

## **R-390 Reflector May '02 Edited**

From jetemp@insightbb.com Wed May 1 03:58:03 2002  
Subject: Fw: [R-390] Question about R-390 (Non A)

From jetemp@insightbb.com Wed May 1 04:01:22 2002  
Subject: [R-390] Variable caps in coils

I found three variable caps in the coil line-up that had cracked wafers. I replaced the wafers with spares I had from other value variable caps. This cured the snapping and popping that was a problem with this rig. Thanks for the insights. Jim

From RDavis24@carolina.rr.com Wed May 1 04:58:17 2002  
Subject: [R-390] Fair Radio R-390A Question?

Hello, First, thanks to all who helped with my first post to the list. I have already learned a lot from the great folks on this list. My question now is, that I do not have enough money to buy the Rebuild R-390A that I want so my next choice is to buy one from Fair Radio or a group member's Fair Radio R-390A and try to do all the work myself. Since I am a true beginner, I would like the group's advice on doing this? Is it possible for me to buy the video and by using it and the field manuals restore the rig myself? I would like to have a nice summer project that I could enjoy and this seems like a good project, also I think I would learn a lot in the end. One problem I have here is that besides being a complete beginner, I'm a poor man also hi, so the do it myself thing is probably what I will have to do. I have a great desire to learn this rig and to make a great receiver better by doing a complete rebuild, I am just wondering if this is too complex of a rig to start with. Should I hold out for a rig that I can see before I buy or take a chance? Any help would be greatly appreciated. Thanks Ronnie KE4VPN

From Wed May 1 05:44:11 2002  
Subject: [R-390] Fair Radio R-390A Question?

Welcome to the R-390 list, Ronnie.

I think you will find that rebuilding a Fair Radio R-390A is not beyond your capabilities. You obviously have an appreciation and a desire to learn about the receiver. That's 80% of the battle already won. And you have the good folks right here who are standing by to help with advice and encouragement, most if not all of us with the same experience of bringing one or more of these great receivers back to life. Most of the ones I have heard about from Fair respond well to cleaning up and lubricating and fixing the obvious problems. One of the nice things about the R-390a is that they were designed with modular construction and it is easy to obtain interchangeable modules for troubleshooting purposes. And there is a wealth of web information just waiting to materialize on your browser screen. We can't do much to lower the cost of the receivers - the supply is low and the demand seems steady. I saw a nicely restored R-390(nonA) over the weekend that was being sold for \$1K. The satisfaction of restoring one of these classics with your own hands is, well, as they say on the credit card ad, priceless. The risky part of getting a R-390 is the damage likely from UPS shipping. In my opinion, Fair Radio is incredibly lucky shipping heavy boat anchor stuff, and they can and do right any wrongs. I shudder to think of the total tonnage wrapped in nothing by crumpled newspaper that has come my way from Fair Radio over the last 30 years. <grin> You should certainly download the Y2K R-390A manual - an absolutely essential

reference, and start looking it over before you decide what to do. Don Reaves W5OR

From Barry Hauser <barry@hausernet.com> Wed May 1 11:26:30 2002  
Subject: [R-390] Fair Radio R-390A Question?

wrote: >Fair Radio is incredibly lucky shipping heavy boatanchor stuff, and > they can and do right any wrongs. I shudder to think of the total tonnage > wrapped in nothing by crumpled newspaper that has come my way from Fair > Radio over the last 30 years. <grin>

Heh, heh never fails to amaze me too. I suspect it's more than luck, though. There's crumpled newspaper, and, then again, there's crumpled newspaper. Fair also shores up the cartons with added sheets of cardboard, lining the inside of the carton, cut and wedged just so. The newspaper is very thoroughly and tightly crumpled any tighter and it would approach critical mass and turn into wood. ;-). They don't spare the tape either -- lots of reinforced gummed paper tape. I've never had any damaged shipments from them either. A good part of it for sure is the technique, but also a good part of the "total tonnage" was the paper and cardboard. Yup adds some weight, but there's something to their old-fashioned no-peanuts/no-nonsense way of packing. I'm tempted to add "Don't try this at home". ;-)  
Barry

From courir26@yahoo.com Wed May 1 13:32:02 2002  
Subject: [R-390] Fair Radio R-390A Question?

Ronald, I think you can get a cheaper one and go through it yourself provided you have the patience to read the manual. The tape will help, but you might try the manual first and potentially save a few \$\$ for parts.

You'll find that the 390A is very robust and hard to break, unlike some of the lighter weight Collins gear which is possible to break. I'm finding that the rigs on eBay that are not completely restored, i.e. more or less equivalent to Fair repairable, are going for a reasonable price.

Usually if the thing plays at all, it can be cleaned up and peaked up pretty easily. AGC problems are not uncommon, but the good folks on this list have encountered and fixed all of them. I say go for a good repairable set.

From cbsscott@ingr.com Wed May 1 13:42:50 2002  
Subject: [R-390] Fair Radio R-390A Question?

Ronald, Don't know your budget, but you might want to check this out:

<[http://www.dealamerica.com/deal/cgi-bin/ads/bcads.cgi?search\\_and\\_display\\_db\\_buttonon&db\\_id3322&exact\\_matchon&photo\\_sizefull&queryretrieval](http://www.dealamerica.com/deal/cgi-bin/ads/bcads.cgi?search_and_display_db_buttonon&db_id3322&exact_matchon&photo_sizefull&queryretrieval)>  
Good luck with it. Yes, even a beginner (like me) can restore one of these fine radios. 73, Barry - N4BUQ

From jbrannig@optonline.net Wed May 1 14:45:56 2002  
Subject: [R-390] Fair Radio R-390A Question?

Ronnie, You don't mention any experience with tube radios. If this old technology is new to you, you might want to start with a less ambitious project. You will also need some test equipment. A VOM at the least. Signal generator, VTVM, frequency counter, scope, tube tester would be ideal. A full bench of good test equipment can cost as much as the radio. I don't want to discourage you, but being frustrated with a dead radio is no fun. Jim

From jetemp@insightbb.com Wed May 1 16:30:49 2002  
Subject: [R-390] Fair Radio R-390A Question?

I recently restored a Fair Radio bought R-390A. I bought the Repairable version without the meters. It was quite beat up, but it did light up when received.

To make a long story short, the overriding obstacle to overcome was corrosion at the grounding points. Just tightening the tube attachment points sometimes works, but in many instances, the attachment point needs to be disassembled and properly cleaned. My version, also, has a thin coating of some kind of shellac underneath the RF deck. After many hours of cleaning and tightening above deck screws, I finally discovered that the can attachment post of one of the transformers, UNDERNEATH the RF deck was loose and sitting on top of the shellac coat. This ground attach point was not available on top of the deck, so I was overlooking it. Another significant, and long, fix was finding a corroded solder joint.

My point is that of all the hours I spent in restoring this R-390A, only one fix was associated with a component failure. All the rest were in fixing corroded solder joints and corroded ground points.

One other suggestion is to go to Chuck Ripples site and check out the "common failures" section. The only capacitor that I found to be bad was in the list mentioned in this article. I would seriously consider shotgunning the replacement of the mentioned capacitors. I eventually did.

This list is a great resource, and when they are bored, might make a hurculean effort to get you over a particularly sticky problem. Thanks, guys. Jim

From jadams@mcqassociates.com Wed May 1 16:37:17 2002  
Subject: [R-390] Fair Radio R-390A Question?

That is most likely the MFP coating of the radio. (Fungus protection) Jeff

From s-biddle@ti.com Wed May 1 20:02:36 2002  
Subject: [R-390] Fair Radio R-390A Question?

I learned everything I needed to know about fixing radios like the R-390 in high school. A combination of industrial electronics (the first year was all vacuum tube theory and applications) and a little auto shop (it sure looks like a standard transmission out of an old sports car). So folks that love these radios are combination Tube&Gear Heads I suppose.

I started with a used/repairable R-390A/URR from Fair Radio. There were a couple of problems that needed attention, the biggest due to the old Collins IF deck with bad caps. I fixed those (and subsequently put in an EAC IF deck that is one year off from the Ditmore Freemuth contract on the rest of the radio) and it has worked well since. I use a Variac to power-up and power-down and have forced air ventilation in the oak cabinet I designed.

By the way, I just found the answer to mean-time-between-lubrication when using gun grease and gun oil on an R-390A. After about five years a little touch-up is needed. It hasn't hardened, but the heat seems to have volatilized some of the lubricant. A little grease and a little oil and I can again turn the kilocycle knob with my pinkie. 73 de Richard KB5WLH

Oh no! I just read my post and determined that I must be old:)

From cbscott@ingr.com Wed May 1 20:16:48 2002  
Subject: [R-390] Fair Radio R-390A Question?

I wish they would have had vacuum-tube theory in my high school. I would have paid attention in class a LOT more... Barry(III) - N4BUQ

From w2ec@attglobal.net Wed May 1 20:59:01 2002  
Subject: [R-390] Fair Radio R-390A Question?

No, you wouldn't have. I was already a ham when I started high school. I was in an advanced electrical curriculum of three years with several different classes each day dealing with electronics and electricity, plus labs. We even had a computer course (how to design and build logic circuits (now called programming) using relay logic) so we'd be ready to enter the world of vacuum tube computers that was just opening up. I had several years of electronics theory dealing with tubes. We just barely touched solid state as it was too new to be considered worthwhile at the time. Trust me, I did not do a whole lot of paying attention in class when it came to electronics. Maybe if I was a "ham wannabe" I would have paid attention, but I felt I already "knew it all" as a ham. 73, Ray W2EC

From bratcher@pdq.net Wed May 1 21:12:38 2002  
Subject: [R-390] Fair Radio R-390A Question?

wrote: >I wish they would have had vacuum-tube theory in my high school. I would >have paid attention in class a LOT more...

There was a radio course in my sophomore year of high school (around 1975) that I took that had both vacuum tube & transistor theory. Part of the course included building a 5 tube all american 5. I had been fooling around with vacuum tubes (my radio hobby) for about 4 years (started in jr high) before that & never had to study for the course! Same thing with the TV repair course the next year. I learned a few things but the rest was easy. They were still fun though...

Took electronics in college (no vacuum tubes) & I'll never forget this old 60's age professor (in one of the electronic courses) telling me to "get with the times" just because I was reading a 1940's Radio Craft magazine several minutes before class started. He walked up & glanced at what I was reading. I told him later (after class) that old tube stuff was my hobby. He seemed to understand...

From cbscott@ingr.com Wed May 1 21:14:21 2002  
Subject: [R-390] Fair Radio R-390A Question?

That might be true, but I still think I would have been more interested in anything electronic in nature

rather than who was governor of the state 150 years ago <yawn...> or whether my essay had three main points with the necessary expansion on each point. I equated a term paper with a prison sentence. Of course, then I went to college later in life and got good at writing them, but that's another story. The physics labs were still more fun than the history papers. Barry(III) - N4BUQ

From cbscott@ingr.com Wed May 1 21:19:37 2002  
Subject: [R-390] Fair Radio R-390A Question?

Same story for me in college when I took a required 300-level "C" programming class. I didn't take notes and made all A's. The other students didn't seem to like me very much, especially when I almost laughed out loud when they mentioned a study group before the finals... Barry(III) - N4BUQ

From redmenaced@yahoo.com Wed May 1 21:53:47 2002  
Subject: [R-390] Fair Radio R-390A Question?

After reading all of this I have come to the realisation that I went to a really crappy high school! Joe

From bratcher@pdq.net Wed May 1 22:34:19 2002  
Subject: [R-390] Fair Radio R-390A Question?

Tell me something. Did you learn anything new in those classes? Were they fun?

I didn't learn much (over what I knew already thanks to my radio hobby) when it came to my radio class. It was very easy. So much so that I didn't study & still made straight A's on every test. The TV class was sort of half easy the rest I learned quite a bit & still made an A for that course. You bet I enjoyed both of them!

While other guy's were hot rodding cars (among other things) I was having fun in my backyard ham radio shop. Reading old (30's through 50's era) ham radio & electronics magazines plus whatever books I could find building vacuum tube circuits and chatting on my (usually by CW) ART-13 transmitter & Collins 75A-2 receiver with hams all over the world. Seems the SSB guy's didn't like to talk to AMers so I wound up building my own bandswitching SSB transmitter after awhile. I had my own (homebuilt) 1KW SSB/AM/CW transmitter by the time I reached my 16th birthday. Thank God I wasn't paying the light bill! Spent a lot of time with ham radio, shortwave listening & general electronics from 13 until around 30 (or so) years of age. I still mess with it (at 43) but not like I used to...

Why did I get into tubes during my teen years? They were easy to find & a lot cheaper than today's prices.

From bratcher@pdq.net Wed May 1 22:41:56 2002  
Subject: [R-390] Fair Radio R-390A Question?

wrote: >So, how many "points" do you think you got from that >one,..... now that you look back from your present >perspective? > >Joe

I don't know. What do you mean by points? Learning? If so I learned a few things in the 2 high school classes & a lot for my college electronics courses.

From cosmos41@ix.netcom.com Thu May 2 04:45:30 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

R-390 Guys, Some of you have probably endured my whining on the Collins list already. I \*should\* have asked my question here first. I recently bought one of the CY-979A/URR cabinets and finally got to ATTEMPTING to install my R-390A/URR today.

The problem is that the rcvr will not go all the way into the cabinet. It stops about a half inch short, apparently when the bottom rear edge of the receiver contacts the folded over structural member of the cabinet. I believe that the lip of the receiver is supposed to go between the bottom of the cabinet and this folded over piece (the bottom of the cabinet opening at the rear).

Am I supposed to take the bottom cover off the receiver before trying to install it into the cabinet? Help! I've tried like crazy to force the bottom lip of the receiver into this "space," but it just won't go. All input appreciated. Very much! 73, Ron, KD5S

From Thu May 2 05:29:01 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

Take the bottom and top covers off before installing in the CY-979. The receiver won't fit with the bottom cover on, and it will get too hot with the top cover on. Don Reaves W5OR

From cosmos41@ix.netcom.com Thu May 2 05:38:16 2002  
Subject: [R-390] Never Mind! (CY-979A Woes Banished)

R-390 Gurus, Forget I asked about taking the bottom cover off my R-390A/URR before trying to get it to fit into the CY-979A/URR cabinet. I took it off and the rcvr slides in smoooooooooooooooooth! Finally!  
No more from me for awhile! Is that a deep sigh of relief I hear?! My gratitude to you all. 73, Ron - KD5S

From cosmos41@ix.netcom.com Thu May 2 05:50:51 2002  
Subject: [R-390] Success! Receiver Installed

Thanks to all who gently took me by the hand and guided me into the R-390 Promised Land. I took the bottom cover off, but I guess my R-390A doesn't have the top cover. It has some smaller covers over certain assemblies but no overall sheet metal cover like the bottom one.

Am I correct in assuming that the top cover would be similar to the bottom one? If so, my rcvr lost its top cover somewhere or other in some distant past. Wow...I may get to sleep tonight after all. Grateful to all, Ron, KD5S

From greg\_werstiuk@msn.com Thu May 2 09:00:55 2002  
Subject: [R-390] Success! Receiver Installed

Missing top and/or bottom covers are common. These were often removed to improve ventilation

thereby reducing internal heat build-up. - greg

From ba.williams@charter.net Thu May 2 14:44:07 2002  
Subject: [R-390] Fair Radio R-390A Question?

> Same story for me in college when I took a required 300-level "C" programming > Barry(III) -  
N4BUQ

I should have taken a C course too, and I regret not considering it when in college. I learned a lot of BASIC many years ago when everyone learned some programming with their first computers. I later learned machine language for 8 bit computers and that was extremely helpful in understanding software. It also helped crack copy protections!

It was easy to learn ML back then....in a way. I don't see how anyone could learn it on their own now with the Pentium and Motorola instruction sets, registers, etc. Everyone laughed at the claims in 1985 that Unix would be the dominate operating system to learn for the future. We thought it an almost dead dinosaur back then.

Speaking of courses, a good computer hacker friend of mine happened to land in a long Army course with me in 1985. One of the course requirements was the intro course to computers at the junior college. We had to write little BASIC programs for grades. Mike and I skipped classes and wrote the programs at home, linked them all together into a big package with menus, and submitted it for the end of course grade. Mike got a bit carried away and brought his computer to school for a demo on the last day. He had all kinds of graphic effects, sounds, and embedded machine language routines. It looked like a professional programmer had written it. The class was in awe as they thought the 2 of us were the class deadbeats. The problem was that Mike's demo was too good for the teacher. She was royally p.o.'ed at Mike for being smug and showing her up. She gave him a low grade out of spite. (g) Barry

From roy.morgan@nist.gov Thu May 2 15:24:59 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

wrote: >The problem is that the rcvr will not go all the way into the cabinet. >Am I supposed to take the bottom cover off the receiver before trying to >install it into the cabinet?

YES YES YES. No covers in cabinet. Roy

From pha@pdq.com Thu May 2 15:40:16 2002  
Subject: [R-390] aligning an R-391 IF deck

Howdy, I'm still aligning my 391. I left my URM-25D on for 3 days, and it is stable enough to get the job done (I'll leave it on until I'm done).

The coil in Z501 still doesn't peak - in fact, doesn't affect the vtm at all.

I went further in alignment, and found one dead 2nd oscillator band - will check crystals. This problem I can see how to work and will track it down.

However, when I went to align the RF slugs, and the first set (3-4MC, I think) didn't affect vtm output at all! I'll double check again tonight, but am interested in course of action to take when tuning coils or

slugs don't change the diode load level.

> Push and pull on the frequency set knob.. if the frequency changes much, > the shaft end play mechanism is loose. Gotta fix that.

It is loose - it seems to be stable if I'm not pushing or pulling hard on the knob, however. I have a decent frequency counter to verify this.

> Other wise something else is out of whack.

The URM-25 appears to need recapping and re-alignment. I'll try and make do with it for now, however, as I've got too many other broken things to fix first. I've got Dallas Langsford's (sp) notes, and should be ok with those. Paul

From kkibbe@golden.net Thu May 2 15:47:29 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

>>The problem is that the rcvr will not go all the way into the cabinet. Am I supposed to take the bottom cover off the receiver before trying to install it into the cabinet?

>YES YES YES. >No covers in cabinet.

And most importantly don't forget to toss the covers into the garbage. Least that's what everyone else in the past seems to have done... ;-) Kevin, Still looking for SX-28A bottom cover... VA3SU

From Lester.Veenstra@lmco.com Thu May 2 15:53:00 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

In other words: Who got covers and who need covers?

From nryan@intrex.net Thu May 2 16:25:47 2002  
Subject: [R-390] CY-979A/URR Problem Can't Install Receiver

Hi, Kevin, Toss a couple of sets of those R-390\* covers my way! :-) 73... Norman

From bwbacon@mindspring.com Thu May 2 17:50:15 2002  
Subject: [R-390] LW reception on R390A

Hi Folks, Long time listener, first time caller, hi. I seem to recall reading a post a long time back about a simple mod to enable the '390A to hear freq's below 500kc's. Could someone explain the mod, or direct me to the proper resource? Much obliged. 73, Bruce Bacon - KE6GLS Boise County, ID

From goode@tribeam.com Thu May 2 19:20:25 2002  
Subject: [R-390] LW reception on R390A



I would also be interested in any mod for below 500 kHz. I am hoping to build the LF converter in the April QST. Steve, K9NG

From roy.morgan@nist.gov Thu May 2 20:35:00 2002  
Subject: [R-390] LW reception on R390A

wrote: >I would also be interested in any mod for below 500 kHz. I am hoping to >build the LF converter in the April QST. >> I seem to recall reading a post a long time back about a simple mod to >> enable the '390A to hear freq's below 500kc's.

It's not a modification, its just a trick. I can't remember the deatiils but you simply hook your antenna to one of the test points in the RF deck (or maybe to the grid of one of the tubes) and bypass the RF amplifier stage.. You run the radio in the 0 Mc band and just tune down below the normal 500 kc point of deafness. Take a test prod and experiment. It's a no-cut, no -solder, reversible "mod". VLF converters are a whole different matter. Roy

From cbscott@ingr.com Thu May 2 21:50:45 2002  
Subject: [R-390] LW reception on R390A

Well, with a 455kc IF, you already have a "receiver" that will "hear" below 500kc. :) Barry(III) - N4BUQ

From roy.morgan@nist.gov Thu May 2 22:14:43 2002  
Subject: [R-390] LW reception on R390A

>Well, with a 455kc IF, you already have a "receiver" that will "hear" >below 500kc. :)

Yup.. but listening to just 455 kc may be boring.

A Hollow State News article that may relate to this topic is: Issue No 2, page 3. "Longwave Conversion" This may be the article I remember, or perhaps there was an Electric Radio article.

... It's not a modification, its just a trick. I can't remember the details >but you simply hook your antenna to one of the test points in the RF deck Roy

From vze2gmp4@verizon.net Thu May 2 10:14:39 2002  
Subject: [R-390] LW reception on R390A

Disconnect your regular antenna and attach it or your LF antenna to test point E208 on the RF deck. E208 is to the lower right of V201, the RF amp. The setup works pretty good. If you have or can build a LF antenna tuner it's much better. Any of the available published plans of converters will work. Helm. WB2ADT

From pwokoun@hotmail.com Thu May 2 22:44:15 2002  
Subject: [R-390] T-shirts

Folks: A couple years ago someone was selling t-shirts with a picture of the R-390a on the front and

back. My searching hasn't come up with locating the source. Does anyone know who was selling these and if they still are? Should've got one back then! tnx pete kh6grt

From cbscott@ingr.com Thu May 2 22:52:53 2002  
Subject: [R-390] T-shirts

This is the link I have, but apparently is isn't good anymore. Perhaps someone knows where they've moved? <http://www.concentric.net/~R390a/T-Shirts.html> Barry(III) - N4BUQ

From nryan@intrex.net Thu May 2 23:03:11 2002  
Subject: [R-390] T-shirts

Hi, Pete, It was Dave Merrill, N9ZC. Got my shirt from him. Wonder if he'll be selling them again at Dayton. 73... Norman KG4SWM

From ba.williams@charter.net Fri May 3 02:00:53 2002  
Subject: [R-390] LW reception on R390A

Yes and no to listening below 500 kc. It is interesting to see how many beacons you can DX in different directions. You may be surprised at how far propagation carries. It is interesting if you are into building antennas until you get them right as this is a real challenge due to weak signals and the right propagation. It is somewhat interesting to park somewhere and wait for propagation to roll in. I've logged many strong stations just to hear them fade to nothing in a matter of seconds for the rest of the evening. It is also a surprise to hear how many stations are on just one frequency if you listen long enough.

I don't know if DXing below 500 is something that you would want to do every night as with HF, but it is interesting and different. You can get European LF broadcast stations down around the 180-200kc range if you get things right. Lots of LF time stations on the other side of the world. WOLF and other slow CW modes are interesting if you want to use the computer to get dig out the signals. I haven't tried that yet, but I read where LOWFERS are reaching incredible ranges using these digital modes.

Don't expect to really hear all that is reasonably attainable unless you have a preamp (I don't at the moment) and good filters if you are going to try and log some beacons. You need to really slice down on the CW. I have a JPS NIR-12 that I now use only for LF. It is the difference between hearing 1 or 2 stations or hearing a few dozen as I can adjust the filters way down. A rotator is pretty much necessary for LF. I had a homebrew Octalooop set in PVC pipe on the chimney for a while. I had lines so that I could rotate it from the ground by hand. It was an interesting experiment. the other other Barry

From jonandvalerieoldenburg@worldnet.att.net Fri May 3 04:05:46 2002  
Subject: [R-390] T-shirts

Dave used to get his booth at Dayton in one of the first two aisles of spaces as you come through the main entrance to the outdoor swapmeet. DAYTON T-MINUS 14-DAYS & COUNTING!!!!!! 73's Jon AB9AH

From nryan@intrex.net Fri May 3 17:33:00 2002

Subject: [R-390] T-shirts

Hello, all, Hmm, looks like several list members will be at Daytonme among them! Any ideas for a check-in/meeting point? 73... Norman KG4SWM

From w5kp@swbell.net Fri May 3 19:58:22 2002  
Subject: [R-390] T-shirts

An eyeball location would be great. It would have to be proposed by someone with Dayton experience. Anybody willing to speak up? I'm sure looking forward to finally associating faces with some of the familiar calls and names on this list. Will be my first ever Dayton trip... 73, Jerry W5KP Mustang, OK

From bwbacon@mindspring.com Fri May 3 20:25:54 2002  
Subject: [R-390] LW reception on R390A

Thanks for the info guys. I've got about 700' of antenna stretched out, and I am able to hear a few beacons on my other rigs, just wanted to see how the '390 faired in this nether-region. 'Course DXing LW in the winter months would have been a lot more rewarding, hi.

73, Bruce Bacon KE6GLS

From roy.morgan@nist.gov Fri May 3 21:40:37 2002  
Subject: [R-390] LW reception on R390A

wrote: >Thanks for the info guys. I've got about 700' of antenna stretched out, and

Would-be-longwavers,

I read the article in Hollow State news number two (actually it had a different name for the first four issues) and note that it contains additional information. I severely summarize here:

- 1) with no antenna tuner or pre-selector in use, overload, birdies and odd mixing products are present.
- 2) an antenna tuning and input impedance circuit is described. Use of this network greatly improved both signal strength and reduced the interference. A tank coil/capacitor having multiple taps and a variometer link coupling is described. A capacitor is used to feed the signal into the test point. This may prevent shorting AGC line voltage to ground.
- 3) suggestions for use of a toroid coil are made.

After the first four issues of the newsletter were published, the editors selected some articles to reprint. The Long Wave article was included in that reprint but the diagram of the suggested toroid circuit was omitted.

I think that the bottom line is that a preselector and impedance match circuit is very much desired. Roy

From terryo@wort-fm.terracom.net Fri May 3 22:07:12 2002

Subject: [R-390] T-shirts

I asked Dave about shirts at Grayslake Fest last fall because mine fell in the mud as I was unloading and got badly stained. At that time, he was out of the T-Shirt business but he said that he'd see what he could do. 73 Terry O' WB9GVB

From ba.williams@charter.net Sat May 4 01:07:47 2002

Subject: [R-390] LW reception on R390A

Roy,

I did some experimenting with my RBL-5 with and without a preselector/tuner. It makes a big difference. Also, getting the filters down between 400 and 1200 Hz makes a big difference too with noise (QRN & QRM). You can't ID most beacons using wider filters.

