubhouse used to house two of them. Of course we'd like to put them back, wonder what kind of a project that might entail. At least we still have the Christmas star. And the 168' radio tower. :-) 73 de Bill, AB6MT billsmith@ispwest.com Hamilton Wireless Association <http://www.k6bw.org>

From kherron@voyager.net Wed Aug 6 18:04:03 2003
Subject: [R-390] F/S Xcelite Bristol driver sets NIB

Hi Gang, I haven't posted this here before (I don't think), but I thought that I would let be known that I'm ordering more Bristol (spline) driver sets for a number of people that wanted them. The Xcelite number is 99PS-60 The shipping has forced me to increase the price a little bit but The price is still cheap by comparison. \$46.00 shipped in the lower 48 states. I'm going to be ordering next week, so if you'd like a set, let me know and I'll get them coming for you. I can also get the Allen driver sets (99PS-40) for \$2.00 more (\$48.00) shipped as well. Thanks!! Kim Herron 1-616-677-3706

From jlap1939@yahoo.com Wed Aug 6 17:38:00 2003
Subject: [R-390] Lists

Friends,

I have decided to take a little time with other radio reception equipment, and wonder if some members might be willing to suggest other lists covering a lot of different radios, as well as the 390 series..(I already have the Hammarlund address..)

I do in fact, receive this list as a journal ONLY as I may choose my reading time, move it, or ignore it,

without filling up my mail with a lot for my wife to have to go through, as she uses the same JLAP address. (This way she can keep up with what I am up to....so she says...)

Can other lists, like one of the boatanchor types, be treated in the same way, or will I have to have each message on my mail as an ind. item? I am on a couple of other lists that are ind listing, but they are very low interest level, and I never get too much mail..I ask these questions, as I can't seem to find much now.I guess I am not looking in the right place...

Suggestions and list types would be appreciated.My apology for this if you find it wasteful. My Regards, John (JLAP)

From AB3L1@aol.com Wed Aug 6 18:02:32 2003
Subject: [R-390] Engraved Panel MIA

Upon receiving a 390a panel yesterday I looked on the rear unpainted area and find the name Tom Bridgers engraved there. I did a name lookup on QRZ and got an email address for him with the callsign KE4RHH. Sent a note and did not get an email bounceback so I suppose it is still good. No reply yet.

If I have the wrong guy here please let me know.

I had engraved my AB3L callsign and my last name LYDON by the M102 meter, in the unpainted area. If you have mine please let me know. I have a pix to verify it's location.

Otherwise, nice looking job. Thanks Hank for the effort. Bob

From mark.richards@massmicro.com Wed Aug 6 17:46:53 2003
Subject: [R-390] F/S Xcelite Bristol driver sets NIB

I own a set of these and I can vouch for them. The shafts are a bit = long, which made me a little nervous that they might snap under the strain of = a stuck screw, but this has never materialized. They come with a slick case to keep them organized. This is a very nice set. -m-

From AdamAnt316@aol.com Wed Aug 6 18:14:30 2003
Subject: [R-390] Re: Line filter issues?

Here's yet another update on this set of experiments. With the dimmer switch either all the way up or all the way down, and as many other interference-producing appliances as I could locate around the house turned off, I still appear to be getting line noise. For the most part, it has been quieter than it had been recently, but nowhere near as quiet as it was a few days ago before the buzzing began (examples of older recordings vs. recordings I've made since the buzzing began available upon request). I did some more recording of the sound levels coming from my radio on the 900KC oldies station (WSNH), and also monitored how much base noise I was getting under the music levels using the line level meter (mainly using the dots on the lower scale, not the VU portion). For the most part, with the line meter control set to 0 and the line gain control set to 4, the base noise level was 25, and the music averaged around 75 (quieter portions sounded noisier, while portions with peaks near 100 were not as noisy). I did get some bursts of band-swamping interference levels similar to what I had been receiving previously, one of which lasted a few minutes, while most lasted a second or two (none of which could be attributed to the dimmer switch, since it was either all the way up or all the way down all of the time). In later parts of

the recording, noise levels subsided to half their normal line level meter readings for unknown reasons, but did not go away completely. As far as noise levels go, the noise received was loudest in the following ranges: 1100-1700KC, 1800-2400KC (noise levels often reached the 100 mark in this range), 3400-4300KC, 4400-4900KC, and some not-quite-as-loud portions on the 5000KC band. Frequency ranges in between the loud portions listed were usually quiet, but sometimes with white noise bursts occurring every 4.5 seconds (even on the 7000KC band). I still think that something is not right with my line filter, since I only get the interference with the 390A plugged in, and not just from the variac alone. Do you think I would have luck replacing the one in my set with one from Fair Radio or American Trans-Coil? Alternatively, does anyone in the group have any working spares they might be willing to sell to me? TIA. -Adam

From billsmith@ispwest.com Thu Aug 7 01:51:14 2003
Subject: [R-390] R-390A Variant

Ahh, high-maintenance equipment..... Something like a URC-32?

Lessee....

- (2) R-390's
- (1) Complicated frequency synthesized generator
- (1) Sideband adapter
- (1) Sideband generator
- (1) Highly modified AM transmitter

Is that a complete list? How many tubes altogether? But, to answer your question, yes, we'll give it a try!
73 de Bill, AB6MT

From rjmattson@hvi.net Thu Aug 7 06:49:20 2003
Subject: [R-390] F/S Xcelite Bristol driver sets NIB

What size bristo wrenches are encountered in Collins equipment? bob...w2ami

From jlap1939@yahoo.com Thu Aug 7 14:37:36 2003
Subject: [R-390] Lists

Friends, Wish to thank those who wrote. I have joined a list I believe will cover a lot of items, inc the 390 series. Will also remain here. My Regards, John (JLAP)

From AB3L1@aol.com Thu Aug 7 17:42:09 2003
Subject: [R-390] Panel Found TNX

I can sleep now and get back to have fun enjoying the hobby as well. I'll have to press harder next time with the engraving tool! Thanks again Hank. Bob ps. I saw the "Boss" last night, don't miss him in a venue near you! You won't be disappointed.

From pha@pdq.com Thu Aug 7 17:43:50 2003

Subject: [R-390] F/S Xcelite Bristol driver sets NIB

In the R-390, R-390A and R-392, all should be #10. In the R-391, each autotune has one #11 adjusting screw. When field replacements are done, other screws may have been used. I found #11's in an R-392 that I worked on, for example, as well as allen screws. Paul

From cgalbrai@umich.edu Thu Aug 7 19:32:01 2003

Subject: [R-390] WTB: R-390A or R-390

Hi gang, I just re-joined the list after a few year's hiatus. These massive HF pieces of art keep pulling me back in. I am looking to buy an R-390A or R-390 and would be willing to drive up to 100 miles or so to pick it up, or pay for shipping (I'm in Ann Arbor, MI).

Thanks for any leads, and all of your great info, generously shared. 73, Chris KA8WFC

From jlap1939@yahoo.com Fri Aug 8 14:55:16 2003

Subject: [R-390] Lists.....!@#%^^&*(

Friends,

Can any 390 person help me? PLEASE? Subscribed to a list and all it is is SEX RELATED..I do not understand computer commands very well. It is:

Ham-BoatAnchors-REQUEST@UCSD.Edu

To sub. or un-sub: Listserv@ucsd (Which comes back as unde.DAEMON) (Says there is no ucsd server)

No one answers my e-mail...(How did I get into this)?

I hope you will not be angry with me for this wasted time..if so, I am very sorry...If anyone I know well will help, I will send you my other e-mail address and the password, if you can help!! My Sincere thanks, John (JLAP)

From jlap1939@yahoo.com Fri Aug 8 20:04:45 2003

Subject: [R-390] R-390--staying on subject

Friends, Yes, I will stay on sub. I do have some questions on QRN I will do up, but this is to tell you that my second list contact knew how to remove the bad e-mail list I was on, did it for me, and it is done & over. I just want to forget it.. It was not punishment of me however; I joined it in good faith, thinking it was radio...

As to the odd interference, on my early to middle afternoon listening, at a large freq area, from approx.14mhz to 18 mhz I am getting an impulse type noise at approx 5.2 times a sec that sounds like you would get from an engine running, but I have taken a small handheld all over within a few miles, and can't find anything. It never gets louder or softer from moving around in the area...(As I live almost on the water, I guess it could be on the other side, in areas it is difficult to get to, like a few factorys with the buildings a mile behind the no access gates....)

Anyone know what else I could look for? I am in PanamaCity FL. area.Thanks to all who were willing to help on bad list...John (JLAP)

From cbscott@ingr.com Fri Aug 8 20:49:18 2003
Subject: [R-390] R-390--staying on subject

Hi, John. Vacationing in Panama City Beach at the moment. Don't hear the noise, but, then again, the only radio I'm listening to at the moment is local FM broadcast :) I only wish I could operate from this location! Right on the beach. Man, I bet with a little vertical and all this salt-water ground system, I could work the world on a milliwatt. Good luck with the QRN. Wish I could help.73,Barry(III) - N4BUQ

From AdamAnt316@aol.com Fri Aug 8 21:54:14 2003
Subject: [R-390] Line filter issues possibly solved!

Yet another update: I think I may finally have found the solution to this enigma! I decided to check the line cord connections in the back of the 390A to see if the noise went away when taking off the power cord wires. While loosening the nut holding the neutral on, I noticed that the connecting lug was moving an awful lot along with my loosening attempts. After finally managing to get the bolt fully loosened, which badly bent the connecting lug, the noise did not go away, so I loosened the nut holding the hot lead, removed ground lead from the rear panel, then removed the hot lead from it's terminal on the line filter, upon which the noise stopped radiating. Discouraged, I then attempted to remount the neutral lead to it's terminal on the line filter, upon which the connecting lead began moving surprisingly well in the opposite direction, shearing the neutral connecting lug off. I then noticed a crack which went all around the ceramic insulator on the line filter. Stress must've cracked the insulator at the point where the terminal screw ends, and this allows the terminal screw to rotate freely. I suspect that there was enough of a connection to allow the radio to work, but it also formed one hell of a diode-like semi-conducting connection, which sent even the tiniest amount of line noise radiating from the line filter out the neutral lead like an antenna. What would be the best method to remove the line filter, especially that cramped screw? Also, might anyone have a spare line filter lying around that they could spare?-Adam

From courir26@yahoo.com Fri Aug 8 21:54:48 2003
Subject: [R-390] Collins Rec Contract Info

Gentlemen? A few folks have asked for my receiver notes. This web link will list contracts and s.n.s for many Collins mil receivers. <http://www.geocities.com/courir26/CollinsRec.htm> Les has been sending me this info on beer napkins for years, so excuse the casual presentation. Your mileage may vary. 73
Tom N5OFF

From jlap1939@yahoo.com Fri Aug 8 15:00:24 2003
Message-ID: <20030808140024.34112.qmail@web10701.mail.yahoo.com>

Just noticed on my copy of last that the address I get as the orig is up in BLUE, so maybe I just don't understand how to get off. I did, however follow a set of instructions I got and still got nothing...List mgr forgive me... Regards, John (JLAP)

From jlap1939@yahoo.com Fri Aug 8 15:21:50 2003

Subject: [R-390] Lists

Friends, My apology ...Got two quick res. and I was putting the request in the sub...and should have put it in the BODY...I believe it is gone now.. Again forgive me..(My wife was about to kill me over this...) Please forgive...John (JLAP)

From rickmurphy1001@earthlink.net Sat Aug 9 00:39:22 2003

Subject: [R-390] IF TUBES

Hi Group Has anyone tried substituting 6ba6 tubes for 6bj6 in a R-390 and vice versa ie. 6bj6 for 6ba6 in a R-390A? Thanks in advance Murph

From keng@moscow.com Sat Aug 9 01:04:51 2003

Subject: [R-390] Re: Noise...(somewhat long)...

> As to the odd interference, on my early to middle > afternoon listening, at a large freq area, from approx. > 14mhz to 18 mhz I am getting an impulse type noise at > aprox 5.2 times a sec that sounds like you would get > from an engine running,

I have been reading your e-mail describing this problem. Although your e-mails aren't totally clear, to me at least, when you are describing what is going on, I think I can make some suggestions:

1) First of all, you must determine positively that the noise isn't coming from something inside your house or on your property.

So, with a battery operated portable radio tuned to the noise go to your breaker or fuse panel and turn off breakers or remove fuses one at a time, leaving them off when you do the next one, until ALL are off, or until you determine that one of the fuses or breakers eliminates the noise. If, when turning off a breaker, the noise goes completely away, trace that out till you find the source. If you still have noise, even if it is weaker, go to the next step.

2) Get a portable radio of some sort with a built-in loopstick antenna. If you choose a multi-band portable radio, keep in mind that the loop-stick is usually only connected to the input stage on the standard AM broadcast band. The rod antenna is the used for the SW bands and possibly for the FM band, so don't use either SW bands or FM band.

The radiation pattern for a loop stick is broadside to the loop-stick (in most cases), and there is a fairly sharp null off the ends. You can determine which direction the null is pointing by tuning in a fairly strong local station, which you know the direction to, and turning the radio around on its center axis until that station is nulled. You may have to open the radio up to see what the orientation of the loop is. In some radios it is horizontal near the top under the handle. In others it is vertical to the radio.

Tune the radio to a quiet spot in the band (best to do this during the day) and, then, starting in one corner of your property, swing the radio back and forth with the loop HORIZONTAL until you get a null on the noise. The length of the loop will be pointing AT the noise source. Mark the direction somehow. I use a crude, hand-drawn map of my place. Walk to another corner and repeat. Do this for all 4 corners. IFF the noise is on your property, you should be able to get a pretty good idea of where it is coming from.

3) If the results of this "triangulation" technique are either inconclusive, or you find them pointing TO A POINT off your property, you will have to take things a step further.

4) If you determine either that the noise is coming from someplace OFF your property, or are unable to determine exactly where it is coming from, visit your neighbors and ask them if they have started experiencing noise or static on either their radio or their TV sets recently. Tell them that you are trying to track it down and any help they give you would help both you and them.

At this point, I would most strongly suspect a problem with the power company's equipment. Power companies use aluminum wire to connect from the transformer to your house in most cases, and this is notorious for failing.

In fact, after reading what you told us, I immediately suspected that the connections from the power line to your panel AT THE PANEL, or the connections at the transformer that feeds your house, or the connections from the transformer to the main power line, are loose and arcing. To fix this, you will have to call your power company, and be REALLY insistent that they come take a look. DO NOT try to fix this yourself unless you are a licensed electrician.

I know of at least one incident wherein when the power company opened the pad-mounted transformer door, they found a puddle of molten aluminum on the floor.

In my own case, I had been troubled with terrible noise for a number of years. It would come and go, pulse, get louder and softer. I tried to triangulate it and I found several nulls up and down the power line which follows the street in front of our home, yet the strongest noise was right at our panel. When I turned ALL the breakers off, the noise diminished, but was still audible.

A few months ago, in the process of adding a new bedroom, we had the feed from the pole to our house, the download from the roof to the meter base, the feed from the meter base to our panel, and the complete panel replaced with all new parts.

