Premium-Rx Archives

Dec 17, 1998 to Sept 19, 1999

Note: Audio and picture files removed ….

premium-rx-digest Sunday, December 20 1998 Volume 01 : Number 001

Date: Thu, 17 Dec 1998 01:31:17 -0500
From: davidclark@home.com
Subject: HF-2050 Technical Data Sheet

Copies of this 4-pager have now been mailed to all who requested same from me.

Any fresh requests will be processed after I return from holiday on January 3rd.

I will be in San Diego vicinity in the week before Xmas and planning to meet up with Greg.

The week following I will be in Tulsa and nearby Stillwater, where I expect to get in some DXing and premium-rx chat time with John.

Looking forward to alla this, plus of course vacation time with the family.

Seasons greetings/Happy New Year to everyone in the group!

73 - Dave

Date: Thu, 17 Dec 1998 01:53:30 -0500
From: davidclark@home.com
Subject: HF-2050 Stability/Freq Readout Accuracy

James Goodwin, Tony Ward, John Bryant and I have compared notes and commonly find:

- - from cold start, the frequency readout is some 100 Hz below actual frequency...always to the same extent and always on the low side.

- - after about 10 mins or less, the receiver stabilizes and remains so, with frequency readout absolutely accurate on known nominal frequencies (using WWV, for example).

- - has anyone noticed a characteristic pattern DIFFERENT than above?

73 - Dave

Date: Wed, 16 Dec 1998 23:03:54 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: HF-2050 Stability/Freq Readout Accuracy

Yeah, mine is dead on, cold or hot. Both my AR5000 and 7030 Plus exhibit the same characteristics although I seldom turn them off. 24-7 makes them last longer and they do sound better when they are warm with all of the caps formed. The results you folks have found are similar to the my HF150 after an hour or so. I guess I should count myself lucky!

73,

Colin

davidclark@home.com wrote:
> > James Goodwin, Tony Ward, John Bryant and I have compared notes and

> commonly find:
> > - from cold start, the frequency readout is some 100 Hz below actual
> frequency...always to the same extent and always on the low side.
> > - after about 10 mins or less, the receiver stabilizes and remains so,
> with frequency readout absolutely accurate on known nominal frequencies
> (using WWV, for example).
> > - has anyone noticed a characteristic pattern DIFFERENT than above?
> > 73 - Dave

Date: Thu, 17 Dec 1998 01:17:46 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: HF-2050 Stability/Freq Readout Accuracy

That pretty well sums it up for the GOOD ones..... I have 4 units that start on the high side and rise from there. The 100 khz measures around 100.0007 or so, which is rather far off, and it can't be adjusted properly. I have yet to determine what the actual problem is. For now, they are slaved to one good receiver, so all are exactly on the same frequency.

On a similar matter, while the VFO seems to tune in 10 hz steps, the BFO tunes in smaller steps, perhaps 1 hz (I have not investigated too closely, so emphasize the "perhaps" 1 hz). You can see the +0.00 change to -0.00 and it is still well away from changing to 0.01.

73 Don

Date: Thu, 17 Dec 1998 06:45:16 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050-Analog S-Meter

I had fun yesterday setting up my analog S-Meter and thought I ought to document it for those on the list (like me) who are less than technically adroit.

The quick and easy way:

The RF AGC is a positive analog DC voltage that varies between zero and about +7.5 VDC proportional to signal strength, with stronger signals resulting in more voltage. The no-brainer way to create an analog S-meter is just to hook an analog multimeter to the proper two screws of the terminal block on the rear panel of the receiver. (They are clearly marked.) Set the meter to the closest range above 7.5 VDC (usually 20 volts, DC) and you gotta S-meter. Unfortunately, if the range is 20 volts, the strongest signals will only swing the meter one third of the way across the dial.

The Better Way:

Get a nice large micro-ammeter. The one that I am using is a 4" x 5" Simpson panel meter that measures 0-15, though most that I see measure a larger range, 0 to 100, 0-200, etc. and will also work fine. You then hook up a series circuit from the RF AGC out screw through an appropriately sized* and at least partially adjustable resistance and then to the PLUS terminal on the meter. The return line goes from the MINUS terminal on the meter to the GROUND screw immediately adjacent to the RF AGC screw. That's it. My Simpson is a beautiful meter to look at and I've set it to swing almost fully on our local AM station (250 watts into a huge tower a mile from my beverage antennas.)