Bruce- if you have 700' of wire maybe you should look at a loop design for LW and MW. I made mine out of PVC in a few hours and for under \$20. I used 45 degree joints. I stuffed the inside of the PVC with 30 something strand wire connected at the ends for around the same length you have.

If anyone is interested in how I made a 1000' delta vertical loop by myself between 2 trees contact me and I'll try to put together some plans to send you. Each side was about 24', and I think I had 12 turns of wire. It was very small, compact, and hard to spot even with orange wire. I think it took less than 2 hours to build these once I knew how to do it alone. Barry

From w8jy@centurytel.net Sat May 4 01:54:03 2002

Subject: [R-390] T-shirts

Jerry, I haven't posted a lot to this group, but have learned a lot over the past few years. I have spaces 2564 and 2565 as usual.....covered space with chairs and cold drinks. Maybe sometime Saturday afternoon? Am open to suggestions. Jess Young W8JY

From mmdues@hal-pc.org Sat May 4 03:12:02 2002

Subject: [R-390] T-shirts and Dayton

Norm, Dayton is up nawth YOU will stick out like a red nose on a nun! :) Sure wish I could go, but I have to stay down here in the 95 degree temperatures of Texas springtime! Marshall Dues - WB5MYO Katy, TX

From w5kp@swbell.net Sat May 4 05:28:13 2002

Subject: [R-390] T-shirts

Sounds good to me, Jess. Thanks for the offer. I'll stop by with a couple of my Oklahoma cronies in tow Sat PM, and maybe see Norman there too. We're driving up Thursday (15 hours, I can hardly wait) and returning Sunday. Maybe some swamp rat R-390 guy from down south will even show up, I'd like to shake his hand one time, and thank him in person for the tube tester data work he's done. 73, Jerry W5KP

Don and list,

Here is how I made and raised a 1000' vertical antenna with a delta shape between 2 trees. One point of the antenna was towards the ground and the other 2 points were at the top for suspending between the trees. The bottom point was tied to a stake. This was a very good point for controlling sway and twisting forces in high wind conditions. I also untied the bottom a few times when the weather was extremely destructive here in Alabama to give the antenna room to sway with the trees. It remained in good condition for 2 years and never tore.

Each side of the antenna was the same length and not assymetrical. I had 2 trees that were about 50' apart, so that gave me roughly about 12' on each side to suspend the antenna. I'm not sure of the measurements at the moment, but I think each side was 24' long and I had 12 wraps of wire all the way around. This was a problem at first because I lived in the country and didn't have anyone to help raise it once I built it.

I put 3 stakes in the ground for the outer dimensions that I wanted. 2 of these stakes were in line with the trees I wanted to use. I tied a short line to each stake with an insulator egg on the end of the line. This was to provide a suspension line point and to begin the first wrap of wire for the outside of the antenna. I wrapped each egg twice for strength with the first turn of wire. This gave me the outer shape.

Doing the inner turns meant using weather resistant wire ties. I got the thickest I could find. Each subsequent turn was several inches inside of the previous turn for spacing. At each point of the antenna I put a loop of wire tie to give stretching room and that inch or so of spacing. The next turn I would tie the wire tie loop to the previous tie like a chain. I periodically pulled the wire a bit taut to keep the shape and the antenna off of the ground.

I ended up with each turn going inward towards the center. Each point of the antenna was a large wire tie loop tied to the previous wire tie loop. You can pull the wire tight as you unreel it from point to point to keep a good shape and to keep the wires from crossing over each other. You have big problems if that happens and you don't correct it right away.

I had painted 9 thick wooden dowels for spreaders. I used the wire ties to tie off each turn of wire to the dowels, 3 dowel spacers per side. This took the most time in the construction process, but this worked well over several years. I've thought that if I build another one I should drill however many holes for the turns in the dowels instead of using wire ties. I could put the spool of wire on a stake and pull the wire through the holes as I build the sides. That probably would be best if long term stress and pulling evened out throughout the wire. It seems that it should work and balance out. I would have to tie some of the wire to the dowel spacers to keep them from sliding, if you can picture what I'm talking about.

Once I had the antenna finished it was only a matter of getting the lines over branches and pulling each side up a few feet at a time. I would tie off the line temporarily and go do the other side. After a few iterations of this the antenna was up in the air and the top side was straight and taut. I tied off the bottom point to a stake. My feed point was one of the top corners so that I could pull the wire at a 90 degree angle away from the face of the antenna. I wasn't completely sure about the feed point part of this, but I did get 90 degrees angle away from the antenna.

I used this antenna for a lot of HF and MW DXing. It did get some noise but nothing that I couldn't live with. I chalked it up to a good gain. It worked well as a general purpose antenna and even better for MW. It was never planned based on frequency formulas as I just bought a 1000' spool of wire and wanted a 1000' antenna. I had built a 1000' Beverage and was completely disappointed in it. I'm sure that this isn't the best way to approach things for everyone, and maybe my next one will be cut to a length somewhere in the 160m band for MW. You can get some impressive logs from random lengths like mine on LF, so length isn't all that critical. Maybe I'll go for 2000' if this is going to be a permanent

LF/MW antenna. I didn't have my RBL-5 back then, but I bet I would have had some good logs. It seemed directional, but not sharply so when I checked stations with other antennas.

The thing that always surprised me about this antenna was the small size of it and how hard it was to spot from a short distance away. Sides of 24' is not all that big. It was always hard to believe that there was 1000' of wire in the small triangle shape. The spacing of either 2 trees or 1 tree and the side of a house isn't that critical either. I think you could run long lines to the closest trees and still have good support. the other other Barry

From w8jy@centurytel.net Sat May 4 04:14:59 2002  
Subject: [R-390] T-shirts

OK, Jerry, will look forward to seeing you and any other members of the group there on Saturday. Seems like it has been a long year since the last Hamvention. Jess

From jetemp@insightbb.com Sat May 4 23:15:22 2002  
Subject: [R-390] WANTED: 6082 tubes.

Anyone willing to part with 2-4 of the above tubes? Let me know. Jim Temple Louisville, KY.

From jetemp@insightbb.com Sun May 5 05:20:22 2002  
Subject: [R-390] R-390 slugs

Well, I have been going over the Yahoo archives and it seems that there is no easy way to judge what slugs and coils match in the R-390. There was considerable discussion about color codes, etc. Everything you ever wanted to know about R-390 slugs is discussed in the April 1999 time frame, give or take a couple of months, in the Yahoo archives, except the final, definitive answer. So it seems there is no real answer, beyond going back in time to question the manufacturers of these items. :-) Jim

From w7itc@hotmail.com Sun May 5 06:21:42 2002  
Subject: [R-390] Ballast Tubes

<http://www.vacuumtubesinc.com/ballast.html> Check out the above list. All Ballast tubes. I wonder if any could be adapted to the R390? Kenneth A. Crips

From pha@pdq.com Sun May 5 13:56:59 2002  
Subject: [R-390] R-390 slugs

wrote:> Well, I have been going over the Yahoo archives and it seems that there is no easy way to judge what slugs and coils match in the R-390. There was

It seems to me that a slug is a bunch of iron powder in a binder. How tough would it be to dissolve the binder, then weigh the powder to see how much it takes, then make new ones? Hmm... I've got a gunpowder scale... maybe time to weigh the slugs themselves with binder to see if I can get weight differences. Paul

From kd9kc@elp.rr.com Sun May 5 14:14:58 2002  
Subject: [R-390] R-390 slugs

Oohhhhhhhhhh.... another thread slipping off-topic. This is what I love about the R-390 list. There is always so much to learn from and about our fellow list members...

I use a LEE Safety Scale. I have tried a few, almost bought the Dillon electronic scale, but found that the LEE was as accurate as any, and near impossible to screw up with. I do my development on the LEE single stage system, but once I pick a load, I do the bulk work on a Dillon RL-550B.

You are right, it might be possible to weigh the slugs. BUT... if the spring is not EXACTLY the same in each slug, it might have an impact on the results. Dunno.

Since I do not have a spare rack, and I am not willing to take the working unit apart, I will have to wait for your research. Good luck. Mike. KD9KC

From Barry Hauser <barry@hausernet.com> Sun May 5 15:25:24 2002  
Subject: [R-390] R-390 slugs

Greetings Gang:

I don't know if the weighing approach is the best first step. As I recall, we found a variety of color marks on the non-A slugs with no particular pattern to which was used where. Then, someone reported first-hand knowledge that these were cherry-picked and/or hand matched to the coil they were to go in. That seemed to end the thread, if I remember right.

What about this? Hook up a reference coil to a Q-meter and use a caliper or something to control vertical position. Then read Q and resonant frequency for an assortment of slugs at various positions in the coil. Maybe figure out a pattern to those colors and then weigh them. Any thoughts? Barry

From jetemp@insightbb.com Sun May 5 15:33:05 2002  
Subject: [R-390] R-390 slugs

Hi Bob,

It appears, from my research, that there are two series of R-390 slugs. The first series is for the earlier production runs of the R-390. This is discussed in the Final Engineering Report for the R-390, available at [www.r-390a.net/faq-refs.htm](http://www.r-390a.net/faq-refs.htm) . Apparently the earlier production runs used 3 different values of slugs in the R-390.

1. For the 8-16, 16-32 RF coils, and the 9-18 Variable IF coils.
2. For the 4-8 RF coils, and the 3-2 Variable IF coils.
3. For the .5-1, 1-2, 2-4 RF coils.

They are not necessarily matched to individual coils, but the type of slug is selected for the above listed coil banks.

The second series of slugs, for later production runs, were poorly documented in the 1962 TM 11-5820-

357-35, page 3.

Nowhere is there a definitive explanation or graph detailing how to identify the different values of slugs for replacement or alignment purposes. Some on the list attempted to chart their existing R-390 slugs, to varying degrees of success. This is documented in the Yahoo Archives as discussed below. I will continue to research this issue and report back from time to time. Jim 73, KF4ICZ

From kg7da@foxinternet.net Sun May 5 15:35:53 2002  
Subject: [R-390] NOS 390 A cabinet

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item1350899355> NOT MINE!!! Marty

From chacuff@datasync.com Sun May 5 14:58:43 2002  
Subject: [R-390] R-390 slugs

Hi Barry, You must have been reading my mind as I was reading your post! There has to be some analytical way of measuring the permeable or ferro-resonant characteristics of the individual slugs. (not sure those are the right terms) I'll have to think on this one for a while! Cecil..

From courir26@yahoo.com Sun May 5 16:19:11 2002  
Subject: [R-390] NOS 390 A cabinet

Looks like the now famous "Mac-Cabinet", CY-979A made by Laboy Industries in the 80's. Every 390A-head needs at least one of these. The paint is fantastic. Tom N5OFF

From jetemp@insightbb.com Sun May 5 16:56:30 2002  
Subject: Fw: [R-390] R-390 slugs

OK, I think I have found a pattern to the color dots on the R-390 non-a slugs.

In reviewing the Yahoo archives, I found two different members reported a similar color pattern. This was:

#### RF COILS...

0.5-1	yellow dots
1-2	yellow dots
2-4	yellow dots
4-8	red dots
8-16	blue dots
16-32	blue dots

#### Variable IF COILS...

3-2	red dots
18-9	blue dots

These color dots are consistent with ALL the coils within the listed coil row.



Although the color dot pattern was not 100% in agreement, it was something like 95% in agreement.

In checking my new/old R-390 this morning, I observed the exact pattern that I listed above, 100%. I observed two dots of the same color, 180 degrees apart, on each slug. Based on the observations of three different individuals, at different times, I would feel comfortable with claiming that the color pattern outlined above is correct for the earlier production runs of the R-390. My observation is also consistent with the Final Engineering Report on the R-390, referenced below.

NOW, this does not explain the science of the material used, permeabilities, and other scientific properties, but it does seem to explain what color dots go to what slug and what slug goes to which coil row, IN EARLIER PRODUCTION RUN R-390'S.

As I earlier observed, I had noticed one of my coils was aligning to instability. I noticed that one of the 16-32 slugs was of a different color. So I exchanged the slugs and the alignment went well after the swap.

It is now clear, from my recent observations of the color dots, that the two slugs that I swapped, IN FACT WERE OPPOSITES, which when exchanged, correctly associated themselves with the same color slugs in that row. Now all the slugs, in each row, are of the same color.

I present my observations in the hope that owners of the R-390 might be able to explain inexplicable alignment problems and use today's observations to, hopefully, realize that there are three different slugs used in the earlier production R-390's. Of course, this information is useful only to the extent that the subject slugs have surviving color codes painted at the top of the slug, where the spring attaches to the slug. 73, Jim

From w5kp@swbell.net Sun May 5 20:05:58 2002  
Subject: [R-390] NOS 390 A cabinet

Mac is again the prime mover and shaker in the world of supply and demand... :-) Jerry W5KP

From RDavis24@carolina.rr.com Sun May 5 21:28:22 2002  
Subject: [R-390] WTB R-390A to restore

Hello, Thought I would see if anyone on the list had a 390a that they wanted to sell before I buy one from Fair Radio. Please let me know by direct email if you have one for sale. Prefer complete one, but will listen to any offers. Thanks Ronnie KE4VPN

From federico.baldi@virgilio.it Sun May 5 21:58:08 2002  
Subject: [R-390] ?iso-8859-1?Q?MICRODIALS20FOR20R2D390A/URR?

Dear Friends, I'm searching informations and if it is possible photos about MICRODIALS, a sort of knobs with an digital mechanical counter inside, that I heard were applied instead of BFO knob on R-390A/URR employed by NSA. I founded a box with five of this knobs. Any helps very appreciated. Federico BALDI

From greg\_werstiuk@msn.com Sun May 5 23:37:38 2002  
Subject: [R-390] MICRODIALS FOR R-390A/URR

I expect these were a "turns counting dial" as used with potentiometers for many, many years.

Some models are still in production. These are sold (but not necessarily manufactured) by multi-turn potentiometer vendors such as Vishay/Spectrol, Bourns and B I Technologies (formerly Beckman Instruments).

Bourns offers an embedded counter style such as you describe: <http://www.bourns.com/html/dials.html>

An alternative (counter is above the knob) is the Model 15 from Vishay/Spectrol which can be found here: [http://www.vishay.com/brands/spectrol/pots.html#multi\\_dial](http://www.vishay.com/brands/spectrol/pots.html#multi_dial) - greg

From r.tetrault@attbi.com Mon May 6 07:23:51 2002  
Subject: [R-390] MICRODIALS FOR R-390A/URR

They were used, as I understand it, not necessarily by NSA, for RTTY reception and allowed precise settability. Others here on the list may know more about them. They were a generic type of multi-turn knob and the full range of their adjustment was not usable by the BFO. Have one and don't use it for my purposes. Bob

From BRingwoo@csir.co.za Mon May 6 07:50:00 2002  
Subject: [R-390] LW reception on R390A

Hi all, Here's a link <http://www.wireless.org.uk/index.htm> . All I receive here are beacons. Haven't tried the R-390A though. - Bryce

From Mon May 6 08:36:33 2002  
Subject: [R-390] FS: R-390A at Dayton

Gang, I will have a Motorola R-390A for sale at Dayton. This is one I bought at a hamfest in Shreveport LA a few years ago with the intent to use it as a parts rig, but just never could justify taking parts off the thing after I looked it over closely and removed all the debris (bird nest) from it. It is missing the Utah plate, meters, top and bottom covers, has some minor corrosion, has one broken tuning slug. But I believe it is a good candidate for full restoration. It's in better shape than my blue striper was. Front and back panels good, knobs need paint. It has the 12BA6 mod for the ballast resistor, which is easily reversed should you find a RT510. The 26Z5's are missing but it may have the SS mod. I have never fired it up or removed any modules for a closer look. Has a Collins PTO. The broken slug is sitting down in the coil socket separated from the flexible metallic shaft - a common problem that usually responds to a bit of epoxy glue.

Here is contact information if you would like to find out more. No digipix yet - maybe tomorrow.  
<http://www.militaryradio.com/forsale.html> Don Reaves W5OR

From federico.baldi@virgilio.it Mon May 6 09:11:07 2002  
Subject: [R-390] ?iso-8859-1?Q?MICRODIALS20FOR20R2D390A/URR?

Many thanks for the answers to my enquiry, I shall appreciate very much any further helps especially with photos and information about this modification of R-390A/URR in Government Agencies of the

United States. In my radio room, besides other receivers, I have :  
2 R-390A/URR  
1 51J4 whit gray front panel  
1 51J4 whit black panel (St. James Gray) and silkscreen (original) in youguslavian language (ex-SSR)  
1 R-390A adaptor CV-1982 (nuvistors) for R-390A/URR  
1 R-392/URR  
1 G133F (special version of 51S1 for USAF)  
1 651S1

Many thanks friends. Federico BALDI

From mmasin@atc-us.com Mon May 6 14:25:50 2002  
Subject: [R-390] R-390 slugs

Who is the manufacturer of the coils that have these cores? Also what are the Signal Corp drawing numbers of the transformers? Perhaps I can help clear up this mystery. Mark Masin American Trans-Coil

From Lester.Veenstra@lmco.com Mon May 6 14:26:39 2002  
Subject: [R-390] R-390 slugs

Wrap a standard number of turns around it and measurwe the L.

From BRingwoo@csir.co.za Mon May 6 15:24:24 2002  
Subject: [R-390] R-390 slugs

Aren't there losses associated with different ferrites at different frequencies as well as things like relative permeability ? Just thinking aloud. Might be thinking rubbish.- Bryce not Bruce

From jordana@nucleus.com Tue May 7 03:47:16 2002  
Subject: [R-390] R-390 slugs

I do recall there was a note I read many years ago that mentioned the fact that some of the cores would not allow for proper tracking , especially on the 16-32 Mhz slug rack range...I'm not too sure where I read this , but I do recall seeing a notice regarding this... 73 de Jordan..

From Barry Hauser <barry@hausernet.com> Mon May 6 16:12:40 2002  
Subject: [R-390] R-390 slugs

Hi Bryce not Bruce, I believe all the slugs/cores in the non-A are iron powder, not ferrite, whereas most of the slugs in the R-390A are ferrite cores. The variation in the iron powder cores was accomplished by varying the ratio of binders and fillers to iron powder. I'd imagine the instructions were to "mix well", or maybe "shaken, not stirred." Could have been some variation in characteristics due to settling during setting/curing.

I don't have an RF deck handy right now to check manufacturer's ID on the cans. I've never seen anything printed on the non-A slugs I've seen. If anyone does have some ID on the cans, shoot the info

over to Mark Masin as he requested earlier. Barry

From chacuff@datasync.com Mon May 6 16:25:26 2002  
Subject: [R-390] R-390 slugs

I agree with Barry,

Mark is in a good position to answer some of these questions since he was a manufacturer of various parts of the 390 and other great radio's we all Love...i.e. R1051's (had to get a plug in there somewhere)

I have an RF deck in pieces and can look at the numbers on the cans but don't know exactly what I am looking at... I will post what I have in the next few minutes. (after a trip to the shop) Thanks.. Cecil Acuff

From jetemp@insightbb.com Mon May 6 16:34:48 2002  
Subject: [R-390] R-390 slugs

Although my R-390 non-a appears to have the correct complement of slugs/coils, there is a good possibility of mismatch in many of the R-390's out there. This is due to the fact that, at least in early production run R-390's, three distinctly different slugs were installed.

I have read archive reports of alignment and sensitivity issues that seem likely to be caused by slug mismatching. I, personally, corrected an alignment problem after noticing the color dots on the slugs, and correctly exchanging slugs to match the color code reported by previous archive posts. Now my R-390 has a consistent match of color dots within coil banks and the sensitivity matches my R-390A.

In correlating archive posts, personal observation, and the Final Engineering Report for R-390, the correlation consistently supports the following:

1. In early production run R-390's, three different slugs were installed, and one type slug was installed in all positions of a given coil bank.
2. The color dots correlated to the following slug/coil banks:

RF....

.5-1, 1-2, 2-4 S-51 iron, Yellow dot.

4-8 S-62 iron, Red dot.

8-16, 16-32 S-100A, Blue dot.

Variable IF...

3-2 S-62 iron, Red dot.

18-9 S-100A, Blue dot.

In the 1962 TM 11-5820-357-35, page 3 notes that beginning with RF subchassis MOD 2, the slugs of the antenna coils were changed to a different material and the size of the slug in the 16-32 coil bank were reduced in size.

Hope this helps with tracking down the R-390 non-a coil/slug investigation. Let me know if anyone agrees or disagrees. Jim

From pha@pdq.com Mon May 6 16:41:18 2002  
Subject: [R-390] R-390 slugs

I looked at my copy of the R-391 parts list. It does not list NSN part numbers. It does list Collins Drawing Numbers, and if those are of use, I'll get them posted.

I'm very interested in clearing this up - my 390 and 391's have a mixed bunch of no-mod and mod-1 RF decks with inconsistent slug markings from what has been listed so far. Haven't had time to follow up as much as I want... sorry. Paul

From chacuff@datasync.com Mon May 6 17:03:23 2002  
Subject: [R-390] confusion

Am I creating confusion on this issue....is this only a NON-A issue. All the info I posted was for the A. Looking back at the posts it appears the questions are for NON- A's I may have jumped into something that I cannot help with....Have no NON-A's here! Cecil...

From pha@pdq.com Mon May 6 17:11:45 2002  
Subject: [R-390] R-390 slugs

Hi all, The following comes from the preliminary R-391 manual (seem to be the same as my preliminary R-390 manual in my lap):

I believe these three cores are the main ones used in the the RF deck Tuner Assemblies. Note that this is almost certainly ONLY for the R-390/391 no-mod RF deck. The Mod 1 RF deck has different slugs, and probably FOUR different types:

CORE, adjustable tuning: iron; 21/2" lg x 1/4" dia w/one .062" dia phosphor bronze shaft 7/a" lg o/a; Stackpole mfg type S-51.	Tuning slugs for Z202, Z208, Z214, T202, Z201, Z207, Z213, T201, Z203, Z209, Z215, and T203
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CORE, adjustable tuning: iron; 21/2" lg x 1/4" dia w/one .062" dia phosphor bronze shaft 7/8" lg o/a; Stackpole mfg type S-62.	Tuning slug for Z204, Z210, Z216, T204, Z222, Z223, and Z224.
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CORE, adjustable tuning: iron; 21/s" lg x 1/4" dia w/one .062" dia phosphor bronze shaft 7/8" lg o/a; Stackpole mfg type S-100A.	Tuning slug for Z205, Z211, Z217, T205, Z206, Z212, Z218, T206, Z219, Z220, and Z221.
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The Tuner Assemblies are (antenna ones listed first):

T202 TUNER ASSEMBLY, RF: aluminum housing; 1- to 2-mc antenna coil as

trimmer cap. w/scdr adj; 1.672" lg x .918" wd sembly.  
x 21/4" h max; mtd by two #4-40 NC-2A tapped  
holes spaced .594" c to c, accom captive mach  
screw; principal parts c/o fixed mica dielectric

cap. C1, fixed, tubular, ceramic dielectric cap.  
C2, fixed mica dielectric cap. C3, dual variable  
ceramic cap. C4, and trimmer cap. C5; plug-in  
type term.; Sickles FW per Collins Rad spec  
278 0165 00.

Ref Name of part and description    Function of part    Signal Corps  
symbol    stock No.

T203    TUNER ASSEMBLY, RF: aluminum housing; 2- to 4-mc antenna coil as

adj trimmer cap. w/scdr adj; 1.672" lg x .918" sembly.

wd x 2 1/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive

mach screw; principal parts c/o fixed mica dielectric cap. C1, fixed, tubular, ceramic dielectric cap.

C2, fixed mica dielectric cap. C3, dual

variable ceramic cap. C4, and trimmer cap. C5;

plug-in type term.; Sickles FW per Collins Rad

spec 278 0168 00; part of Sig C Radio Receiver

R-391/URR.

T204    TUNER ASSEMBLY, RF: aluminum housing; 4- to 8- me antenna coil as

trimmer c/scdr adj; 1.672" lg x .918" wd x sembly.

2 1/4" h max; mtd by two #4-40 NC-2A tapped

holes spaced .594" c to c, accom captive mach

screw; principal parts c/o fixed mica dielectric

C1, fixed, tubular, ceramic dielectric cap. C2,

fixed mica dielectric cap. C3, dual variable

ceramic cap. C4, and trimmer cap. C5; plug-in

type term.; Sickles FW per Collins Rad spec

278 0171 00.

T205    TUNER ASSEMBLY, RF: aluminum housing; 8- to 16-mc antenna coil as

trimmer w/scdr adj; 1.672" lg x .918" wd x sembly.

2 1/4" h max; mtd by two #4-40 NC-2A tapped

holes spaced .594" c to c, accom captive mach

screw; principal parts c/o fixed mica dielectric

cap. C1, fixed, tubular, ceramic dielectric cap.

C2, fixed mica dielectric cap. C3, dual variable

ceramic cap. C4, and trimmer cap. C5; plug-in

type term.; Sickles FW per Collins Rad spec

278 0174 00.

T206    TUNER ASSEMBLY, RF: aluminum housing; 16- to 32-mc antenna coil as

adj trimmer cap. w/scdr adj ; 1.672" lg x .918" sembly.

wd x 2 1/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive

mach screw; principal parts c/o fixed mica di

electric cap. C1, fixed, tubular, ceramic dielec

tric cap. C2, fixed mica dielectric cap. C3, dual  
variable ceramic cap. C4, and trimmer cap. C5;  
plug-in type term.; Sickles FW per Collins Rad  
spec 278 0177 00.

spec 278 0177 00.

Z201, TUNER ASSEMBLY, RF: aluminum housing; Covers from .5- to 1-mc fre

Z207, 1 trimmer cap. w/scdr adj; 1.168" lg x .918" quency.

Z213 wd x 21/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica di

electric cap. C1, fixed glass dielectric cap. C2,  
and trimmer cap. C3; plug-in type term.;

Sickles FW per Collins Rad spec 278 0117 00.

Z202, TUNER ASSEMBLY, RF: aluminum housing; Covers from 1- to 2-mc fre

Z208, 1 trimmer cap. w/scdr adj ; 1.168" lg x .918" quency.

Z214 wd x 21/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica

dielectric cap. C1, fixed glass dielectric cap.

C2, and trimmer cap. C3. plug-in type term.;

Sickles FW per Collins Rad spec 278 0121 00.

Ref Name of part and description Function of part Signal Corps

symbol stock No.