We discovered that the cable from the meter base to the panel, AND that from the meter base to the roof jack, AND that from the roof-jack to the pole, ALL of which was aluminum, had never been installed properly, or had deteriorated with age. There were burned or arcing marks under the sealant in several places.

Now my noise is completely gone and I can listen in blessed silence. Let us know if this helps. Ken Gordon W7EKB

From Tarheel6@msn.com Sat Aug 9 03:59:36 2003
Subject: [R-390] BA's in Reno Nevada?

I know this is a long, long shot, but does anyone know of R-390A or BA dealers, sources, or what-have-you located in Reno, NV? The wife and I will be there late next week; and I may be able to sneak off for a couple hours and visit a store or two, if such exists there? thanks in advance, -tom

From billsmith@ispwest.com Sat Aug 9 04:37:54 2003
Subject: [R-390] BA's in Reno Nevada?

You shouldn't miss the Radio Museum in nearby Virginia City. Bill

From meyer_rm@yahoo.com Sat Aug 9 05:46:47 2003
Subject: [R-390] Re: Noise...(somewhat long)...

There may be another answer. It seems that some areas are testing broadband over power lines with somewhat disasterous results for the Ham community and HF. Check out the article from slashdot.org: <http://slashdot.org/article.pl?sid=03/08/08/2020237&mode=thread&tid=137&tid=193> Is this possibly the problem that you're having???

Cheers! '73 de N2DXN

From hankarn@pacbell.net Fri Aug 8 14:35:04 2003
Subject: [R-390] WTD: ADDRESS

Hernan Otano address is needed so I can send his panel to him. Lives in NJ if I remember correctly.
Thanks, Hank KN6DI

From ba.williams@charter.net Sat Aug 9 16:01:38 2003
Subject: [R-390] R-390--staying on subject

> Hi, John. Vacationing in Panama City Beach at the moment. Don't hear the > noise, Barry,

Panama City? Try Club La Vila tonight. Maybe you will find good reception there. Barry non-Hauser

From jlap1939@yahoo.com Sat Aug 9 16:59:31 2003
Subject: [R-390] BPL

Dear Friends, Thanks for your patience, and help with the impulse noise I am getting.

BUT while I don't know if it has to do with my problem..(don't really know that Gulf Power would be large enough to be involved), the BPL thing is a real eye opener. It should worry anyone using HF for any purpose, seems to me...

While I had heard the term, and was aware of ELF problems, as well as some other experimental QRN, I had no idea that, as shown by the communications on the SLASHDOT source marked by Robert Meyer, the average citizen was so unconcerned with all forms of radio and the interference radio services deal with.

In my opinion it is simply another example of the lack of concern modern man has for things not directly a part of his own narrow life.

In addition, I was not aware of the 2 to 70 Mhz spread that was mentioned. That is absolutly out of the question for any HF enthusiast to even begin to allow.

I will be writing and looking to find out more about this pratice...(It reminds me of the old USSR attempts to send power line level electricity through the air..While it is said it worked, seems they killed a number of eng. and disrupted thsir own comm. really bad, and gave up..)

Hope to see and find more on this subject, and much thanks to Mr. Meyer for bringing it to our attention.

My Regards, John (JLAP).

From bill@iaxs.net Sat Aug 9 19:26:32 2003
Subject: [R-390] Re: Noise...(somewhat long)...

Ken gave some good advice about locating the direction. If the noise is diffuse (same within a few miles) and it is not heard outside of 16 +/- 2 MHz, then it isn't local power line arcing. It is consistent with RF induction heating, though I don't know what industrial process uses that frequency. It seems to be heating 5 parts per second.

Possibly the RF heater no longer has power line filters so the interference is radiated by the industrial power line serving the factories behind the fences. Or maybe you haven't gotten close enough to the source.

The 16 MHz signal may be a harmonic of the heater's operating frequency that resonates with some structure in or near the factory. The wavelength is about 60 feet.

I'd build a loop antenna a foot or two in diameter and resonated to 16 MHz, and couple it to the antenna input of a portable SW receiver. Then I'd drive around and look for spots where turning the loop causes changes in signal strength, and see if you can triangulate a position. It really helps to have an S meter on the portable radio. That, or find a local ham who knows what a "fox hunt" is. Regards, Bill Hawkins

From jtone@sssnet.com Sat Aug 9 19:44:18 2003
Subject: [R-390] Collins Rec Contract Info

Tom, Thanks for posting ur list of R390X data...hadn't seen it a a while and adding to the 390X notes....Again, thanks for your continuing efforts...73, Gene

From Jhowings@aol.com Sat Aug 9 20:01:11 2003
Subject: [R-390] Collins Rec Contract Info

Being new to the group, I too appreciated the Contract Listing. 73's, Joe K0AHD

From Tarheel6@msn.com Sun Aug 10 22:24:44 2003
Subject: [R-390] RS_6 "Spy" radio

There is a RS_6 for sale over on the bay side; auction number 3039103089 .You rarely see these and thought you would want to know.73's-tom

From drewmaster813@hotmail.com Mon Aug 11 21:39:06 2003
Subject: [R-390] Re: Line filter issues possibly solved!

On identifying a defective line filter as the source of his noise problem Adam Vaughn wrote: " Might anyone have a spare line filter lying around that they could spare?"

American Trans-Coil has the filters; you might also try Fair Radio Sales.

The line filter's internal capacitors are paper type; these are just as susceptible to leaking/arcng/failing shorted as those Black Beauties used elsewhere in the radio. Recapping the filter would be a good idea.

Some have replaced caps inside the filter (reportedly potted in beeswax); opening soldered housing requires patience, a torch, and a small hole drilled in filter housing through which pressure will vent and scalding melted potting will spew. When replacing those caps, only use types specifically rated for line bypass service. Regular caps will not cope well with the sometimes huge transient voltages found on the line.

While you're in there you could change filter configuration to eliminate nuisance tingles from the chassis and stop tripping of GFCI's. Bypass line to neutral, then neutral to chassis (grounded). I'm not sure if that would reduce the filtering effectiveness.

You could also fabricate an adaptor plate and replace filter with IEC chassis mount filtered connector (available inexpensively from Mouser and other sources). Units rated for lower current carrying ability have larger inductors which make the filter more effective. A standard computer power cord is used with these connectors, making for a neat and clean installation. Rumor has it that some recently surplusd R-390A's had this setup installed by the Gov't.

For a lively and informative discourse on line filters and related topics, goto r-390a.net . Click on "References" , "Pearls of Wisdom", "Power Supply". You will find line filters mentioned beginning at about page 40.Drew

From dsmaples@comcast.net Wed Aug 13 00:27:50 2003
Subject: [R-390] Line filter issues possibly solved!

All: I know I will be hung in Effigy (that's a small town in IL) for suggesting this, but I replaced the line filter with a modern, up-to-date CORCOM line filter / IEC connector combo. I can now use any one of a dozen instrument cords to connect the radio, and I get a good 3-wire connection (assuming of course the cord's good to start with). For what it's worth. Dave WB4FUR

From Llgpt@aol.com Wed Aug 13 00:33:35 2003
Subject: [R-390] Line filter issues possibly solved!

writes: > All: I know I will be hung in Effigy (that's a small town in IL) for

Believe it or not.....many of the "later" depot conversions were done exactly this way. I had a late 67 eac that was done at the depot, I think it's a neat mod, and eliminates having to coil up the cord for moving or transportation..... But, as others have said, I'm a witch and have used solid state devices on R-390A's for years. Les Locklear

From AdamAnt316@aol.com Wed Aug 13 04:16:59 2003
Subject: [R-390] Re: Line filter issues possibly solved!

I've heard much about that sort of mod, but would rather keep my 390A in it's original form if all possible. I'm planning on replacing the original line cord (which is intact for the most part, but has a crack or two in the outer rubber jacket) when I get the replacement line filter, but will most likely

replace the molded plug of the new cord with the old metal military plug (looks like a two-pronger which was later retrofitted with a third prong). Plus, since my set only has the two small holes for the line filter input terminals, it'd probably be hard to put in an IEC connector without heavily-butchering the back panel. I'm sure that there are at least a few people out there who've replaced their line filters simply so that they'd have a removeable power cord on there, and that they'd hopefully be willing to get rid of the old line filter assembly; otherwise, I'll probably end up going with a \$17 Fair Radio pull (I know that American Trans-Coil wants only \$7 for one, but their \$25 minimum order policy makes going that route even more expensive than going with FR; I'd be willing to pay \$7 for someone's old line filter, provided that it was working before it was pulled out for the retrofit). As always, TIA. -Adam

From cbscott@ingr.com Wed Aug 13 14:48:48 2003
Subject: [R-390] R-390--staying on subject

Could probably get good reception at that location, but would get a LOT of static upon my return home... Barry(III) - N4BUQ

From cbscott@ingr.com Wed Aug 13 14:50:40 2003
Subject: [R-390] Line filter issues possibly solved!

Only way to go... Barry(III) - N4BUQ

From wb5tcd@sbcglobal.net Fri Aug 15 02:51:53 2003
Subject: [R-390] c609 replacement

I need to replace this capacitor. Should it be the same tantalum type? Why is this type used for this circuit is there something critical about it? Wayne

From eldim@worldnet.att.net Fri Aug 15 08:24:55 2003
Subject: [R-390] c609 replacement

Hello Wayne, I would continue to use Tantalum as it is known for it's high stability, large capacitance and small size. I don't have a schematic to view the application, or part number. Any other particulars, such as Value, Voltage, Part Number, Stock number, and I'll see if I have one in stock. 73, Glen Galati KA7BOJ

From roy.morgan@nist.gov Fri Aug 15 15:46:49 2003
Subject: [R-390] c609 replacement

wrote:> I need to replace this capacitor. Should it be the same tantalum type?

Not necessarily. It serves as the cathode bypass cap in the audio preamp stage. Modern electrolytic caps will be both smaller and longer lasting. The actual voltage on the cap is far below the rating of the original cap, being the self-bias voltage developed by the cathode current in the cathode resistor..Something on the order of a few volts (do check the tube voltage charts/diagrams to see what the normal voltage is.)

I recommend you find whatever small cap you can that fits physically and has a capacitance value greater than the original and any DC rating above 5 volts. The bass response of the receiver may be

extended to a lower frequency.. I doubt that you will mind that

>Why is this type used for this circuit is there something critical about >it?

The only thing critical about it is that it be small enough to not get mashed when you put the module back in the radio.. You can mount the replacement UNDER the circuit board if you have only a cap which is physically too large. Go to rat shack with two bucks and solve your problem. Roy

From k06bb@elite.net Fri Aug 15 16:11:55 2003
Subject: [R-390] c609 replacement

Hi. I Used a new 47uF 35 VDC 'lytic in my receiver restoration. Works fine and as noted below the audio seems "fuller", but then I did the C. Ripple audio mod, replacing the two specified .01uF caps with .033uF. 73 de Phil KO6BB

From drewmaster813@hotmail.com Fri Aug 15 16:44:50 2003
Subject: [R-390] C609 replacement

wrote: " I need to replace this capacitor. Should it be the same tantalum type? Why is this type used for this circuit is there something critical about it?"

C609 is the cathode bypass cap for the first audio amplifier stage. That is not a critical circuit. I believe tantalum was used to achieve performance over the entire military temperature range.

In the sheltered lives that most of our R-390(*) lead, aluminum electrolytic would be more than adequate. For a few dimes more you can use a tantalum part. The 35v rating is not necessary; even with the tube shorted plate to cathode C609 would not see more than about 6v. Drew

From cbscott@ingr.com Fri Aug 15 17:20:57 2003
Subject: [R-390] OT: Low-voltage tubes

I recently had to have a Zenith TransOceanic. This is the H500 model so it is still tube stuff (except for the selenium rectifier).

My question is do these low-voltage tubes glow very much? These are types 1U4, 1U5, 1L6, and 3V4. I put them in my tester and did not notice any glow but without the glow, some still tested okay. Is this just a characteristic of these tube types? I realize this radio was meant to run off batteries so the energy consumed in lighting the tubes had to be minimal, but I was wondering if I should be able to see anything when they are operational? Thanks, Barry(III) - N4BUQ

From David_Wise@Phoenix.com Fri Aug 15 18:20:57 2003
Subject: [R-390] OT: Low-voltage tubes

> My question is do these low-voltage tubes glow very much?

Not that you would notice. The filament runs at the same temperature as other oxide-coated emitters, but

it's too small to excite many of your cones. If you had a tele-microscope you could see it. By the way, treat the 1L6 with extra care, particularly if it has a strong gm reading. They're rare. 73,
Dave Wise

From cbscott@ingr.com Fri Aug 15 18:57:13 2003
Subject: [R-390] OT: Low-voltage tubes

I think the 1L6 may have tested good (I don't remember for sure). I'm pretty sure one of the 1U4s tested bad. We have a big hamfest this weekend (Huntsville HamFest). I'm going to look for tubes for it there. We usually have one or two guys there with a large tube collection. Thanks, Barry - N4BUQ

From Llgpt@aol.com Fri Aug 15 17:38:58 2003
Subject: [R-390] OT: Low-voltage tubes

writes: > My question is do these low-voltage tubes glow very much? >

They are very dim. This is normal. Les

From tbigelow@pop.state.vt.us Fri Aug 15 20:40:04 2003
Subject: [R-390] OT: Low-voltage tubes

wrote: >My question is do these low-voltage tubes glow very much?

Fun little radios, a lot of the guys (any girls?) on the list have them. Incredibly good sound and sensitivity when they're working right. Tubes don't glow like most others due to the low voltage. You'll enjoy it a lot. Try to find some spare 1L6s, though. Although not really rare, most of the NOS JAN surplus was bought up by a few dealers who now charge 'RARE' prices, mainly due to the interest in TOs over the last decade (IMHO). Like anything else, it depends how good you are at digging around and how impatient you are.

Tip: Look for junkers at hamfests, flea markets, yard sales. You can get a complete unit pretty cheap, usually with the 1L6 included. I've found one at a yard sale, one at an antique shop, and a chassis with all tubes (and an R-390 S-meter) in a box of 'stuff'. Got my H-500 back in 1980 (before they became 'sought') for \$10, love it! Enjoy - de Todd/'Boomer' KA1KAQ

From cbscott@ingr.com Fri Aug 15 20:51:41 2003
Subject: [R-390] OT: Low-voltage tubes

At first I thought this one was going to be a real dog but after a closer examination, I think it will clean up very nicely. I may have to recover it as the original fabric is very dirty and doesn't want to come very clean. Also, the adhesive is wanting to let go in places so it may just have to be done. Otherwise, it seems in good shape for its age. It should be a fun little diversion. Thanks again, Barry(III) - N4BUQ

From roy.morgan@nist.gov Fri Aug 15 21:08:07 2003
Subject: [R-390] OT: Low-voltage tubes

wrote: >My question is do these low-voltage tubes glow very much?

Barry, Beware:

1) The 1L6 is worth forty bucks if it is working.