Calibration: I don't need to have an s-meter that is calibrated in decibels or S-units, since my interest is in comparing signal strengths on different antennas during an active DX situation or in comparing different antennas while doing informal antenna experiments. Bill Bowers takes the covers off of all of his outboard s-meters and uses his test equipment to calibrate the meters in decibels. I have neither the knowlege nor need to do this.

Incidentally, some radios have a plus AGC voltage with strong stations (like the 2050) while others have a negative voltage (the NRD-525 and the Racal 6790). With the negative voltage, the meter swings to the far right on weak signals or no signal. On my 525, I found that "reverse" movement disconcerting. I understand that you can build some sort of reversing amplifier to solve the problem. An easier solution to that problem is to simply mount the meter upside down! I ran mine that way for four years, with no perceivable damage.

* For those of you who work Ohm's Law about once a decade, like I do, here is an explanation that an Okie (me) can understand. Even tho the pro's express it with other letters, amps = volts/ohms. In my case with the 0-15 micro-amp meter, I wanted full meter swing (15 micro-amps) at 7.5 volts. Therefore, .000015 = 7.5/ohms. Solving that gets you 500K resistance. Right now, I'm using a decade variable resistance box. The permanent installation will use one of those neat 25 turn rectangular trim pots. If my experience with the outboard meter on the 525 is any guide, you may want to adjust that resistance from time to time. Since I'm mounting my meter in a blank rack panel, I haven't decided whether to add a rotary trim pot on the panel or position the trim pot where I can adjust it through a small hole.

Condolences to those of you who are still in the throes of grading and agginging semester "marks." There is life out there after you turn in the damn grade sheets!

John B.

Date: Thu, 17 Dec 1998 09:52:32 -0500
From: "Ajax HS" <ajaxhs@durham.edu.on.ca>
Subject: Re: 2050-Analog S-Meter

John: Thanks for wishes! nearly ready to emerge from work-enforced silence, and with contributions to make on the following topics:

Hockey Puck Spacers: Are the Slovak-made acoustically superior? Is the real Dave Clark *already* standing up? Using the 535D to monitor the 2050 IF so I can connect up to the SEIII! (Try this; you'll like it)

Former Collins employee Jim Riach should join us soon. He is off-line with a HD crash. Rumours ciculating at Collins said 1100 were made; The highest SN he personally saw was #1049. Heat destoyed (temporarily many). They were normally rack-mounted in batches with large fans moving air past the racks. My own solution involves a simple RS muffin-fan resting on the top of the case, and works perfectly.

------Original Message-----
From: John Bryant <bjohn@provalue.net> To: premium-rx@kahuna.sdsu.edu <premium-rx@kahuna.sdsu.edu> Date: Thursday, December 17, 1998 8:09 AM
Subject: 2050-Analog S-Meter

>I had fun yesterday setting up my analog S-Meter and thought I ought to
>document it for those on the list (like me) who are less than technically
>adroit.

Date: Thu, 17 Dec 1998 08:31:21 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: HF-2050 Stability/Freq Readout Accuracy

All,

I stand corrected. When I fired up the 2050 this morning it was pretuned to 15000 KHz. The RX was indeed off by about 30 Hz on the low side but with in two minutes it was spot on.

73,

Colin

Date: Thu, 17 Dec 1998 21:23:21 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: HF-2050 Stability/Freq Readout Accuracy

At 01:53 AM 12/17/98 -0500, you wrote:
>James Goodwin, Tony Ward, John Bryant and I have compared notes and
>commonly find:
> >- from cold start, the frequency readout is some 100 Hz below actual
>frequency...always to the same extent and always on the low side.
> >- after about 10 mins or less, the receiver stabilizes and remains so,
>with frequency readout absolutely accurate on known nominal frequencies
>(using WWV, for example).
> >- has anyone noticed a characteristic pattern DIFFERENT than above?
> >73 - Dave
In a cool room (about 14 deg C), I measured 150 Hz low at power on, 50 Hz low at 3 min, and bang on at 5 minutes.

.....Walt.