Z203, TUNER ASSEMBLY, RF: aluminum housing; Covers from 2- to 4-mc fre

Z209, 1 trimmer cap. w/scdr adj; 1.68" lg x .918" quency.

Z215 wd x 2 1/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica

dielectric cap. C1, fixed glass dielectric cap.

C2, and trimmer cap. C3; plug-in type term.;

Sickles FW per Collins Rad spec 278 0125 00.

Z204, TUNER ASSEMBLY, RF: aluminum housing; Covers from 4- to 8-mc fre

Z210, 1 trimmer cap. w/scdr adj ; 1.168" lg x .918" quency.

Z216 wd x 21/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica

dielectric cap. C1, fixed glass dielectric cap.

C2, and trimmer cap. C3; plug-in type term.;

Sickles FW per Collins Rad spec 278 0129 00.

Z205, TUNER ASSEMBLY, RF: aluminum housing; Covers from 8- to 16-mc fre

Z211, 1 trimmer cap. w/scdr adj; 1.168" lg x .918" quency.

Z217 wd x 21/4" h max; mtd by two #4-40 NC-2A

tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica  
dielectric cap. C1, fixed glass dielectric cap.  
C2, and trimmer cap. C3; plug-in type term.;  
Sickles FW per Collins Rad spec 278 0133 00.  
Z206, TUNER ASSEMBLY, RF: aluminum housing; Covers from 16- to 32-mc fre

Z212, 1 trimmer cap. w/scdr adj; 1.168" x .918" quency.

Z218 wd x 21/4" h max; mtd by two #4-40 NC-2A  
tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica  
dielectric cap. C1, fixed glass dielectric cap.  
C2 and trimmer cap. C3; plug-in type term.;  
Sickles FW per Collins Rad spec 278 0137 00.

Z219, TUNER ASSEMBLY, RF: aluminum housing; Covers from 9- to 18-mc fre

Z220, 1 trimmer cap. w/scdr adj ; 1.168" lg x .918" quency.

Z221 wd x 21/4" h max; mtd by two #4-40 NC-2A  
tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica  
dielectric cap. C1 and trimmer cap. C3; plug-in  
type term.; Sickles FW per Collins Rad spec  
278 0183 00.

Z222, TUNER ASSEMBLY, RF: aluminum housing; Covers from 3- to 2-mc fre

Z223, 1 trimmer cap. w/scdr adj; 1.168" lg x .918" quency.

Z224 wd x 21/4" h max; mtd by two #4-40 NC-2A  
tapped holes spaced .594" c to c, accom captive  
mach screw; principal parts c/o fixed mica  
dielectric cap. C1 and trimmer cap. C3; plug-in  
type term.; Sickles FW per Collins Radio spec  
278 0141 00.

Paul

From Barry Hauser <barry@hausernet.com> Mon May 6 17:30:34 2002  
Subject: [R-390] R-390 slugs

Paul wrote: > I'm very interested in clearing this up - my 390 and 391's have a mixed > bunch of no-mod  
and mod-1 RF decks with inconsistent slug markings from > what has been listed so far. Haven't had  
time to follow up as much as I > want... sorry.

Paul has been quietly starting I guess you'd call it, the Y2.002K version of the R-390/R-391 combined  
manual. We've been discussing this off list from time to time.

He could use a little help from his friends ... Recreating drawings, investigatory work, new photos,  
proofing, beating the bushes for clues, etc.

So, if any of you are feeling particularly intense about non-A and '391 autotune issues, this would be the  
time. It would be nice to get the definitive complete answer to the "core issues" also ;- ) (I seem to recall  
seeing more than 3 color codes, BTW.)



Why am I the one telling you all this? I guess I'm a nosey busybody or somethin'. (Can't be a pot stirrer job's taken.) Some might say timing is wrong what with Dayton coming up. But that might be a great place to fan out and make some inq-WHY-rees, eyeball some coils, cans 'n slugs, and so on. Barry gotta run now, but not duckin'

From David\_Wise@Phoenix.com Mon May 6 19:52:18 2002  
Subject: [R-390] Voltage charts and socket extenders.

Sorry for the subject change, but I can't find the original email.

Roger Ruszkowski (sp?) recently posted an opinion that voltage readings were (a) taken with the tube out of the socket and (b) with a TS-505:

> From: Roger L Ruszkowski [mailto:rlruszkowski@raytheon.com]  
>  
> A. we did not advocate tube extenders.  
> B. there were numbers in the TM.  
> C. we had a TS505 meter.  
>  
> I think the meter was to measure the pins with > no tube in the socket.

I don't know the TS-505. Is it a VOM or a VTVM?

In the manual, paragraph 5.4.5.2 says:

"To avoid removing a sub-chassis when voltage is to be measured...at a tube-socket pin that does not have a test point, remove the tube and [emphasis mine] \*use a tube adapter with test points\*."

Although Table 1-11 "Test Equipment Required" mentions the AN/PSM-4 multimeter, I'm convinced it was only used to measure resistance, and that all voltages were supposed to be measured with the USM-116 or ME-6D/U Electronic Multimeter, which I presume is a 10Meg device. I don't know the AN/PSM-4's sensitivity, so I calculated circuit loading in the high-impedance limiter and audio circuits, for 1k/V, 10k/V, and 20k/V VOMs. They all yield expected readings that are somewhat below to far below the chart, while a 10M load always comes close. Also, there are places where a no-tube reading can be proven to differ drastically from the chart. An example is the limiter cathodes with the limiter turned off. They are around 80V with the tube but 0V without.

Always use a VTVM to measure voltage at high-impedance points, and read voltages with the tube in place. 73, Dave Wise

From redmenaced@yahoo.com Mon May 6 23:31:19 2002  
Subject: [R-390] Re: [Milsurplus] Capacitors and Bristol wrench set needed...

> We are desperately in need of two 5 pfd, +/- 0.5 > pfd, @ 5 KV, NPO > so far, resulted in nothing.  
NTD > Electronics who have > some but their minimum order is for 25 pieces at > nearly \$20 each, and  
I > am sure we would not be able to sell 23 pieces at > \$20 each.

+++++

Well,

If you talk to the manufacture of those caps and tell them that their "distributor" isn't distributing they may get on their case about it. Their job is to sell to their customers just what their customer needs, if you wanted bulk numbers you could just as well have dealt directly with the factory.

McMaster-Carr has the Bristo/Spline wrench sets but they don't give catalogs to non-commercial entities like me and you. Joe

From redmenaced@yahoo.com Mon May 6 23:44:11 2002  
Subject: [R-390] R-390 manual

> Why am I the one telling you all this? I guess I'm > a nosey busybody or > somethin'. (Can't be a pot stirrer job's taken.)

+++++

I have a -20 manual for the R-390 that I would gladly donate to the cause, its in great shape but if you need to take it apart for scanning do it. Barry, you can stir all the pots you want but if I see you kicking any beehives,..... Joe

From mikea@mikea.ath.cx Mon May 6 23:53:43 2002  
Subject: [R-390] R-390 manual

> Barry, you can stir all the pots you want but if I see> you kicking any beehives,.....

Don't you DARE stir the pots. They're all calibrated and Loctited down. Leave 'em the hell alone!  
Mike Andrews

From redmenaced@yahoo.com Mon May 6 23:54:05 2002  
Subject: [R-390] confusion

-Cecil Acuff <chacuff@datasync.com> wrote: > Am I creating confusion on this issue....is this > only a NON-A issue. All > the info I posted was for the A. Looking back at > the posts it appears the > questions are for NON- A's I may have jumped into > something that I cannot > help with....Have no NON-A's here!

+++++

All of this "A" and NON-A stuff has gotten pretty confusing!! How 'bout we just call them,..... Alvy and Nona from now on? There! Now THAT'S how you kick a beehive! Joe

From Llgpt@aol.com Tue May 7 00:05:56 2002  
Subject: [R-390] confusion

writes: wrote: > Am I creating confusion on this issue....is this > only a NON-A issue. All > the info I posted was for the A. Looking back at > the posts it appears the > questions are for NON- A's I may have jumped into > something that I cannot > help with....Have no NON-A's here! +++++ All of this "A" and NON-A stuff is getting confusing! How 'bout we just call them,.....Alvy and Nona from now on?

THERE! Now THAT'S how you kick a beehive! Joe

Aaaaaaaaaaaaaaah, Joe Foley (resident beehive kicker at his finest).....way to go Joe!! Les

From redmenaced@yahoo.com Tue May 7 00:22:48 2002  
Subject: [R-390] R-390 manual

wrote: > On Mon, May 06, 2002 at 03:44:11PM -0700, Joe Foley > wrote: > > > > > > Why am I  
the one telling you all this? I guess > I'm > > > a nosey busybody or > > > somethin'. (Can't be a pot  
stirrer job's > taken.) > > ++++++ > > I have a -20 manual for the R-390 that I would > gladly >  
> donate to the cause, its in great shape but if you > > need to take it apart for scanning do it. > > > >  
Barry, you can stir all the pots you want but if I > see > > you kicking any beehives,..... > > Don't you  
\_DARE\_ stir the pots. They're all > calibrated and > Loctited down. Leave 'em the hell alone!

+++++

Gee, If you look at it that way pot-stirrin' might be more fun than beehive kickin'. Joe

From chacuff@datasync.com Tue May 7 01:25:13 2002  
Subject: [R-390] confusion

Aaaahhhh that's ok.....I have on my Kevlar undees today.....I also have a set of Nomex ones when it gets  
really hot! Either why nothing gets through.... Cecil...

From ba.williams@charter.net Tue May 7 02:13:19 2002  
Subject: [R-390] confusion

Joe, Nah, you need to kick it better than that. The A is a real man's radio. The non-A is a wimp radio.  
the other other Barry

From Llgpt@aol.com Tue May 7 02:20:14 2002  
Subject: [R-390] confusion

writes: << Joe, Nah, you need to kick it better than that. The A is a real man's radio. The non-A is a  
wimp radio. the other other Barry >>

Uh Oh...messing around with "Quotes" now are we??????? To quote Neil Clyne G8LIU, "The R-390A  
is a boys radio, the R-390 is a mans radio" Les Locklear " That's my story and I'm sticking to it "

From bill@iaxs.net Tue May 7 02:23:39 2002  
Subject: [R-390] R-390 slugs

Haven't seen anything on why the slugs are different. I remember seeing the answer in the technical  
report. It has to do with the variation in Q as the slug pulls out of the form. If the rack has high Q then it  
is not possible to align it over the full range of motion. Or something like that - no time to read it again  
now. Bill Hawkins

From wbreedon@tconl.com Tue May 7 03:21:44 2002  
Subject: [R-390] Xcelite Bristol Spline Blades

Xcelite makes a nice set of Bristol Splines, but if you don't want a whole set, or if you just want a couple of spare .096 - 6 flute splines and an extra handle like I did (the only one I ever use on my R-390A), Tecra Tools in Denver sells Xcelite handles and blades individually. You can order on line at the following link:  
<http://www.tecratools.com/pages/service/blades.html>

I received their catalog in the mail after my first order. 73, Bill - AB0FX

From JamesMiller20@worldnet.att.net Tue May 7 04:15:26 2002  
Subject: [R-390] Re: {Collins} cy-979A/URR

What's the word on the missing shock mounts some of us need for our new cabinets? My new 390 cabinet arrived without the shock mounts. Thanks, Jim N4BE

From gcart01@triad.rr.com Tue May 7 04:43:26 2002  
Subject: [R-390] Alignment Problem on R390A?

Hello All!

I just recently acquired an R390A produced by Capehart. In trying out the receiver I've noticed that when I start tuning towards a strong AM signal I start detecting the station's audio anywhere from 8 to 16 kHz away from it's center frequency (using either the 4 or 8 kHz filters). When I'm almost at the center frequency of the station the receiver sounds like it suddenly "captures" the signal to it's full strength, almost like tuning in an FM signal. Is this due to misalignment or errors in tracking?

I'm new to this reflector, and although I've been in ham radio for twenty eight years, I've been one of those dreaded "appliance operators" that you've heard so much about. Even though I've been known to successfully recap a radio by the "cap by numbers" method, I am trying to learn how to work on and understand the workings of this equipment correctly. Be patient with me. I am going to ask a lot of simple "electronics 101" questions from time to time, and I know how frustrating that can be for some engineering types out there. Just remember, we all have to start somewhere, and I'm willing to learn if you're willing to teach. 73, Gary Carter - WA4IAM

From cbscott@ingr.com Tue May 7 13:41:02 2002  
Subject: [R-390] Re: [Milsurplus] Capacitors and Bristol wrench set needed...

Not a problem. Go to [www.mcmaster.com](http://www.mcmaster.com) and search for bristol wrench. Contact them via email or call. Excellent people to deal with. Barry - N4BUQ

From w2ec@attglobal.net Tue May 7 13:52:29 2002  
Subject: [R-390] confusion

wrote: > Joe, > > Nah, you need to kick it better than that. > > The A is a real man's radio. > > The non-A is a wimp radio. > > the other other Barry

Oh wow! Now that calls for duelling pistols at ten paces under a moss covered oak at sunrise! :-) Ray

From G4GJL@aol.com Tue May 7 14:56:55 2002  
Subject: [R-390] confusion

.....And the R-392 is a Gorillas radio!!! Not my original quote, but one of the funniest! Pete G4GJL

From redmenaced@yahoo.com Tue May 7 15:29:00 2002  
Subject: [R-390] confusion

As far as I'm concerned they're both out of the catagory, the T-368 is the man's radio! Joe

From roy.morgan@nist.gov Tue May 7 15:37:32 2002  
Subject: [R-390] confusion

wrote: >Oh wow! > >Now that calls for duelling pistols at ten paces under a moss covered >oak at sunrise!

Gawwwd.. we gotta get up \*early\* for this? (I suppose that tradition started so they can hold the funeral(s) by sunset.) Roy

From cbScott@ingr.com Tue May 7 15:49:05 2002  
Message-ID: <7D1F1CEAECA8D2118013080009B0253406DD5F64@HQ1>

Welcome, Gary. You're in good hands here. Believe me, the "engineering types" on this reflector don't mind the "why does it do that when I do this" questions. Those spark some of the liveliest discussions. 73, Barry(III) - N4BUQ PS: I'm "Barry(III)" for reasons you'll find out soon enough... :)

From twleiper@juno.com Tue May 7 15:56:45 2002  
Subject: [R-390] confusion

writes: wrote: > >Oh wow! > > >Now that calls for duelling pistols at ten paces under a moss > covered > >oak at sunrise! > > Gawwwd.. we gotta get up \*early\* for this? > > (I suppose that tradition started so they can hold the funeral(s) by > sunset.) > > Roy

Right, right, now this thread has gotten entirely too silly. Get on with the next skit, please. "Right then. Today I shall be teaching you how to defend yourselves against someone armed with a piece of fresh fruit."

From jordana@nucleus.com Tue May 7 17:59:02 2002  
Subject: [R-390] IERC Shields for trade...

Hi.. I am looking for IERC shields size 5020-B or 5020-H shields... I have lots of 6020-B shields to swap one for one... I also have several other sizes as well, and I am also looking for 6025-B shields as well... all shields have either the Hex or 'finger' inserts, and are in good to NOS condition...anyone..?? 73 de Jordan...

From Llgpt@aol.com Tue May 7 20:54:16 2002  
Message-ID: <8f.1b9befef.2a098ae8@aol.com>

writes: << Right, right, now this thread has gotten entirely too silly. Get on with the next skit, please. "Right then. Today I shall be teaching you how to defend yourselves against someone armed with a piece of fresh fruit." >> HAMMARLUND.....

From liber.fab@iol.it Tue May 7 21:32:04 2002  
Subject: [R-390] Dittmore-Freimuth mechanical filters

Hello 390ers, I have found here (and bought...) a particular 2 Kc filter for my 390A, new and never used; in fact it is built by Dittmore-Freimuth, so I assume it has been built around/after 1968. Does anybody know if the quality of these filters is as good as the Collins ones? Thanks and 73, Fabio, IOLBE

From Llgpt@aol.com Tue May 7 22:08:10 2002  
Subject: [R-390] Dittmore-Freimuth mechanical filters

writes: I have found here (and bought...) a particular 2 Kc filter for my 390A, new and never used; in fact it is built by Dittmore-Freimuth, Does anybody know if the quality of these filters is as good as the Collins ones ?

Fabio, The Dittmore-Freimuth mechanical filters are superior to the Collins mechanical filters. They were installed in the 1968 run of R-390A's. Manufacturing techniques were much improved over the Collins type filters and they exhibit much less loss. Les Locklear

From iasckids@pacbell.net Tue May 7 23:26:06 2002  
Subject: [R-390] confusion

Great banter guys! Now which is the better rx the A or the non -A? I understand the evolution, but which in your opinion is the best made, more stable and sensitive. I have both and tend to favor the non A until something goes south. Some parts are harder to find nowadays. 73 Gregory Mengell  
HAMMARLUND

From gcarter01@triad.rr.com Tue May 7 23:35:24 2002  
Subject: [R-390] confusion

"We done them already...." Don't get me started on the Python, I won't be able to stop. Gary - WA4IAM

From Llgpt@aol.com Tue May 7 23:50:50 2002  
Subject: [R-390] confusion

writes: <<! Now which is the better rx the A or the non -A? I understand the evolution, but which in your opinion is the best made, more stable and sensitive. I have both and tend to favor the non A until something goes south. Some parts are harder to find nowadays. 73 Gregory Mengell >>

Hi greg, Long time.....

IMHO, the R-390/URR (non A to the unwashed)...:-) is the better receiver. Remember, the R-390A/URR is a reduced price version the Signal Corps requested. Take it from there.....Let the flames begin!!!!!!!!!! Les Locklear " That's my story and I'm sticking to it "

From Llgpt@aol.com Tue May 7 23:51:57 2002  
Subject: [R-390] confusion

writes: << "We done them already...." Don't get me started on the Python, I won't be able to stop.  
Gary - WA4IAM >> hammarlund Les

From Barry Hauser <barry@hausernet.com> Wed May 8 01:00:44 2002  
Subject: [R-390] confusion

And now, something completely different <boinggg>

A Mr. Cleese has asked me to post the following: "Whereas this "confusion" thread seems to be quite popular, what say we start one on apoplexy? Anxiety?" Hmmmmm.... Hammarlund huh? Hey, don't blame this one on me it was that tall English guy with the mustache made me do it. Barry

From Llgpt@aol.com Wed May 8 01:16:59 2002  
Subject: [R-390] confusion

writes: << Hey, don't blame this one on me it was that tall English guy with the mustache made me do it. Barry >>

Not the devil????????? hammarlund Les

From ba.williams@charter.net Wed May 8 01:22:29 2002  
Subject: [R-390] confusion

It's just a bloody flesh wound. Hammarlund, the other other Barry

From ba.williams@charter.net Wed May 8 01:26:12 2002  
Subject: [R-390] confusion

> Great banter guys! Now which is the better rx the A or the non -A? I understand the evolution, but which in your opinion is the best made, more stable and sensitive. I have both and tend to favor the non A until something goes south. Some parts are harder to find nowadays. 73 Gregory Mengell

HAMMARLUND

I prefer the layout of the A over the err, harrumph, other one. Just my preference. I also prefer the sharp skirts of the filters over softer ones. It was hard to get used to the soft filters of the SP-600. I know that some people hate the ringing of the A filters. the other other Barry

From rbethman@comcast.net Wed May 8 02:02:41 2002

Subject: [R-390] confusion

Just a slight graze. Hallicrafters,

From rbethman@comcast.net Wed May 8 02:04:45 2002  
Subject: [R-390] confusion

IMHO - The Non A Has it. From my first contract S/N 252 Collins to my 67 EAC.

From iasckids@pacbell.net Wed May 8 02:27:26 2002  
Subject: [R-390] confusion

Bob,I would agree that the A variety is easier to service because of it's re design.By and large I think the non A is the more sensitive and I prefer it's audio .The non leaves something to be desired in the 6082 application.Too much heat.73 Gregory Mengell HAMMARCRAFTERS

From wa5jci@flash.net Wed May 8 03:38:35 2002  
Subject: [R-390] confusion

Watch out for the Holy Hand Grenade of Antioch! es 73 de Pete WA5JCI

From twleiper@juno.com Wed May 8 03:52:40 2002  
Subject: [R-390] confusion

writes: "We done them already...."

"Grapefruits?"

From twleiper@juno.com Wed May 8 03:51:40 2002  
Message-ID: <20020507.225736.1552.0.twleiper@juno.com>

writes: > Great banter guys!Now which is the better rx ... > HAMMARLUND

You answered it yourself... (Duck and cover)

From w7itc@hotmail.com Wed May 8 04:36:00 2002  
**Subject: [R-390] just for something to do**

**Well in order to test out the differences between an A, and a non A go here  
<http://www.wunclub.com> this is just about the best utility monitering site I have yet found.  
Gonset Kenneth A. Crips**

From iasckids@pacbell.net Wed May 8 05:08:24 2002



Subject: [R-390] confusion

Hi Les,I tend to agree with you.I know there are a few ardent advocates out there who would never own a R390A, because of the cost cutting redesign.I have heard a couple of spirited debates.I own a few A units and one non A and a R392.Actually I like them all.73 Gregory Hammarlund!

From courir26@yahoo.com Wed May 8 12:56:57 2002

Subject: [R-390] Alignment Problem on R390A?

Gary: I'll take the coward's way out and recommend a complete alignment for your radio. I've never received one of these that did not need alignment. Make a by-the-book pass through it and I'd wager that your problem goes away. Cheers Tom N5OFF

From s-biddle@ti.com Wed May 8 14:01:15 2002

Subject: [R-390] confusion

I sure am glad someone cleared that up, "ringing of the A filters", I thought it was all the aspirin I was taking to recover from "boatanchor back strain" :) 73 de Richard KB5WLH

From ai2q@adelphia.net Wed May 8 14:19:51 2002

Subject: [R-390] Alignment Problem on R390A?

One more word: alignment is one of the best ways to evaluate and troubleshoot the set. It'll show you where any problems are in a methodical rear-to-front (audio to RF) manner. Vy 73, AI2Q, Alex in Kennebunk, Maine

From jordana@nucleus.com Wed May 8 15:03:37 2002

Subject: [R-390] confusion

No Arguments from me... I wish I could find a non-A... actually I regret selling the nice one I had back in 1992.... 73 de Jordan...

From davidmed@sbcglobal.net Wed May 8 15:29:50 2002

Subject: [R-390] We are gone

Guys we leave for Tucson tomorrow Thursday and will be pretty much out of communications for a while. The web site will remain on and my email address will be the same for at least several months. I have a laptop with me and will try to access email once per day but that will depend on internet access. Please no more requests for parts or R-390 service until further notice. 73 de Dave KI6QE

From roy.morgan@nist.gov Wed May 8 16:02:08 2002

Subject: [R-390] confusion

wrote: >No Arguments from me... I wish I could find a non-A... actually I regret >selling >the nice one I had back in 1992.... 73 de Jordan...

Can we draw from this confession of an unfortunate weakness a LAW: Never sell an R-390 of any sort.  
Hammarlund

WHO said that!?? I'll see your Hammarlund and raise you one: Rhode & Schwartz Roy Who would by any affordable EK-07

From tbigelow@pop.state.vt.us Wed May 8 16:11:28 2002  
Subject: [R-390] Hopkinton/Hosstraders' hamfest report (long)

Well, another spring installment of Hosstraders has come and gone. Gates opened Friday morning but apparently Friday was a bad weather day(wind and snow??), so just as well I didn't arrive then. Having just returned from the Boulder/Denver area on Thursday required catching up on sleep anyhow.

Saturday was absolutely a beautiful day, both weather-wise and radio-wise. Unlike most other years in recent memory when it was rainy and cold, Saturday was probably in the high 60s/low 70s with bright sunny skies and a light breeze. Just wonderful.

Now for the deals. This was definitely a 'fest where you could've done well with a wad of money! I'm sure many of the best deals went on Friday morning and later in the day, but here are a few of the things I saw and couldn't buy(ran out of \$\$):

- National NCX-1000 transceiver w/original manual and many extra parts, modules, spare finals, in excellent shape....seller also had NCL-2000 in same condition w/manual, spare rig for parts, spare finals
- He was asking \$1K for all, but would've taken less. Someone bought the NCX-1000 but the amp went home with him, no idea what he sold the rig for.

- TG-5 portable telegraph sets, complete w/canvas bags, nice shape - \$100 ea., 2 for \$150. No idea what these are worth, but they sure were nice.

- Johnson 'Speed-X' bug, excellent condition. Sold for \$5, buyer stuck it on his table for \$100 and took it home.

- Pair of R-390A receivers needing work. One was intact but missing the IF deck, other appeared complete but front panel was off and knobs were missing(all the parts may have been there, just too much stuff and too many people around to see). Both panels had tags, one Stewart Warner, one Amelco. Good condition overall, \$150/obo for the \*pair\*.

- Johnson Valiant II, fair-good condition but a bit ratty looking. \$95

- Collins 75A-2 w/312A-1(?) speaker/light. Sold fast, no idea of price, speaker looked like new.

- box-o-microphones, several old D-104 crystal mics w/stands, Shure 444, Old Turner crystal mic(CX?) w/stand, several others(8-12 total) priced individually, entire box sold for \$150

- Small (275w?)Johnson Matchbox, no meter, good condition, \$85 sold for \$75

- National NC 300(I think), very clean, \$300, think this might have sold to Gary WZ1M for \$150. Gary?

- Hallicrafter S-40, kinda scruffy but restorable, sold to an OT(who's name and call escape me atm) for \$10

Saw a lot of SX-101s and many, many other items which I either missed or forgot due to the trauma of not having enough money to buy. I did manage to snag the following:

- C-43 ARC-5 receiver control box for 2 HF and one VHF receivers, excellent shape, \$25 bought for \$20. I now have the AAF version(BC-944A?) available if anyone is interested. Saw a few chopped up command sets too, nothing I wanted or needed, though.
- two large Millen plate caps, 25¢ ea.
- Johnson Messenger II early 2-way w/original manual, cord, mic, exc. condition, \$15
- ACE V(Crosley) 1-tube regen, nice condition w/label inside lid, missing 4 of the 5 knurled binding post screws but otherwise complete, \$30 (anyone have spares?)
- BC-348Q, excellent face and innards, clean conversion to 115V on dynamotor plate, easily reversible, cabinet painted bright blue and ventilated with nickel-sized holes! \$50 (Hey - I can find another cabinet! Couldn't resist the overall great condition and it works!)
- Johnson KW matchbox(the huge one) w/meter and sensing unit, VG overall condition, few very small chips/scratches in the cabinet but not bad, \$100
- Really nice receiver cabinet - this is one of those 'couldn't pass it up' deals, it had a piece of test equipment inside for testing the breakdown voltage of insulation. Cabinet is one of the nice looking ones with the rounded corners and perforated cover(maybe a BUD?), looks like the one housing the spook R-390A next to Les on a previous cover of ER, which is precisely what I wanted it for(just remember that imitation is the sincerest form of flattery, Les!). It was the end of the day and my money was gone though, so I hadn't planned to buy it. Seller obviously anticipated my lame 'too heavy to carry' excuse and launched a pre-emptive strike of "Gimme \$5 and you can use my hand truck". What a LOWDOWN, sneaky trick! It's now in my garage.