2) IF you have an open filament in one tube, AND you run the radio on the power line, AND you then plug in a good tube, ALL The tube filaments will BLOW OUT. This is because the filament filter cap has charged up to a high voltage and will apply excessive voltage to the whole string when you plug in the last non-open tube.

> I put them in my tester and did not notice any glow >but without the glow, some still tested okay.

The total filament power is extremely low. Do your testing in the dark and use a magnifying glass to see the glow. Roy

From cbscott@ingr.com Fri Aug 15 21:13:24 2003
Subject: [R-390] OT: Low-voltage tubes

Roy, Thanks for the advice. I probably would have done just what you outlined and blown the entire chain. I haven't examined the schematic closely enough yet to find the little Gotcha's. Hmmm, if the 1L6 is working, perhaps I didn't do too badly with this purchase. I'm eager to get home and test it now. I need to find out if I have other blown tubes that I need to look for tomorrow as well. Thanks! Barry(III) - N4BUQ

From barry@hausernet.com Fri Aug 15 20:28:21 2003
Subject: [R-390] c609 replacement

Hi Wayne & list:

That's the Alien-Acid-Bleeder in the AF deck, right?

Apparently it's not critical. I've been using the 10 mfd 35v electrolytics from Radio Shack. Their catalog number is 272-1013 -- 99 cents. It's an axial lead cap that fits easily on the board. They also have a 10 mfd 16vdc dipped tantalum for \$1.49. This is a lower voltage rating, but as Drew pointed out that the actual voltage the cap sees is something like 6 volts. I don't know that the tantalum-ness buys you anything and the dipped/radial form-factor isn't particularly helpful.

Of course, you can use non-Radio Shack parts, and you may well have a suitable electrolytic in your parts pile. I just get a (small) kick that there's still something in that store that can be used in an R-390A. The list is shrinking. Barry

From lal@cyberwc.net Fri Aug 15 21:30:54 2003
Subject: [R-390] 1L6

Hello to the list.. FWI I have not had many problems with the famous 1L6 tube, I've restored several Trans-Oceanics over the years and found if the 1L6 tested okay but would not come up and work for you. I would change the selenium rectifier to a 1N4007 diode and the slight increase in voltage would bring the set back to life! Also there is an article (not for the pure ones) where you can construct a Solid State replacement for the 1L6 that will plug right in in place of the 1L6 makes sense to me ! 73 Merle

From barry@hausernet.com Fri Aug 15 21:34:49 2003
Subject: [R-390] OT: Low-voltage tubes

Like '390's, the tube TO's are very hardy. Zenith promoted the fact that they were treated with moisture proofing. Many were purchased for use on boats or at the beach - or in a foxhole, maybe.

I'm always amazed at the quality of the speakers. They've really held up. The combination of those speakers, which are suspension mounted or isolated -- and the very well made wooden cabinets makes for very listenable sound quality. I've been tempted to use one in "phono" mode as a sound system for a '390 or '392.

Anyway, the "stag" covering can usually be restored with some glue and .. black shoepolish. Just glue down the areas which have become loose. Any frayed or missing small areas, like the corners can be detailed with some black paint or black "liquid rubber". Work it in and duplicate the pattern as the stuff sets. Clean the surface with a brush. Use only the mildest of cleaners, if any.

Polish as you would a good pair of shoes -- Kiwi paste applied with a soft applicator brush to work it into the pits in the stag. Then use a good quality shoe brush -- better if it has been broken in -- with soft natural bristles, not the stiff plastic type. If too stiff, the bristles may damage the stag finish. Brush in several directions to clear the excess out of the pits. Then buff with a soft buffing cloth. This increases the gloss on the raised part and brings back the look of the stag. As with shoe-polishing, let it set, come back and buff again. The shoepolish aroma will dissipate, and no, it won't come off on your hands. The shoepolish treatment restores the black and also helps preserve the cover. It is suggested in at least one of the owner's manuals.

If it's bad enough, someone sells a close match to the original stag covering, but that's usually not necessary. There are some TO lists which are pretty good. One is "Transoceanic-Fanatic" on yahoo.
Barry

From David_Wise@Phoenix.com Fri Aug 15 21:38:38 2003
Subject: [R-390] 1L6

Selenium rectifiers are known for increasing voltage drop as they age.

If you wire in a 9V zener diode across the filament string you can avoid the "replace bad tube total burnout" scenario. There's a really easy spot to do it; I can't remember the details, but it involves the Line/Battery switch. You'll figure it out if you look under the chassis and study the schematic. The SS 1L6 replacement cannot be aligned on the higher-frequency bands; too much Cin on the oscillator. 73,
Dave Wise

From barry@hausernet.com Fri Aug 15 21:47:22 2003
Subject: [R-390] 1L6

You can also use the loctal version -- 1LA6, which are still relatively cheap. You need to fashion an adaptor with leads as short as possible. A 1R5 will also work, but not at the higher frequencies. Good enough for basic testing or using the radio primarily on the BC band. The 50A1 ballast tube used in the later tube T-O's has also become pricey, like the 1L6 and the 3TF7. Barry

From cbscott@ingr.com Fri Aug 15 21:58:24 2003
Subject: [R-390] OT: Low-voltage tubes

This one was extremely fortunate. The output transformer is supposed to be mounted to the speaker, but the original mounting has been munged. Someone attempted to solder the transformer case to the mounting bracket but it came loose at some point. I'm guessing it took a hit during shipping. The guy didn't pack it very well (double-boxed but no packing between boxes and very little between radio and box in some places). The transformer probably bounced around quite a bit during the trip. Amazingly, none of the tubes were broken. It just got lucky I suppose.

I need the speaker mounting bracket as the original one was replaced with a crude sheet metal device. This seems to be the only area where someone did a little home-brew work that really needs attention. Hopefully I can find a replacement for it on one of the lists. Thanks guys for all the help and advice!
Barry(III) - N4BUQ

From bjtatum@ev1.net Sat Aug 16 00:53:36 2003
Subject: [R-390] 4H4-C Ballast

Hello- I have 3 NOS 4H4-C ballasts { believe were used in NC-300 series} = that I would like to trade for 26Z5W's. Thanks, Byron.

From ba.williams@charter.net Sat Aug 16 01:02:55 2003
Subject: [R-390] OT: Low-voltage tubes

First the power shortage. Now you are telling me about iodopsin shortages too??? Those commie cones!!! I knew they were up to no good. Should beat em crosseyed with some rods, if you ask me.

Another topic- I should have a HP 3528B here in a few days....without manual. Does anyone know of a source to download it? BAMA doesn't have it. Any other sources? Barry non-Hauser

From ba.williams@charter.net Sat Aug 16 01:07:55 2003
Subject: [R-390] OT: Low-voltage tubes

> Tip: Look for junkers at hamfests, flea markets, yard sales.

I got one a few months ago for \$20. Needs massive cleaning, etc. Also got a newer solid state one for \$1 a few weeks before that one. Works fine but it ain't the same.

Tip- if you are in a pinch for that tube, find a cheap plastic portable radio. Those usually have 1L6s in them too. I have a few of those around the house. Barry non-Hauser

From ba.williams@charter.net Sat Aug 16 01:12:57 2003
Subject: [R-390] OT: Low-voltage tubes

Fabric? You got a dog then. Mine is leather....however, your dog probably looks better than my cow. Mine has a burned place on the side like it was too close to a stove or heater. I've been thinking of going

to the Salvation Army and looking for old shoes with the same kind of leather and using that for a patch.
Barry non-Hauser

From ba.williams@charter.net Sat Aug 16 01:21:04 2003
Subject: [R-390] OT: Low-voltage tubes

Which Barry? Forty bucks you say? I think I have a lot of those around here. I keep tossing the under 6 volt tubes in boxes for cataloging one day. I seem to remember being peeved at so many 1L6s in a big box of free tubes. Barry non-Hauser

From K3PID@comcast.net Sat Aug 16 01:46:23 2003
Subject: [R-390] Pictures wanted! R-390/URR

Could I get a member of this august group to send me pictures of the bottom & side of the power supply subchassis. I am rebuilding mine and I would like to supplement the excellent drawings in the manual with a couple of shots of the real thing. 73 & TNX K3PID - Ron H.

From jlap1939@yahoo.com Sat Aug 16 01:57:47 2003
Subject: [R-390] Key

Friends, Short one here... Saw add for used collectible key: Lionel J-38. This isn't the old model train co. is it? My Regards, John (JLAP)

From barry@hausernet.com Sat Aug 16 02:10:20 2003
Subject: [R-390] OT: Low-voltage tubes

Yeah, like those Pennsylvania farmers got peeved when that black goop oozed out of the ground when they tried to plow.

Then there's those stoopid 3 volt tubes with just a long filament in them and nothing else. Not to mention those matched pair Mullard 6V6's -- pain in the neck if you just need one tube.

Usually about \$40-45 is right for an NOS 1L6, somewhat less for a good used one.

You wouldn't happen to have some crappy 50A1's in that box of yours? They're one of them toobs with just a filament -- not much good for anything at all. I'd be happy to safely dispose of them for you. ;-)
Barry (non-Williams)

PS -- we might risk suffering an identity crisis if we keep signing off in terms of who we aren't. Or am I? Huh? What? Shaddup! (y'see).

From ba.williams@charter.net Sat Aug 16 02:55:42 2003
Subject: [R-390] OT: Low-voltage tubes

Barry, I have an unknown quantity of all of those less-than-6-volt tubes. Lots of 3 volt ones. It's a big enough chore to keep track of all the others. The little voltage ones just have to wait for now. Same for

the old S types in boxes here and there. Let me know if you can't find any 1L3s anywhere. I don't have any 50A1s in the database yet. I would send you one if I had it. Barry non-A, non-JX 26

From Llgpt@aol.com Sat Aug 16 02:09:41 2003
Subject: [R-390] Key

writes: > Saw add for used collectible key: Lionel J-38. > This isn't the old model train co. is it?

Yes it is John. During the war they contracted to make telegraph keys for the government. Les

From Llgpt@aol.com Sat Aug 16 02:18:19 2003
Subject: [R-390] OT: Low-voltage tubes

writes: > You wouldn't happen to have some crappy 50A1's in that box of yours?

I suggested numbers a looooooong time ago. 6V6 Mullards?? How many you want? I much prefer the highs on the Telefunken's . Audiofool

From barry@hausernet.com Sat Aug 16 06:06:25 2003
Subject: [R-390] Key

> Yes it is John. During the war they contracted to make telegraph keys for the government. Les

Not only that, but Lionel made no trains for the duration -- all production was switched to war materiel. Actually they did -- paper cutout trains in book form, with an explanation and a promise to come out with more real model trains after the war. I know it's so -- I saw it on the History Channel. Barry

From tbigelow@pop.state.vt.us Sat Aug 16 15:36:32 2003
Subject: [R-390] Key

wrote: writes: >>Saw add for used collectible key: Lionel J-38. >>This isn't the old model train co. is it?

Knockoff of the Vibroplex Lightning Bug IIRC. Made by a few different manufacturers to fill the wartime need. ~ Boomer, KA1KAQ

From tbigelow@pop.state.vt.us Sat Aug 16 15:42:24 2003
Subject: [R-390] OT: Low-voltage tubes

wrote: <snip> >I need the speaker mounting bracket as the original one was replaced with a >crude sheet metal device.

Drop me a note sometime in mid-September if you haven't found what you need, #III. As mentioned, I have a couple parts sets here, even one cabinet (can't recall the overall condition). I'm off to the Left Coast soon, so I won't be able to dig through my 'stuff' until I return. ~ Boomer KA1KAQ

From jlap1939@yahoo.com Sat Aug 16 16:47:24 2003
Subject: [R-390] FT

Friends...Anyone need manual w/sche. for FT dx 400? John (JLAP)

From jlap1939@yahoo.com Sat Aug 16 17:11:43 2003
Subject: [R-390] 1051

Friends...Just one more short one today... Anyone tell me how/where and how much and avail. of the R-1051? (Ready to Go..) Thanks very much! John (JLAP)

From n4xy@earthlink.net Sat Aug 16 20:30:44 2003
Subject: [R-390] 4H4-C Ballast

Hi Byron... they were used in both the HRO-50 & HRO-60 series, as well as the NC-300 & NC303s. Once it got out that National themselves said a 6V6 is a direct replacement with minor stability difference, they got to be a little less valuable. I have that FSN in my website at: <http://www.qsl.net/n4xy/rcvr_national.html> . Still... they have PLENTY of value for the purists (which I guess I have to admit to being-grin) and are still 'silver' -if no longer 'gold'.

From jlap1939@yahoo.com Sat Aug 16 23:19:48 2003
Subject: [R-390] Thanks

Friends, Many thanks fr the replys on the FT dx 400, as well as the R-1051 question.

Yes, I have a manual for the yaesu, and I got a bit confused...I didn't know about the separate rec/trans set-ups at all..

Seems the receiver was designated FR, the transmitter was FL.. the >TRANSCEIVER< was the FT.., which is the manual I have..If needed by anyone, let me know..I'll send it on up..

The reason for the inquiry on the 1051 is that I want (you are familiar with that, maybe??) something new (to me), to play with and enjoy, so I am thinking along the 1051 line... Freq change for me is NO prob at all.. I never tune much, on the 390, until I have found it on the SP 600 anyway, unless its real rare SSB.. and I also have the much faster and more accurate DX 394 to hunt and it full scans extremely nice, as well. I would simply use the 1051 for listening after I decided a freq, and since I do so much SSB, on the ham bands, its perfect.. I assume I need one that has been gone through at least to some degree...True?? maybe checked real well and lined up?? Maybe that would bring the price up to out of my area???

I havn't decided on anything..in any event..After all I do still want to eventually get a 390a...

THANKS!!! to those who answered..the result of which is that there are 1051's around, so I will be in touch with someone. I am still looking at other radios as well. I just don't want to get another I can't handle like the strange problem I had with my "blue striper" I ended up trading..(My FIRST!!... R-390a...) I don't know if that problem has ever been "fixed"...wasn't the last I heard.. My Regards to the List! John (JLAP)

From meyer_rm@yahoo.com Sun Aug 17 03:05:51 2003

Subject: [R-390] Key

It's the same company and I have a Lionel J-36 that looks a lot like a Vibroplex bug. It claims to have been made for the US Army Signal Corps in 1942. Serial number 16817 if anyone is interested in numbers for these things... It has what appears to be a bakelite or some sort of really old style plastic placard on it with the info. The placard is curled up. I still use the thing. '73 de N2DXN

From wli@u.washington.edu Sun Aug 17 04:26:04 2003
Subject: [R-390] Re: Tacoma hamfest

Went to the Tacoma WA hamfest today. It was not too crowded (summer) and there was a dearth of BA's save a SX-38. No 390 stuff. Electronic Dimensions was there with a huge # of scopes though. I found a nifty HP 3465A DMM and four IERC shields, and some 6360's for the Kleronomos audio mod that I plan to build "one of these days". It only rained a little (for Washington). W. Li

From tbigelow@pop.state.vt.us Sun Aug 17 20:14:12 2003
Subject: [R-390] Re: Tacoma hamfest

wrote: >Went to the Tacoma WA hamfest today. It was not too crowded (summer) and >there was a dearth of BA's save a SX-38. No 390 stuff.