Date: Fri, 18 Dec 1998 23:16:44 -0500
From: davidclark@home.com
Subject: Re: HF-2050 Stability/Freq Readout Accuracy

Thanks to Walter for the more scientific confirmation! 73 - Dave

Walter (Volodya) Salmaniw, MD wrote:
> > At 01:53 AM 12/17/98 -0500, you wrote:
> >James Goodwin, Tony Ward, John Bryant and I have compared notes and
> >commonly find:
> > > >- from cold start, the frequency readout is some 100 Hz below actual
> >frequency...always to the same extent and always on the low side.
> > > >- after about 10 mins or less, the receiver stabilizes and remains so,
> >with frequency readout absolutely accurate on known nominal frequencies
> >(using WWV, for example).
> > > >- has anyone noticed a characteristic pattern DIFFERENT than above?
> > > >73 - Dave
> > In a cool room (about 14 deg C), I measured 150 Hz low at power on, 50 Hz
> low at 3 min, and bang on at 5 minutes.
> > .....Walt.

Date: Fri, 18 Dec 1998 20:30:39 -0800
From: "Greg W. Bailey" <greg.bailey@sdsu.edu>
Subject: Tuning Speed and "less than fine"

Gentlemen: A good weekend to all.

I was reviewing the schematic of the 2050 tuning system..... you know the one were "slow" represents 1 millahertz per rotation and "fast" rips through 30 megahertz in three turns. Kinda like driving a Porsche and not being able to use 1st and 3rd gear.

Figure 4-3 on page 4-7/4-8 illustrates the digital information from CLK B of the Tune Control goes off to the "dial" input of the receiver. Then by reading about the circuit on page 4-12, section 4.3.1.5 it states that "... CLOCK B pulses are applied to an event-counter input of the control processor .... " .

Okay, so what is my point? What would happen if the "dial" pulse signal, say at pin 40 of the E1-P1 connector, were multiplied by a factor of (say) 5. The processor would assume that the tuning knob would have turned 5 times, or at least was being rotated 5 times faster than normal. If this were done the "fine' would be 5 times faster than "fine" or can i say "less fine' than fine? So instead of 1 Hz per rotation you would get 5 Hz. Why wouldn't this work?

If 5 times would work, it is only a hop-skip-and-a-jump to whatever would be a useful rate, say 50, or a 100?

Changing the subject- Regarding all the "research" on stability and thermal drift I've been reading about these past few days..... hell I ain't had time to turn on my new toy. You guys sure know how to make it hard on a person that is attempting to exude the "academic image" to his students!!! Next week guys.... my power meter will go WILD! :-)

Greg

Date: Sat, 19 Dec 1998 13:18:59 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: RX Audio Test

Attached is a recording I made of my Pacific bellweather station, CAAMA R. on 2.310.

It was done with 3 receivers. Listen a few times and make a judgement as to which you feel recovers the best audio without looking at the list/order below. It may suprise you. Hint: (There are NO R390A's in the lineup)

Order:

Hammarlund SP-600JX26 and Kiwa MAP Harris RF-590 and KIWA MAP Collins HF2050 in LSB/ECSS

---

premium-rx-digest Sunday, December 20 1998 Volume 01 : Number 002

Date: Sun, 20 Dec 1998 13:38:51 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: (Fwd) Cumbre DX Special December 20, 1998

This may be of interest:

Cumbre DX Special December 20, 1998

Contributor Hans Johnson FL

IRAQ 5935 Domestic Service found them on this new frequency at 2218. Talk in Arabic about American and British aggression and the brave Iraqi people. Weak, deep fades, and continuing on until long period of dead air at 2300. 2302 audio resumed with another announcer giving news headlines and an ID. Martial music starting at 2312 and still on as I type this at 2315. No sign of a // on 4920 or 11785. (Johnson Dec 19)

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

----

premium-rx-digest Monday, December 28 1998 Volume 01 : Number 003

Date: Mon, 21 Dec 1998 06:13:29 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050 Adventures in Thermodynamics

In two weeks, it will have been 38 years since I took thermodynamics and I guess that is my excuse, but I gotta report my latest bone-head adventure, so that maybe some of you won't have to go through it, too.

Several days ago, Dallas Langford suggested to me that it was a good idea to remove the steel plates from the top and bottom dust covers of the 2050. He had discovered that the manufacturer had carefully punched holes in the steel plates to match those in the dust covers EXCEPT above and below the area in the rear of the power supply bay where Dallas has mounted his nifty centrifugal cooling fan. The manufacturer did not punch out those holes, likely because there are no really serious heat sources in the immediate area. Naturally, freeing up air circulation in that area would improve the air supply to the new fan, so Dallas removed both of his steel plates. The holes are exactly 1/8" and it is easy to drill them out with a drill press. (I'd be reluctant to do so with a hand drill since the aluminum dust cover is very soft and a butchered up dust cover could look pretty ugly and might reduce the worth of the radio to collectors.)