Fellow BA /AM /MIL Surplus buddies seen: Dale, KW1I in his nicely restored military jeep containing the R-392 and T-195(working) set up; Gary, WZ1M (thanks for that knob!); Tim, WA1HLR acquiring more 'stuff'; CCA newsletter editor Mr. Mike, W1RC just wandering and shooting the breeze with us; Joe, WA2PJP who always has some interesting stories about audio gear; Warren, NY2H with a very focused look and only carrying a bag with him(I suspect he'd made several trips back to his vehicle already, though); Richard 'Doc' Prester, WA2IFS who I met for the first time; John KB1AMA with a big smile and a front seat containing a very clean KWM-2A/PM-2 and complete S-Line he'd managed to grab up, and many others as well.

It was a great day on Saturday full of sunshine, socializing, and good deals. If you've never been, you really should try to make it up either this October or next May. The new location at the Hopkinton Fairgrounds is very much like the old 'Deerfield' fairgrounds, very similar characteristics. This is the second time I've gone as a buyer and not a seller, and it's nice to be able to roam freely. Hope to see some of you in the fall. 73 de Todd/'Boomer' KA1KAQ

From hankarn@pacbell.net Wed May 8 16:16:08 2002  
Subject: [R-390] confusion

The EK-07 still wins hands down. Hank KN6DI

From BRingwoo@csir.co.za Wed May 8 10:33:12 2002  
Subject: [R-390] just for something to do

I suppose the 390NA's are scarcer - owners looking for regulator tubes ? My guess is they just lumped all R-390A and NA together. Interesting to see there are still a couple of AR88 users. - Bryce

From Llgpt@aol.com Wed May 8 23:43:42 2002  
Subject: [R-390] Hopkinton/'Hosstraders' hamfest report (long)

writes: << Really nice receiver cabinet - this is one of those 'couldn't pass it up' deals, it had a piece of test equipment inside for

It is a Premier cabinet Boomer, I believe they called them instrument cabinets. No longer available. Nice cabinet though. Les

From gcarter01@triad.rr.com Thu May 9 01:21:40 2002  
Subject: [R-390] R390A Alignment Problem

Guys,

Thanks to all who responded to my questions! The general consensus seems to be in favor of a thorough re-alignment. One respondent said he too had a Capehart R390A and his does the same thing. In looking closer at the carrier meter while tuning in a strong AM station using the 4 kHz filter I did not notice any dip in the signal level right before the signal is "captured". The audio can clearly be detected a good 8 to 16 kHz away from the center frequency.

I downloaded the "Y2K" R390A manual last Sunday evening, with the intention to print it on the HP Laserjet 4Si at work. With my cable modem connection at home it took just 25 seconds to download the whole manual. Printing it duplex on the HP4Si took 1 hour 15 minutes! I'm glad I only have to do that once. 73, Gary - WA4IAM

From ba.williams@charter.net Thu May 9 01:21:55 2002  
Subject: [R-390] confusion

> Can we draw from this confession of an unfortunate weakness a LAW: > > Never sell an R-390 of any sort.

I agree completely. The only radio that I sold (and want back) is a Kenwood R-2000. That was my first HF radio and I sold it for money to buy my first R-390A. It was an okay receiver and I wouldn't mind having it sit somewhere in the house. It would be a good unit to loan someone who shows an interest in HF.

Other things that I've sold over the years and wish I had back are the hundreds of paperbacks that I got rid of every time I was restationed in the Army, and hundreds of record albums that I sold for a few dollars apiece. I think I've rebought most of those paperbacks over the years. Barry

From ba.williams@charter.net Thu May 9 02:03:06 2002  
Subject: [R-390] confusion

> I sure am glad someone cleared that up, "ringing of the A filters", I thought it was all the aspirin I was taking to recover from "boatanchor back strain" :)

Richard, I don't know if my filters 'ring', but I've read the comments from others. I almost always use the 4 kHz filter setting. I don't open up any wider unless it is pretty quiet. Barry

From r.tetrault@attbi.com Thu May 9 03:07:16 2002  
Subject: [R-390] just for something to do

And a Geloso to you too! And the Multi-Elmac you rode into town on!

From redmenaced@yahoo.com Thu May 9 03:26:04 2002  
Subject: [R-390] confusion

> Richard, > > I don't know if my filters 'ring', but I've read the > comments from others. I > almost always use the 4 kHz filter setting. I don't > open up any wider unless > it is pretty quiet.

++++++

I open my R-390A up all the way when listening to AM 740 out of Canada! AND I make the 15" speaker work! Joe

From BRingwoo@csir.co.za Thu May 9 08:23:13 2002  
Subject: [R-390] confusion

regret selling the Hallicrafters S36, The Eddystone EC10 , the R208 etc etc and taking apart/cannibalising much mil surplus. This thread could become sorta morbid. Ah, the sins and offences of youth ...

From jbrannig@optonline.net Thu May 9 10:40:28 2002  
Subject: [R-390] confusion

It is becoming morbid.....look at it this way....

I don't regret selling anything, for that helped provide the capital to buy the goodies I really wanted.

I don't regret cannibalizing surplus radios. They were the source of cheap and interesting parts. The projects (along with the sparks/smoke) advanced my knowledge of electronics and now I can fix my own radios. Jim

From rbethman@comcast.net Thu May 9 12:46:16 2002  
Subject: [R-390] just for something to do

HEATHKIT!

From G4GJL@aol.com Thu May 9 13:49:54 2002  
Subject: [R-390] 3TF7 Failed in service

Contrary to observations made from time to time by others on the reflector, I have had a 3TF7 Ballast fail WHILST POWERED UP.

The 390A here was powered up, but muted with the break-in facility for a period of 4 hours, during which the ballast failed.

I dont have a spare, and have just undergone abdominal surgery, so I dont feel like lifting the rig or working on the rig to make a solid state replacement. Instead, I made a makeshift repair with a 33ohm and a 10ohm resistor in series, jammed into the tube socket on the appropriate pins. Dont flame me...it works! Ill do better when I am! 73 Pete G4GJL

From courir26@yahoo.com Thu May 9 14:36:58 2002  
Subject: [R-390] 3TF7 Failed in service

You can use 12V (12BA6) tubes for the BFO and PTO tubes, and short the dead ballast tubes. Works like a charm. Tom

From KirkT@BUCKSLIB.ORG Thu May 9 18:56:26 2002  
Subject: [R-390] Capacitors and Bristol wrench set needed...

I understand that they will sell to individuals, but once you get a hernia picking up their catalog, you will understand why they won't send it out to everyone. They have a real nice catalog on the web. Check the bottom of this page. <http://www.mcmaster.com/catalog/108/html/2640.html> Tom KA2VAD

From cwell@floydvwells.com Thu May 9 19:16:08 2002  
Subject: [R-390] Cabinet Screws

Hello, What type and size of screws were used to attach the R390 to the CY-979A/URR cabinet?  
Thanks for any help Chuck KG6JYK

From nryan@intrex.net Thu May 9 19:40:40 2002  
Subject: [R-390] Cabinet Screws

Hello, Chuck, Mine has 10-32 x 5/8" Philips screws. Heads are wider than mostwish I knew the exact name. There also are nylon washers underneath.

Your mileage may vary. Verify the threading on yours and don't worry too much about the length. Something like 5/8" or longer will work fine2" length may provoke R-390 wristitis. :-)) 73... Norman KG4SWM

From rbethman@comcast.net Thu May 9 20:10:49 2002  
Subject: [R-390] Cabinet Screws

They are normal rack mount hardware screws. Any computer freak can supply them. The not only have nylon washers, but the heads look like they have welded washers on them already. Bob N0DGN

From walqhq@yahoo.com Thu May 9 20:19:32 2002  
Subject: [R-390] Cabinet Screws  
Message-ID: <20020509191932.7534.qmail@web9208.mail.yahoo.com>

The best place I have found for sourcing rack screws is a music store, preferably one that caters to musicians that play amplified instruments, those guys are always rack mounting their stuff, the local chain in the Boston area, Daddys Junky Music carries the Rackcess brand, I believe Rackcess has a web site.

From bill.riches@verizon.net Thu May 9 21:14:23 2002  
Subject: [R-390] Generator info

I found a generator that I can use to run my R-390A when the juice goes off -

Anyone have some info on a 10kw generator "SF10.10 MD"? Was manufactured in 1966 - has a hercules engine # 4A084-3 and a federal stock number of 6115-792-8260. Regards, Bill Riches, WA2DVU Cape May, NJ 08210

From barrie99@marsweb.com Fri May 10 00:52:50 2002  
Subject: [R-390] 3TF7 Failed in service

A long time ago someone (Rick Mish?) told me to never use "standby". Just leave the radio on and turn the gain down. He said that procedure was easier on all the components. That's it, that's all I remember. Barrie, W7ALW

From ba.williams@charter.net Fri May 10 01:56:18 2002  
Subject: [R-390] Capacitors and Bristol wrench set needed...

I have one from around 1996. We used it as a reference guide for illustrating. If you go thru the catalog you can find millions of well done graphics. I keep my copy handy when I have to do shading on wheels, hinges, cabinets, etc. You can always go to the catalog and find new tricks and shortcuts to computer illustrating.

McMaster's was a well kept secret among illustrators. You had to know the right code words and the secret handshake to see one. Blood oaths, etc. I can't tell you any more about the catalog. Sorry. the other other Barry

From ba.williams@charter.net Fri May 10 02:10:01 2002  
Subject: [R-390] 3TF7 Failed in service

> A long time ago someone (Rick Mish?) told me to never use "standby". Just leave the radio on and turn the gain down.

It's in the -10 manual somewhere. It cautions about prolonged operation in the standby position as component life can be shortened. I think 30 minutes is the max recommended, but I could be wrong.

Okay, I paused and looked it up. Page 24 of the -10. It says that the life of certain tubes will be shortened if left in the standby mode for longer than 30 minutes. Barry

From frledda@attbi.com Fri May 10 02:27:01 2002  
Subject: [R-390] 3TF7 Failed in service

StdBy operation will not impact the life of the 3TF7. It will impact the rest ..... FL

It's in the -10 manual somewhere. It cautions about prolonged operation in the standby position as component life can be shortened. I think 30 minutes is the max recommended, but I could be wrong. Okay, I paused and looked it up. Page 24 of the -10. It says that the life of certain tubes will be shortened if left in the standby mode for longer than 30 minutes. Barry

From tkinney@klinktech.net Fri May 10 01:56:30 2002  
Subject: [R-390] R-390 on EBay

R-390 Motorola with case and manuals just listed on EBay, bids at about 120.00 Tom Kinney / KE9UE

From redmenaced@yahoo.com Fri May 10 05:01:11 2002  
Subject: [R-390] 3TF7 Failed in service

wrote: > StdBy operation will not impact the life of the > 3TF7. It will impact the > rest ..... > FL  
+++++

But he said he left it in the "BREAK IN" mode which would only ground the antenna input and the audio amp inputs/outputs, which shouldn't hurt anything, right? Except the break in relay coil. Joe

From nryan@intrex.net Fri May 10 06:08:26 2002  
Subject: [R-390] To Standby or Not to Standby...

Hi, Barrie,

It's true. In STANDBY the B+ is switched off to the RF and IF circuits. Their tubes still emit electrons, but without plate voltage they have no place to go and mill around the cathodes. Dr. Jerry, K0CQ, explained that, over time, cathodes degrade under this condition. Leaving in STANDBY for brief periods is OK.

Wish he were around to explain this better than I'm doing. Way back in the archive one can find his authoritative postings on this and other issues.

Where the heck is he these days? The guy really knows his stuff. And Nolan! List is dull without these fellows. 73... Norman KG4SWM

From twleiper@juno.com Fri May 10 06:56:56 2002



Subject: [R-390] To Standby or Not to Standby...

writes: ... > Wish he were around to explain this better than I'm doing. You're doing just fine. It is actually much simpler than even that:

1. What does "standby" mean anyway? Would you tell somebody to "standby" and then get back to him tomorrow or next week? NO!!! You'd be back to him in a few minutes.
2. I've never even thought about it before, but does "Standby" also shut down the local oscillators as well? That would prevent the gooks from DF'ing you...
3. You could replace tubes without making any loud audio noises while you were in "Standby", so the gooks can't hear you either.
4. After you finish "interrogating" a gook and you hurl him out of the helicopter, you can put the R-390 on "Standby" and drop it on top of the gook as well, kind of like the anvil or cannonball that always follows Wiley Coyote as he plunges into the ground. This would assure that only the impact with the ground and the subsequent impact of the R-390 would result in death, and not the B+...which would be cruel. I have several more reasons....Standby...

From nryan@intrex.net Fri May 10 07:58:08 2002  
Subject: [R-390] To Standby or Not to Standby...

Hello, Tom Cleese, er, ah, I mean, um, LEIPER,

Dropping an R-390 on a hapless enemy soldier being hurled out of a Huey after he has spilled his guts to an interrogator is an ATROCITY. Utterly abhorrent! A human travesty! Totally dishonorable tactics! Wherever did you get THAT idea? What's got into you?

I trust and expect you get my drift, SIR!!

Better to drop an R-392 instead, it will survive the impact whereas the R-390 will not. 73... Norman KG4SWM

From hankarn@pacbell.net Fri May 10 13:21:50 2002  
Subject: [R-390] To Standby or Not to Standby...

Thomas, Please don't tell you would waste a R-390 on a zipperhead. What a waste of precious equipment. Hank KN6DI

From courir26@yahoo.com Fri May 10 13:58:20 2002  
Subject: [R-390] R-390A IF Deck for R-390

Gentlemen? on ebay I found the above IF deck, w/ mechanical filters for use in the 390. This is the opposite of the "make your own R-725" project.  
<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item1351888393> 73 Tom N5OFF

From cbscott@ingr.com Fri May 10 14:00:50 2002  
Subject: [R-390] R-390A IF Deck for R-390

shhhhhhh! I was thinking of bidding on that one... Barry(III) - N4BUQ

From cbscott@ingr.com Fri May 10 14:43:33 2002  
Subject: [R-390] Strings-n-things

<http://www.eham.net/articles/3424>

From djmerz@3-cities.com Fri May 10 15:04:16 2002  
Subject: [R-390] Capacitors and Bristol wrench set needed...

Hi, I've bought from McMaster for quite a while, they have some of the more unusual hardware, nuts, bolts, screws, metal, phenolic, plastics. It's not as easy to surf the web catalog as the paper version but it's up-to-date, whereas my 6 year-old catalog has some outdated items but still useful. I've never had an order refused for being too small, though shipping and handling is a consideration. It's a great place to order screws/nuts by the 100/box, and they have some of the harder to find sizes/head styles. I recently ordered some brass and aluminum sheet for making etched metal tags. Dan

From salers@hamal.freemail.ne.jp Fri May 10 15:56:54 2002  
Subject: [R-390] looking for Dave Medlay

Hi!

I'm looking for Dave. I have sent two message to him, he not reply, and I call him, he not at home. I have heard of that he has move his hom, is that right? I have something will send to him. 73! Xu

From jlap1939@yahoo.com Fri May 10 16:23:56 2002  
Subject: [R-390] (no subject)

My Friends, Not saying much, but still reading everything...Keep up the good work..(What a great list...) John

From G4GJL@aol.com Fri May 10 17:06:49 2002  
Subject: [R-390] 3TF7 Failed in service

Folks, Is the STANDBY position of the function switch the same as BREAK IN?

I have wired a short across the Break in and earth tags at the receivers rear to allow use of the BREAK IN switch on the front panel.

I cannot get to my manuals at the present....too many boatanchors to move out of the way to get at the filing cabinet! Nice problem to have, though! 73 Pete

From john@whimsey.com Fri May 10 18:04:18 2002

Subject: [R-390] How much should it cost???

Hi, I'm new to this list and I haven't got my radio yet, but they're telling me it's \$250 to ship it which is almost as much as I paid for the thing. This includes \$70 for the packing which seems O.K. to me but \$180 for the shipping. Does this sound reasonable? Thanks, John

From bsugarberg@core.com Fri May 10 18:20:56 2002

Subject: [R-390] How much should it cost???

Hi John, I just had 2 radios shipped to me in Akron, Ohio:

Washington (state) - 80 pounds - UPS - Cost \$50.00.

New Mexico - 80 pounds - FedEx - Cost \$43.00.

73, Bruce Sugarberg WA8TNC

From cbscott@ingr.com Fri May 10 19:05:38 2002

Subject: [R-390] How much should it cost???

No. How are they suggesting to ship it? Barry(III) - N4BUQ

From David\_Wise@Phoenix.com Fri May 10 19:23:57 2002

Subject: [R-390] R-390A IF Deck for R-390

Where are the 6082s? 73, Dave Wise

From twleiper@juno.com Fri May 10 19:26:29 2002

Subject: [R-390] How much should it cost???

>..but \$180 for the shipping. Does this sound reasonable?

If you live in Tibet, yes. Tell him to send it Greyhound. You should be able to move it across the country with only one or two bus changes in about 2-3 days. They take very good care of the packages...I ship telescopes that way and have had zero problems for years. Probably about fifty bucks for a boatanchor. Tom

From twleiper@juno.com Fri May 10 19:29:18 2002

Subject: [R-390] R-390A IF Deck for R-390

Where are the 6082s?

In an R-390, not on the IF deck of an R-390A :- ) Tom

From Llgpt@aol.com Fri May 10 19:34:36 2002

Subject: [R-390] R-390A IF Deck for R-390

<< Where are the 6082s?

Probably on the AF deck wher they belong!!!!...LOL!!!! Les Locklear

From David\_Wise@Phoenix.com Fri May 10 20:14:03 2002  
Subject: [R-390] R-390A IF Deck for R-390

LOL myself. Oops! I'd better make a quick exit before any more catcalls come in. <ding> Too late!  
73, dw

From David\_Wise@Phoenix.com Fri May 10 19:41:11 2002  
Subject: [R-390] 3TF7 Failed in service

> Is the STANDBY position of the function switch the same as BREAK IN?

Not at all. STANDBY cuts B+ from everything but the oscillators. BREAK IN grounds the audio signal. Both disconnect and ground the RF input. 73, Dave Wise

From roy.morgan@nist.gov Fri May 10 20:26:37 2002  
Subject: [R-390] 3TF7 Failed in service

>Is the STANDBY position of the function switch the same as BREAK IN?

No not at all.

The standby position of the Function switch removes B+ from a number of tubes, including the RF and IF amplifier stages and operates the antenna relay to disconnect the antenna from the radio and ground it.

The Standby function shorts out the audio signal at the first audio amplifier. I don't know if it operates the antenna relay also. The standby relay is operated by having the Standby switch on and connecting the two terminals (tags) at the rear of the set. The relay operates on 6.3 volts AC filament current supplied from the radio at a current of about 40 mA. Roy

From ea2ig@tiscali.es Fri May 10 21:14:55 2002  
Subject: [R-390] R-390A IF Deck for R-390

The 6082 are on the Audio Deck in the r-390 nonA

Proud owner of a Collins R-390 & 51J-4 (This one just lake comming from the factory) Best Regards  
Pedro EA2IG

From john@whimsey.com Fri May 10 21:32:15 2002  
Subject: [R-390] How much should it cost???

I got a lot of replys to my question. Thanks! So I'm shipping a R-390A from Kalamazoo MI to

Kirkland WA. They tell me it's 105 lbs. total. After I complained the price came down from \$250 to \$180 which is still too high, but I don't think I hold the record for the most paid to ship a R-390A. Most folks said less than \$100 but one person said \$210. I'm getting it Fed-Ex, and I figure what the heck? It's my first boatanchor. I'm anxious to see it. Thanks again! John

From Barry Hauser <barry@hausernet.com> Fri May 10 19:34:18 2002  
Subject: [R-390] How much should it cost???

Is this a '390 we're talking about, or a grand piano? Also, from whence does it shippeth?

Sounds to me like this: This is being "professionally" packed at a certain type of franchised storefront operation which shall remain nameless. Familiar with hundreds of them, but the numbers are still extreme. Those places typically charge a lot of money for poor packing materials - flimsy singlewall cartons, used peanuts and bubblewrap. But the corker is that they mark up the UPS or postage anywhere from 15 to 100%, unless you've found a new high there. I think UPS coast to coast runs about \$75-80 for an 80 lb. package taken to UPS directly or called in on a next-day pickup. FEDEX ground is somewhat cheaper, but might be a day slower. Some of these places will gladly charge you double that like \$160, even though they pay a lower daily pickup rate and get volume discounts so the markup is really more than 100%.

Don't know how they got to \$70 for packing about \$40 was the highest I've heard for packing it poorly. (Flimsy carton, bubblewrap and peanuts the "beanbag 'n bolts special" I call it. Maybe \$70 is for packing it OK. Of course, many sellers will pack for free in the price, or charge \$10-20 for materials. Maybe the seller is throwing in a set of encyclopedias. Barry

From Bill Marx" <bmarx@bellsouth.net Fri May 10 23:11:54 2002  
Subject: [R-390] How much should it cost???

I FedEx'd a 390A from the Northeast to Florida for \$150 by Air. Normal ground would be about \$45 from FedEx. I no longer use UPS for anything. I trust the USPS for items under 40 pounds. Bill Marx W2CQ

From gcarter01@triad.rr.com Fri May 10 23:26:31 2002  
Subject: [R-390] How much should it cost???

John, I recently had an R390A shipped from the Houston, TX area to NC via FedEx Ground. With shipping and insurance it ran around \$94. 73, Gary - WA4IAM

From djmerz@3-cities.com Fri May 10 23:48:46 2002  
Subject: [R-390] How much should it cost???

John, I think you've discovered a basic principle in this realm - the price is always what the buyer and seller are able to agree on - whether it's the price of a radio or the cost of shipping. I would say most of us would ship this for under \$100 because we don't do it for a living - if I were doing it every day I might think more about what it would take me to do it day after day, which would probably be more than \$10 plus the cost of UPS/FedEx or whatever. Anyway, I hope you enjoy the radio - that can be important also, Dan

From wjneill@lcc.net Sat May 11 04:59:52 2002  
Subject: [R-390] Interesting Article from Vulcan Publications

Here's an interesting article I found at Vulcan Publications.  
[http://www.vulcanpub.com/ecen/article.asp?article\\_id60114](http://www.vulcanpub.com/ecen/article.asp?article_id60114)

From salers@hamal.freemail.ne.jp Sat May 11 04:34:30 2002  
Subject: [R-390] Re: looking for Dave Medlay

Hi! Thanks for reply my message. Who konw how to contact with him know? I have two big package box on tha way, I think they will arrive in next week, and my friend in USA will foward a gift and some money to him. 73! Xu

From roy.morgan@nist.gov Sat May 11 05:13:01 2002  
Subject: [R-390] Break-In Switch function (was 3TF7 Failed in service)

wrote: >>Just what does the BREAK IN switch turn off?

Ok I now have a schematic handy.... (pause)...

In short, during normal receive operation, the Break-In switch in the ON position a connection to ground at TB103-9 will shut off both audio channels and short the antenna connectors to ground. (With no connection to TB103-9, nothing will happen.)

Here are the details:

One side of the break-in relay coil is connected to the 6.3 volt filament line (AF SubChassis connector P619-10)

The other side of the break-in relay coil is connected to the Break-In Switch S-103 terminal 2 through P619-1. When the Beak-in Switch is in the ON position, terminal 2 is connected to terminal 1, which goes to the Break-In terminal on the rear terminal strip TB103 -9.

If the Break In switch is in the ON position and terminal TB103-9 is grounded (with a wire to a ground terminal, or through relay contacts on a transmitter) the Break-In Relay will be energized.

When the Break-In Relay is energized it does two things:

- 1) It grounds the AF Line which is the cathode output of the audio cathode follower (V601B) and the top end of both the Line Gain and Local Gain pots. This shuts down all audio output from the receiver.
- 2) The antenna relay is energized and causes the both the balanced antenna and the Unbalanced antenna connector pins to be grounded. This disconnects the rf signal input.

Note: If the Function switch is in either the Standby or CAL position, and the Break-In Relay is de-energized, the Antenna Relay is energized which causes the both the balanced antenna and the Unbalanced antenna connector pins to be grounded. Roy

From salers@hamal.freemail.ne.jp Sat May 11 05:52:53 2002

Subject: [R-390] Receiver FT

Hi! I have some NOS (since they were produced, the package box never open) Chinese receiver for swap R390/390A/391. Type77: it was Design in the end of 1960's. it was used monitor the communication of the West.

FET+transistor, 1.5-31.5MHz in 15 bands. 5 selectable IF band width: 6db, 700Hz, 1.2KHz, 3KHz, 6KHz, 12KHz. 4 mechanical filters and one ceramic filter. dual conversion (band 1-2 is single conversion). 1st IF 1.5-2.1MHz, 2nd IF 600KHz, 7 sections variable caps tuning! PS: 220V AC or DC 12-18V. it is a high-grade receiver, very complex and expensive receiver, it was "Chinese solid R390". with many many spare parts and tools for service (more than 110). schematic at:

**<http://www.helloq.net/~swl/radio/download/77asch.zip>**

tube receiver:

TYPE 222:

12 vacuum tubes (not include PS), 1.5-30MHz in 5 bands, single conversion. IF BW: 400Hz, 1.5KHz, 3KHz, 6KHz, IF 600 KHz. PS: 220V AC. It is RCA AR88's grade receiver. very pretty receiver, very good craft. with some spare parts. The receivers are all NOS (I think, you will very hard to get NOS tube receiver in the world). with all spare parts (a set of tube, etc). user manual (with schematic diagram): <http://www.helloq.net/~swl/radio/download/222guide.zip> JPG on request, if you are really want to trade.