Speaking of Washington and heavy radios, I'm looking for suggestions of places to visit around the Vancouver/Portland area while I'm out there. Not sure how much time I'll have available, but for good ol' tube radios I can make time. Would enjoy meeting any list members in the area as well. Flying into SEATAC and driving south, unfortunately at night. Thanks - de Todd/'Boomer' KA1KAQ

From plmills@attglobal.net Sun Aug 17 21:18:47 2003
Subject: [R-390] FS NOS GE 6360's for Klermonos audio mod

An earlier post reminded me that I have some of these that I will not get around to using in this lifetime..... So, I have a total of 4 NOS GE 6360's in original boxes to sell. Two for \$12 or \$20 for all four....price includes priority mail shipping in US. Thanks, Phil

From dwade@pacbell.net Sun Aug 17 21:54:12 2003
Subject: [R-390] Initial progress and Questions

Gentlemen ? Over the last week or so I've had my Motorola R-390A with EAC SSB mod running and baking. I've been getting acquainted with it again and getting a feel for its performance in preparation for installing Dave's re-cap kit.

Some observations: First thing I did was test the tubes on an emission tester. Several were clearly weak, namely V 601, 602, 604, the 6U8 in the product det. module, V509 and V206.

Mechanically the radio feels very nice, although a bit dry. I dabbed a little oil in some critical places which helped things until I drop the panel and have more room to work. No binding or sticking of slug racks were noted. Everything turns nicely.

The LSB (only) side of the BFO in the SSB mod doesn't oscillate. USB works fine. (I pulled it to take some pics for a couple of listmembers, so it could be a broken wire from handling or the crystal..not much else in there).

And now, some questions: Having not identified any critical problems (other than the SSB module), I'd like to take some baseline measurements of sensitivity so I can make comparisons of before and after re-capping. My objective is to make repeatable measurements that are comparable to what others have done. What is the preferred method of getting the generator signal into the balanced input of the radio? I can build a pi network with a 50 ohm input and a 125 ohm output and a balun to balance it to the radio, but is this necessary or overkill? The generator is a Measurements Model 80 with calibrated attenuator and 50 ohm output.

Re-capping: There are three caps in the RF deck that are in the re cap kit: C256, C275 and C309. 256 and 309 are part of the crystal oven and seem to bypass the heater. C 275 bypasses the regulated +150. I'm very leary of pulling the RF deck especially since there doesn't seem to be any other reason except to replace those caps. How important are these guys in the scheme of things?

VFO endpoint: Where is the best place to put a frequency counter to check endpoint and linearity? And while we're on the topic of counters..where is the best place to pick off the BFO frequency?

And finally..the requisite silly question: When I drop the front panel and check that the cams line up with their respective marks..am I going to be able to see everything I need to without further disassembly? Front and rear?

Although I've been tinkering around for longer than I care to admit..this is the first radio I'll be getting into so deeply. I'm sure I'll have other questions as things pop up. Thanks in advance! Dennis

From Robert Nickels" <w9ran@oneradio.net Mon Aug 18 06:14:57 2003
Subject: [R-390] R-388 parts?

Looking for a replacement power transformer for an R-388 (51J3) receiver if anyone has a parts unit available. Also need the source for dial drum replacements. Thanks and 73, Bob W9RAN

From Llgpt@aol.com Mon Aug 18 11:30:54 2003
Subject: [R-390] R-388 parts?

writes: > Looking for a replacement power transformer for an R-388 (51J3) receiver if anyone has a parts unit available. Also need the source for dial drum replacements. Thanks and 73, Bob W9RAN

Surplus Sales of Nebraska has NOS power supply transformers for them. The dial drums replacements are available from several sources. I can't think of who has them at the moment (senior moment). Les Locklear

From roy.morgan@nist.gov Mon Aug 18 15:28:27 2003
Subject: [R-390] OT: Low-voltage tubes

wrote: >Another topic- I should have a HP 3528B here in a few days....without manual. Does anyone know of a source to download it? BAMA doesn't have it. Any other sources? Barry,

Try: <<http://www.logsa.army.mil/etms/welcom1.htm>>

There may be a trick to getting non-"account-holders-only" manuals, but I forget what it is.. ROy

From roy.morgan@nist.gov Mon Aug 18 15:54:17 2003
Subject: [R-390] Initial progress and Questions

wrote: ... I'd like to take some baseline >measurements of sensitivity ... What is the preferred >method of getting the generator signal into the balanced input

Dennis, Duplicate the setup called for in the R-390A manual if you want to be "authentic". Make believe your Model 80 is a URM-25. It has the same output requirements, I believe, but do check this.

> ... I can build a pi network with a 50 ohm input and a 125 ohm >output and a balun to balance it to the radio, but is this necessary >or overkill?

It is overkill, unless you really want to know what's going on at the input terminals under balanced conditions. Likely a simple toroid with carefully counted windings would do the job... BUT: The actual input impedance of the radio varies with many factors: band, frequency within the band, adjustment of the input circuits, et. al. So, you'd need to arrange a swamped termination/input circuit combined with the balanced toroid to really know the input voltage with any certainty.

Example: the output attenuator accessory device supplied with the GR 1001A Standard Signal Generator had a division ratio of 100:1* and an output impedance of one half ohm*. Readings indicated on the instrument were divided by 100 to get the actual voltage. The one-half ohm value made variations in receiver input impedance have no or little effect on the voltage developed. * I may remember these values incorrectly, but the basic idea is correct.

There can and has been much discussion on the actual voltage presented to the R-390A receiver input terminals by using the manual procedures and test equipment (URM-25). In my opinion, the methods specified give sensitivity numbers that are somewhat optimistic. But, the method did accomplish the goal of determining if a receiver was within "specifications" or if it needed work.

> The generator is a Measurements Model 80 with >calibrated attenuator and 50 ohm output.

If I remember correctly, the Model 80 needs a cable terminated in 50 ohms in order to create at the termination the voltage indicated by the panel controls. This is the case with the URM-25, HP 606 series, and many other lab grade signal generators. This is not necessarily the case with the GR 1001A.
Roy

From roy.morgan@nist.gov Mon Aug 18 16:00:13 2003
Subject: [R-390] R-388 parts?

wrote: >Looking for a replacement power transformer for an R-388 (51J3) receiver if >anyone has a parts unit available. >Also need the source for dial drum replacements.

This guy was reported to make replacements for the 75A-1. He may have them for the R-388, too: Silk screen overlay available from: WA5VVT, John Bess, Springdale AR. Phone is: (501) 751-6667. Roy

From w5or@comcast.net Mon Aug 18 16:39:33 2003
Subject: [R-390] R-388 parts?

According to a post from Mac McCullough on the milsurplus list, Howard Mills obtained several of the transformers from the original manufacturer as spares. He may have drum overlays as well. I believe Mac replied to the original poster so this info is for those of you on the R-390 list who might be seeking sources for 388 parts, and didn't see Mac's reply.

Last I heard, John Bess was getting out of the active Collins parts business. Maybe he has some left. If I see him at a local ham fest I will ask. We have 5 weekends in a row in Arkansas with ham fests or fleas scheduled, one in his hometown. Don

From cbscott@ingr.com Mon Aug 18 17:45:30 2003
Subject: [R-390] OT: Scratchy speaker

More investigation into this Zenith T.O. The speaker appears to have something in the voice coil that is rubbing its magnetic housing. It causes a buzz at frequencies around 200 cps. The cone itself is in good shape.

If I remove the felt center cover, is there anything in there I might could fix myself or is this a case of a blown coil and best to find a replacement? I haven't done much other than fix tears in cones so I figure this is something more like meter repair where I can do much more damage than good in a very small amount of time. Thanks, Barry(III) - N4BUQ

From tangerame@earthlink.net Mon Aug 18 18:35:32 2003
Subject: [R-390] R-390a/SSB Convertor

I am using an R-390a and feeding the if output to a Rycom Selective Voltmeter. The Rycom has a product detector with selectable USB/LSB, bfo, am and fm detectors. I works well on all modes but I am skeptical that I actually have the received ssb signal centered in both the passband of the r-390a mechanical filters and the Rycom crystal filters. Right now I simply peak the Rycom on receiver noise, select the appropriate sideband and tune the r-390 for intelligibility but this cannot guarantee the ssb signal is centered in the r-390a passband. I was thinking of using my xmter as a generator and injecting, say a 2.0 khz audio and centering it in the 4kc passband just by carrier streghth. I have a feeling that because of this I am tuning signals on the r-390a at one end of the filter passband. Thanks, Tony WA6lzh

From barry@hausernet.com Mon Aug 18 21:23:35 2003
Subject: [R-390] OT: Scratchy speaker

Hi Barry III Are you sure that buzz is from the speaker? One or two of the caps to the "tone organ" -- an early form of graphic equalizer ;-) -- are often bad.

So, try these in this approx. order:

1. Try switching the tone switches around. Also, try running the speaker off an audio generator and see if you can replicate the buzz.

2. As I recall, you don't have the correct bracket and bushings. The original bracket mounts the speaker to the chassis and has rubber isolating mounts. After 50 years, they're almost all still rubbery. This mount design is critical to avoiding rattles and buzzes. Another related possibility: The 1 volt tubes and maybe even the 3V4 are of the "don't tap during the shorts test" type. That means the elements are delicate and might also be microphonic-prone. See if the buzz goes away when you apply some pressure to the speaker frame or run the speaker removed from the makeshift bracket you have there.

3. Check the braided flex wires that go from the speaker terminals (or transformer-to speaker terminals) to the cone. They're in the back of the basket. Make sure they aren't touching the cone or the frame. They should have smooth bends, not be kinked. (A kink can form a sort of audio filter/tuning fork whatsits.) Make sure nobody loaded 'em with solder, like a solder wick -- which is what they'll do.

3. Assuming it's the speaker, if the spider (accordion pleated circular dingus) is intact, and the voice coil dust cap is also intact with the glue seal all around, it's highly unlikely that anything got into the cylindrical voice coil gap. What can happen is if the very edge of the voice coil became brittle and the speaker were driven hard, some fiber particles may have formed in there, but I haven't come across that yet with these.

4. With more modern long throw, high compliance drivers, the cone surround and spider can sag due to gravity especially in humid environments. The cure for that is generally to turn the speaker cabinet upside-down or flip the woofer 180 degrees on its mounts. However, the suspension on these Zenith speakers is much stiffer and they're fairly well moisture resistant. Could have happened. Try running it upside down. You could try gently pushing on the voice coil cap to listen for rubbing, but if you're only getting this at 200 Hz, I doubt you'll hear anything.

5. Check for any debris on the speaker, especially tiny metal filings. Look closely in the frame side. A small iron filing will dance on the cone, held in place by the speaker magnet.

Just sort of reconnoiter as much as possible and sneak up on it downwind. I don't recommend running to remove that dust cap. You can use some solvent to soften the glue, but you will make a bit of a mess. Even so, short of removing the whole cone/voice coil assembly, you won't be able to get at the voice coil slot fully. Murphy's Law sez the grit will be on the wrong side. Usually, cone removal is only done if there is a reconing kit in hand -- new cone/voice coil. Not possible with these. Try everything else first. Failing that, get a junker with a good speaker (and mount).

While this is a bit far afield of R-390 componentry, the incisive, logical-deductive, hypocritical "do no harm" exercise is central to three-ninety-ism credo and doctrine. Hope this helps. Barry (I)

From cbscott@ingr.com Mon Aug 18 21:35:32 2003
Subject: [R-390] OT: Scratchy speaker

#1, Thanks for the advice. The problem is definitely coming from within the voice coil. I have the speaker out and can hear the "crinkle" sound when gently depressing the speaker cone. The "buzz" I hear is when running the speaker directly from an audio generator so the mounts, etc., don't figure in here. That's how I knew the frequency range that produced the most noise.

I'm not sure, but I think there are one or two small pin-hole punctures in the dust cover. I'm guessing someone stuck a wire or something into the voice coil. There is no grill cloth so the speaker is rather exposed to whatever comes at it through the holes in the plastic grill.

I'm figuring a "new" speaker will eventually be needed, but I might just get lucky and fix this one

myself. I'm guessing it isn't going to be that easy and I'll probably destroy the thing in the process, but it's really not much good in its present condition.

Sorry for the OT thread. There doesn't seem to be a T.O. list with much activity on it so you guys are some of my primary sources when it comes to anything BA related. Thanks again, Barry(III) - N4BUQ

From tbigelow@pop.state.vt.us Mon Aug 18 22:03:07 2003
Subject: [R-390] OT: Scratchy speaker

wrote: The problem is definitely coming from within the >voice coil.

FYI #III -

Checked one of the parts rigs earlier, do indeed have the bracket you need. Just so happens it's attached to a speaker. Speaker looks fine except for a small (maybe 1/2"?) easily-accessible tear you'd need to fix. Sucker has a buncha wires going down through the chassis though, so removing it properly will require some time (in short supply ATM).

Drop me your address when you can and remind me maybe the second week in September if you haven't heard back from me. Took me a coupla months to send a #80 tube to Al Parker, but I finally found the time! 73, Boomer KA1KAQ

BTW, T.O.s are really great little receivers, certainly on par with the R-390 series for enjoyment factor. Amazing sound, too!

From cbscott@ingr.com Mon Aug 18 22:16:32 2003
Subject: [R-390] OT: Scratchy speaker

Cool! Tears I can fix; voice coils scare me. I'll be sure to remind you. Thanks so much! Barry(III) - N4BUQ

From ba.williams@charter.net Tue Aug 19 00:37:52 2003
Subject: [R-390] OT: Low-voltage tubes

Roy, Thanks. I found and downloaded the parts manual without logging in. The -12 manual, which must be the operators manual, requires the login info. The HP 3586B is an AN/USM-490 for the Army, and the manual series is TM 11-6625-3087-x. There are the -12 and -24 manuals which I can't download. Interesting to find this out. Barry non-Hauser

From ba.williams@charter.net Tue Aug 19 00:57:09 2003
Subject: [R-390] OT: Scratchy speaker

Barry, My vote is that this is interesting. I'm learning a bit about speakers here. A radio is a bit useless if you don't have some sort of speaker hooked up, including headphone speakers. Barry non-Hauser

From billsmith@ispwest.com Tue Aug 19 02:01:49 2003

Subject: [R-390] OT: Scratchy speaker

Tips on repairing speakers:

Open windings: First test of any speaker. Connect an ohmmeter to the speaker terminals and listen for a pop and an indication on the meter. Of course if you are testing an electrodynamic speaker, you won't hear a pop since the field magnetism is only developed when current is flowing through the field coil.

Look carefully at the speaker terminals and also where the flexible wire meets the paper. A small solid wire (the voice coil winding) is attached there. Trace the wiring back as well as you can with meter probes. You may need to use a safety razor to carefully scratch away insulation to make such tests. Use a magnifying glass to visually inspect the wire. Hopefully you will find a small break. Care and patience yield great rewards here.