Anyway.... I had mixed feelings about about removing the plates. I'm almost certain that they are a Band-Aid partial solution to the overheating problem since they and the dust covers are in continuous direct contact with the primary heat sinks on the power supply. In my judgement, the steel plates are rather massive and large auxiliary heat sinks for the receiver. Probably, the increased efficiency of Dallas' blower, with the plates off, more than offsets the loss of these heat sinks, though things might get scary if the blower failed.

I've been running my 2050 with the dust covers off until I had the time to do some of my own experiments on cooling. The first thing that I wanted to try was introducing outside air from an external source into the exact area where Dallas mounted his cooling fan.... so, I decided to, at least temporarily, remove the top plate. It will be relatively easy to reattach the plate with screw fasteners later. Well, after I did that, I buttoned up both dust covers tightly and took the 2050 back to my shack in preparation for the experiments. It was late.... I put the experiments off 'til the next morning.

I was up before dawn and decided to check the bands before starting my cooling experiments. This is the best time of the year to DX the small stations in the Indian Subcontinent at local dawn here. Well, propagation was superb and I ended up DXing for a couple of hours. After about 30 minutes of DXing with my NRD-525, I couldn't resist firing up the 2050 for some comparisons. Well, one thing led to another and I ended up two plus hours later with the 2050 tuned to the Delhi station on 4860 just for entertainment listening while I worked elsewhere in the shack. The music, especially on the 2050, was GREAT.

All of a sudden, the music quit! I ran over (four steps at high speed) and the FAULT light was glaring at me and (I swear) the left display was full of what looked like Cyrillic lettering!!! I hit the power

switch even before I touched the top of the receiver. The now-bare dust cover above the power supply was, I'm pretty certain, far hotter than it had ever been before.....

Oh my! Well, I waited about 15 minutes and switched it back on. The 2050 passed BIT with flying colors and has operated normally in 15 minute stints now for a couple of days. The power of prayer is under-rated.

I've several still preliminary conclusions from this adventure:

A. I'm an idiot

B. Band Aid or not, those two steel plates probably are quite effective heat sinks, unless my fault light came on for some singular but unrelated reason (which I don't believe is the case.)

C. I'm putting the steel plate back on! I'll introduce outside air somewhere else. If my blower fails, I want more than a two hour cushion before meltdown.

D. I swear to you, there was Cyrillic lettering on the left display when I ran over there. Is the 2050 (or at least mine) one of the final KGB plots of the Cold War?

I'd really appreciate comments on my adventure from any of you, except my friend Chuck Rippel, who has probably had a coronary from laughing so hard at my idiocy.

Greg, since you teach a course in Thermo for electronic equipment, does any of this make sense? Do you think that they will go back and change my grade in sophomore thermo???

John Bryant

Date: Mon, 21 Dec 1998 06:14:37 -0800
From: "Greg W. Bailey" <greg.bailey@sdsu.edu>
Subject: Thermodynamics = 1, Bryant/Bailey = 0

Good Morning Gentlemen:

Since John used my name in his post, I will crawl out from under the grade book and run up my white flag. You see John, I have a confession regarding my thermal findings on the 2050.... which I might add is keeping my shack warm as I type. When I first made my temperature test on the 2050 as reported on the net, I unknowingly participate in a thermal faux pas of great embarrassment. After connecting the thermal couple between the heat sink and the top cover, I placed the receiver on the bench, flipped on the switch, and noted the temperature rise. My data was incorrect because the bottom of the 2050 was sitting on the bench surface, thus destroying any convection cooling of the vent holes. In retrospect, I was lucky not to have a melt down.

Because of the nuclear temperature rise I measured, I constructed a fan and mounting manifold that worked like a champ. Then I received the thermal data from other members of the List and started thinking about my findings. I was beginning to wonder if I had a receiver with a heat problem OR a room heater disguised as a receiver. Others said they simply placed a muffin fan on top of their receiver, even an internal fan..... and here I was with a poor excuse of a Mach 2 wind tunnel attached to my 2050. Well, I soon realized my error, and am now proud to announce I have joined (temporarily) the fan on the top group. Surprising how cool the 2050 is when you "assist" the convection cooling just a little.