The R390/390A/391 must be working or repairable, transformer, filter, PTO, crystal must be good, with all covers, and front panel, meters and knobs must good, and with a set of tube (only for repairable set), with serial plate, and the shape must be not too bad. BTW, I just swap a R390 with Dave Medley: davidmed@davemed.info, I have got the R390 (divided into three boxes, and ship them to China will pay \$140 or so), and Dave will get my TYPE 222 in next week or later. About me and my receiver, you can ask Dave, he has agreed to talk this. when he come back home. Best regards. Xu

From krk@ix.netcom.com Sat May 11 06:18:07 2002

Subject: [R-390] Re: How much should it cost???

Greyhound is good advice. Last year I got a Tektronix 575 Curve Tracer shipped from Kentucky to Phoenix, AZ for \$54. It's about as heavy as a 390 (75lbs) and probably a bit more fragile. It made it fine. Ken

From jbrannig@optonline.net Sat May 11 11:32:43 2002

Subject: [R-390] Re: How much should it cost???

How does one ship via Grayhound? Is it door to door? Just curious. Jim

From hankarn@pacbell.net Sat May 11 12:04:20 2002

Subject: [R-390] Re: How much should it cost???

Sorry you have to take it to them and pick it up at the bus station. The bad part in LA it is now a 3 hr ordeal due to travel, parking and location. (downtown slum district) bad news area. Hank

From vze3p5xx@verizon.net Sat May 11 14:23:46 2002  
Subject: [R-390] for sale

R-390-A working minus meters spare vfo bfo large knobs- 2 simpson meters that will fit some tubes-spline wrench set original tm and operator manual and a recap kit. I live in fitchburg MA I will deliver in MA ME NH VT all others i must ship\$450.0020 Thomas Antil vze3p5xx@verizon.net

From joefalcone@chartermi.net Sat May 11 14:22:35 2002  
Subject: [R-390] Lack of serial number on id tag

Hello: I bought a R-390A from Fair Radio about two years ago. It was one of the ones they fix up by putting in new meters, redoing the face and finishing the knobs, etc. The tag says Imperial Electronics, Inc., 37856-PC-63, which is a real contract number. But, there is no serial number stamped on the tag. Does this mean it is a reproduction tag? Or perhaps a surplus tag that was never installed on a finished radio?20 In addition, did Fair get most of their radio's from Julian Creek? Thanks, Joe.20

From DCrespy@aol.com Sat May 11 14:59:59 2002  
Subject: [R-390] How much should it cost???

I am surprised no one has mentioned this yet.. Both UPS and USPS have a significant change in rates around 70 pounds. For the "A" at least, separating the power supply and audio decks, and then shipping them separately should get all boxes under the weight threshold. It also reduces the chances of shipping damage (when dropped, the radio stops, but the heavy transformers will try to keep going..).

See you at Dayton! (list your spaces if you have one!!) 73 Harry KG5LO Saline MI

From lexa@mail.island.net Sat May 11 15:26:40 2002  
Subject: [R-390] How much should it cost???

Hi, Shipping on my NBS R-390A in two boxes from Alaska to the Queen Charlotte Islands cost \$110.00USD. Leo VE7LMJ

From Barry Hauser <barry@hausernet.com> Sat May 11 15:38:39 2002  
Subject: [R-390] How much should it cost???

wrote:> I am surprised no one has mentioned this yet.. Both UPS and USPS have a> significant change in rates around 70 pounds.

Yes the rates jump at 70 pounds, but, there's a catch. Most often, with double boxing and an outer carton that's large enough, the receivers will go for "dimensional weight" when the girth exceeds 108 inches. There are other dimensional criteria as well. If I'm not mistaken, the "108" for UPS triggers a rate equal to the 70 lb. rate regardless of actual weight -- however will still be a good deal cheaper than 75 or 80 lbs.

(Girth 2 X each of the smaller dimensions plus 1 X the length. So, a 26" X 24" X 18" box would be (24 + 18) X 2 84" plus the 26" L. 110" -- bingo. That's one thing that stymies sending shipping sets around, unless they're designed as as telescoping cartons. However, those are not safe for shipping unless there are some rigid verticals to prevent telescoping while the goods are in the box.)



R-390x's are fairly sturdy when it comes to the P/S and transformer mountings, as well as the H-mainframe construction at least make sure ALL green screws and transformer screws are tight. (Also a good time to check front panel screws, tighten the handles and chassis screws, etc.

There is a safety advantage to two lighter instead of one heavier arton. The easier it is to lift the big one, the less chance of "droppage" and may be less chance of damage when it is dropped or tumbled the "usual" amount. It's usually the weight of the radio that is its "own worst enemy".

There are other pieces of gear that are much more prone to transformer ballistics, like those with conventional steel or aluminum chassis construction. Not uncommon to find small screws used to fasten these things down. However, those units are usually not modular and there would be a lot of leads to unsolder. With that type, make sure the screws/nuts/bolts are all there and tight and brace between the top of the transformer and the cabinet or carton, so it can't rip out when it's dropped upside down.

Of course, if you want to lighten the load a bit more, you can use helium bubblewrap which I'm now developing. True, doesn't have the lift of hydrogen, but my experiment with hydrogen bubblewrap didn't work out too well yesterday maybe not a good idea to test on the 65th anniversary of .... ;-) Barry

From n6py@QNET.COM Sat May 11 19:49:12 2002

Subject: [R-390] 6 MORE MILITARY R390 MILITARY CABINETS ARE AVAILABLE

Hi All,

Mac has just informed me he still has six more gray R390 military cabinets with out shock mounts are available for sale. The price for each is \$295 shipped only to the lower 48 states. These are identical to the ones sold earlier for \$320 but are without shock mounts. If you would like to obtain one, send me a return email. Sorry but no sales to Canada after the problems with two cabinets previously shipped twice to Canada described below.

All of the cabinets with shock mounts that have been paid for have been shipped and should have been received by the buyers by now except for three. Two of the three have run into problems shipping into Canada and Mac is trying to work this out. Two attempts were made to ship them and they were returned both times by the shipper for unknown reasons. The remaining one had been shipped to the buyer in California and delivery refused even though it was paid for by him and the shipping address he gave us was used on the shipping label. This Mac is also trying to work out.

I have a list of all the cabinets that were mistakenly shipped without their shock mounts and have sent that list to Mac. I'm still waiting for news when these mounts will be shipped. The six cabinets previously sold with out shock mounts and paid for by the buyers should be shipped soon or as soon as the payments are received by Mac. Bill N6PY

From Sat May 11 20:32:30 2002

Subject: [R-390] FS: More stuff at Dayton

For Sale, at Dayton space 939, Offered first to R-390 list members. R-390 (Non-A) Motorola serial 4xxx, only missing top and bottom dust covers, good shape, never powered up by me in the years I've had it in dry storage. \$750 R-390A Motorola, needs top Utah plate, it does have original meters. \$450 SP-600JX-26, working, good sensitivity. I have been using this as a shop receiver. \$350 Contact info at

<http://militaryradio.com/forsale.html> Don Reaves W5OR

From joefalcone@chartermi.net Sun May 12 02:27:39 2002  
Subject: [R-390] R-392 R-390?

Is the R-392 basically a repackaged R-390? Thanks for your opinions. Joe.

From djmerz@3-cities.com Sun May 12 05:25:32 2002  
Subject: [R-390] How much should it cost???

Hi, I'd vote for the two box approach based on my own experience - the extra weight of the heavy transformers did cause some damage on one I received via FedEx, maybe because the cushioning between R-390a and outer box was not quite sturdy enough. But without the extra weight inside the unit, I don't think there would have been a problem. Fortunately I was able to straighten the side panel that was bent at one of the rear edges with no other ill effects. Another experienced shipper of these sets mentioned his practice of removing the power supply/audio unit for shipping - good advice albeit it after I had the problem, Dan.

From nryan@intrex.net Sun May 12 07:05:42 2002  
Subject: [R-390] How much should it cost???

Hello, all,

A good while back an R-390A arrived in two packages, the second package carrying the power supply module separately. The receiver was OK, but not the power supply!

The PS module's mounting flanges were bent and one of the green-headed screw retainers broke off. The flange corners had poked through the weak packing (wadded newspaper) and small carton. I was able to straighten out the flanges and re-solder the retainer.

Lesson learned: The PS module also requires careful packing.

Some hints for packing HEAVY gear:

1. Find a sturdy carton four to six inches or more oversize top, bottom and sides.
2. Wrap article in plastic film or trash bag.
3. Isolate article evenly and thoroughly by building up with house builder's styrofoam insulation or the like.

A solid styrofoam barrier is the key element. Don't use packing that's easily crushed, squished, or popped. 73... Norman KG4SWM

From bill@iaxs.net Sun May 12 16:30:41 2002  
Subject: [R-390] How much should it cost???

Ten years ago, I bought an R-391 from an add that said pick up only in Connecticut. I'm in Minnesota and desperately trying to get an example of each of the R-390 class receivers.

So I called local air freight companies to see if the set could be picked up and crated 1000 miles away and left for pick up at the Minneapolis airport. Sure, says Barrieaux. Cost you \$150.

The set arrived in fine condition, inside a wooden slat crate built tight against two layers of cardboard around the set. No styrofoam, bubble wrap or peanuts. The air freight terminals tend to be more careful with fork lifts than the ground service folks, and the set is too heavy to pick up and throw on a pile. At the terminal, the crate gets put inside an aluminum container with other freight headed for MSP, so the risk of accidents goes down. Your results may vary from mine. Regards, Bill Hawkins (no longer desperately searching for anything ...)

From bill@iaxs.net Sun May 12 16:30:40 2002  
Subject: [R-390] R-392 R-390?

asked, "Is the R-392 basically a repackaged R-390?"

Yes, in the same way that a Mazda RX-7 is a repackaged Corvette. They look the same from the point of view of the ground (4 tires) but there are some differences under the hood. Regards, Bill Hawkins

From scr-287@sbcglobal.net Sun May 12 21:24:42 2002  
Subject: [R-390] C-1899/U ???

Anyone know what this unit was used for?

It appears to have 4 speaker amps, each with its own level control, and one amp that may be a transmitter audio line driver. Provisions for powering or selecting 4 transmitters with a place to plug in a mike and key. Being Navy gray, looks like it would feel right at home in a rack with some R-390s. Thanks Jack Antonio WA7DIA scr-287@sbcglobal.net

From BRingwoo@csir.co.za Mon May 13 07:46:53 2002  
Subject: [R-390] How much should it cost???

\$250 was about what I was quoted to ship one from the UK to S Africa.

From tbigelow@pop.state.vt.us Mon May 13 15:18:09 2002  
Subject: [R-390] How much should it cost???

Just wanted to chime in here to agree with what Barry is stating about these 'pack and ship' joints. The only items I've \*ever\* received damaged through UPS, FedEx, or USPS have been items "professionally packed" by these places. They are in this for profit, meaning they will cut corners to maximize profits wherever possible. This translates to packing peanuts, bubble wrap, and other materials not at all meant or suitable for packing of a heavy metal radio with corners and edges. The only person to benefit beyond the packer is the seller, who gets you to pay for his convenience of dropping the problem on someone else.

The added cost for this lower level of service is ridiculous as Barry illustrates - it's like paying for abuse, really. I'm in the process right now of getting an AR-88 shipped from Colorado and the seller has arranged to have it shipped through one of these places. Considering these rigs weight a lot more than an R-390A(steel panel, steel cabinet, steel chassis?), the thought of a 'packer' shipping it makes me shudder.

I've talked him out of shipping it and letting me have a friend pick it up for me(I was \*just\* in Boulder two weeks ago!), and I think I'm going to try the bus route. Packer wants \$30 to pack and will add on an additional 20% to the actual UPS cost for shipping. With a 100 lb +/- radio from Colorado to Vermont, that translates to a pretty hefty chunk.

Worst packing I've seen came from a place in California. A little Kaar 2-way radio, should've been a piece of cake to ship. They used some kind of colored thick foam blocks (looked like left over children's toys), and apparently laid them out in a line on a table, and ran a piece of duct tape across them to 'maintain separation' between them. I think there were two small pieces of half-wadded newspaper inside as well - that was it. They basically dropped the stuff inside and set the radio on top. Box was a reused cookie box from a supermarket.. It arrived mostly crushed from lack of packing materials inside, rattles from loose parts that had found their way off, etc. Fortunately, damage was minimal. This was a "business" packing job, too!! They even had their return label on the box(talk about gall, or bad advertising at the very least).

If anyone else can shed light on their experiences shipping heavy receivers via Greyhound, I'd sure appreciate hearing. I understand that UPS uses a 'foam in place' method that is quite effective, and there are also shippers out there like Hank who know what they're doing(few and far between in comparison, though). I've heard of using Greyhound or airfreight before, just never much info. 73 de Todd/'Boomer' KA1KAQ

From cbscott@ingr.com Mon May 13 15:30:13 2002  
Subject: [R-390] How much should it cost???

When I bought my R390A, the seller suggested using Greyhound. The radio never left the bus from its origination point to its destination point (approximately 350 miles) and it arrived in the same condition in which it left. I think it cost about \$50 to \$60.

You can even see the schedule (where it changes buses, etc.) on their website. I think it is a very good way to go especially if you can find a route with minimal bus changes.. Barry(III) - N4BUQ

From ka3oyj@netcarrier.com Mon May 13 15:42:14 2002  
Subject: [R-390] Info : CV-591A needed

Sorry for the slightly off topic post! Can anyone tell me what the power connector on the back of this set is? i.e. what the military nomenclature is? I need one for mine, also need the type lamp for the pilot as well as the lamps for the sideband lumination. Unfortunately it needs some work! Are there any online copies of the manual? Thank you, Joe

From craigmc@pacbell.net Wed May 15 14:14:18 2002  
Subject: [R-390] Info : CV-591A needed

There is a manual on the TMC www site, and perhaps also on BAMA. I am just off a long airplane flight and don't have the energy to find more details for you right now. If no one else responds I'll get to it in a day or two. Craig

From wb7dyw@ev1.net Wed May 15 14:48:30 2002  
Subject: [R-390] Info : CV-591A needed

I have a CV-591A manual in PDF format I can e-mail. Thanks & 73's Dutch

From cthulhu@fhtagn.org Wed May 15 15:18:32 2002  
Subject: [R-390] Info : CV-591A needed

this is a standard "type 97" or "MS" connector. I don't remember the exact number, but The numbering system is simple enough -- The part you are looking for is most likely an MS3106AXXX S with the XXX being the number than is on the insert in the mating chassis plug. I forget the specific number for the insert that you need to mate to the connector on the 591A, have been a while since I have had one.

One source for the connectors is [www.newark.com](http://www.newark.com), request a catalog since they have lots of nifty stuff. Don't let the cost of the connectors scare you, expect to pay about \$10-15 for a complete/ new connector. But years from now when CV-591A's are impossible to find, instead of just difficult like they are now, you will thank yourself for not snipping the connector off and direct wiring any old AC cord in there.  
Tom Norris KA4RKT

From r390a@enteract.com Wed May 15 16:40:10 2002  
Subject: [R-390] Info : CV-591A needed

I believe you need a MS3106A16S-5S with clamp AN3057-8

From jetemp@insightbb.com Wed May 15 17:03:15 2002  
Subject: [R-390] R-390A coil pin socket

I have to replace one of the coil pin sockets. I have tried to bend the contact, similar to what you would do with a tube socket pin to increase tension. This one is so far out of whack that this will not work. I have a "parts" RF deck and have tried several times to neatly remove one of the coil pin sockets, but all attempts have resulted in a destroyed socket. As a last resort, I can simply plug the socket on the pin from below and be done with it.

Has anyone on the list found a neat way to remove and replace one of the coil pin sockets?? Thanks for any hints or help. Sincerely, Jim 73, KF4ICZ

From jordana@nucleus.com Wed May 15 18:12:51 2002  
Subject: [R-390] Re: TOTALLY Off topic HELP..!!!!!!

Hi.. does anyone with a DSL, T-1 or Cable internet connection have a copy of Acrobat reader 3.0 they could e-mail me..? It seems the problem is in an error in the uninstall of this program.... I have DSL here and the D/L time would be very low... 73 de Jordan....

wrote: > P.S.... it is not as simple as removing the software using the Add/Remove > software panel from the Control Panel... I have tried that too many times > to count..I think it's a registry problem with WIN 98... 73 de Jordan...

From James A. (Andy) Moorer" <[jamminpower@earthlink.net](mailto:jamminpower@earthlink.net)> Wed May 15 20:13:12 2002

Subject: [R-390] Info : CV-591A needed

Could you please point me (us) to the TMC www site? A google search doesn't turn it up right away.  
Thanks. James A. Moorer Adobe Systems, Inc.

From jordana@nucleus.com Wed May 15 21:15:50 2002  
Subject: [R-390] Re: TOTALLY Off topic HELP..!!!!!!

Thanks to all who have replied... I was sent the Acrobat archive URL, and downloading and re-installing Acrobat Reader 3.01 has solved all the lock-up problems..... Thanks again to all who have replied.... 73  
de Jordan...

From jbrannig@optonline.net Wed May 15 21:31:26 2002  
Subject: [R-390] Info : CV-591A needed

If you go to EDIT>PREFERENCES>OPTIONS and UN-check all the WEB Browser options, the "freeze" problem is eliminated. Now when you click on a .PDF file, a text box will open and ask you if you want to OPEN, SAVE, etc. Click OPEN Jim

From CHUETHER@alphaind.com Wed May 15 22:04:08 2002  
Subject: [R-390] Any chemical engrs out here?

Its been quite awhile since Ive checked in here; seems like nothing has changed. Just like a soap opera. Its a bit off subject but I need some help with a grease, paint and rust stripping formula. Seem to rember a few chemical guys on here some years ago?? Carl KM1H

From ba.williams@charter.net Thu May 16 02:20:41 2002  
Subject: [R-390] Any chemical engrs out here?

> Its been quite awhile since Ive checked in here; seems like nothing has changed. Just like a soap opera. Its a bit off subject but I need some help with a grease, paint and rust stripping formula.

errr, Simple Green maybe??? the other other Barry

From craigmc@pacbell.net Thu May 16 03:32:33 2002  
Subject: [R-390] Info : CV-591A needed

<http://www.geocities.com/tmcvintage/index1.html>

under manuals look for the MSR-4

From nryan@intrex.net Thu May 16 07:27:27 2002  
Subject: [R-390] T-shirts

Hello, Jess, Jerry, and Jon,

Hope to meet the R-390 contingent at Dayton. Anyone know John Burgwyn, W4WAW, from Rocky Mount, NC? He will have spaces just down the line from Jess#2573 and 2574. R-390A tee shirt is in the overnight bag. If rain holds off, weather should be fantastic. Happy trails. 73 de Norman G4SWM

From mikobrien@yahoo.com Thu May 16 09:19:47 2002  
Subject: [R-390] knob for cv-591a needed

Hi All Does anyone have or know where I can get the knob for the push button lsb/usb selector switch for my cv-591a Thanks Mike

From hankarn@pacbell.net Fri May 17 14:38:51 2002  
Subject: [R-390] FS: Hammarlund Clocks

Hi Gang, I had a pleasant LL conversation with Rob Hummel last evening and he said they still have the clocks available in both 24 and 12 hour style. I just bought 2 of them and they are packed in a very novel and safe condition. Rob says they have over a 100 of each left and then they will be gone. Send a check in the amount of \$35.00 per clock which includes postage to:

Roberta Hummel KA9OSA  
202 Midvale Drive  
Marshall, WI 53559-9616

They do not have internet and phone is unpublished due to people calling at all hours of the day and night.

Rob is holding up health wise and is active on 160, 75 and 40M. Just a happy customer es Thanks,  
~~KNDI~~

From cbscott@ingr.com Fri May 17 14:46:31 2002  
Subject: [R-390] FS: Hammarlund Clocks

Hey Hank, You left the ubiquitous "HAMMARLUND" out of your post. <g>

Barry(III) - N4BUQ (...who wishes he had a nice Hammarlund in which to stick one of these clocks)

From jetemp@insightbb.com Sat May 18 17:20:51 2002  
Subject: [R-390] URM-25D manual

I have picked up one of these signal generators. The modulation does not work, as is the case with many of these models. The archives is a great source of information and tips for maintaining one of these. Does anyone know of a manual for the "D" model that is available on the web or in .pdf format? Thanks for your past support. Jim

From alanjohnson@gbis.com Sat May 18 18:03:31 2002  
Subject: [R-390] OT: URM-25F

This is off-topic, but... I picked up a 25F at a hamfest last week and I would like to know if there are any "must check/fix" items that must be attended to prior to firing up the unit.

Also, does anyone know of a reasonably priced source for Collins FA series filters for the 75S-3B/C receivers? I need an AM filter. Thanks and 73, Alan Johnson N4LUS/7

From jetemp@insightbb.com Sat May 18 18:04:04 2002  
Subject: Fw: [R-390] URM-25D manual

WOW, that was fast. The "D" model Navy manual is available in .pdf format at <http://www.kg7bz.com/Manuals.html> Thanks for the quick responses! Jim

From hankarn@pacbell.net Sat May 18 23:32:48 2002  
Subject: [R-390] Re: [Hammarlund] FS: Hammarlund Clocks

The last lens that I got were from:  
Michael Souhrade  
2217 Thornwood Lane  
Le Claire, IA 52753-9311

I have no email or ham call for him. 73 Hank KN6DI

From anchor@ec.rr.com Sun May 19 00:58:58 2002  
Subject: [R-390] Re: [Hammarlund] FS: Hammarlund Clocks

Hi Mark, & all, I just got this note from El, W8VHF, w8vhf@t-one.net I got some crystals (lenses) from him a cupla mo.s ago, they're FB. 73, "The crystals are 8.00 ea. Postpaid. My address is: E.C. Spencer 2074 W Fountain Rd Scottville, MI 49454 " Al, W8UT

From vze2gmp4@verizon.net Sat May 18 17:40:09 2002  
Subject: [R-390] Carrier level meter

Has anyone used Jan Skirrow's, VE7DJX op amp circuit, that makes "replacement meters" useable in an R-390a? So far I've built two circuits using Jan's values but with a 741 op amp. Can't get the thing to work at all. Does someone have a circuit they've tried and gotten good results with it? Thanks. Helmut Usbeck, WB2ADT vze2gmp4@verizon.net on 05/18/2002

From salmaniw@shaw.ca Sun May 19 06:10:57 2002  
Subject: [R-390] Carrier level meter

wrote: >Has anyone used Jan Skirrow's, VE7DJX op amp circuit, that makes >"replacement meters" useable in an R-390a?

Helmut, Jan's article can be found at his website: <http://www.skirrow.org/Boatanchors/TechTalk2.pdf>

Good luck!.....Walt. PS: I have one of these meters installed thanks to Jan, in my 390A, and it



works fine.

From rjcote@hawaii.rr.com Mon May 20 02:57:19 2002  
Subject: [R-390] Info : CV-591A needed

The connectors are as follows:  
MS3102A16P [plug]  
MS3106A16S [socket]  
AN3057-8 [clamp]

All lamps are GE-47 [6-8 volts;150 ma T-3-1/4 clear bayonet

There should be annuals available on-line. I have NAVSHIPS 0967-051-2010, COPY ONLY. Ray

From w5kp@swbell.net Mon May 20 14:47:58 2002  
Subject: [R-390] Dayton

Got back late last night. 1,974.1 miles round trip. My butt will recover by the weekend, I'm sure.

Did not see one single solitary R-390/R-390A in the flea market, might have missed one somewhere, but clearly not much there in the boatanchor line. No SP-600's, no Johnsons with only a couple of overpriced exceptions. A few Hallicrafters, one fair SX-115 (priced at \$2K). Collins S-lines for sale everywhere you turned, didn't see any of them selling as of late Sat PM. Many dirty and so-so condition Drake 4-lines, also not selling. Practically no heavy iron. If you needed a six year old laptop, cheesy software, or a cell phone cord, however, you were in business. Best bargains: late model ex-gov't HP/Tek test equipment, and FT-817's selling for \$499 on a pay now, drop ship Monday basis.

Sorry I missed Barry and the other guys, couldn't find you all. The booth numbers I had must have been wrong, or maybe I was just lost. 3,000 or so booths and none of them marked with their booth numbers made things fun.

Inside was great, incredible number of vendors and manufacturers. Fun trip, now I've seen the other side of the mountain. It was worth it. I bought a couple of wattmeter slugs and a Bird 500W load, plus some Solder-it stuff and a sack of used 4-125A's that may or may not be any good. That's about it. 73, Jerry W5KP

From nextgen@nextcentury.com.au Mon May 20 13:09:45 2002  
Subject: [R-390] FW: Kleronomous AF Module help

Hello Folks Does anyone know where I can get info on this mod? 73's Lee.

From mackeyka@mac.com Mon May 20 13:10:13 2002  
Subject: [R-390] Dayton

wrote: > Did not see one single solitary R-390/R-390A in the flea market, might have  
> missed one somewhere.

Being a bit closer, (1 each way) I was up at the Ham Fest for half a day Friday with a freind, and then went back up Saturday with my son for a few hours. I say Don Reaves there. He had an R-390a out for sale. I also saw an R-390(non-a) at another booth. Lots of big old radios, but not being familiar with what I was seeing, don't know if there was anything worth it.

Jerry is right about how much non-ham stuff shows up there. Makes for an awful lot of wading around in things that are of no interest.

I bought a 5 element 2M antenna and a 5 element 440 antenna. Need those to do any VHF/UHF in my area. Didn't win any prizes. All in all, I enjoyed it and the trip time with both my friend and my son.  
Kim Mackey KB9WSZ

From BRingwoo@csir.co.za Mon May 20 13:26:46 2002  
Subject: [R-390] FW: Kleronomous AF Module help

Sorry to be totally ignorant - what does it do? Bryce

From pha@pdq.com Mon May 20 13:44:45 2002  
Subject: [R-390] Dayton

wrote: > Did not see one single solitary R-390/R-390A in the flea market, might have missed one somewhere,

Hmmm... there was a fair bit Friday morning.

I saw two R-390A's - both reasonable priced, good condition units (complete w/meters, \$450 range). Saw 3 R-392's - I snapped up the first one \$100 for a repairable unit needing a front panel, but had the original meter and all the knobs (bought a front panel from Fair on the way home, and put it on this weekend). Two other 392's - \$100 (no meter) and \$200 (w/meter and working). The guy I bought my R-392 from had a T-195 looked complete, he said it was functioning, for \$200. He had related components, too (FSK converter?, etc?).