Torn cones: Even cones that someone or something put a fist or a foot through can generally be patched back together with airplane glue (clear Corona dope). Get the "non-shrinking" variety from a hobby store. The glue is sold to affix fabric to the superstructure of a model airplane. Don't use clear cement such as commonly available in a tube. Most brands continue to shrink over time and will introduce serious warps in the speaker cone.

Use a toothpick to apply. Wet the torn edges of the speaker paper with only very small amounts of glue on the tip of a toothpick and gently reposition the paper. Use another toothpick if really torn. Keep the top on the bottle of glue as the solvent evaporates quickly. Also, use in a well ventilated area. Use small amounts of toilet tissue to fill holes. Use a minimum of glue, and inspect the cone carefully for small incidental tears and holes. Even the smallest tear will make a loud buzz at some frequency.

Use a minimum of glue, it is readily adsorbed by the paper. Don't be too worried about excess glue, either. It will shrink quite a bit as it dries. Don't worry about how ugly the speaker looks, either. It will sound as good as new if it is not warped.

New applications of glue will remelt old glue, so you can try again if you aren't successful. Avoid warps and try to reposition the paper as it was when new. Usually the paper will tend to fall back into place without much effort.

Scratchy voice coils: There are three causes of scratchy voice coils. (1) dirt (2) warpage (3) loosened windings. Dirt can often be removed by running 60hz ac through the speaker to shake it loose with the center felt removed. Best is the hum from an old radio that needs replacement filter electrolytics. It often helps if you gently exercise the voice-coil with your fingers during this process, and hold the speaker upside down. This is especially true of speakers that are mounted face-up, such as in a Hallicafter's S-38. **As an aside, S-38 electrolytic filter capacitors have an amazing ability to reform. Let them run a while before you decide you need to replace them. You will think the radio is going to blow up, but eventually the receivers quiet down again, and are servicable with the original electrolytics still in place.**

If the speaker is still scratchy after an attempt at cleaning, it could be the cone has warped and the voice coil is rubbing against the magnet. The solution is to insert small wedges, perhaps from sheet-plastic or heavy composition paper that has been cut into strips, between the voice coil and the magnet. Again, the center felt has been removed to expose the voice coil and magnet assembly. The strips should be snug, and will become more snug as you install them around the voice coil, but don't force them. If you can't install them symmetrically around the magnet, you may need to use thinner material.

With shims in place, wet the cone with a damp cloth or sponge (don't saturate) and let it dry thoroughly. If you are successful, the paper moisture will relax the stress that caused the warp. Make sure the cone is dry before removing the shims.

Unfortunately, there isn't a ready solution for coil windings that have separated from the voice coil. Typically, speakers that sound highly distorted with weak sound will also feel very scratchy when the center of the speaker is pushed gently by hand. If this is the case, or if the speaker winding is open somewhere inside the voice coil, the speaker will have to be replaced or reconed. 73 de Bill, AB6MT
billsmith@ispwest.com

From billsmith@ispwest.com Tue Aug 19 02:51:46 2003
Subject: [R-390] OT: Scratchy speaker

Another thought. Check the "basket". It is dish-shaped, often orange-colored, located inside the speaker, around the apex of the speaker cone between the speaker cone and the magnet. If the speaker looks otherwise intact, but sounds awful, sometimes the glue that holds the basket to the speaker frame has loosened and the basket will rattle. Sometimes you'll have to probe or look very carefully to observe the failure. The remedy is simple, reglue the basket to the frame. 73 de Bill, AB6MT
billsmith@ispwest.com

From jlkolb@cts.com Tue Aug 19 04:33:47 2003
Subject: [R-390] Initial progress and Questions

wrote: > ... I'd like to take some baseline measurements of sensitivity ... What is the preferred method of getting the generator signal into the balanced input

Sounds like a 49.5 ohm resistor in series with a 0.5 ohm resistor. John

From jlkolb@cts.com Tue Aug 19 05:37:30 2003
Subject: [R-390] R-390a/SSB Convertor

wrote: > I am using an R-390a and feeding the if output to a Rycom Selective > Voltmeter. The Rycom has a product detector with selectable USB/LSB, > bfo, am and fm detectors. I works well on all modes but I am skeptical > that I actually have the received ssb signal centered in both the > passband of the r-390a mechanical filters and the Rycom crystal filters. > Right now I simply peak the Rycom on receiver noise, select the > appropriate sideband and tune the r-390 for intelligibility but this > cannot guarantee the ssb signal is centered in the r-390a passband. I > was thinking of using my xmter as a generator and injecting, say a 2.0 > khz audio and centering it in the 4kc passband just by carrier strength. > I have a feeling that because of this I am tuning signals on the r-390a > at one end of the filter passband.

If using the 4 kHz filter in the R-390A, exact centering shouldn't be necessary. If using the 2 kHz filter, centering would be rather critical. How close can you set the Rycom? If a perfect 2 kHz filter in the rx, filter corners at 454.00 and 456.00, setting the Rycom to 453.70 for USB or 456.3 for LSB would give you an audio bandpass of 300 Hz to 2.3 kHz for . I assume the Rycom has xtal controlled BFO's of the correct freq for it's filters, which are probably about 3 kHz wide.

Of course the R-390A filters won't be perfect. The 2 Khz filter is spec'ed at 2.1 kHz +/- 0.2 kHz at 25 deg C, +/- 0.3 over -55 to +85 deg C. A couple of 2 kHz filters I plotted recently

<<http://members.cts.com/king/j/jlkolb/site/curves/F455N201.PDF>>

<<http://members.cts.com/king/j/jlkolb/site/curves/F455N202.PDF>> are a hair less than 2.0 kHz. 4 kHz filter at: <<http://members.cts.com/king/j/jlkolb/site/curves/F455N40.PDF>>

At any rate, the perfect BFO freq for a 2 kHz filter will vary slight depending on the voice you're listening to, lower or higher pitched. Tune for what sounds most natural.

You can also use the Rycom as an awkward passband tuning by offsetting it high or low from the perfect location, using the sholder of one filter to cut into the bandpass of the other filter and thus reducing the bandwidth below 2 kHz. John KK6IL <<http://members.cts.com/king/j/jlkolb>>

From w5or@comcast.net Tue Aug 19 18:34:31 2003

Subject: [R-390] Monitoring Times, August 2003

One of our esteemed long time list members, Tom Marcotte, has the cover page and feature article in this month's Monitoring Times. That's issue Vol 22, No. 8, August 2003. Tom covers the communication activities of off-shore oil crews and pilots down in the Gulf of Mexico. Nice article, Tom. Unfortunately it appears that HF comms are mostly abandoned there. Same issue has part 2 of vintage medium and high-priced boatanchor receivers but the R-390 is conspicuous by its absence from the list. Perhaps that was in part 1 that I missed.

I pick up one of these issues every so often from the local Barnes and Noble to get an updated shortwave listening guide. Standard pecuniary interest disclaimers apply! Don W5OR

From courir26@yahoo.com Tue Aug 19 22:10:40 2003

Subject: [R-390] Monitoring Times, August 2003

Don, Did you say "steamed" member? Thanks for the props. Have yet to see a 390A in an offshore location. Have seen Sunairs, Drakes and Eddystones, however. Helos are loaded with Collins gear. 73 Tom N5OFF

From davidmed82@yahoo.com Tue Aug 19 23:10:41 2003

Subject: [r-390] Strange R-390 problem

I have an R-391 here which arrived with a known intermittent low audio problem. I quickly checked it out by replacing the audio and IF decks with known good units. Same problem. The problem was thus in the mainframe. Checked the volume control. Not that.

While I was fiddling about on the rear apron I found that by wiggling the jumper on the diode load the radio suddenly came good and then died completely as the jumper fell apart in my hand. In the R-390 these jumpers are made of wire soldered in to spade terminals as distict from the metal ones in the R-390A. Anyway in this case the joint with one of the spades had fractured probably due to stress giving an intermittent connection. Replacing the jumper with a good one made the radio play just great. Dave

From barry@hausernet.com Wed Aug 20 00:27:17 2003

Subject: [r-390] Strange R-390 problem

Not so strange, I guess. We often start speculating about leaky caps, Ohm's Law, grid emissions and esoterica. Then you go and wiggle something, which is a more primitive version of the pointed stick approach.

When I "fix" these odd problems, I have mixed emotions. I'm pleased to have made the repair, but, on the other hand, the accomplishment didn't draw much from my intelligence and education. Feel like a rocket scientist scratching his head and then some guy who looks like Ed Norton (Art Carney) with a rumpled pork pie hat and his hands in his pockets saying "Y'know whatcha got dere? Whatcha got dere is bad CONTINOOOOITEEE." Then he gives the rig a tap with his Stilson wrench and the rig starts blasting. "Yah see?". Then the guy in the white coat says "Zo den vhy did I bodda goink to de University?" Trouble is, both the Norton guy and the Von Braun guy coexist in one skull and it drives me crazy. It's great for procrastinating though. ;-) Just keep in mind -- some think in terms of Ohm's Law, but it's really all a matter of CONTINOOOOITEE! Barry

From ba.williams@charter.net Wed Aug 20 01:04:51 2003
Subject: [R-390] Monitoring Times, August 2003

Don, I read that article too and Tom did a great job. That got me a bit curious about the Gulf HF comms and I've been hanging around the 4.125 area some. I got one company station on 4.146U the other night with boat captains. Not the same as offshore comms. Good reading stuff, Tom. I worked with guys who flew for PHI, AirLog, and Mobile. It seems that PHI was pretty lousy to the pilots and nobody liked them. PHI was always a starting point for better flying jobs.

I was going to write something about the R-390 and SP-600 radios being omitted, but I think I may write a letter in regards to the opinions on the Broadband over Power Lines issue in another piece in the same issue. No, part 1 didn't have any better coverage of our favorite radios. The first one was about S-38s and similar radios. I was very disappointed too. The MT editor is a bit opinionated against tube radios. I guess he tries to stay away from the subject, but his opinions come out a little strong over time....at least to me. Skip Arey sometimes writes good things about R-390s and one of his old columns got me thinking about them 10 years ago. That sort of led me to ask around and learn more about them. He blew it with his BPL ideas this month.

Write them a letter. They publish them. I know that Les has written them and they print mine when I write. It won't hurt. Your opinion won't become a flame issue. This was a glaring omission. Barry non-Hauser

From redmenaced@yahoo.com Wed Aug 20 01:24:01 2003
Subject: [r-390] Strange R-390 problem

wrote: > Just keep in mind -- some think in terms of Ohm's Law, but it's really all a matter of CONTINOOOOITEE!

+++++

That was good, Barry! "Ties" with tools make me nervous!

Actual trouble call: (Their electricians were stumped)

Me: "Nice machine, what's it do?"

Owner: "Aren't you the guys who came to fix it? How are you going to fix it if you don't know what it

does?"

Me: "We don't need to know what it does."

Owner: "Well, how will you know if it works right?"

Me: "Your operator will tell us that, you didn't send him home, did you?"

Owner: "I don't understand how you can fix it if you haven't ever seen one before!"

Me: "Well, you called it in as an electrical control problem, right? ALL machines have the SAME equipment for control, electrical, pneumatic, hydraulic, etc. We'll let you know what we find. And if we work with it long enough, we'll know more about it than the guys who built it!"

Owner: (getting nervous) "Um, we have some processes that are proprietary on that machine,.... how do we clear you as far as not passing any of our secrets around?"

Me: "Well, you called us,(didn't you consider that?)..... besides, if you're ISO certified you probably don't have any secrets anyway." Aht Cahney

"You guys keep chattin', I'm going to step out and count up how many tiles fell off."

From sparks@codepoets.com Wed Aug 20 01:39:47 2003

Subject: [R-390] WTT 7 pin R-390 series tube puller for 9 pin and WANTED pair of Local and RF Gain knobs

New to the list. I have a spare 7 pin tube puller for the R-390 series, need a 9 pin to complete the pair.

Anyone have one for trade? Also

WANTED

*tools for the rear of an R-391

*Local and RF Gain knobs for same. Want in like new condition or restored. Thanks 73 Tom K4NCG

From Jhowings@aol.com Wed Aug 20 02:03:34 2003

Subject: [R-390] R-390 Desk Cabinet

Looking for a desk cabinet for a R-390, does not have to be cherry Joe K0AHD

From k4kwm@hotmail.com Wed Aug 20 02:43:20 2003

Subject: [r-390] Strange R-390 problem

Kinda like the problem I just fixed in my R390A. Working great and all of a sudden the carrier meter pins max right. The terminal of the carrier adjust pot that goes to ground just took a notion to fall off after 50 years. Go figure.Had a junk IF chassis and used the pot off it. Works fine again. Did take a little while to find the problem though. Sure do like those voltage and resistance charts. Made it a lot easier for me as I am still quite the novice on these receivers.

Also had a low audio problem on my other one and as several people suggested. It was the 2kc filter. Thanks for the advice. John

From chg111@hotmail.com Wed Aug 20 13:28:00 2003
Subject: [R-390] Monitoring Times, August 2003

Gents- I called MT one time; just flat out asked them why they didn't do much of anything on the old great boatanchors-; got told that 1) they were too busy trying to get everything; in the magazine they normally have, ; 2) they primarily tried to review new stuff they sold, ; 3) that's "Electric Radio" is So there. The fella I spoke with wasn't snotty or anything, just felt like he had way too many irons in the fire. Sound familiar ? -Sandy G. C.H.(Sandy)Geiger III

From lester.veenstra@lmco.com Wed Aug 20 13:36:04 2003
Subject: [R-390] Monitoring Times, August 2003

I would suggest that the way to see such a story published is to write it, collect a good set of BA pix, and submit it to them, Monitoring Times.

I suspect the magazine editors are ready to edit material, but that does not leave much resource available to go out and write. Les K1YCM/3

From cbscott@ingr.com Wed Aug 20 15:32:20 2003
Subject: [R-390] OT: Speaker update

I decided that with all the good advice I received from this list, I would attempt to repair my scratchy speaker. Here's how I did it.

1. Picked most of the felt from the center. Pulled some tiny flecks of speaker cone with it so decided to use a bit of solvent.
2. Wetted a cotton swab with finger-nail polish remover. Accidentally splashed about a thimble-full of solvent on the speaker cone in the process. Speaker cone became mushy and began to separate from the voice coil. Not looking too good at this point. Set speaker aside to allow "solvent" to dry.
11. Used clear finger-nail polish (didn't have any other appropriate cement) to strengthen the bond between cone and voice coil.
5. Attempted to push a piece of cellophane tape between the voice coil and magnet. Considered this equivalent to stacking marbles and decided not to push what little luck I had left.
 - A. Tapped speaker upside-down on desktop to try to dislodge trash in voice coil. Think I saw some small particles come out, but that may have simply been pieces of the foam cushion that were disintegrating as a result of step #3.
 - B. Used cotton-swab and compressed air (okay, I blew into it since I don't have a compressor) to clean anything else I could see in voice coil/magnet area.
9. Noticed scratchy sound no longer seemed to be evident. Connected to signal generator. Small buzz still evident at ~200 cycles. Added more clear finger-nail polish around center ring.