As for the removal of the steel plates, I still have mine, however, I can't for the life of me figure what they are for. The receiver was manufactured about 15 years ago, and the thermal conductivity of aluminum, copper, and steel was well documented 38 years ago (right John?). Ah, steel ain't exactly a winner in this arena. But the questions don't stop there.... I note the powersupply was manufactured by an outside vender and is "glued" into the 2050's cabinet. My guess is that someone on the design team dropped the ball and the supply was a Band-Aid solution. My serial number (86-0216) is relatively low, I wonder if Rockwell mended their ways as the numbers increased?

This brings us to your questions, and my answers, (A) No, (B) I plead the fifth, (C) This is where I am at present, (D) Doubtful, I don't know which is worst, your fault light coming on with Cyrillic lettering, or my light not coming on and attempting to duplicate a thermal nuclear meltdown.

Greg

P

> S

> Just for the record, I don't teach thermal. As a matter of fact, after reviewing the final exams scores of my ME students this past week, I am not sure I teach.

^ ^

John Bryant wrote:

> In two weeks, it will have been 38 years since I took thermodynamics and I
> guess that is my excuse, but I gotta report my latest bone-head adventure,
> so that maybe some of you won't have to go through it, too. …

Date: Mon, 21 Dec 1998 16:48:13 -0800
From: "Greg W. Bailey" <greg.bailey@sdsu.edu>
Subject: Dave Clark on the West Coast

Gentlemen:

FYI, after hearing so many good things about Dave Clark, I just wanted to state Dave and his family shared lunch with me today in Carlsbad, California.

Be advised I checked Dave's finger tips carefully, YUP, his fingers are callus from spinning those DXSWL tuning knobs. When challenged, he claimed that his callus tips were from counting money at the bank.... Sure Mr. Dave!!.

Good time was had by all. Looking forward to meeting all the members in the List.

Greg

Date: Mon, 21 Dec 1998 18:30:04 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Thermal Wanderings

Howdy,

Greg may not be out of it in this thermal stuff. The manifold idea is where I am headed or maybe Chuck will rescue me from any more experimentation with his tight cabinet/fan idea. The internal blower is reasonably quiet and after a couple of hours of operation the entire chassis becomes one giant heat sink at 111 degrees F. With a noisy muffin fan on top and bottom I was able to keep the hottest part of the chassis at 100 degrees and keep the rest so cool I did not even bother to measure it. Since I would like to make this RX last a long time I am considering simple top and bottom full cover manifolds with ducting to remote fans to keep the noise level down. All of the parts are here, its just a matter of finding the time to do the sheet metal work. Comments?

73,

Colin

Date: Tue, 22 Dec 1998 11:43:17 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Cyrillic mu-metal

That title likely made you wonder.....

regarding the Cyrillic lettering...it's something in the display multiplexing - these are alphanumeric type displays, not just seven segments. I have seen one half of one side do this here - and within that one half it seems like only half the segments are lighted (well, that's the wrong word, hi!), giving a real strange shimmer to the display, as this all happens fairly fast. It did not appear to be heat related, and has never happened again, although I'm keeping the patient here under observation.

On the heat issues.... I wonder what type of metal that is? I keep thinking of mu-metal -or something with similar properties - perhaps it was a band-aid to magnetically shield the power supply area. The otherwise aluminum covers wouldn't do much for magnetic shielding, I believe.

Over our "shortest day of the year" CIDX'pedition weekend listening effort the 2050's got lots of work and performed well. Nigel Pimblett will be joining our group here and John Fisher now has his radio in hand so he can experience what we've all been writing about. The Bangkok Met station on 6765.1 and Yemen on 9780 were in at levels far too good be called DX; and it seemed like every Eritrean/Ethiopian/Sudanese or whatever clandestine should have been selling airtime in Alberta.

When everyone left and the 2050's cooled off, I had to throw another log on the fire. That happens at -30C eh....

Good Holidays

Don

Date: Thu, 24 Dec 1998 17:14:17 -0500
From: John Fisher <76635.615@compuserve.com>
Subject: Thermodynamics = 1, Bryant/Bailey = 0

I think that I have figured out the problem that you guys are describing. I believe that it is all a matter of the perspective that you are using. You are looking at the heat-up of the HF-2050 from the perspective of an electronics engineer; that is how do I dissipate the heat build-up. What you need to do, is to view this from the perspective of a chemical engineer; how can I recover this energy! (hi!)