The 392 I bought turns out to be the best functioning one I have - the PTO is linear within a few hundred cycles across the bands, and it is generally very well aligned. With the new panel, it will look like a fresh out of the box unit (after I paint the case to match the front panel, anyway).

I saw 5-8 command sets, most in hacked condition, saw one R-24 in the front seat of someones truck, clean but it was missing bits.

I ran across a guy selling a BC-348R with the original dyno. The unit is unmodified, the dyno looks new, but the unit had seen a commercial overhual in 1959 (minor paint touchup, maybe some other fixes). I bought that for \$100. Then, while carting it around, I got to listen to older guys saying "hey, we used to give those away!"

I picked up a bud cabinet for \$75 - like new condition, but needs work to hold an R-390A - just a smidge too short.

I also saw several R-388's, a fair number of other tube equipment pieces (amplifiers, who knows what else).

I picked up new R-392 power connectors, plus connectors for the back of my R-391's, as well as more cables, adapters (UG-970's), and other stuff.

I also ran into Don Reaves - more by accident than anything else. Would have stuck around longer, but waking up at 4AM to drive down there kinda knocked the stuffing out of me. Overall, I can't complain. My wife did (a little), but I can't... (\*: Paul

From wewilson@knology.net Mon May 20 14:48:23 2002  
Subject: [R-390] Dayton

Jerry,

I know of at least six R-390As and at least one R-390 that were in the flea market. I had two fully restored ones, priced accordingly. I saw one still available late Saturday afternoon. I picked up one R-390A for myself to restore, and one very affordable Johnson Ranger. We had two Johnson Viking IIs (with VF0) in our spot at the start on Friday, and one of those lasted until Saturday morning. I saw at least one other fairly nice Johnson Valiant, and then a few of those higher priced ones you mentioned. I only saw one SP-600 early Friday. I agree there were less boatanchors than the usual amount, though. One very popular vendor who had maybe 25 or so last year had none this year. He seems to be selling all of his vintage gear on eBay.

The FT-817s certainly were a blow-out price. I picked up a 706 MkIIG, and will be HF mobile by the end of the day. ;-) Walter Wilson - KK4DF <http://www.knology.net/~wewilson>

From wf2u@starband.net Mon May 20 15:03:47 2002  
Subject: [R-390] Dayton

Also got back yesterday afternoon, 900 miles round trip.

I counted at least a dozen or so R-390/R-390A (I don't need any more of them one so I didn't look whether they were A's or non-A's), in various conditions, from nice to fixer-upper, with prices ranging between \$350 and \$800 and a number of R-392's. I also noticed at least 4 SP-600's of various versions, all looked fairly decent, with \$350 to \$450 price tags. One of my friends got a nice Drake TR-4CW with the MS-4 power supply/speaker for \$100. There were quite a few good looking Drake - line equipment some of them were slightly overpriced, I bought a nice - inside and out, complete with the tools and dynamotor inside - Collins R-105/ARR-15 airborne HF receiver (the companion receiver for the RT-91/ARC-2 transceiver for \$70 and a nice Heathkit Apache transmitter (why do I need a second one?) for \$100. I saw a lot of Collins S-line and A-line equipment, mostly fairly reasonably priced. On the other hand, some of the "traditional" boatanchors were high priced, such as a Johnson 500 for \$2500 and the aforementioned SX-115.

Attendance seemed to be down around 1/3 of last year's - maybe the weather? 73, Meir WF2U.

From nextgen@nextcentury.com.au Mon May 20 18:00:29 2002  
Subject: [R-390] FW: Kleronomous AF Module help

Hello Folks, Has anyone got Electric Radio issues # 42 and # 94 and a scanner. 73's Lee.

From nextgen@nextcentury.com.au Tue May 21 16:59:35 2002  
Subject: [R-390] FW: Kleronomous AF Module help

Hello Folks Does anyone know his email address. Lee.

From Craig.Anderson@sptc.mnscu.edu Tue May 21 17:27:45 2002  
Subject: [R-390] Kleronomous AF Module

**Bill has indicated on his web page that he intends on uploading a step-by-step procedure - including photos and drawings- of his audio mod for the R-390A audio chassis. This was supposed to happen around the first of the year but so far I have not seen anything. If interested, you may want to drop Bill an email and encourage him to upload the info to his website.**

**Here is his Web Page**

**[http://home.earthlink.net/~klerosb/KD0HG\\_Home\\_Page.htm](http://home.earthlink.net/~klerosb/KD0HG_Home_Page.htm)  
<[http://home.earthlink.net/~klerosb/KD0HG\\_Home\\_Page.htm](http://home.earthlink.net/~klerosb/KD0HG_Home_Page.htm)>20 Craig W9CLA**

From john@whimsey.com Tue May 21 17:30:53 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

So my R-390a has arrived. I know there are things that one should do before turning it on. I checked the fuses and replaced a bad one. But then I cast all caution to the wind and turned it on. I'm not sure if it's completely functional. The line audio stuff doesn't seem to do anything, but it plays! Sounds great through a Klipsch Heresy. A vintage speaker that's too ugly for my living room. So the overpriced shipping may have worked out.

It's a little bit moody though. Maybe a lazy capacitor or something like that. So I'm thinking the first thing to do is start replacing capacitors. I'm guessing if it's electrolytic, tantalum, or paper, it wants to be replaced. But my question is, what's the best capacitor to replace the paper capacitors with? Polyester, polypropylene, ceramic or something else? I get the idea that the \*orange drop\* is popular, but has anybody ever thought of using ceramics to replace some of the paper ones? Maybe they are even more reliable than the orange drops. You can get 0.01 uf in a 1000V version, and you can even get 0.1uf in a 200V version. So it may be possible to replace all of the papers with ceramics. But I don't know if it's a good idea. What do you guys think? John

From DAVEINBHAM@aol.com Tue May 21 20:27:09 2002  
Subject: [R-390] AMRAD Active LF Antenna

**Fellow R-390 Drivers, Has anyone on this list built the AMRAD Active LF Antenna from the article on page 31 of the September, 2001 QST ? Before I build one it would be nice to get some feedback from someone who has built one as to how well it works. Also, does anyone have a Crystallonics, Inc. CP-666 JFET they would part with. That is the transistor used in the antenna article. It seems the Telephones at Crystallonics have been disconnected. Not a good sign.  
Regards, Dave**

From kc8opp@yahoo.com Tue May 21 20:44:28 2002

Subject: [R-390] PTO....Coming and Going

Hope that one of the learned masses can help with this PTO.

I have a Collins 70H-2 PTO in an R-390 (real radio). It stopped working last week, so out of the rack and on the bench it went. New tube and it is back in operation, so decided to check the end points. With just a bit of tweaking I was able to get 3455.247KHz at 000, and 2455.009 at +000.

When I checked the 100KHz points from 000 to +000 the values were all over the place, as much as 1.998KHz high but when I checked it starting at +000 and going to 000 the freq was never more than 243 Hz out of bounds. The problem seems to be connected to the corrector stack and cam follower some how catching and hanging up when going from 000 to +000.

Maybe I should just sneak up on all of the frequencies from the top down.

Anyone have any words of wisdom? Any cautions about adjusting the corrector stack? What lubricant (if any) should I use on the lead screw and corrector stack? And finally, how do you get all of that fiberglass insulation back in the can?!!! Thanks for your comments in advance. Roger KC8OPP

From roy.morgan@nist.gov Tue May 21 21:39:46 2002  
Subject: [R-390] PTO....Coming and Going

wrote: >When I checked the 100KHz points from 000 to +000 the >values were all over the place, as much as 1.998KHz >high but when I checked it starting at +000 and going >to 000 the freq was never more than 243 Hz out ... >Anyone have any words of wisdom?

Roger, Disassemble your PTO and lubricate it.

>Any cautions about >adjusting the corrector stack?

Before you adjust the corrector stack, you should find or make a jig to do the job. I know of only one person on the planet who has one. That is Howard Mills. You may not have to adjust the corrector stack if you get good linearity in one direction. You need lubrication first, I think.

> What lubricant (if >any) should I use on the lead screw and corrector >stack?

See any of the articles that have been written on the topic.. The little roller is important I suggest you clean that, then add lubrication. Molybdenum Disulfide grease may be best.

> And finally, how do you get all of that >fiberglass insulation back in the can?!!!

Wrap the inner can and the insulation with a piece of plastic, such as an overhead projector slide, or clear notebook cover from the office supply store.. squeeze the insulation down flat.. use rubber bands to hold it tight. then slip the cans together and then withdraw the plastic. Slits lengthwise in the plastic may help get it out around the tubes and framework. Check your OVENS switch OFF.

From jbrannig@optonline.net Tue May 21 22:17:43 2002  
**Subject: [R-390] AMRAD Active LF Antenna**

**The WEB page is still active. <http://crystalonics.com/home.htm> Jim**

From ba.williams@charter.net Wed May 22 01:01:53 2002

**Subject: [R-390] AMRAD Active LF Antenna**

**> Also, does anyone have a Crystalonics, Inc. CP-666 JFET they would part with.**

**I want one of the JFETs too. It looks like I've procrastinated too long. That certainly looked like a great LF antenna. Please let me know if anyone has info on the CP-666. If you let me know first I'll rig up some finder's reward or something. Just so I get it before Dave does. (g) Barry**

From ba.williams@charter.net Wed May 22 01:31:20 2002

Subject: [R-390] The adventure begins (and a capacitor question).

> So my R-390a has arrived. I know there are things that one should do before > turning it on.

John, Maybe you can do some other things first, and get better performance right away.

The first thing would be to check all of the tubes. I cleaned all of the pins on my tubes and put a tiny bit of DeOxit on each pin. I also cleaned every connector and finished with DeOxit again. I did the crystals last. Mine sounded like a different radio when I finished up.

All of this is easier than tearing into it first thing.

You get better audio from the diode load point instead of line audio. I think it's #15 for positive audio out. You can get ground from #16. Barry

From tetrode@worldnet.att.net Wed May 22 02:00:16 2002

Subject: [R-390] Kleronomous AF Module

Speak of the devil and it will appear! Epay item # 1354134148 FYI only, no relation to item. 73, John

From Barry Hauser" <barry@hausernet.com Wed May 22 03:04:28 2002

Subject: [R-390] The adventure begins (and a capacitor question).

Hi John & gang:> So my R-390a has arrived.

H'ray!!!

I know there are things that one should do before> turning it on. I checked the fuses and replaced a bad one.

John, I think you skipped a few steps....

But then I cast> all caution to the wind and turned it on.

Well, that depends. If the previous owner said it was running recently without sparks or smoke (and

actually took an oath to that effect) then it might have been safe. But you did mention that a fuse needed replacing. Sometimes they just wear out, but other times, a burnt fuse indicates that something is wrong.

I'm not sure if it's completely > functional. The line audio stuff doesn't seem to do anything, but it plays!

Whaddya mean "line audio stuff" the meter?/ranges?

> Sounds great through a Klipsch Heresy.

That's a good start you're lucky so far. "Heresy" is that the right model name? Does it defy accepted acoustical engineering practice? Or is the name something like "Heritage"? BTW, you are using a 600/8 ohm transformer, right?

A vintage speaker that's too ugly > for my living room.

No probably more like your living room is not appropriately decorated. How many 6 foot rack cabinets? Droplight sconces? Neon beer signs?

So the overpriced shipping may have worked out.

>

> It's a little bit moody though.

What do you mean by moody?

Maybe a lazy capacitor or something like > that. So I'm thinking the first thing to do is start replacing capacitors.

But at least start with the problem ones particularly the mechanical filter killer C553 I think. At least check it with an ohmmeter, though that's not much insurance. I've yet to find one bad, but the consequences are so steep, I don't take any chances.

> I'm guessing if it's electrolytic, tantalum, or paper, it wants to be > replaced.

What's it doing, or not doing?

But my question is, what's the best capacitor to replace the > paper capacitors with? Polyester, polypropylene, ceramic or something else? > I get the idea that the \*orange drop\* is popular, but has anybody ever > thought of using ceramics to replace some of the paper ones?

Orange drops seem to be the cap of choice for most. Some swear by the yellow poly's which are true axial and easier to fit in a number of spots. However, one problem is that they're easily damaged by the soldering iron, whereas OD's are not. Also, that heat resistance is somewhat more comforting during actual use. Prepare to get some spaghetti tubing or better yet, teflon tubing for the leads on the point-to-point caps.

Maybe they are > even more reliable than the orange drops. You can get 0.01 uf in a 1000V > version, and you can even get 0.1uf in a 200V version.

Sounds like you're talking about Radio Shack's. I think you mean 0.1 at 2kv. I pick those up from time

to time to replace line filter caps.

So it may be possible to replace all of the papers with ceramics. But I don't know if it's a good idea. What do you guys think?

Not recommended. Later built SP-600's came through with mostly ceramic disks, but not the cap of choice for R-390A's in most cases.

I'd replace that one cap right away before you burn out the filters. Unlikely, but you've been too lucky so far.

Some things to check try all bands, using the calibrator if necessary or a siggen. It's not uncommon to find some are dead usually come in 2's and 3's according to the crystal configuration scheme. Some of the xtal decks have rather loose sockets, so get out the DeOxit and do those, tube sockets and pins, any switches you can reach and later on the ones you can't reach ;-). Check all the tubes, especially for shorts. Check the gear train for grit, gluey grease. Oh with the top off and the "utah" cover removed, very carefully watch the slug racks as you change bands and tune through. Some may be binding on the downstroke. It's sometimes difficult to see and you have to press lightly on a rack that's supposed to be going down to see if it isn't hanging up. Also make sure the cam follower rollers are actually rotating otherwise you'll be flat-spotting them as you tinker around.

Other basic preliminaries check the two plugin caps on the audio deck. Check the mechanical synch using the procedure in the manuals. Look for any broken or loose clamps. Check the range on the KC control end to end. There are a lot of preliminaries that would logically come before a total recap job, at least from where I sit.

This is one radio where there's lots to do and look at before listening. But that's the fun. Just be careful if someone casually asks "Whatcha doin' John?" and you answer "Watchin' the radio." They might take you away. (There are a number of guys on this list that are unaccounted for. ;- ) Barry

From jetemp@insightbb.com Wed May 22 14:46:07 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

On Chuck Ripples web site is a file that lists "problem" caps in the R-390A.

The very first thing I would do would be to check the tightness of all the grounding points, above and below, all the modules. This includes tube socket screws and under deck transformer mounting points that serve as grounding points. Also, look carefully at all the solder joints and redo the ones that are not smooth and clean. Jim

From ba.williams@charter.net Wed May 22 15:39:04 2002  
**Subject: [R-390] AMRAD Active LF Antenna**

I wrote them this morning and got this reply: >You can call 631-981-6140 and we will take care of you.  
>Paul Weinstein Barry

From john@whimsey.com Wed May 22 18:05:03 2002  
Subject: [R-390] The adventure begins (and a capacitor question).



These are great ideas. I'll have to get some of that DeOxit stuff. But I'm a big fan of pre-emptively changing capacitors. I guess this comes from getting what was my grandfather's Stromberg Carlson Model 60 working. This radio was from the 1930's and the capacitors were pretty ugly. There was waxy oily stuff dripping off of many of them and some were encased in tar. So I was pretty ruthless. I replaced every single paper, oil, or electrolytic capacitor with polyester or a new electrolytic and now it works great. Maybe that's overkill, but I won't have to worry about those capacitors for a long time.  
John

From john@whimsey.com Wed May 22 18:06:00 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

More good ideas. I looked at the problem cap list, and to tell the truth, I'm not sure I understand why he wants to replace a mica capacitor with a ceramic. I thought micas were better. Hmmm... John

From john@whimsey.com Wed May 22 18:06:20 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

From billsmith@ispwest.com Wed May 22 18:38:06 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

> Well the meter doesn't do anything when I flip the switch, and the line gain> doesn't seem to do anything. Of course I don't have anything hooked up to> the line output, but I sort of expected the meter to do something.

The line output meter is controlled by the line gain control, and should work whether or not anything is connected to the line output. I guess if the output is shorted, or connected to a speaker-impedance it would not operate. Normal output impedance is 600 ohms; your RS transformer will present a good match.

> Nooooo, I don't have beer signs in my living room. ;-)

Nooooo, gave up the drink myself yars ago. Still think of a cool one on a hot day, though. :-)

> Most of the time it's just great. But sometimes it fades out with a > crackly, buzzy sound. I'm not completely convinced it's a capacitor or a > tube yet. It could be a bad pot or switch. At first I thought it might be > the RF gain pot but now I'm suspecting a flakey contact in the band switch. > If it starts crackling I seem to be able to make it go away by changing > bands and coming back. But I'm not sure.

Could be open mica capacitors. The red-rectangular versions in my R-390 (NA) are monsters. They leak and open just like the paper tubulars you correctly replaced in your father's radio. Hope you also checked the resistors, by the way.

<Many great suggestions/comments snipped>

73 de Bill, AB6MT billsmith@ispwest.com

From pha@pdq.com Wed May 22 19:03:00 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

wrote:> > Whaddya mean "line audio stuff" the meter?/ranges?>> Well the meter doesn't do anything when I flip the switch, and the line gain> doesn't seem to do anything. Of course I don't have anything hooked up to> the line output, but I sort of expected the meter to do something.

Check the meter itself - I think it should show around 10K-20K ohms of resistance. Make sure the meter is an AU meter - a replacement DC milliammeter needs a diode. The two line meter control switches are at the top of the panel, and have one resistor above that, so all are susceptible to physical damage. I had a broken resistor (3.3Kohm?) right near the top of the panel that prevented my line meter from indicating. Failing that, you may have a problem with the line out amplifier circuit, but I think that is less likely. Paul

From gcarter01@triad.rr.com Wed May 22 23:26:30 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

John,

I don't think it's overkill to get rid of all the electrolytic, paper and wax caps from the outset. I was told by a former engineer for Sprague that all caps of those types should be replaced in radios made before 1960. He said that around 1960 the technology for producing the caps changed and they tended to be more robust. Gary - WA4IAM

From ba.williams@charter.net Thu May 23 01:23:35 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

But I'm> a big fan of pre-emptively changing capacitors.

No arguments here, John. I don't think it's overkill.

I have to laugh at the high end restoration jobs on radios like your Stromberg-Carlson where they hide the new caps by wrapping them in the old wax electrolytic shells. (Let's make it look like the original fire hazard it used to be.) Barry

From mahlonhaunschild@cox.net Thu May 23 05:24:13 2002  
Subject: [R-390] New (to me) R-390A

Hello, list. Well, I guess I'm one of those who stumbled across the (very few) R-390As at Dayton this year, because one of them followed me home.

Wow, what a beast. Should go well with my Ranger.

It appears to be a 1967-vintage EAC unit (s/n 1997) by the tag, but the modules appear to have been all made by Motorola. Bad rebuild job on one plug-in cap (which I will correct, along with rebuilding the other). No other visible modifications. Ballast tube appears to be intact. Factory meters (!). They still glow, too (it seems that the half life of the radioisotope is longer than 35 years, at least). Has what appears to be a Progresstron PTO (I say this only because it is obviously not a Cosmos or Collins, and because the remains of the two PTO decals resemble what I see at <http://www.radioera.com/r390a.htm>). Tuning mechanism not gummed up like some of the photos I've seen on the web, but obviously in need of a good solid cleaning. Rear panel carries a different serial no. (4274) than the front panel tag shows. Obviously well used; paint wear on the front panel around the kc change knob from fingers, gloves, etc.

Items missing:

- the dial lock assembly & knob (the locking disk is still present on the kc change shaft)
- top & bottom covers (the coil cover is present, though)
- IF output cable (but I have some MBs)
- PTO tube retainer clip, bracket & screws
- the odd screw/washer here and there

Have read most of the web wisdom on the receiver, so with a ready supply of Orange Drops and hv electrolytics I am about to plunge into the pre-firing-up safety refurb (e.g. replace the capacitors mentioned by WA4HHG).

Was lucky to find a 500 ohm line transformer in the flea market, too. I had lots of positive karma this year, it seems.

If anyone out there can help me out with the missing parts, or can help me positively identify the PTO, or perhaps knows the name, address and phone number of a good psych counselor in northwest Florida (just in case), please write. regards, Mahlon - K4OQ

From john@whimsey.com Thu May 23 06:17:27 2002  
Subject: [R-390] New (to me) R-390A

> Have read most of the web wisdom on the receiver, so with a ready supply > of Orange Drops and hv electrolytics I am about to plunge into the > pre-firing-up safety refurb (e.g. replace the capacitors mentioned by > WA4HHG).

So why did you pick orange-drops? Is that the \*web wisdom\*? BTW, I'm missing my IF output cable too. Hmmm... John

From john@whimsey.com Thu May 23 07:15:40 2002  
Subject: [R-390] The adventure begins (and a capacitor question).

> Could be open mica capacitors. The red-rectangular versions in my R-390 (NA) are monsters.

Hmmm... Good point about the mica capacitors. Maybe they should be gone through too. But if I'm taking out a mica, I'm wanting to put in another one. Is there anything really better than a mica?

Good point about the resistors. I did check a few, and for the most part they were at least double what they should have been. I began to wonder if they had changed the ohm or something. ;-) I didn't do anything about it. Maybe someday I will, but after doing the capacitors, they're about the only original parts left. So I thought I'd let them run till one breaks. John

From BRingwoo@csir.co.za Thu May 23 09:15:26 2002  
Message-ID: <scecc14e.032@CS-IMO.CSIR.CO.ZA>

Hi all, I just got some of these from ESCO. <http://www.esco.it> - look under 'zoccoli'. Inexpensive, very good service, but best brush up a bit on your Italian first! - Bryce

From Barry Hauser" <barry@hausernet.com Thu May 23 14:33:07 2002  
Subject: [R-390] New (to me) R-390A

> Well, I guess I'm one of those who stumbled across the (very few) > R-390As at Dayton this year, because one of them followed me home.

They have invisible feet.

> Wow, what a beast. Should go well with my Ranger.

Yup, but keep it away from some of the smaller radios you listed. Might squish and eat 'em.

> It appears to be a 1967-vintage EAC unit (s/n 1997) by the tag, but the > modules appear to have been all made by Motorola.

Might be a repro tag or swapparoo, which is traditional. Motorola is a good outfit at least it's one that's still in business.

Bad rebuild job on > one plug-in cap (which I will correct, along with rebuilding the > other).

Cosmetics? or it doesn't work?

No other visible modifications. Ballast tube appears to be > intact. Factory meters (!). They still glow, too (it seems that the > half life of the radioisotope is longer than 35 years, at least).

I think the half life of the radium is something like 5000 years but, like the joke goes about the end of the world, "we'll see." Actually, it's the phosphor that usually "wears out". Even if they don't glow, don't disassemble and eat the meters.

Has > what appears to be a Progresstron PTO (I say this only because it is > obviously not a Cosmos or Collins, and because the remains of the two > PTO decals resemble what I see at <http://www.radioera.com/r390a.htm>). > Tuning mechanism not gummed up like some of the photos I've seen on the > web, but obviously in need of a good solid cleaning. Rear panel carries > a different serial no. (4274) than the front panel tag shows.

Again, typical.

Obviously > well used; paint wear on the front panel around the kc change knob from > fingers, gloves, etc.

"Eyebrows" or battle scars.

>

> Items missing:

>

> - the dial lock assembly & knob (the locking disk is still present on  
> the kc change shaft)

> - top & bottom covers (the coil cover is present, though)

> - IF output cable (but I have some MBs)

> - PTO tube retainer clip, bracket & screws

> - the odd screw/washer here and there

You can probably get most of the odd parts from Fair Radio e.g. dial lock assembly/knob. They have repro top, bottom and "Utah" (rf) covers. You might want to get a made up cable for the IF output from them won't be new, but maybe not worth using the new MB's for that. Pick up a little box or two of short stainless 6-32 screws from "Ace is the place". Some list members have spares and will probably let you know soon.

>

> Have read most of the web wisdom on the receiver, so with a ready supply> of Orange Drops and hv electrolytics I am about to plunge into the> pre-firing-up safety refurb (e.g. replace the capacitors mentioned by> WA4HHG).

>

> Was lucky to find a 500 ohm line transformer in the flea market, too. I> had lots of positive karma this year, it seems.

You're doing well ...

> If anyone out there can help me out with the missing parts, or can help> me positively identify the PTO, or perhaps knows the name, address and> phone number of a good psych counselor in northwest Florida (just in> case), please write.

Heh heh ... Make sure he's a qualified Boatanchor Shrink. Regular ones don't understand us. Also, they can't solder worth a dam, so what good are they? And, boatanchor shrinks make house calls, which is highly necessary with our condition. You can spot 'em on the street instead of a black bag, they carry a cooler with a six-pack in it, except one can is DeOxit ;- ) Barry

From BRingwoo@csir.co.za Thu May 23 15:33:03 2002

Subject: [R-390] New (to me) R-390A

Hi Mahlon - welcome. Don't forget to visit the "Pearls of Wisdom" <http://www.r-390a.net/pearls.htm> Wonder where all the IF output cables go? and the locks too. Same place as all my left socks, I suppose :) - Bryce

>New (to me) R-390A Welcome aboard .. :)

> Well, I guess I'm one of those who stumbled across the (very few) > R-390As at Dayton ths year, because one of them followed me home.

They have invisible feet.

> Wow, what a beast. Should go well with my Ranger.

Yup, but keep it away from some of the smaller radios you listed. Might squish and eat 'em.

> It appears to be a 1967-vintage EAC unit (s/n 1997) by the tag, but the > modules appear to have been all made by Motorola.

Might be a repro tag or swapparoo, which is traditional. Motorola is a good outfit at least it's one that's still in business.

Bad rebuild job on > one plug-in cap (which I will correct, along with rebuilding the > other).

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No other visible modifications. Ballast tube appears to be > intact. Factory meters (!). They still glow, too (it seems that the > half life of the radioisotope is longer than 35 years, at least).

I think the half life of the radium is something like 5000 years -- but, like the joke goes about the end of the world, "we'll see." Actually, it's the phosphor that usually "wears out". Even if they don't glow, don't disassemble and eat the meters.