10. Connected speaker to R390A. Sounded fine.

12. Cut a round disc from a manilla file folder and "glued" it (with more finger-nail polish) to replace old felt center.

2. Connected speaker to stereo. Sounded great.

XIV. Used black Sharpie(r) pen to "paint" center disk so it isn't as visible through picket-fence grill in the Trans-oceanic. Looks great!

Many thanks again to the suggestions from this list. Hmmm. With this under my "belt", perhaps I can fix that sticking meter in my Hickock 651A... Barry(III) - N4BUQ

From courir26@yahoo.com Wed Aug 20 17:08:59 2003
Subject: [R-390] Monitoring Times, August 2003

Rachel is pretty responsive to ideas about new articles.

They already have standing departments for new gadgets, etc. My latest article was a wildcard for them. I think she would be more than receptive to a well written 390 family article.

Back in the day (early 80s), MT routinely mentioned 51J's and 390's. I am a charter subscriber from the tabloid days of MT. There was some good old stuff in those early issues. Tom

From cbscott@ingr.com Wed Aug 20 19:44:27 2003
Subject: [R-390] OT: Speaker update - part dieux

It appears I now have a new step to add to this procedure:

a. Go home at lunch the following day. Press speaker cone and hear the scratchy noise again...sigh.

Perhaps this was moisture related - it worked before all the solvent had fully evaporated. Not sure. It may still play acceptably, but it seems that rubbing is back although not quite as loud as it was. Looks like I'll probably just find a good replacement. Barry(III) - N4BUQ

From jlap1939@yahoo.com Thu Aug 21 00:03:37 2003
Subject: [R-390] strange 390 problem

Hello list.. Glad to see that Dave is still good at finding things...He found a couple for me..that seemed "un-findable"..Still doing very well with my 390 on SSB, following hams...also sometimes pick up some oil people..(I am on the Gulf Coast..(Panama City))

(Please, someone comment on the following):::

Also: Am Offered Yaesu FT dx 400 (remember, I found a manual w/schematic), for what he has in NOS repl. tubes..Great on 80/40/20...dead on 15 and all four 10..He wants \$195. It will need more repair it seems, and align...(Its close enough to me to pick up...)

I only want it for the rec... Any comment, as I am looking at 1051, or 390a, and others as well...Please someone give me a hint as to getting it..even just to keep as a relic.. Regards, John (JLAP)

From davidmed82@yahoo.com Thu Aug 21 00:37:31 2003
Subject: [R-390] Another Conundrum

In the R-390 regulated power supply is a single 6BH6 tube. This is a pentode used as a DC amplifier. It is becoming expensive and difficult to find sometimes. The other day I found some on ebay NOS Amperex brand. The price was great. They duly arrived and the boxes were in great shape. Looked like new. So I plugged one in to the R-390 I was working on and to my surprise the 180v soared to 300v!! So I assumed that this was just a bad tube so I plugged another one in. Same result. So I looked carefully at the tube. Stamped 6BH6 like on the box but the tube was obviously not a 6BH6. Looked like some kind of dual triode. No resemblance whatsoever to the real thing. Made in Japan. So guys if you need a 6BH6 for your R-390 look carefully at the tube before you plug it in especially if it is Amperex made in Japan. 300v is very bad for your radio's health. Dave

From terryo@wort-fm.terracom.net Thu Aug 21 00:40:38 2003
Subject: [R-390] eBay advice

Anyone on the list ever have a eBay seller try to unilaterally cancel a completed auction because he was unhappy with the selling price? I want my radio! Best, Terry O'

From ToddRoberts2001@aol.com Thu Aug 21 00:47:54 2003
Subject: Fwd: [R-390] Another Conundrum

Hi Dave, thanks for the warning about the 6BH6 tubes. Antique Electronic Supply (www.tubesandmore.com) currently have the 6BH6 tubes on sale for \$2.30 each. It pays to check their sales flyers from time to time as they may have many of the tube types we are looking for on sale. 73
Todd Roberts WD4NGG.

From ba.williams@charter.net Thu Aug 21 01:20:16 2003
Subject: [R-390] eBay advice

> Anyone on the list ever have a eBay seller try to unilaterally cancel a > completed auction because he was unhappy with the selling price? I

Terry, Yup. Just happened to me with a AC voltmeter that went for \$7.32. I wrote the guy 3 times with no response. Now, I find that the creep gave me a bad rating on e-pay for not buying the thing. Time for me to do some of my own ratings....and it ain't going to be pretty. Barry non-Hauser

From K3PID@comcast.net Thu Aug 21 01:36:44 2003
Subject: [R-390] eBay advice

Yep! About a year ago a guy on the west coast was selling a T-3 on E-Pay and when it got to his reserve, he canceled the auction 4 days early and sold it to the first guy who bid over his reserve... His loss though as I was prepared to go a lot higher than his reserve he just didn't wait long enough. I guess he

just didn't like all of that competitive bidding at the end of an auction.... I thought that was what it was all about! K3PID - Ron H.

From keng@moscow.com Thu Aug 21 01:55:25 2003
Subject: [R-390] eBay advice

> Anyone on the list ever have a eBay seller try to unilaterally cancel > a completed auction because he was unhappy with the selling price?

Yes. Usually happens in the latter part of August when prices take a near vertical nose-dive for about 4 weeks. Most of the bidders take a vacation about that time.

At least the HRO-60 w/coils which recently went for \$60.00 got to the guy who won it and he was very happy with it...needless to say.... Ken W7EKB

From ToddRoberts2001@aol.com Thu Aug 21 03:22:44 2003
Subject: [R-390] eBay advice

writes: > Yes. Usually happens in the latter part of August when prices > take a near vertical nose-dive for about 4 weeks. Most of the > bidders take a vacation about that time.

Hi Ken, I can't say the same thing about R-390A parts this time of year. I almost fell out of my chair when an R-390A engraved front panel with handles and meters recently sold on eBay for \$342.77. The seller said the finish had scratches in it, not a repaint. Also an I.F. module with 3TF7 just sold for \$224.25. I am glad people are getting good prices on other radios this time of year but I would say it is best to hold off for now on R-390A parts unless someone is desperate. 73 Todd Roberts WD4NGG.

From billsmith@ispwest.com Thu Aug 21 03:26:33 2003
Subject: [R-390] OT: Speaker update - part dieux

Did the fingernail polish shrink and warp the cone? You can try shims and the water treatment, but the problem may be that the fingernail polish will continue to shrink and warp. I have run across at least one very contorted cone which had been repaired with some clear plastic substance. It was literally curled. Had quite a time removing it - think it took laquer solvent or methyl-ethyl keytone, or both. Bill

From lester.veenstra@lmco.com Thu Aug 21 12:40:42 2003
Subject: [R-390] eBay advice

I have one currently ignoring requests for shipping information It turns our EBAY has no interest in helping the buyer in this situation. Les K1YCM/3

From courir26@yahoo.com Thu Aug 21 13:07:17 2003
Subject: [R-390] eBay advice

You can remind him that he has a contract to sell. You should also flame him on feedback if he doesn't come 'round. My wife recently had the seller of a house simply decide he no longer wanted to sell after

accepting a bonafide offer. Took a lawyer to get him to move. Tom

From chg111@hotmail.com Thu Aug 21 13:51:24 2003
Subject: [R-390] eBay advice

Gents- Bought a National NC-183D on the "Buy it Now" plan about 2 weeks ago ; ain't seen it yet. Lady DID e-mail me ; said she was having trouble w/her back, ; of course being the swell fella I am...(Ha-ha) told her not to ship it until she got OK, but this is ridiculous. Maybe it'll show up, I've e-mailed her a couple times to see if she needs a box or something, ; no response. I'd like to either have my radio or my money back. She does have a good overall rating, though.. Found another nice place to go, Audiokarma.org., they talk about stereos, old radios, music, etc. Might want to check it out.-Sandy G.

From ba.williams@charter.net Thu Aug 21 13:56:53 2003
Subject: [R-390] eBay advice

Tom, He is going to get a good one from me. I would have just forgotten the whole thing if he had not taken the time to make the negative feedback against me. Barry

From cbscott@ingr.com Thu Aug 21 15:25:02 2003
Subject: [R-390] OT: Speaker update - part drei

Well, the saga ended last night. Without going into the gory details, the speaker lost its magic smoke (don't ask -- it was ugly). Kind of sad because according to the stamped date on the cabinet, the radio just turned 50 in May. Sure wish I could hear some of the cool things that probably emanated from that little cone over the past 50 years.

Thanks for all the advice and encouragement. I'll have to find some fitting place to honor the shell of the old warrior. Barry(III) - N4BUQ

From tbigelow@pop.state.vt.us Thu Aug 21 15:35:22 2003
Subject: [R-390] eBay advice

wrote: Anyone on the list ever have a eBay seller try to unilaterally cancel > a completed auction because he was unhappy with the selling price? I > want my radio!

Terry -

Not sure if you can do a whole lot about it beyond feedback. ePay doesn't do much against sellers as they are the 'bread and butter' for them, bringing in the buyers. I would advise a couple things: first, email the seller and ePay too, explaining in the email that you bought the item and expect it to be sold/binding contract/etc. If that doesn't work, file a complaint with safe harbor. Again, this won't necessarily guarantee anything but will let the seller know you are willing to pursue the matter. If all else fails, leave negative feedback and state in the feedback that the seller wanted more money despite the reserve/final bid being met. Let the seller know that you are going to post negative feedback as well, as a last resort, and that you'd PREFER to close the deal as agreed by the original sale/'contract'. Remember, they can not only post feedback for you but also a response to their feedback, so leave no wiggle room.

I've had two bad experiences like this. First thing I ever sold on there I got hosed on for being foolish enough to post feedback as soon as I received payment. Buyer then decided to try to blackmail me for the item *and* a full refund, citing the fact that I'd already posted feedback for him so he could really screw my life up badly if I didn't go along. I refused to play his game, he posted feedback, I responded to mine. Later I got together with a couple of others who had the same experience with him and we got him removed from epay. Probably back now under a different user name, but at least we stopped him for a while.

Second incident is more like #2/ non-Hauser's experience. I sold a couple of small items, same buyer bought both but wouldn't send payment. Then when I told him to pay or I'd post negative feedback, he posted feedback for me first stating I'd never sent my shipping info. Sure, and I love to pay listing fees on \$10 crap just so I can KEEP it. Of course, I did have his 'check is in the mail' email which I forwarded to epay. They did nothing.

Hope it works out for you, Terry. I'd pester the hell outta the seller to let him know you're serious. If all else fails though, let 'em have both barrels. The only thing that dissuades those types is falling sales due to bad feedback and reluctant buyers.

From tbigelow@pop.state.vt.us Thu Aug 21 15:49:56 2003
Subject: [R-390] eBay advice

wrote: >Yup. Just happened to me with a AC voltmeter that went for \$7.32.

Unless the guy wanted more for the item, I'd guess it was a case of not receiving your emails. Do you respond directly or use that chintzy epay auto-response system that closely resembles spam? I've had several instances where people ignored my instructions to respond directly because of this and their emails were lost. It's just too easy when you have an inbox full of spam to lose the big, fluffy ebay emails.

OTOH, if you did respond directly and the jerk chose to ignore you and relisted the item for a higher price or reserve, fry him with negative feedback as best you can. Don't forget to post a response to your personal feedback as well, so people reading it get your side of the story too. It's all about accountability, and there's just too little of it in today's world. ~ Boomer

From Barry Hauser <barry@hausernet.com> Thu Aug 21 16:01:44 2003
Subject: [R-390] eBay advice

Hi Gang: I don't want to prolong the ebay thread (and there is a separate "ebay-FS" list we should use so we can fully explore these things.)

However, I have come across a series of valid email problems. Many ISP's are using "Spamcop". If your domain or ISP address (12-digit number) is hijacked by a spammer, it could be listed temporarily on the reject list these things accumulate. So, if you've tried to email the usual way and get no results, try using the ebay contact feature. (Click on the ebay handle of the seller, not the email address alongside it.) This will come from ebay's own sendmail servers.

There can be the reverse problem. Ebay was down last night and there were some announcements that suggested emails were not going out. For example, I had a paypal payment advice not get to a seller, though it posted on the system. So, there may be the reverse problem -- send your own email in addition to the ebay communications.

Finally, ebay has a member lookup feature in case you're having trouble reaching a buyer or seller. You have to wend your way through help screens to find it -- they don't make it easy. After you enter your ID, the seller's ID and the item number, it emails both of you with name, city and phone number. Just this is sometimes enough to shake loose a 'possum -- even before calling. So give it a few hours, then call. (If you have trouble finding it, let me know.) When someone's computer goes down, they're usually up the creek without a paddle, and phone is the only way.

It used to be that sellers were more proactive in contacting buyers, but that's no longer the case. There is actually no excuse for waiting for the buyer to respond with an address to come up with the shipping cost -- ebay now provides the seller with the winner's zip code automatically.

Even with all the automatic stuff they have now, I won't make a payment unless I get something that indicates the seller is still alive and in country (unless it's under \$10 or so.). Barry

From ba.williams@charter.net Thu Aug 21 15:26:01 2003
Subject: [R-390] Monitoring Times, August 2003

> Gents- I called MT one time & just flat out asked them why they didn't do much

Sandy, They do cover a lot in each issue. That part is true. They aren't the only media outlets that are mostly interested in new technology, digital, etc. Still, I find it a good magazine. I've subscribed for about 10 years now with a break for a year. I've seen the older tabloid issues that Tom mentioned. He is right about those having some very interesting articles. Barry non-Hauser

From ba.williams@charter.net Thu Aug 21 16:10:22 2003
Subject: [R-390] eBay advice

Boom, I responded directly to the email account he has listed at epay. Good tip on my response to the guy. I'll do that too. For some unknown reason, 3 versions of Explorer is not compatible with epays messaging system. I used another browser to get into the epay sections that I needed but decided to email direct.