What we have here is a very effective source of low grade thermal energy, which can be put to use heating the shack (especially in -30 C Alberta). An even more innovative use of this rig, is as a $2000 coffee warmer. A cup of coffee on the right top side can be kept warm indefinitely. You just need to ensure that there are no spills which could be fatal to the receiver circuitry.

In all seriousness, I have been spending this week getting familiar with my new rig which I picked up from Don Moman last weekend. We had a very enjoyable HF-2050 convention with 4 of us listening to 2050's on Saturday and Sunday. Lots of interesting catches including the Bangkok Met station on 8743 and 6765.1 and numerous Ethiopian and Eritrean clands. First impressions would indicate that it seems to be less prone to images than does my R8 (this is especially important for me living only a couple of km away from the dirty 50 kw xmtr of CBC Calgary, 1010 which leave images all over the bands.

I would like to wish all of the folks on the reflector a very Merry Christmas and a happy and safe new year. Heres hoping for good propagation over the holidays.

73's

John Fisher

Date: Fri, 25 Dec 1998 20:20:14 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050 Screw Sizes and Additional Encoder Comments

Santa came early at our house, so I'm back to fooling with the 2050.

2050 SCREW SIZES

The myriad of screws securing the top and bottom dust covers are 4mm. metric machine screws. The set screws for the tuning and control knobs on the front panel are 1/16 inch. Go figure.

ENCODER COMMENTS

I hadn't noticed the sounds of the tuning encoder until I took the top dust cover off... once I heard it, I could even hear it with the cover on. In the interests of longevity, I tightened up my tummy muscles and took the front panel off (by taking off the rack handles plus a couple of dust cover screws.) Sure enough, there was the encoder. The encoder cover sheilds the rear and sides of the encoder and is shaped soprt of like a sauce pan. Mine was easy to remove with a bit of gentle prying between the encoder cover and the back of the front panel itself. Sure enough, there was the inner cover, sort of like a panel mounted fuse cover, except with a screw slot. A ninety degree turn and that was outta the way and there was the rear of the encoder shaft with the cylindrical tension spring coiled around it. Sure enough, both ends of the coil spring were pitted and nasty looking. Two minutes work on a fine bench stone and with some polishing compound took care of that. While the spring was out, I spun the tuning knob and it must have rotated freely at least twenty revolutions... I'll bet most of you would find the same.

The tension spring appears to be intended to provide some amount of drag on the tuning knob as well as kind of holding things together. I'd sure like to find a way to reduce the tension/drag about 50%, but don't really want to experiment with my (only) tension spring.

The inner (business) end of the tension spring rides on a nylon bushing or washer that is positioned between the spring and the rest of the encoder. That nylon bushing is just held in place by the tension spring.

I put a bit of lithium grease on the business end of the spring and reassembled and tested for scraping noise when the knob was rotated. The noise was reduced by about 50%, but not eliminated. I experimented and listened closely and the remaining noise appears to be coming from between the nylon bushing and the rest of the encoder. I'm very reluctant to put any lubricant there.

However, overall, the operation was an absolute "no brainer" and I feel better having reduced the friction/wear substantially.

Any comments or ideas would be appreciated.

John Bryant

Date: Fri, 25 Dec 1998 20:34:25 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Outboard S-meter.

Although I've only DXed for a couple of sessions with my new outboard analog S-meter, I'm find it both a real help and a pleasure to watch. I'm using a Simpson milliammeter with a 2.5" long needle. I had intended to put a switch on the meter to cut it out of the circuit when I didn't really need it, but it is so nice to watch the ionosphere billow and bubble between taking notes, etc. that I'm going to leave the switch out entirely.

I'm habitually DXing now with the RF Gain at about 2 o'clock to get the 6 dB or so of extra sensitivity. At that setting there is still plenty of AGC action to run the meter. The meter makes all the difference when tuning or rotating a loop on medium wave or when comparing relative signal strength between two different antennas on SW.

That LED bar for signal strength is worse that useless... compared to a meter, it is actually misleading at times. If the customer didn't need a signal strength indicator, why bother to provide anything? If the

customer wanted a signal strength indicator more significant than the operators ears, the LED bar sure appears to be a poor design choice. Art Collins would not have approved.

John Bryant

Date: Sat, 26 Dec 1998 12:53:38 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: 2050 Screw Sizes and Additional Encoder Comments

Chuck's suggestion of putting a drop of WD40 on the encoder's shaft while the front panel is facing the ceiling should take away the rest of the noise.