Has > what appears to be a Progresstron PTO (I say this only because it is > obviously not a Cosmos or Collins, and because the remains of the two > PTO decals resemble what I see at <http://www.radioera.com/r390a.htm>). > Tuning mechanism not gummed up like some of the photos I've seen on the > web, but obviously in need of a good solid cleaning. Rear panel carries > a different serial no. (4274) than the front panel tag shows.

Again, typical.

Obviously > well used; paint wear on the front panel around the kc change knob from > fingers, gloves, etc.

"Eyebrows" or battle scars.

>

> Items missing:

>

- > - the dial lock assembly & knob (the locking disk is still present on > the kc change shaft)
- > - top & bottom covers (the coil cover is present, though)
- > - IF output cable (but I have some MBs)
- > - PTO tube retainer clip, bracket & screws
- > - the odd screw/washer here and there

You can probably get most of the odd parts from Fair Radio e.g. dial lock assembly/knob. They have repro top, bottom and "Utah" (rf) covers. You might want to get a made up cable for the IF output from them won't be new, but maybe not worth using the new MB's for that. Pick up a little box or two of short stainless 6-32 screws from "Ace is the place". Some list members have spares and will probably let you know soon.

>

> Have read most of the web wisdom on the receiver, so with a ready supply > of Orange Drops and hv electrolytics I am about to plunge into the > pre-firing-up safety refurb (e.g. replace the capacitors mentioned by > WA4HHG).

>

> Was lucky to find a 500 ohm line transformer in the flea market, too. I > had lots of positive karma this year, it seems.

You're doing well ...

> If anyone out there can help me out with the missing parts, or can help > me positively identify the PTO, or perhaps knows the name, address and > phone number of a good psych counselor in northwest Florida (just in > case), please write.

Heh heh ... Make sure he's a qualified Boatanchor Shrink. Regular ones don't understand us. Also, they can't solder worth a dam, so what good are they? And, boatanchor shrinks make house calls, which is highly necessary with our condition. You can spot 'em on the street instead of a black bag, they carry a cooler with a six-pack in it, except one can is DeOxit ;-)

Barry

From tbigelow@pop.state.vt.us Thu May 23 16:32:12 2002  
Subject: [R-390] Recent findings on shipping big radios...

Greetings to all -

Just thought I'd update you on the heavy rig (AR-88)I had shipped from Colorado last week, which arrived Tuesday. I did end up using a packing company(PostNet)and it seems to have worked out okay. Here are some items to note:

- First, I did ask about something comparable to Foam in Place or whatever UPS calls it. This particular place has something called "Insta-foam Pak" or such which is apparently heat-activated and works much like the foam in place, but is more limited by the bags the stuff is in. If you've received something with the large pieces of foam in gray plastic bent in odd shapes, it's likely the same stuff. If used properly and in concert with a double-walled box(inside another box), it should insure the item arrives okay. Of course, it all depends on how competent the packer is.

- Next, after the item was placed in box #1 with the insta-pak stuff, it was then placed in an even larger, double-walled box. In this box they only used packing peanuts, though. I think packing peanuts are great for filling voids and adding additional protection to already packed items, but they are *\*definitely\** not made for anything heavy. Fortunately, the rugged box and inner, well-packed box took up the slack. At 108 lb., it arrived in pretty good shape overall via UPS. Two holes in the outer box, one directly through a 'FRAGILE' sticker, adding yet more confirmation to my theory that these stickers are merely seen as bulls eyes to those who have to wrestle such a heavy item.

- Lastly, a few more items worth noting: Although the boxes were good, heavy boxes, they were not new but re-used, which surprised me since the fellow I spoke with priced them out like they were new(\$6-\$10 ea.). Next, the radio received very slight damage to a cabinet corner, but it was not at all due to the packing - rather the seller's failure to properly tighten the screws holding the receiver into its cabinet. This allowed it to shift during a sudden deceleration and popped one corner out about 1/4", easy fix and easy to see that it was caused internally and not externally. Finally, the most important part - cost. The insta- pak stuff was more expensive, and in addition to the charges for packing they usually charge an additional 20% on the shipping cost itself (which, as Barry #1 mentioned, is rather low since they get a discounted rate over what we'd get for shipping one item). Fortunately I was able to haggle a bit with the owner and got about \$50 knocked off the final cost before shipping, so of course I won't complain about used boxes or the peanuts. He did want feedback on how it arrived, so I advise him to never use peanuts for shipping anything heavy. Total shipping costs of \$131 and change. Much cheaper than driving there from Vermont to pick it up.

The point of all this is that it doesn't hurt to inquire a bit with some of these places to see just what services they offer. I'll never use the Mailbox place because of the attitudes I've run into as well as the crappy packing and horror stories from others. PostNet, at least this franchise owner, was very cooperative and willing to work with me to insure my satisfaction beforehand as well as more business for him. I'd never apply this experience across the board, it's only intended as a possible alternative when you can't get the best. Just use your noggin, don't assume by their name that they know how to use theirs. The more you can learn from any shipper, the better off you'll be and the more likely you'll receive items intact.

The best part of all this was discovering that this AR-88 is actually the elusive SC-88 built for the Signal Corp, with manual. Not sure how I missed it before, but I did. This one is #18, and aside from a factory crystal mod, the only other change appears to be the addition of a small S-meter, which I'll replace with a larger model from my AR-88LF for now. Even this has a good side though, because the S-meter is none other than an R-390 meter! Now my R-390A project will be winking instead of totally eye-less.

I'd better move things around in the house now, so it doesn't tip over... 73 de Todd/'Boomer'  
KA1KAQ

From billsmith@ispwest.com Thu May 23 19:37:45 2002

Subject: [R-390] The adventure begins (and a capacitor question and a R-390 question).

> > Could be open mica capacitors. The red-rectangular versions in my R-390 (NA) are monsters.

Good question. I happen to have new old stock that "looked" like the originals, and didn't dare check them first, but the receiver is working. I have heard that dipped silver micas are just as bad. Does anyone have any suggestions?

> Good point about the resistors. I did check a few, and for the most part > they were at least double what they should have been. I began to wonder if > they had changed the ohm or something. ;- ) I didn't do anything about it. > Maybe someday I will, but after doing the capacitors, they're about the only > original parts left. So I thought I'd let them run till one breaks.

>

That reminds me of the number of radios I took apart as a youngster, gaining a proudly hoarded large box of wax capacitors and another of resistors. A friend came by, and after glancing at the box, laughed, and said that probably most of them were bad. I wouldn't believe him. Same with resistors, I couldn't figure out why the meter worked sometimes, and at other times didn't. The resistance scale kept changing. I thought maybe there was a cold solder joint in the Knight-Kit VTVM I had put together, after all it was only my second kit that I had assembled.

I never imagined that resistors could go bad.

Of course those were the days of my first amplifier design. I wanted to build a simple microphone pre-amplifier, so I picked out a 12AX7. I found a transformer and rectifier, and build a power supply, but when it came to the amplifier circuit, I couldn't figure out why it had all those extra parts. For example, there was a capacitor coupling to the grid. Why not a direct connection? Also, there was a resistor from grid to ground. What purpose could that serve, it would just take away the voltage from the microphone. Out it went. Then there was a resistor in the cathode of the triode. Couldn't figure out why it was there, so rewired the cathode with a direct connection to ground. Then, there was a resistor in the plate circuit. At that time, I really believed that the tube "amplified" the signal, and all you had to do was apply voltage, sort of like giving food to a cat. So out came the plate resistor too, just wired it to the power supply. I had to leave the output capacitor in, because otherwise the circuit sparked too much.

Well, I hooked it all up, and applied voltage and a signal. Unfortunately, it didn't work. Seems that the tube warmed up a bit too much, too. Well, it was back to taking broken radios apart and adding sections of spare wire to the working receiver's outdoor antenna.

Back to the R-390 (NA). I have a plate that at least looks original, showing the mfr. as Motorola, and a serial number of 4700. Were R-390's made with serial numbers this high, and is there any guess as to the date of manufacture? Think I asked this question before, and dates are found on the PTO and



elsewhere inside the set. I'll look for those, but is there any information regarding the sequence of serial numbers and mfr. date? Or did each manufacture make up their own?

What is the last (highest) serial number known of the R-390, and for that matter, R-390A? 73 de Bill, AB6MT

From nryan@intrex.net Thu May 23 20:42:32 2002  
Subject: [R-390] Front Tags Revisited

Hi, all,

If a receiver went to the depot for refurbishing, restoration, repair, or what have you, it was taken apart module by module. The front tag also was removed if the front panel was to come off for repainting.

At the end of the process, the panels and modules went back together, then a tag was fished out of the bin and re-attached. The only thing the assembler watched out for was to put an "A" tag on the "A" receiver and a non-A tag on the non-A receiver. That's why so many receivers have tags that don't match up with the differing makes of modules inside.

Modules also got mixed in the field as well as at the depot. The depot merely was interested in getting the receivers up to spec and back in circulation. Once back in the field, the front tags were useful for helping keep maintenance records straight. If you encounter a receiver with modules of the same make, contract, and similar range of serial numbers, chances are it's a "low mileage" unit that saw little service and lots of shelf time.

Bottom line: Do not rely on the front tag to tell what's actually inside, especially when shopping for a rig. Check out the modules and form your hunch from there. 73... Norman

From ba.williams@charter.net Fri May 24 02:24:29 2002  
Subject: [R-390] Front Tags Revisited

>> No other visible modifications. Ballast tube appears to be intact. Factory meters (!). They still glow, too (it seems that the half life of the radioisotope is longer than 35 years, at least). >>I think the half life of the radium is something like 5000 years but, >like the joke goes about the end of the world, "we'll see." Actually, it's >the phosphor that usually "wears out". Even if they don't glow, don't >disassemble and eat the meters.

Are you suggesting that the meters may be harmful to our health? (g) Barry

From mahlonhaunschild@cox.net Fri May 24 05:34:43 2002  
Subject: [R-390] Re: R-390 digest, Vol 1 #218 - 12 msgs

John, Why Orange Drops? 'Cause they are At Hand.

There was a factory rep in the Dayton exhibit halls selling grab bags of Orange Drop capacitors for \$10. One of those followed me home. Almost enough to do the entire IF strip. I have some Panasonic high voltage polyesters, too. regards, Mahlon - K4OQ

From mahlonhaunschild@cox.net Fri May 24 05:27:16 2002  
Subject: [R-390] New (to me) R-390A

Many thanks for all the messages of support; I really appreciate them.

Ran the tubes across the Hickok 539C this evening. Good thing I was buying all of those \$1 - \$2 tubes in the flea market; I needed to outright replace eight of them, including the 6DC6 and all three of the 6C4s. Reckon the receiver might actually work now ; ) Found a 6AB4 in place of the 6C4 in the third mixer socket.

My first technical question for the list: how the heck does one remove V207 without removing the slug rack and camshaft running across the top of the tube shield? regards, Mahlon - K4OQ

From nryan@intrex.net Fri May 24 16:00:57 2002  
Subject: [R-390] New (to me) R-390A

Hi, Mahlon, Ah, yes, V207 lurking under the hardware... The shield and tube will come out OK. Depending on how big one's fingers are, the neighboring tubes and the crystal oven may have to come out first. I think a heat dissipating tube shield uses less headroom than a spring loaded shiny one. 73 de Norman KG4SWM

From Barry Hauser" <barry@hausernet.com Fri May 24 17:00:25 2002  
Subject: [R-390] New (to me) R-390A

I've been able to get V207 out and in again without removing any hardware -- maybe nearby tubes.

If you have an IERC heat dissipating shield, they're friction fit. Just grab the top edge with a needle nose pliers and pull up maybe with a bit of wiggle action. The shiney bayonet ones are generally easier. Just put a small screwdriver into the one of the spring retainer slots and rotate -- make sure you're going in the right direction. It will pop up, then fish it out with the needle nose or a bent paper clip.

OH just remembered, before starting, work the tuning knobs to raise the slug rack for maximum clearance.

After you've got the shield off and out of there, you can use one of those wire tube pullers, or I've found the tong type to be even better. These look like kitchen tongs, but with "tooobuler" shaped ends coated with that tool handle rubber dip. They were originally made for use as tube pullers, then repackaged (by GC for example) as tongs for use in etching PC boards. (Just don't squeeze too hard ;-). Another trick is to use some adhesive tape electrical, duct, scotch, whatever and work it onto the sides of the tube, then pull up while gently wiggling. The same method may be used to lower the tube into position, then press down on the top (with some kind of cushion so the "nibbie" doesn't puncture your index finger.) If the tube or tube shield are stuck, well that's another story. Barry

From s-biddle@ti.com Fri May 24 17:23:33 2002  
Subject: [R-390] Front Tags Revisited

Hey gang, all this tag talk got my curiosity up. On my Dittmore-Freimuth R-390A/URR, the front tag has an tool stamped "A" in a different font after the serial number. Any idea what that represented? It

did have the diode load pin-jack in front, but none of the rear panel or antenna relay changes associated with Navy shipboard. 73 de Richard, KB5WLH

From w9ya@amsat.org Sat May 25 16:12:55 2002  
Subject: [R-390] ARRL CDs for sale

Hey gang; I have 5 CD's for sale, all in EXCELLENT shape.

ARRL 1999 Handbook CD	\$ 25.00
ARRL 1995 Periodicals CD Includes all QST, QEX, and NCJ issues	\$ 11.00
ARRL 1996 Periodicals CD (as above)	\$ 11.00
ARRL 1997 Periodicals CD (as above)	\$ 11.00
ARRL 1998 Periodicals CD (as above)	\$ 11.00

Shipping will be at cost and added to the final total. Bob Finch W9YA

From ba.williams@charter.net Sat May 25 16:10:08 2002  
Subject: [R-390] New (to me) R-390A

My radio has been in a rack for a long time. I usually leave a few inches for cooling space on the top with enough room to get my hand inside. I can get all of the tubes out, including V207. The problem I had was orienting the tube correctly when putting tubes back in since I couldn't see well. I scanned the line drawing of the top and bottom layouts of the radio. I use these sheets to write notes when I test all of the tubes, etc. The most useful thing about using prints of the layouts is using notes on each tube base how the tube should go in. I drew almost complete circles to indicate the pins for each socket. I look at the sheet and orient the tube right before trying to push it down into the tube base. It takes all of the guesswork out of putting the tubes back in. Saves a lot on bent pins and saying bad things that cause family members to come see what is wrong. the other other Barry

From craigmc@pacbell.net Sat May 25 17:15:48 2002  
Subject: [R-390] New (to me) R-390A

Barry,

Here is another way to align the tube 'blind' that works with the type of tube sockets in the R-390A. There is a tit on the rim of the shield attached to the socket. You can feel it with your finger. Use the same finger to find space of the 'missing' pin on the bottom of the tube. Align these two points and the tube will plug into the socket.

This was taught to me by a Master Sargent on my first day in the field with the USAF in the 60's. Funny, in one year of tech school nobody mentioned it. Craig

From nryan@intrex.net Sun May 26 00:32:50 2002  
Subject: [R-390] New (to me) R-390A

Hello, Barry, whichever one you are, There is a little curved blip on top of the socket base where the tube shield goes that indicates the space between the socket's first and last pins. One can feel around for

it and use it to get an idea of how to orient the tube before inserting. This may be helpful if the line drawing isn't on hand. 73 de Norman KG4SWM

From ba.williams@charter.net Sun May 26 01:19:40 2002  
Subject: [R-390] New (to me) R-390A

> There is a little curved blip on top of the socket base where the tube > shield goes that indicates the space between the socket's first and last > pins.

Norman,

I guess I'm the other other Barry. I did use 'the other Barry' for a while, but it seemed to add to the confusion.

That tit helps. Never noticed that before. I use the line drawing prints as a tube log and keep the 2 sheets with the manuals. I write down what subs I'm using and when I last checked the tubes.

Speaking of my name, I went to the bank on Friday and found out that I have a \$75 court judgement against me...only it's for another Barry Williams in the town I moved from 5 years ago. I used to get dozens of horny women leaving messages on my answering machine for this guy. I later found out that he ran a junkyard and auto shop. My wife believed all of this at first, but all of those women wore on her nerves. We had just married. I vaguely remember a business calling about \$75 years ago, and I told them they had the wrong person. Barry

From ba.williams@charter.net Sun May 26 01:33:00 2002  
Subject: [R-390] New (to me) R-390A

I guess you could file those to a real sharp, flesh cutting point if you selling the radio to somebody you didn't like. (g) Barry

From w9ya@amsat.org Sun May 26 02:50:17 2002  
Subject: [R-390] Re: ARRL CDs for sale

Hey gang again; The Periodical CD's are now all spoken for. The Handbook CD is still available. Bob w9ya

From w2ec@arrl.net Sun May 26 15:07:00 2002  
Subject: [R-390] Re: ARRL CDs for sale

For those that missed W9YA's periodical disks, I also have one set of each year from 1995 thru 1999 available (includes QST,QEX and NCJ). All excellent in original jewel case with documentation except 1995 which is in the jewel box but missing the jacket artwork. 1995 1996 1997 1998 1999

As with Bobs offer, \$11.00 each plus actual USPS Priority shipping or \$50 plus actual USPS Priority shipping for all 5 disks. 73, Ray W2EC

From courir26@yahoo.com Sun May 26 17:07:54 2002

**Subject: [R-390] OT: Nice Engima Simulator**

Gentlemen: You can find a nice Enigma machine simulator at:

**<http://frode.home.cern.ch/frode/crypto/simula/m3/index.html>**

I propose that all 390 give aways in the future be coded with this as a filter to ebay flippers! What R-390 guy wouldn't love one of these machines? Cheers Tom N5OFF

From Holy smokes!

Should I drop everything and start converting all my audio decks, or wait 'til Tuesday? Barry

From Barry Hauser" <barry@hausernet.com Sun May 26 21:52:37 2002

Subject: [R-390] OT: Nice Engima Simulator

I guess I didn't enter the right initialization code. When I ran the thing after installing I got a "division by zero" error. Or was this some enemy countermeasures ploy? ;-)

However, some very interesting stuff on the reconstruction of Colossus and Bletchley Park on the links.

And, yes, I would like an Enigma machine, preferably a four-wheeler. How much would you think one would cost in dollars? How about in Kleronomous audio decks?

Oh, and does the book come with it? Not much good without the manual I hear. Hmmmmmm .... probably need two of everything, right? How do they compare to 128-bit encryption? Barry

From joefalcone@chartermi.net Mon May 27 03:32:54 2002

Subject: [R-390] AMPHENOL 82-5589

Does anyone know where to get the Twinax connectors for the R390A? Thanks, Joe.20

From Damon Raphael" <w7md@arrl.net Mon May 27 04:30:36 2002

Subject: [R-390] AMPHENOL 82-5589

>From a supplier of computer network cable connectors. Those connectors are used on certain IBM network setups. Damon, W7MD Tucson, AZ

From ronhunsicker@ptd.net Mon May 27 08:06:08 2002

Subject: [R-390] AMPHENOL 82-5589

I found the folks in DP quite charitable when I asked about the cost for two connectors. If you have a "DP" you might try it! Ron Hunsicker

From cbscott@ingr.com Mon May 27 13:57:10 2002  
Subject: [R-390] OT: Nice Engima Simulator

Running it on a defective Pentium? Barry(III) - N4BUQ

I guess I didn't enter the right initialization code. When I ran the thing after installing I got a "division by zero" error. Or was this some enemy countermeasures ploy? ;-) <snip> Barry

From tetrode@worldnet.att.net Mon May 27 18:00:46 2002  
Subject: [R-390] OT: Nice Engima Simulator

Saw some real ones up close at Dayton, a fellow had an fb display of several Enigmas plus all kinds of keys. Besides the German machines there was a 1947 Swiss model which I believe had 10 rotors. Tried to listen to the presentation he was making but I was standing several people back in the crowd and couldn't hear him that well. John

From jordana@nucleus.com Mon May 27 18:01:53 2002  
Subject: [R-390] Electrolytic troubles cause BIG problems...

Well it had to happen eventually, and did it EVER... On Thursday May 16th, one of the filter caps in my PC power supply blew up, and spewed tin foil and electrolyte all over the inside of the power supply. The resulting voltage spikes, higher unregulated voltages, etc., took out the IDE board on my hard drive, the control boards on both the CD drive, the CD writer and, the network card I use for my DSL link.

I have had hard drives crash before, but nothing like this. The SMT IC's on the IDE board now look like relief maps of the Rocky Mountains. I did manage to get the data recovered fairly quickly and cheaply, but replacing the drives and the Ethernet card was expensive...

I used a local Data recovery company, who actually had to find the identical drive to mine, a Quantum Fireball 13GB drive, and swap the IDE boards and dump the data to a third drive... The hard part is re-building all the data and getting Win 98 to run smoothly off the new drive...

I guess this might seem off-topic , but it goes to show how much damage a bad cap can do...! 73 de Jordan....

From hankarn@pacbell.net Mon May 27 18:23:15 2002  
Subject: [R-390] Electrolytic troubles cause BIG problems...

Jordan, I run my computers/printers and monitors off of a line tamer and a dedicated circuit from the radios. I am in the process of installing a 10KVA line conditioner for all of my shack equipment plus the line tamer for the computers/DSL. Hank KN6DI

From: Barry Hauser <barry@hausernet.com> (Barry Hauser)  
Subject: [R-390] OT: Nice Engima Simulator

wrote: > Running it on a defective Pentium?

You might say so ... says "AMD Athlon Inside." Hmmmmm.. Barry (I?, I think)

From Barry Hauser <barry@hausernet.com> Mon May 27 20:17:34 2002  
Subject: [R-390] Electrolytic troubles cause BIG problems...

Well, I guess that means we need to start recapping our PC's probably every six months. (Not made as well as old radios.) Should we bring 'em up slow on a variac?

One night at the office, I heard something that sounded like a gunshot. Couldn't find anything that caused it. Next day I noticed that one of the monochrome monitors that was part of a laser printing system was off. Small electrolytic had exploded.

Good fortune in getting the data off the drive. I've used a recovery service in the past with good results, though pricey. It usually depends on whether the drive has to go into the clean room. If a swapped controller board is enough to make it go, it's a good deal cheaper.

I didn't think network cards were particularly expensive. \$20 for a no-name, under \$50 for an Intel or similar 10/100 base T in OEM package -- maybe less. More often, power supply failure mode involves the cheap fans used, at least that's what we've found. Barry

From jadams@mcqassociates.com Tue May 28 21:04:32 2002  
Subject: [R-390] 637-T2 help

Hi all, I picked up a Collins 637T2 today, and I am trying to figure out how it is supposed to work. Mine is broken, so I will need to repair it. Each of the crank handles have been snapped off. I will think about replacing the green disk that they were attached to underneath the frequency dials.

Mine have two large thumbnuts on top, I assume to tie to the end of the wire when you pull the cable out.

But are the two small round thumbnuts holding on the dial pointer supposed to lock down? Mine do not, they just spin around.

Is each of the aluminium black frequency scales free spinning or are they suppose to be attached to the green rotating disk/handle assembly?

Any help you can give me would be appreciated. (Does anyone sell a manual for this? I have not found one on the net yet) Thanks for your help. Jeff KG4RZM

From RDavis24@carolina.rr.com Wed May 29 04:26:34 2002  
Subject: [R-390] Want to trade for a R-390A?

Hello, I have a couple rigs that I would offer to trade towards or for a nice R-390A. If interested please email direct. Here is a list of rigs. Would also trade toward R-390 or R-392. Elecraft K1 in 20/40 meters with ATU installed and in great shape \$400 OHR-100 in 30 meters in great shape \$125 Thanks Ronnie KE4VPN

From davidmed@sbcglobal.net Wed May 29 05:15:56 2002

Subject: [R-390] R-390 repair

We have arrived in Tucson and have already purchased and moved into a house. I expect to have a workshop set up in 4-6 weeks and after that will be happy to help anyone who wants work done on an R-390 or R-391. Note no R-390A. Today the temp was 95deg, the humidity 6% under a clear blue sky.  
Regards Dave

From osamu.hazawa@tel.co.jp Wed May 29 08:24:50 2002  
Subject: [R-390] Possible?

Hello All, In spite of the beautiful season here in Japan, I have had least time to admire the Collins gear, because of the side effect of the medicine that I'm taking for curing my disease.

I have to take this frustrating medicine for another 3 months at least. I'll be back to restoring work right after I stopped taking it, I may not be able to resist myself though.

Pin money I've been saving would be enough to buy my first R-390A until then, if my wife could not sniff them :-). See you then, Osamu Hazawa

From mc@sover.net Wed May 29 11:41:54 2002  
Subject: [R-390] FS: R-390A w/ orig. meters & bottom cover

My father-in-law has decided to part with his nice R-390A that has been sitting around for about 15 years unloved and unused. It is a Stewart-Warner, serial number 19XX with both original panel meters, bottom and RF module {quot}Utah-shaped{quot} cover. The receiver plays but I would say that it needs some alignment work and probably some new tubes as well. Cosmetically it is good but again, it has been stored for over 15 years and could definitely use a good cleaning up. Front panel is nice and shows minor evidence of being mounted in a rack. The only thing that is missing from the radio is the antenna changeover relay (K1) but this is an easily-obtained item from Fair Radio Sales or right here on the list for a few dollars. It is not required for the operation of the receiver.

The price is \$450.00 plus packing costs and shipping. I recommend that the power supply and audio modules be removed and shipped separately. Figure approximately \$50.00 to \$75.00 for this. If interested please reply by e-mail. 73, Michael Crestohl, W1RC mc@sover.net

From courir26@yahoo.com Wed May 29 13:04:52 2002  
Subject: [R-390] R-390 repair

Dave, I've spent 44 years in Louisiana, but have never experienced heat like Tucson. Keep your ovens off! Check out DM, the Pima Air Museum and local scrap yards for good junk. Bonne chance! Tom Lafayette, LA <new qth. Just grunted 390A here so movers would not "enhance" it.

From hankarn@pacbell.net Thu May 30 01:39:41 2002  
Subject: [R-390] 3TF7

Did you buy them all? None left. Hank KN6DI



From Llgpt@aol.com Thu May 30 01:46:44 2002  
Subject: [R-390] 3TF7

writes: << Did you buy them all?

Like I said many years ago, there are fewer today than there were yesterday. You can either buy new ones for exorbitant prices, or modify it per the many, many modifications out there. The Ballast Tube replacement module that Chuck Rippel sells is the best mod for the long run. But, all the others won't harm stability, sensitivity or whatever else has been talked about. For instance.....when turning on a light switch in the house, the frequency will suddenly jump.....yea right!!!! The moon is also made of cheese too! Les

From kd9kc@elp.rr.com Thu May 30 02:15:13 2002  
Subject: [R-390] 3TF7

> Subject: Re: [R-390] 3TF7

>

> yea right!!!! The moon is also made of cheese too!