It's not a big deal now on the A/C voltmeter but his attitude is a big deal with me. Thanks, Barry non-Hauser

From kherron@voyager.net Thu Aug 21 16:44:03 2003
Subject: [R-390] eBay advice

Hi Gang,

Just my two cents on this. I haven't seen any mention of using E-bay's User identification to attempt to contact them via phone or US mail. That request for user particulars goes through E-Bay and they also get a copy of you info so that either of you can contact the other without e-mail. It is the first thing that I do if I don't get an e-mail response in 24 hours from the seller or bidder. When I try the phone and it's no good or the address is different, I file an immediate complaint with E-bay and that's been enough to get my money or stuff, whichever the case may be. At the same time I file a complaint with E-bay letting them know of the trouble and wanting their help or for them to do something to get things off center. I've also gone to using Paypal because they will refund your money if the auction goes south. They are

much more inclined to get involved when it costs them money. As the FBI says "follow the money trail." Thanks!! Kim Herron 1-616-677-3706

From Jhowings@aol.com Thu Aug 21 16:29:21 2003
Subject: [R-390] Non-Delivered Goods-Ebay

After many e-mails to the seller after sending a bank money order and receiving nothing but excuses why my item wasn't shipped, then no responses at all, I did this: I made copies of the original Ebay Ad, my bid acceptance, the money order(available-cashed from the bank) and of all e-mails & responses. I then went to the US Post Office and got a "Mail Fraud Complaint" complaint form (I had mailed the money order to the seller) and filed all with the USPS. It is a "Fraud" because I submitted payment for "goods to be delivered" which after 3 months has never been. Been 3 months since I did that, may never get my \$200.00+ back, BUT the seller might be surprised if/when USPS comes after him. Also if you know an Attorney who for a slight fee, draft a "letter" to the seller regarding the "non-performance" of a contract, that might help. Another thing, if the seller lives in a medium or small town, you can contact the local police, explain the situation and ask for their help in the matter, maybe, if they allow, file a report with copies of all documents to accompany it. All of this may not result in getting your money back, BUT IT SURE MADE ME FEEL BETTER THAT A DISHONEST (the nice term) SELLER WAS NOT GETTING AWAY WITH THE DEAL. As for Ebay, they don't care as indicated by the small blue print on each listing page. Joe KOAHD

From AB3L1@aol.com Thu Aug 21 16:33:10 2003
Subject: [R-390] Ebay advice

Remember that if you do use the feedback method, you are limited in space. Write down your comments on paper first so you can get your idea across. Run your words together with first letter capitals to break up the words. The ultimate solution I saw was somebody that left Negative feedback for a bad deal. His feedback contained a web page address. There he had the sale page, emails, and pix of the received garbage. Got the idea across for sure.

I just won a sale for a HP-410C, Ac probe and manual. Seller is in Virginia, item in Washington state. Didn't state that in the sale. When I got the shipping fee, I inquired about him ever seeing the item. He got PO'd and called the sale off. I guess he wanted more for it. Once I left a Neutral for no sale I opened myself up for a retaliatory Neutral on my record. Ebay does nothing about it even though there was no transaction. Watch yourself there as my item was only for \$34.xx. and now I have an undeserved mark.

From jlap1939@yahoo.com Thu Aug 21 17:11:04 2003
Subject: [R-390] Speaker Repair

Friends, If I may be so bold...

Here locally we have Pro Tech Ser. that can do ANYTHING with a speaker in ANY condition. I grew up with the kids and they took over from the father, who was a music store owner and speaker/amp. expert as well. Worked with Mc and Marantz as well as Arp in his business..and high end speakers as well.

In my case...I have several..and I know they use high tech inc laser control. Mine inc ham/hi fi/and a table tube radio and are absolutely perfect, and one of the better hi fi speakers had a bent frame as well. These guys are said to be able to do anything w/speakers inc. big changes in impedance..and they are

very reasonable..(The table rad. speaker a couple of yrs ago was something over \$18 and it was cone and voice coil and alignment).

Surely these types of repairs are now done about anywhere?? My Regards, John (JLAP)

From jlap1939@yahoo.com Thu Aug 21 17:17:25 2003
Subject: [R-390] on-line auctions

Friends, If I may be so bold.. Thats why I don't use on-line auctions....at all..

Folks I bought from on THIS LIST are GREAT...So I am buying again...and if you ask...its here.. just spend the money with a friend.. don't throw it away on a quote : : "bargian"...instead, pay your friends a fair price... Regards... John (JLAP)

From Jhowings@aol.com Thu Aug 21 17:32:36 2003
Subject: [R-390] Non-Delivered Goods-Ebay

Thanks George, that certainly is a worthwhile adder, however I did have an Atty. frirnd and sometimes the law is sloooow. Joe

From w5or@comcast.net Thu Aug 21 18:04:26 2003
Subject: [R-390] Auction site discussion

Guys, Ebay redress discussion is not an appropriate topic here, and when you post messages with 'ebay' in the subject line, I get hundreds of bounce messages that clog up my mailbox. Please cease. As Barry Hauser mentioned, here is a specific list for ebay discussions.
<http://mailman.qth.net/mailman/listinfo/ebay-fs>

From richardlo@admin.athabascau.ca Thu Aug 21 19:42:56 2003
Subject: [R-390] Ebay advice

wrote: Point of information regarding Ebay and their feedback system, Ebay sends email to tell you that feedback has been left regarding you and the email messages have no date header. A lot of viruses and spam have no date headers so I have configured the company mail server to drop those messages on the floor. Ebay messages never reach my users. Richard Loken

From Barry Hauser <barry@hausernet.com> Thu Aug 21 18:50:45 2003
Subject: [R-390] Auction site discussion

Gang ... I'd like to add: We really should start making use of that list. Apparently there are issues which should be discussed, tips exchanged, etc. There's a tremendous amount of combined experience and potential value in compare notes. Like it or not, that e-place has an influence on our hobby. The issues also cut across QTH list boundaries and it's a way to keep these threads from mushrooming here and annoying those who would rather not be involved.

<I have sanitized this post so that it should not cause bouncing due to the e-word.> Barry

From George.Kammer@cisf.af.mil Thu Aug 21 21:06:29 2003
Subject: [R-390] OT: Speaker update - part drei

How 'bout a Shadow Box..... Don (KB0JTF)

From k4kwm@hotmail.com Thu Aug 21 22:24:44 2003
Subject: [R-390] eBay advice

YES, I had a guy return my bank check and refuse to sell. It was for 3 seperate sales and the instructions from HIM said bank check ok. So he gave me 3 negatives and said I didnt follow directions. I feel I should email all his prospective buyers and warn them. I had an almost perfect score until this guy came along. And like you say, eBay wont do anything about it. Even getting hold of anyone in eBay to complain is almost impossible. Its like a phantom company thats just runs by itself. John

From barry@hausernet.com Thu Aug 21 22:52:41 2003
Subject: [R-390] Uh-Oh!

wrote ... <snipped> > Second incident is more like #2/ non-Hauser's experience.

This has gone too far. This is how stuff gets started. A thousand years from now, a Chinese kid is going to ask his father ..."What does Yin 'n Yang mean, father?" His father will look up thoughtfully, groping for an clear answer suitable for a young mind.."Well, Grasshopper, it's the same as Hauser/non-Hauser." "Oh, thank you father, you explain things so well."

I've always had wierd dumb dreams, usually due to falling asleep with the TV or radio on, but now there's a new one that goes like this: I'm walking down the street and someone passing by says "Hi Mr. Hauser", to which I reply "Hi, how'd you know my name?" The other guy says "Well, that's easy -- you're the only one -- the rest of all of us are Non-Hausers."

Then the creepiest part, I say "Oh, I see, that makes sense. Thanks." .. and keep walking. Of course, there will be a street vendor with a cart full of ballast tubes or something, and I'll know it's a dream, but of course will stop to buy a sack full for \$5 and then think .. "How am I going to get these home? When I wake up, the gear 'n goodies are always gone."

Yin .. uh Hauser, uh Barry

PS -- Meanwhile, just think of the poor Williamses around the world, past, present and future who will be first to have their identities erased -- and I'll be the one blamed by posterity, not the Barry who really started it. I mean, they're not gonna blame it on a Williams, right? (That's "blw", by now some of you forgot his real name and think it's "non-Hauser".) non-Bigelow (can't say "non-Boomer" as that would be a lie)

From redmenaced@yahoo.com Thu Aug 21 23:28:27 2003
Subject: [R-390] Uh-Oh!

Barry, Keep your head out of the solder smoke,..... you'll be all right. Joe

From ba.williams@charter.net Fri Aug 22 01:03:36 2003
Subject: [R-390] Auction site discussion

> Guys, > Ebay redress discussion is not an appropriate topic here, and when you > post messages with 'ebay' in the subject line, I get hundreds of bounce > messages that clog up my mailbox.

Awww, c'mon Don. I have to disagree with you and I bet a little poll would prove me right that ebay is a part of R-390&A life. Look, ebay is kind of detestable in a way. I will give you that. Still, it is a source for radios, test equipment, parts, connectors, manuals, etc. Sometimes it is a great source and sometimes it ain't. Why not let the thread run the course, die a natural death, and let us learn some things? Why does the mail bounce? Shouldn't it just go thru? Barry non-Hauser

From g4gjl@btopenworld.com Fri Aug 22 10:33:21 2003
Subject: [R-390] R391 tuning lock Keys

I have a problem with some repro tuning lock keys I recently acquired.

They appear to be too short to reach the threaded innards of the auto tune mechanism, but as I have never seen one of the keys previously, Im guessing (hoping) that this is the problem.

Would some kind list member with an R391 take one of the keys out and measure its length for me. I need to know the dimension from under the handle, nearest the front panel, to the tip of the key shaft which engages with the autotune mechanism.

Also does any one know the thread size used on the keys? I tried to find a mating nut from the junk box, to help me identify it, but could not get any nuts to fit. Im sure it will be a UNC size, just dont know which one! Thanks Pete G4GJL

From sparks@codepoets.com Fri Aug 22 12:50:09 2003
Subject: [R-390] R391 tuning lock Keys

Peter, you may have the locking keys from the CU 286/FRR-33 coupler, they are approximately 3/4 inch shorter than the locking keys on the R-391. I'm new to this reflector but I think I'm correct. I have both the coupler and 391 and found that the coupler locking keys were shorter. Tom K4NCG

From barry@hausernet.com Fri Aug 22 14:07:43 2003
Subject: [R-390] R391 tuning lock Keys

Hi Pete & Gang: If you got those tuning lock keys from Hank Arney, it's possible he shipped shorter ones he made up for the R-105/ARR-15 aircraft receiver. He made up a batch based on dimensions I supplied. The keys are identical except for the length and the R-105 keys are too short.

If the length is right, there may be something wrong with the mechanisms in your R-391, but that's much less likely -- would have to be the same thing on both of them.

In the '391 manual, there are some sideways references to variations in design. It sounds like there were

undocumented production changes. I suppose it's possible that your unit is different, but the most likely scenario is the first one -- R-105 keys. If so, get back with Hank to exchange for the right ones. Barry

From cbscott@ingr.com Fri Aug 22 16:38:41 2003
Subject: [R-390] Visio Meter Face files

Not too long ago, someone posted some VISIO files for the meter faces for the R390A. Can whoever created those please email me? I have an older version of VISIO and I would like to take these files into the application, but my version tells me the files are not VISIO files (assumably because they were created with a new version). If these could be saved for an older version, perhaps I could still use them. Thanks, Barry(III) - N4BUQ

From hankarn@pacbell.net Fri Aug 22 13:16:19 2003
Subject: [R-390] R391 tuning lock Keys

Tom, You are correct my 286 keys are 2 3/4 vs 3 5/16 versus the ARR-15 keys 1 13/16 that I sent to Pete by mistake. I make both sizes but not the 286. The long ones could be cut to size. The shaft is knurled and a press fit to the knob end. Hank KN6DI

From lal@cyberwc.net Fri Aug 22 17:36:14 2003
Subject: [R-390] Visio Meter Face files

Hello Scott.. I think the fellow your referring to might be David Goncalves. He was going to reproduce some meter faces, the one I am after is for my R-392 I think we should be hearing from him soon. Hope this might help.. Merle W1GZS

From cbscott@ingr.com Fri Aug 22 17:39:07 2003
Subject: [R-390] Visio Meter Face files

Yes, you are correct. I even have that email saved in my files -- duh! Sorry for the bandwidth fellas. Barry(III) - N4BUQ

From jlap1939@yahoo.com Fri Aug 22 18:14:55 2003
Subject: [R-390] Pro Tech Services

Friends, Several contacted me about speaker re-building, so I spoke to Steve Pizza this morning in order to let you know a bit more about their services. Steve is CEO of the company.

He informs me they are still willing to talk about any speaker, but do mostly Hi Fi type now, as there is great demand. Others are on verbal agreement as to time etc mentioned below. They do repair on some high-grade electronics. Some of the staff are engineers.

They are in high demand in production now, and have moved into a new building, so you will need to speak to repair directly, to determine time and material availability.

You should remember that speakers are the items that most on the list would have interest in.

They are very well known for speaker work, but are really a sound/video installation and production company and may not offer any other services of interest to the list.

**See web site, a very nice site: www.protechserv.com Local Phone is 850-265-4334
the fax # is 850-265-1667**

They have a toll-free, but I forget and don't have it as I am in same town. It is on the web site I think. Sorry that this posting is not really on subject.. My Regards to the List, John (JLAP)

From jlap1939@yahoo.com Sat Aug 23 02:09:41 2003
Subject: [R-390] Thanks

Friends, Thanks to all who offered me a radio to purchase. I have found one, and will look again in the future. Regards, John (JLAP)

From federico@dottorbaldi.it Sat Aug 23 14:12:12 2003
Subject: [R-390] COLLINS PRE-SELECTOR FOR 651S-1

Hi to all, some of you has any information about the automatic pre-selector for COLLINS 651S-1 : 992E-1 mount, pt. n. 631.5149.001 635u-2 pre-selector, pt. no. 622.0402.004 filter pt. n. 620.6486.500. Any help shall be highly appreciated. Excuse me if the question is a little off-topic. Cheers and 73 de Federico IZ1FID Visit my webspace voted to military surplus radio : www.dottorbaldi.it/militaryradio
See also : <http://www.geocities.com/pa0jta2/hamshacks.html>

From Tarheel6@msn.com Sat Aug 23 15:05:06 2003
Subject: [R-390] Western Historic Radio Museum

Thanks to members of this list who suggested I visit this museum in Virginia City, Nevada, I was able to meet Henry and Sharon Rogers last week while my wife and I were in Reno for a wedding.

Henry is an exceptionally nice person, who took time to show me around and also to show me his work bench. Henry not only has a terrific museum full of old military and civilian radios and transmitters, but he also has some old spark gap equipment from the 1920's... And a wall full of old tubes as well.

The items that really caught my attention, though, were these:

R-390 - Henry turned it on and we tuned in to the 40 meter net that was operating. Great receiver.

AR-88 - In super shape

R-390A - Stewart-Warner ... Excellent shape

Johnson Kilowatt Tx -- complete with the matching desk. This is only the second one I've ever seen. The first one was at Nick England's home in Chapel Hill.

Hallicrafters console radio 1930's? -- superb condition; must be worth a fortune.

Hammarlund Super Pro -- Model 400 -- Great condition and as sensitive as a R-390.

Collins 75A4

Collins KWS-1

And many others that I cannot even recall now....

Thanks to all who suggested I visit the museum. If you're ever near Virginia City, NV, visiting with Henry and seeing his museum is certainly worth the trip! Meanwhile you can see most of what he has

via www.radioblvd.com. 73's, -tom

From ToddRoberts2001@aol.com Sat Aug 23 16:35:19 2003
Subject: [R-390] Lifting Heavy Radios

I recently took delivery of a Lift Hand Truck to help with lifting and moving some heavy boat anchor radios. I am very pleased with how the lift works and it will make handling these radios much safer and easier. Anyone who has tried lifting an R-390A up to the top of a 5 ft. rack knows that can be a dangerous and back-breaking task. The Lift Hand Truck makes doing that a breeze. If anyone is interested I have posted a few pictures showing the unit lifting an SP-600 VLF receiver in its cabinet up to a table in my AOL storage area. There are a series of 8 pix. You can go to this address :
<http://members.aol.com/toddroberts2001/Lift-1.jpg> .