73,

Colin

John Bryant wrote:

> reassembled and tested for scraping noise when the knob was rotated. The
> noise was reduced by about 50%, but not eliminated. I experimented and
> listened closely and the remaining noise appears to be coming from between
> the nylon bushing and the rest of the encoder. I'm very reluctant to put
> any lubricant there.
> > However, overall, the operation was an absolute "no brainer" and I feel
> better having reduced the friction/wear substantially.
> > Any comments or ideas would be appreciated.
>

Date: Sat, 26 Dec 1998 19:56:52 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: WD-40

Gentlemen,

Best wishes in the last year of the millenium (seems hard to believe huh?). Santa has departed the area and life is almost back to normal. I still have to put away all the decorations, stomp the trash down in the trash can, ..etc.

I got a question about the use of WD-40. I am of the impression it is a no-no to lub good mechanical items with WD. Something about it is costic, ?,?,?. I have heard this a number of times but it may be a wives tale also. And to think, I am questioning WD when in fact it is a product of this fine city of San Diego. BTW, WD just bought out 3-in-1 oil.

Has anyone else heard this rumor, or did I just drink to much Christmas spirit?

Greg

Date: Sat, 26 Dec 1998 20:08:04 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: WD-40

Yeah, I heard and the same thing and practice it. I believe the problem lies with the vehicle evaporating and the residue turning to a gummy substance (not caustic). Both the BA reflector and the R-390 reflector had detailed discussions on this in the last year. I had to go buy a can of WD40 just to take care of my encoder. If Chuck recommends something that pertains to receiver care, I will try it.

Cheers,

Colin

Greg W. Bailey wrote:
> > Gentlemen,
> I got a question about the use of WD-40. I am of the impression it is a no-no
> to lub good mechanical items with WD. Something about it is costic, ?,?,?. …

Date: Sun, 27 Dec 1998 14:38:16 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: WD-40

> Yeah, I heard and the same thing and practice it. I believe the problem
> lies with the vehicle evaporating and the residue turning to a gummy
> substance (not caustic). Both the BA reflector and the R-390 reflector
> had detailed discussions on this in the last year. I had to go buy a can
> of WD40 just to take care of my encoder. If Chuck recommends something
>
WD 40 is a water displacement and cleaner, not really a didicated lubricant. I used a single drop on my encoder shaft placing it right on the seam where the shaft enters the encoder housing. It worked fine.

- ---

Chuck Rippel Reply to: wa4hhg@amsat.org

Date: Sun, 27 Dec 1998 21:23:58 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Thermodynamics Chapter II

I've been fascinated by the various postings re the thermal "problem" of the 2050. As no one had really quantified the extent of the problem, I devised the following experiment:

Device used to measure: Electro-Therm model SH-66 with 3 channels, accuracy +/- 1 degree. Celsius used. The probes were taped to the top panel on the right, middle and rear. The temperature was then recorded for a period of 210 minutes, essentially to steady state (warm!!!). A simple 12V CPU brushless fan rated at 27 cfm was then added initially to the top front of the receiver facing back, and later moved to the rear facing forward, though several angles were tried, to improve air flow across the hottest part of the receiver. Conclusions to follow: TEMPERATURE (degrees Celsius) TIME (MIN.) FRONT MIDDLE BACK (No fan)

0 15 15 15 5 17 19 16 10 22 23 18 15 25 26 21 20 28 30 24 30 31 34 27 60 38 44 36 90 43 49 42 120 45 52 46 180 46 56 48 210 46 57 48 warm!!!

Front fan added:

1 37 50 37 2 28 49 37 6 26 46 35 10 26 45 34 15 26 44 34 30 25 44 34 60 24 40 31 90 25 38 29 120 25 38 29

Fan moved to rear:

2 31 35 28 6 31 35 27 10 31 35 27 15 32 35 27 (fan now moved 6" towards front) 60 33 35 31 (fan now moved back to rear) 90 37 36 25 (fan now angled slightly) 120 26 36 34 125 32 36 25 (fan returned to no angle) 130 33 37 25 (fan angled slightly again)

Conclusions:

1. Never, never place anything ontop of the receiver. Having said this, my TMC multicoupler sits approximately 1" above the 2050, allowing free flow of air. I think that this is a safe set-up. Comments to the contrary welcome!