No it is not! For thousands of years man thought the moon was made of cheese. Then in July of 1969 we went there and learned it was not. We have not gone back since. Mike. KD9KC El Paso, TX.

From ba.williams@charter.net Thu May 30 02:15:17 2002  
Subject: [R-390] 3TF7

I collect tubes as often as I can. It just seems to me that 12BA6's are the most plentiful tube out there. They were the most dominant tube type used in the All American Lineup. Barry

From ba.williams@charter.net Thu May 30 02:16:56 2002  
Subject: [R-390] 3TF7

>> yea right!!!! The moon is also made of cheese too! > > No it is not! For thousands of years man thought the > moon was made of cheese. > > Then in July of 1969 we went there and learned it was not. > > We have not gone back since. > > Mike. KD9KC > El Paso, TX.

I bet those golf balls lying around up there are worth a fortune on e-pay!!!

From Llgpt@aol.com Thu May 30 02:25:29 2002  
Subject: [R-390] 3TF7

writes: << I collect tubes as often as I can. It just seems to me that 12BA6's are the most plentiful tube out there. They were the most dominant tube type used in the All American Lineup.

Barry >> That is as good a mod as the others, works and tubes are plentiful! Les

From Barry Hauser" <barry@hausernet.com Thu May 30 02:54:17 2002  
Subject: [R-390] 3TF7

<yawn> I must have dozed off while reading my email. What's all this I hear about the last Apollo mission leaving cases of ballast tubes on the moon? Barry

From Llgpt@aol.com Thu May 30 02:53:14 2002  
Subject: [R-390] 3TF7

writes: << <yawn> I must have dozed off while reading my email. What's all this I hear about the last Apollo mission leaving cases of ballast tubes on the moon? Barry

27 cases of 500 3TF7 tubes in each case.....hoping to hear from the man in the moon. Les

From twleiper@juno.com Thu May 30 02:56:40 2002  
Subject: [R-390] 3TF7

writes: > What's all this I hear about the last Apollo mission leaving cases > of ballast tubes on the moon?

>From Apollo 11 onward they took cases of ballast tubes to the moon and left them there to allow them to bring rocks and samples back. They also felt that if any hostile forces, such as Russians or Martians found them, it would confuse them as to the state of our technological advancement ...since such a tube could not possibly have any obvious use. Twit

From roy.morgan@nist.gov Thu May 30 03:20:40 2002  
Subject: [R-390] 3TF7

wrote: writes: > " writes: > > cases of ballast tubes on the moon? >confuse them as to the state of our technological advancement > >Twit >> > >HAMMARLUND

Rhode & Schwarz EK-07! (I am still hoping..hehe) Roy

From Barry Hauser" <barry@hausernet.com Thu May 30 04:24:34 2002  
Subject: [R-390] 3TF7

wrote: > 27 cases of 500 3TF7 tubes in each case.....hoping to hear from the man in the moon.

"Houston .... Houston ... we have a problem. Turns out they're 3TF4's, not 3TF7's."

Houston: "Holy smokes!!!! Don't let Congress get wind of this. They'll cut us off. And get that Locklear guy on the phone!" ..... any 26Z5W's? 1L6's? I'll settle for a matched pair of 6V6's."

Meanwhile, on the dark side of the moon, the K-Paxians have stumbled across the real 3TF7's.  
"Commander Zorch, these must be part of some kind of weapon."

"Ah, yes, an incendiary grenade of a type our forefathers used. You see Ensign Flot, the launcher applies a current to the iron wire filament until it glows. Then, it's launched, hits the target, the

hydrogen mixes with oxygen and the glowing filament sets it off K-POW (K-Paxian for kapow). Don't know why they brought them to the moon no air. We used battle tubes like these for many eons, but then the price shot up. Imagine -- about 45 K-Bux a pop!"

"Wow, Commander, what happened then?"

"Well, Ensign, that fostered development of the handheld particle beam weapons we pack today they use 12BA6's much cheaper."

"But, why are there no more iron-hydrogen battle tubes on K-Pax?"

"A small band of K-Paxian zealots made off with the remaining supply and migrated to Earth the Amperites, I think they called themselves. Look, it even says so right on the tubes."

"Look Commander, they misspelled "battle" as "ballast". Do we really need to know any more about these Earthlings?" "Not really, let's beam back in time for lunch." Barry

From twleiper@juno.com Thu May 30 05:21:55 2002  
Subject: [R-390] 3TF7

writes: > > Meanwhile, on the dark side of the moon... Lunatic composition redacted... > "Not really, let's beam back in time for lunch." >

Barry,

Are you the guy who followed Chief after he uprooted the sink and threw it through the window? They must have caught you again. Does the Warden know you are using that computer in the library after lock-down?

Twit HAMMARLUND

And FORGET that damned Kraut-07 table radio.

From Barry Hauser" <barry@hausernet.com Thu May 30 06:13:30 2002  
Subject: [R-390] 3TF7

> > Meanwhile, on the dark side of the moon... > wrote: > Lunatic composition redacted... Hmmmmm .... "lunatic" ... that's appropriate . .. heh heh > Are you the guy who followed Chief after he uprooted the > sink and threw it through the window? No, but it sure sounds like a goooood ideayuh. Maybe we can all go to the game, on the bus ... heh heh heh

>They must have caught you again. Does the Warden know you are using > that computer in the library after lock-down?

No, cousin Prot loaned me his infra-red flashlight to read by so no one can see me. He promised to take me with him back to K-Pax. But I'm concerned about cousin Jack who just keeps goin' "heh heh heh heh ..."

> Twit HAMMARLUND

Double Twit heck, I forgot that's what the K-Paxians say when beaming away, and what cousin Prot said in his famous line "Y'know, it was worth the trip just for the HAMMARLUND."

> And FORGET that damned Kraut-07 table radio.

What damned Kraut-07 radio? Ist das nicht ein Hammarlund? Ja, das is nicht ein Hammarlund. Ich bin nicht, uh belay that -I'm not the EK-07 afficianado, but I wouldn't kick one out of bed either, heh heh. Shut up, Jack.

Uh-oh, brace yourselves .... TELEFUNKEN - entschuldigen, uh, excuuuuuuze meeeee.

Barry P.S will someone please come up with some on-topic content. Goin' off the deep end here.

From hankarn@pacbell.net Thu May 30 12:42:05 2002  
Subject: [R-390] 3TF7

Barry (that one) Leave da Kraut -07 on the table as you fall into the ABYSS with your screaming and deafening QRM with all of the lost demil'd 3TF7's following you to K-PAX orbit.

The 12BA6 equipped R-390-A's and oh yes the Kraut -07 can still hear your mournful cry.. Hank

From Barry Hauser" <barry@hausernet.com Thu May 30 14:37:58 2002  
Subject: [R-390] 3TF7

> Barry (that one)

Who him? Could have been one of the other ones. Yeah, that's it it was one of them. Only Prot here. BTW - are you up early or up late, Hank? By my calculations, based on the rotation speed of your planet, you posted at 4:42: AM Pac Time.

> Leave da Kraut -07 on the table as you fall into the ABYSS with your > screaming and deafening QRM with all of the lost demil'd 3TF7's > following you to K-PAX orbit.

Heh heh, some kind of quaint Earthling greeting, I suppose. Let me run it through my Expressionism Database (a 500 terabyte Palm Pilot). OK, here's the friendly Earth reply "Blow it out yer barracks bag!" Is that right, or do I need a firmware upgrade that phrase is dated 1943. Something Barry's father used to say. He also used to say "What I forgot, you'll never know." We're still trying to decode that one, but can't find a 5-wheel Enigma machine.

Hey, you know about ABYSS? Great on the rocks with a twist of lime. On K-PAX, QRM is the name of a personal defence appliance, like your engraved 357 magnums highly prized, as are 3TF7's. So, I guess the appropriate K-PAX reply would be "Supreme good fortune to you too, pilgrim."

> The 12BA6 equipped R-390-A's and oh yes the Kraut -07 can still hear > your mournful cry..

K-PAXians have nothing against 12BA6's or EK-07's, except on K-PAX, EK-07's are made by ....

HAMMARLUND

Oooops, sun's up, gotta put on my dark glasses... before the Men in Black get here. Prot

P.S. Barry sez good to see your crust is intact and full o' P and V. Whatever that means. What's doin' with that container load?

From mackeyka@mac.com Thu May 30 15:39:49 2002  
Subject: [R-390] 3TF7

I tried too. Same day I got that email. Got a reply back a few days later. None left. Wonder how long it will be before they start showing up on e-pay for \$100 + ??? K. Mackey KB9WSZ

From vze2gmp4@verizon.net Thu May 30 03:48:35 2002  
Subject: [R-390] 3TF7

None left. Wonder how long it will be before they start >showing >up on e-pay for \$100 + ??? > >K. Mackey >KB9WSZ > wrote: > >>Did you buy them all? >>None left. >>Hank >>KN6DI

actually the price isn't to bad. <http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item3D2108023695>  
Helmut Usbeck, WB2ADT

From ba.williams@charter.net Thu May 30 16:57:16 2002  
Subject: [R-390] OT: Nice Engima Simulator

Runs okay on my Mac. No divide by zero programming errors. the other other Barry

From cbsscott@ingr.com Thu May 30 17:09:41 2002  
Subject: [R-390] OT: Nice Engima Simulator

Maybe Barry(I) should check the modules inside his PC. He may have a Helena Rubenstein machine with an AMD label. Barry(III) - N4BUQ

From ence-ack@rio.com Fri May 31 00:24:36 2002  
Subject: [R-390] Tube List For R-390 (non A)

Can anyone point me to a tube list for the R-390? I found many for the A but none yet for the non A.  
Thanks, Spence

From Fri May 31 00:44:41 2002  
Subject: [R-390] Tube List For R-390 (non A)

This is what I have on the R-390. Can anyone confirm? My manual is not readily available.

R-390 NON-A  
Tube Qty  
3TF7/RT510 1

6AJ5 3  
6AK6 3  
6BH6 1  
6BJ6 7  
6C4W 2  
12AT7 1  
12AU76  
5651 2  
5749/6BA6W 2  
6082 2 Don Reaves W5OR

From andywilliams@pobox.com Fri May 31 01:37:06 2002  
Subject: [R-390] Tube List For R-390 (non A)

I have a list of tubes & IERC tube shields available as an Excel spreadsheet. Email me if you want a copy. Andy

From nryan@intrex.net Fri May 31 03:13:43 2002  
Subject: [R-390] Tube List For R-390 (non A)

Hi, all, Here is a list of the tubes in the R-390 (non A) taken from TM-856 plus some hints on substituting 12AU7s:

V201 6AJ5  
V202 6BJ6  
V203 6C4  
V204 6C4  
V205 6C4

V401 6AJ5  
V402 6AJ5

V501 6BJ6  
V502 6BJ6  
V503 6BJ6  
V504 6BJ6  
V505 6BJ6  
V506 6AK6  
V507 12AU7  
V508 5749/6BA6W  
V509 6BJ6  
V510 12AU7  
V511 12AU7  
RT512 3TF7 (ballast)

V601 12AU7  
V602 12AU7  
V603 6AK6  
V604 6AK6

V605 6082  
V606 6082  
V607 6BH6  
V608 5651  
V609 5651

V701 5749/6BA6W

V801 26Z5W  
V802 26Z5W

V901 12AU7  
V902 12AU7

Substituting the 12AU7 with 5814A: The 12AU7 can be substituted in some cases with the 5814A. Be aware that its filament current draw is slightly higher than for the 12AU7; i. e., 150 ma (12AU7) versus 175 ma (5814A). This will pose a problem for the R-390 because most of the tubes filaments are wired in series off the 26.5 VAC.

You can substitute 12AU7s where they are not wired in series with another type tube as long as you replace BOTH 12AU7s with 5814As. Here is the list of the series filament circuits in the R-390 (non A):

V202 V203 V204 V205  
6BJ6 6C4 6C4 6C4

V401 V402 V201  
6AJ5 6AJ5 6AJ5 (Only three tubes here @ 18.9 VAC plus four chokes  
wired in series.)

V501 V502 V503 V504  
6BJ6 6BJ6 6BJ6 6BJ6

V505 V506 V511  
6BJ6 6AK6 12AU7

V507 V510  
12AU7 12AU7 <- OK to use pairs of 5814As.

RT512 V508 V701  
3TF7 5749 5749

V601 V602  
12AU7 12AT7

V603 V604 V607 V509  
6AK6 6AK6 6BH6 6BJ6

V901 V902  
12AU7 12AU7 <- OK to use pairs of 5814As.

Each row represents a filament series circuit. The 12AU7 in V511 should not be substituted with the 5814A as the latter's filament voltage will drop and voltage will increase across V505 (6BJ6) and V506 (6AK6). V601 (12AU7) should not be substituted since V602 is a 12AT7.

The 12AU7s in V507 and V510 can be substituted, but use 5814As for BOTH. The same applies to V901 and V902. These are the only instances where the 5814A will work properly.

Whew!! This was a lot of effort to get us back on topic. :-) 73 de Norman KG4SWM

From Llgpt@aol.com Fri May 31 03:57:00 2002  
Message-ID: <ea.28584339.2a28407c@aol.com>

writes: << Whew!! This was a lot of effort to get us back on topic. :-) >>

SIEMENS E311e2

From asolway@sympatico.ca Fri May 31 04:12:24 2002  
Subject: [R-390] Tube List For R-390 (non A)

Hi Norman and All, May the R-390 Gods favour Norman and may He keep them glowing for him.  
Thanks for the effort. Al VE2TAS

From nryan@intrex.net Fri May 31 04:19:29 2002  
Subject: [R-390] R-390A (non nonA) Tube List

wrote: > > Thanks Norman - that certainly was a terrific effort - that was an > awful lot more than I expected and all good info. If you have or > ever put together a like package for the R390A - I would love to > have a copy. Thanks again - I'm new at this game and will put > the info to good use. BobW (Drewsampop)

Hi, BobW, Thanks for the compliment. The R-390A tube list isn't as complicated. Only V505 (5749) and V701 (5749) filaments are in series together with the ballast tube RT510 (3TF7). All the others are wired in parallel. The 5814A can be substituted with the 12AU7. The 12.6 VAC filaments are center tapped and wired at 6.3 VAC.

The R-390A tube list:

V201 6DC6  
V202 6C4  
V203 6C4  
V204 6C4  
V205 5814A  
V206 5814A  
V207 5654

V401 5654



V501 5749  
V502 5749  
V503 5749  
V504 6AK6  
V505 5749  
V506 5814A  
V507 5814A  
V508 5749  
V509 5814A  
V510 3TF7

V601 5814A  
V602 5814A  
V603 6AK6  
V604 6AK6  
V605 0A2

V701 5749

V801 26Z5W  
V802 26Z5W

There you have it. If someone says, "RYAN, GET A LIFE!" I'll delete him! :- ) 73 de Norman

From ence-ack@rio.com Fri May 31 04:25:23 2002  
Subject: [R-390] Tube List For R-390 (non A)

Thanks to all who responded with help. Spence

From eldim@worldnet.att.net Fri May 31 08:43:00 2002  
Subject: [R-390] Tube List For R-390 (non A)

Something looks fishy on this tube list. Is there a model of the R-390 that used the 26Z5W V801& V802? I don't have my manuals here-but my R-390 does not have any. Glen Galati KA7BOJ

From nryan@intrex.net Fri May 31 09:38:42 2002  
Subject: [R-390] Tube List For R-390 (non A)

wrote: > Something looks fishy on this tube list. Is there a model of the R-390 that used the 26Z5W V801& V802?

Hi, Glen, Grrreat Caesar's ghost! I think you may have the L@@@K!! PEEEEK!! RARE!! non-tube power supply in your R-390!

OK, maybe not...

All seriousness aside, your power supply may have been modified to solid state rectification. I think this is a common Navy mod involving taking out the 26Z5Ws and squishing the tube shield bases so you

can't stick the tubes back in. Then a pair of diodes is installed underneath.

My latest rig (actually an R-391) came with diodes and I took them out. B+ goes high unless a voltage dropping resistor is added. Voltage regulator circuits work a little less hard at normal B+ voltage as well. I feel the tubes don't like to have B+ introduced before their filaments even start to glow.

True or not, having 26Z5Ws back in there makes me feel better. :-) 73 de Norman KG4SWM

From G4GJL@aol.com Fri May 31 10:30:58 2002  
Subject: [R-390] 3TF7

And how did those Rolliflex with the air damped shutters work in a zero atmosphere?

Similar problem to 'How does an R390 gearbox work?' Pete

From BRingwoo@csir.co.za Fri May 31 11:19:57 2002  
Subject: [R-390] 3TF7

They can't ask more than about \$43 - that's what they cost new. The nice lady at Amperex will give you a quote. Wonder why they still make them ? Getting fed up with people buying up all the nuvistors too. Can't they use FETs in microphone amplifiers ? Grumble. - Bryce

From w6ivw@cox.net Fri May 31 19:38:08 2002  
Subject: [R-390] Cleaning Chassis

I was reviewing an interesting thread on cleaning chassis; exact title may have been "How to Clean Up The Chassis". About the same time I have had mailbox problems, and many of the R-390 posts ended up in the Hammarlund reflector mailbox. I attempted to move them to the R-390 mailbox, and at least one post disappeared.

This post was unique in that it was very long, but was all in one paragraph. The author went to considerable detail in cleaning, and then went to rust removal. He used phosphoric acid.

Can someone find it and forward this post to me? I would really appreciate it. Jim, w6ivw. Use slimjimzz@cox.net. I use w6ivw@cox.net primarily for receiving reflectors.

From roy.morgan@nist.gov Fri May 31 20:21:21 2002  
Subject: [R-390] Tube List For R-390 (non A)

wrote: >Can anyone point me to a tube list for the R-390? I found many for the A but >none yet for the non A.

From my notes file. Note: there may be an error in one list or the other:

TUBE LIST:  
Date: Tue, 20 Jun 2000 17:30:19 -0400 (EDT)  
cc: r-390@qth.net

On Tue, 20 Jun 2000, Paul H. Anderson wrote:

>

> The following list is what I added up in my R-391. Does this sound right?

>

> Tube QTY

> 5814 6

> 6BJ6 6

> 5749 1

> 6AK6 3

> 6C4 3

> 6AJ5 3

> 6BJ6 1

> 12AT7 1

> 6BH6 1

> 5651 2

> 6082 2

> 26Z5W 2

> 3TF7 1

> --

> 32 tubes

>

Hi Paul,

Dunno if the above list is correct or not. If the R-390 is similar to the R-391, tube list should be the same, right? Here is what I come up with in my R-390. I've read the sockets, not the tubes! :-)

V201 6AJ5

V202 6BJ6

V203 6C4

V204 6C4

V205 6C4

V401 6AJ5

V402 6AJ5

V501 6BJ6

V502 6BJ6

V503 6BJ6

V504 6BJ6

V505 6BJ6

V506 6AK6

V507 12AU7

V508 5749

V509 6BJ6

V510 12AU7

V511 12AU7

RT512 3TF7

V601 12AU7

V602 12AT7

V603 6AK6

V604 6AK6

V605 6082

V606 6082

V607 6BH6

V608 5651  
V609 5651  
V701 5749  
V801 26Z5W  
V802 26Z5W

Personally, I'm inclined to stick with the original types as "gotchas" can arise. For example, the 5814A normally substitutes for the 12AU7. However, since the 5814A filament current draw is higher, it doesn't work in all R-390 circuits since most of their filament circuits are in series. V601 (12AU7) and V602 (12AT7) are in series. If a 5814A is used in place of the 12AU7, the 12AT7 filament (wired in series) will receive higher voltage than that of the 12AT7. V507 and V510, though wired in series, each have a 120 Ohm resistor across one half of each filament plus a 22 Ohm resistor in series.

Confusing!

Sometimes tubes are pinned a tad differently. If I'm not mistaken, the 6C4A has that or another problem, but not the 6C4WA. The 6C4WA will work as a replacement for the 6C4 in the R-390A, but I don't know if the filament current draw is an issue in the R-390. Bottom line is to study the tube characteristics carefully. A tube substitution manual can gloss over potential problems such as filament current draw and pinout.

More importantly, have the depot manual and its schematics handy. Hope this helps. 73... Norman

From David\_Wise@Phoenix.com Fri May 31 21:18:22 2002

**Subject: [R-390] Quick question: wire guage of tube pins**

**Quickie for the collective mind: What guage solid wire is the same diameter as a miniature tube pin? Thanks, Dave Wise**

From nryan@intrex.net Fri May 31 21:47:25 2002

Subject: [R-390] Tube List For R-390 (non A)

Hi, Roy,

Thanks for pointing out the discrepancy in my R-390 tube list of 20 June 2000 which I wrote for Paul Anderson (cited below). It lacks V901 (12AU7) and V902 (12AU7) for the cal/osc module. A pair of 5814As will substitute OK.

Thanks also for reminding me of the 6C4 substitution issue. Chuck Rippel discussed this some time ago, but I forgot the details. Have I got it right? 6C4, 6C4WA, and 6100 good? 6C4A bad?

So far, my tube lists posted the other day are holding up as far as accuracy goes. Please pore over them and let us know any errors. The total should come to 33 tubes for R-390 and R-391 and 26 tubes for the R-390A including the ballast tube in each instance. 73 de Norman KG4SWM

From Llgpt@aol.com Fri May 31 23:16:19 2002

Subject: [R-390] Tube List For R-390 (non A)

writes: << Thanks also for reminding me of the 6C4 substitution issue. Chuck Rippel discussed this some time ago, but I forgot the details. Have I got it right? 6C4, 6C4WA, and 6100 good? 6C4A bad?

That's it as far as I know.....others?? Les

From nryan@intrex.net Fri May 31 23:29:22 2002

**Subject: [R-390] Tube List For R-390 (non A)**

Hi, Les,

**I got an e-mail from someone who recommends also the CV-133 and the 6135 as subs for the 6C4. They're supposed to be quieter and have gold pins. My TV-7D/U tube checker list shows the 6135, but not the CV-133. Any info out there on this? 73 de Norman KG4SWM**

From G4GJL@aol.com Fri May 31 23:50:39 2002

**Subject: [R-390] Cleaning Chassis and rebuilding -Long**

Today I did some more work on the current BLUE STREAK project here. (Not the 1960s Missile Project but the St Juliens renovation!) Here are some notes on my achievements, which are related to chassis cleaning but do not answer directly Jims question. Im afraid I do not have the mail you mentioned, Jim.

I have the rebuilt St Juliens receiver working very well, astonishingly so in fact. Especially as it was a pretty badly corroded and sand laden example from the massacre. I have been working on it on and off for about four months now.

I washed the IF, PSU and audio decks in hand washing soap and warm water, with plenty of pure tap water wash off, then dried them in the clothes airing cupboard for about two weeks.

I took great care not to get the IF transformers wet, but other than that the chassis and components were all cleaned and came up beautifully. I was amazed by the amount of dirt and grit washed off into the bowl after the initial cleaning. Last weekend I stripped the RF deck of its transformers and painstakingly dismantled and cleaned every face of every paxolin cheek in each transformer

I remember Nolan saying that he found the deposit on these surfaces to be conductive, so I didnt want to take any chances here!.

I used a QTIP (Cotton bud, here in UK) to clean inside each coil former and around the ceramic caps. I used methylated spirit for this work, taking care not to get too much on the coils themselves. I used a fresh cotton head for each face so as not to cross contaminate from one piece to another.

During the RF deck cleaning I found the wrecked 2-4MC antenna transformer. It had me foxed as I could not get at the fixing screw on that particular unit. It was obscured by debris inside the can. When I finally got the transformer off the chassis I found the remains of three slugs and the broken former lurking inside. Totally useless!

The RF deck was washed with kerosene, and thoroughly cleaned. The metal was perfect under all the dirt that had built up on it. The deck is a Collins, as are most of the transformers. I re-lubed the moving parts and used Molyslip, applied with a Qtip on the sliding faces and bearing surfaces of the slug racks.

On re-assembly I straightened all the slug springs. I didnt have any talcum powder to hand at the time so I have left applying talc until later, if at all.

A major worry was the coax relay. It was very badly tarnished and showing powdery corrosion in places. I guess that my radio had its back to the sea at St Juliens, as the rear of the set has taken the brunt of the corrosion and dust ingress.

One of the coax relay coils was open, so I decided to strip the relay, clean and rebuild, which I did today.

I used Goddards Silverdip, which is a silver jewelry cleaner available from supermarkets here in UK and possibly internationally.

I dumped the silver parts into the liquid and scrubbed them with a toothbrush.... the Silverdip has magic properties and restores a clean silver finish to most parts after about five minutes immersion. (BTW it is only about A32 a bottle, enough for about 4 R390s). So having rewound the magnet for the whip antenna channel and re-assembled the relay parts, I now have a pretty good looking coax relay at the back of my set.

I also changed the selenium (?) rectifier for the relay supply, as I found it had one poor leg. I guess this might be why one of the relay coils has gone open in the first place. I replaced it with a silicon equivalent, using the old rectifier mounting bracket for the new one. I added a 100volt 100uF electrolytic across the dc side of the relay rectifier. I found that this reduced the hum from the relays when they are energised. A tip worth noting!

I recapped the audio deck and added 47uF 400 electrolytics beneath the chassis to the audio decoupling components. What an incredible uplift in audio output and quality.....Definitely worth doing that on any set with 30year plus elecs in it.

The EAC IF deck seems ok, so no recapping there yet except for the dc blocker before the Mechanical filters...just a precaution! I used 0.01 2kV disc ceramic as it was to hand and fitted in easily.

I was hoping to report the repair of the 200kc Calibrator crystal, but alas that was not to be..... The crystal was loose inside the HC6/U can, and therefore the calibrator would not lock. I opened the crystal and attempted to re-solder it to its mounting posts. I used a heat gun and LMP solder. Any way, my attempt failed as the crystal now oscillates at 275kc. I guess it has cracked under the heat. I thought it was a long shot any way!

So, in finishing the receiver is working well on all except the 2to4 MC bands, but without a calibrator. The PTO needs stretching, but I will tackle that next week. In the mean time the rig is back in my shack and I am listening to it for a while! More updates later. 73 Pete G4GJL