Copy and paste or type in the address if it does not come thru as a link. To view the other pictures type in a different number after the word Lift- as in /Lift-2.jpg, /Lift-3.jpg etc. up to the number 8 at the end of the address. The unit I bought has a steel frame, the lifting plate is 20" x 20" so it is just the right size for lifting R-390A's and other table-top size boatanchors and the lifting capacity is 500lbs. It will lift 500lbs up to a height of about 5 feet using a hand crank and it is small enough to easily maneuver around a house. I bought mine from Advanced Handling Services and the price was \$369.00 . You can go to their catalog at advancedhandling.com, click on their catalog window, type in Light Lift Hand Trucks in their search window, then click on the link that shows up and you will see it in their listings.
73 Todd Roberts WD4NGG.

From jbrannig@optonline.net Sat Aug 23 16:52:57 2003
Subject: [R-390] Lifting Heavy Radios

Very interesting and certainly better than the "brute force" method. A question. How did you coax the nice looking SP-600 off the lift and on to the table? treats? threats? Jim

From dpg@coe.neu.edu Sat Aug 23 14:42:10 2003
Subject: [R-390] Visio Meter Face Files

Problem fixed :-). The files are still available here: <http://www1.coe.neu.edu/~dpg/R390Face.vsd>

Some time ago, I asked if any list member had a pair of matching meters that they would be willing to loan for a weekend. Unfortunately, the deal I had going fell through, and I never did get a pair to work with.

So, I ask again: Is there anybody on the list in the Boston area (beyond is OK too) that would be willing to loan me thier matching meters? I want to get a set of high-res images to work with, as I feel the quality of the dials in the files I have now are not 'the best'. Please, no photos of meters. Thanks to all.
Dave Goncalves, N1XZB

From odyslim@comcast.net Sun Aug 24 01:46:28 2003
Subject: [R-390] Parts Wanted

Hi, I need some parts for my R388, 51J3. Hopefully somebody here might have them. I need a VFO.

Mine is working but the shaft is bent. I also need 3 couplings. BFO pitch Calibrate Antenna trim. These look like little clutch discs. They are broken. If I cant get the parts, would anybody be interested in a working parts rig? Scott W3CV

From gfgitz55@orca.cetus.com Sun Aug 24 20:18:22 2003
Subject: [R-390] Radioactive meters

Hi R-390 fans (and a certain Barry, resident chemist on another list),

David Goncalves wants to reproduce R-390 meter faces. I've offered to investigate taking decent pix of original meters. This would involve removing them from their case, and possibly removing the meter face from the meter body.

These contain, I believe, radium based material on the meter face. I'm wondering if anyone on the R-390 list knows exactly what's involved in working with these meters. Any particular precautions to be used, other than rubber gloves and a good dust mask? Real Science preferred here, if possible,

I seem to remember reference to a gentleman in Livermore CA who does meter repair. Can anyone provide contact info? Thanks in advance for any information. Gary

From richardlo@admin.athabascau.ca Sun Aug 24 21:57:50 2003
Subject: [R-390] R-390/URR light bulbs

I am far from the radio and the manuals. So, which light bulb does the R-390 use? The R-390A uses 328 6V bulbs but I will bet money that the R-390 does not. 327?

From redmenaced@yahoo.com Sun Aug 24 21:18:08 2003
Subject: [R-390] Radioactive meters

It seems to me that such a small piece could more safely be operated on inside a glove box-type arrangement. Put negative pressure on it with an old "disposable" vacuum cleaner, maybe place that outside the shop and run the hose through the window so that anything that gets through the filter is tossed outside. Just a thought, Joe

From davidmed82@yahoo.com Sun Aug 24 21:18:27 2003
Subject: [R-390] F/S R-390A Audio

I have a Teledyne R-390A audio deck complete with good tubes but less tube shields. This is clean and in good working order. Anyone interested please contact me by email. Dave

From ToddRoberts2001@aol.com Sun Aug 24 21:24:22 2003
Subject: [R-390] R-390/URR light bulbs

writes: > I am far from the radio and the manuals. So, which light bulb does the > R-390 > use? The R-390A uses 328 6V bulbs but I will bet money that the R-390 > does not. 327?

Answer - The R-390 uses the #327 28V bulbs. 73 Todd WD4NGG

From richardlo@admin.athabascau.ca Sun Aug 24 22:52:54 2003
Subject: [R-390] R-390/URR light bulbs

wrote: writes: >> use? The R-390A uses 328 6V bulbs but I will bet money that the R-390 >> does not. 327?

> Answer - The R-390 uses the #327 28V bulbs. 73 Todd WD4NGG

Well thankyou sir, 327 it is!

From redmenaced@yahoo.com Mon Aug 25 01:35:39 2003
Subject: [R-390] Radioactive meters

> Interesting thought. Possibly difficult to > implement, > especially when working with screws probably much > smaller > that 0-80. Also difficult to take pix in that > environment.

+++++

Maybe not so tough,....

With a light inside and a good quality piece of glass for the window, angled 45 degrees from horizontal, surgical gloves with long cuffs. Granted it will take some consideration in the making and practice in the operation. I shouldn't think it would need to be more than 16" X 16" and 24" long, maybe with another section of the same size with an "air lock" between to use for bringing in tools and parts while working. Take pictures through the glass? Seal it all up with RTV, hose clamps or Ty-wraps on the glove cuffs stretched over some PVC pipe sections. I almost think we've discussed this before, too. Joe

From g4gjl@btopenworld.com Mon Aug 25 12:52:58 2003
Subject: [R-390] R-390/URR light bulbs

Well timed for me...The R-391 here has just popped a bulb, and I need to get hold of some 327s...(It was a 327 that popped) So does anyone know of a UK source of 327s or else a USA source? Pete G4GJL

From cbscott@ingr.com Mon Aug 25 14:24:41 2003
Subject: [R-390] R390 Available

I found the following: <http://www.dealamerica.com/deal/cgi-bin/ads/bcads.cgi?search_and_display_db_button=on&db_id=4628&exact_match=on&photo_size=full&query=retrieval>

This is NOT my radio, nor do I know the guy selling it. I figure someone near his location may be interested in it. From the description, I think it may be an R390A, but don't know. Thanks, Barry(III) - N4BUQ

From bernice@videotron.ca Mon Aug 25 18:59:42 2003
Subject: [R-390] R-390/URR light bulbs

Hi Pete, This is a copy of what I sent to Richard Loken yesterday. I should have copied it to all but did not. I will add that these bulbs are all available in the U.S. from Mouser at about \$0.50US. The # 327 is a 28 Volt bulb with an MTBF of 4000 Hrs. The Qtys mentioned are what I have available.

"This should answer your question.

Lamp # 328, 6.3 Volts, 0.2 Amp, MTBF 1000 Hrs. For the R-390A. Qty 12 .

Lamp # 381, 6.3 Volts, 0.2 Amp, MTBF 20,000 Hrs. Qty 8 . I used these on my R-390A.

Lamp # 387, 28 Volts, 0.040 Amp, MTBF 7000 Hrs. Qty 30. Used on my R-390.

If you need a few let me know. Can't remember what they cost me. If you are interested let know and I will find out for you. BTW I was born and bred in Alberta more than 66 years ago. Born in St Paul. All my relatives live in the province." Al VE2TAS

From Jhowings@aol.com Mon Aug 25 19:19:15 2003
Subject: [R-390] Audio Transformers

Saw an audio matching xfmr mentioned for the R-390 series the other day; being a Radio Shack 70v line type with 4/8 ohm sec. Well after several RS stores, I was told that item was being phased out, so if any need this item, it might be the time to acquire them. It does make a real spkr (other than the LS-166) much better audio. Maybe it's just scarce here in St Louis, but I was only charged \$2.49 ea. rather than \$6.99 as listed in the catalog.

From ToddRoberts2001@aol.com Mon Aug 25 19:34:48 2003
Subject: [R-390] R-390/URR light bulbs

Hi Pete, I bought my supply of #327 and #328 bulbs from Hosfelt Eletronics here in the U.S. Their price was \$3.79 per pack of ten. Their web address is : www.hosfelt.com . Their website appears to be having difficulties today (Monday) but hopefully should be back in operation soon. Lots of other neat items in their catalog also. 73 Todd WD4NGG.

From Jhowings@aol.com Tue Aug 26 00:58:47 2003
Subject: [R-390] Pilot Bulbs R-390/R-390A/R-391/R-392

Just to complete the bulb disertations, my R-392 uses a #313, 28v bulb, however the #327 would work.

From jmerritt2@capecod.net Tue Aug 26 04:27:16 2003
Subject: [R-390] Audio Transformers

Not to worry. This is a standard catalog item from any company that sells to the commercial audio industry. Just because Rad Shak has no vision, doesn't require a run up on their prices.

From Michael Melland, W9WIS" <w9wis@charter.net Tue Aug 26 16:29:28 2003
Subject: [R-390] OT: Antenna Connector for RBK-16 Help ?

I picked up a great old (1952) Navy RBK-16 VHF receiver (Hallicrafters SX-36A). What in the world was the antenna connector they used ? Looks like it was a "plug" that the coax was attached to that one plugged into the antenna socket inside the radio on the RF box. Any help appreciated... maybe one of you old swabbies might even have one they'd sell ?

The manual lists: PL-3, Type CN-49121A Antenna Plug, Navy Stock Number N17-C-71120-4869

Connector, Plug: 1 round female contact; straight type; over-all 2-7/8" long by 13/16 " diameter; RF connector; cylindrical body; brass; nickel plated; bakelite insert; 13/32 max cable opening. Contractor Drawing and part number 10A134 Mike, W9WIS

From w5or@comcast.net Tue Aug 26 20:22:44 2003
Subject: [R-390] Administrative note

As part of last weeks virus/worm epidemic, I'm seeing a lot of bounce messages in my mailbox from the r-390 list. No, qth.net is not sending the virus out to people. The virus harvests email addresses from web sites, infected computers, mailing lists, and fakes both random to and from addresses so as to confuse us. So, keep your antivirus software updated, ignore the fake emails and enjoy the list. It is virus free.

Don Reaves R-390 list administrator <mailto:r-390-admin@mailman.qth.net> Rules: 1. Stay on topic
2. Be civil and courteous

From roy.morgan@nist.gov Wed Aug 27 17:19:10 2003
Subject: [R-390] Administrative note

wrote: > ... keep your antivirus software >updated, ignore the fake emails and enjoy the list. It is virus free.

Don, Please accept my hearty THANK YOU for all you do to keep our list up and running well. Roy

From tetrode@comcast.net Wed Aug 27 19:24:40 2003
Subject: [R-390] Administrative note

wrote: >> ... keep your antivirus software

Ditto on the thanks Don!

An easy thing that anyone can do to get a possible heads up on a virus mailing is to make sure you have your OWN email address included in your address book. That way if a mass mailing takes place from your own PC at least you'll be alerted. Handy for testing too. John

From bernice@videotron.ca Sat Aug 30 03:05:03 2003
Subject: [R-390] No Messages

Hi All, Have not had any messages for the last 36 hrs or so. Is there a problem. Due to an illness, I will

be disposing of/downsizing most of my Ham equipment and BA's (R-390A, R-390, SP-600) in the near future. I would like to post the details and make them available to List Members.

I will let you all know of the details on the radios and the reason for the downsize in a few days. Al VE2TAS

PS: Don the first Para. above is the text of what I posted this afternoon. I know happened. The message was addressed to r-390-request@mailman.qth.net not very smart. Sorry for the trouble I caused.

From Jhowings@aol.com Sat Aug 30 16:04:52 2003
Subject: [R-390] R-390A Audio hiss

Having just become the proud owner of an R-390A. I have a question to pose. Having used an R-392 for a while, 600 ohm audio/xfmr to 8 ohm Heath SB-600 spkr with excellent audio(using minimal RF gain). I find that using the same spkr/xfmr from either the "local" or "line" outputs on the R-390, I have a very objectionable hiss from the spkr constantly. Can anyone tell me what I'm doing wrong?? Joe, K0AHD

From billsmith@ispwest.com Sat Aug 30 18:54:28 2003
Subject: [R-390] R-390A Audio hiss

Gassy tube, noisy resistor, leaky capacitor? Haven't noticed hiss from the receivers here. 73 de Bill, AB6MT billsmith@ispwest.com

From k4kwm@hotmail.com Sat Aug 30 20:55:28 2003
Subject: [R-390] R-390A Audio hiss

IF gain set incorrectly? John

From ba.williams@charter.net Sun Aug 31 02:59:28 2003
Subject: [R-390] R-390A Audio hiss

Joe, Maybe you need a bit more advice on this one. Well, it could be anything. Maybe trying the simple things first will find the problem. Do you have spare tubes? You need those anyway. Swapping out the audio deck ones first is easy and may cure the hiss problem. If not, resolve yourself in swapping out all of them.

While you are at the swapping tubes job, take the time to test the originals and your spares on a tube tester. It may not give totally accurate readings, but make notes. It may help later down the road. Since you have the tubes out of the radio, clean the pins good. A soft, nonabrasive rubber eraser cut to size works wonders. Put a tiny drop of DeOxit on each pin. You may find the results sounding like a new receiver...like I did on mine.

You can try the Gain Adjust next to the Carrier Meter Adjust with the radio receiving. I've done this on 2 radios and found that there is only a little bit of room to adjust down out of the noise without decreasing apparent sensitivity. My radios never had that much high end noise to qualify as audio hiss, but give it a try. Maybe yours is cranked way up and could use a lot of backing off. It only takes 1 or 2 minutes.

Get back to us about the hiss. It could be something else that requires cap or resistor replacement(s).
Barry non-nonA aka non-Hauser

From billsmith@ispwest.com Sun Aug 31 19:19:29 2003
Subject: [R-390] R-390A Audio hiss

Hi, Joe Hope I didn't sound curt, wasn't my intention. From your description, your noise might have been originating in the audio module (after the volume control). In that case, my first thought was a gassy or shorted tube. But from your description below, your noise appears to be originating from stages in front of the volume control, and that does change things a bit.

First of all, I'd step back, and analyze the receiver. You should read the archives and web pages regarding rebuilding R-390A's. I am not suggesting you are in for a major project, but you should find out if (1) your set has capacitors that may need replacement (2) identify if someone fiddled with the set before you obtained it (3) if it has been modified (hope not!).

Then, I would make a general sensitivity test. This can be done without any test equipment. It consists of observing strength of the crystal calibrator on the carrier level meter for each band. The procedure is in the manual.

As John Page suggested, check the IF gain control. If the IF gain is turned up too high, it will generate all sorts of subtle, undesirable effects. The receiver was designed with quite a bit of excess gain reserve.

Hope that gets you started! These sets are well built, very reliable and easy to tame, but they do fall in to the "high maintenance" equipment of the '50's and '60's. After all they are now at least 36 years old! :-)
73 de Bill, AB6MT