2. A simple CPU fan was extremely effective at rapidly dissipating excess heat. Is there truely a need for internal, or more elaborate set-ups? The answer depends whether or not the above temperatures are sufficiently low enough for the user. Comments please!!!

3. A fan of some sort is a must.

4. The forward position produced the greatest drop in temperatures, but with greater differences between the front, middle, and rear. The rear fan produces a more even temperature distribution, though slightly warmer on average. The rear fan is more effective at dropping the maximum temperatures, found in the centre region on the right. My gut feeling is that the rear fan is the location of choice. It's out of the way, and much more attractive to the user. My plan is now to mount the fan with double sided tape, or velcro to the top rear right panel. Total time...2 minutes. Total cost...$10 Cdn.

Comments and suggestions please!

.....Walt Salmaniw, Victoria, BC

Date: Mon, 28 Dec 1998 20:46:11 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Further Adventures in Thermo - One Solution

p-rx folks (and pronounce that anyway you'd like!)

I've finally had several days where I could devote significant time to my 2050 and I've invested most of it in the over-heating problem. I think that I've developed some fairly good data, some semi-insights worth sharing and one solution that really works for me, though it may not be everyone's cuppa tea. To wit:

I'd begin to feel that, although temperatures on the surface of the receiver dust cover are somewhat indicative of problems beneath, I wanted to be able to measure the at least the air temperature near the power transistors (the major heat source) before I designed a solution.

I don't have easy access to lab thermo equipment, but I did pick up one of those nifty digital indoor/outdoor thermostats about three months ago. I've been using it to monitor several things in my passive solar home and have developed a relative confidence in its accuracy up to at least 130 degrees F. or so. I noticed that the wires of the small "outdoor" remote probe were just of a size to go through the holes on the dust cover of the 2050, so it wasn't far from there to the idea of running some tests. I figured that even if the digital thermometer is off a degree or two or three, it would not matter, since I'd be measuring possible solutions with the same device.

I used F. degrees because that is what I use in professional solar stuff and that temperature scale is what I "think in." Hope that the Celcius fans in the crowd can handle the conversion.

AIR TEMPERATURE (F) AT THE POWER TRANSISTORS

56 Beginning temperature 66 2.5 minutes into the run 76 4.5 minutes 86 7.5 minutes 96 11.5 minutes 106 19.5 minutes 116 34.5 minutes 126 60 minutes 136 103 minutes 141 150 minutes THIS WAS THERMAL STABILITY

The above is a pretty nice half-bell curve, as it should be.

What I failed to do was shut the receiver off and see if the temperature would balloon on up or begin to fall. Since there was no power ventilation, it probably begins to fall immediately. However, after 30 minutes of cooldown, I did measure it and the temp. was down to 102. After 90 minutes, it had dropped to 80 degrees, with ambient room temperature still being either 56 or 57.

After doing this run, which I do not want to repeat, I noticed an earlier upload from Colin where he had measured thermal stability on the dust cover at 140 degrees after eight hours.... so while I don't have complete confidence in my thermometer, it is not too far off.

What should be important to everyone is that I noticed a tremendous amount of thermal lag between the air temperature in the power transistor area and that perceivable on the dust cover. The best illustration of that is to run your 2050 unventilated for 30 minutes from a cold start and feel the dust cover above the power supply. It will be feeling just slightly warm... but the data above indicates that it will already be about 115 degrees where the transistors are located. This sounds a bit hard to believe, but think about the interior reaching thermal stability in 2.5 hours at 141 degrees while it takes 8 hours for the dust cover to reach that temperature. Frankly, I was shocked at the temperature gradient and I'll bet that the Collins engineers were, too.

It is also this temperature gradient between the area of failure (the general area of the power transistor) and the dust cover that would concern me about any cooling design that tries to cool the interior primarily by cooling the dustcover. My guess is that if you direct a 75 degree airstream toward the dust cover, essentially running parallel to its surface, you will probably be able to drop the surface temperature of the dust cover down into the low 80s without lowering the interior temperature much at all. Scary thought.

POWER SUPPLY HEAT SINK CONFIGURATION

I also did a good bit of nosing around and looking at the powersupply from all sides. My first thought was "Why not just pop this thing out and run it as a physically remote power supply, like the old HROs?" Somebody really ought to try that, but it won't be me.

One thing that I learned doing Trombe walls and other air-based solar collectors is that air, in a micro-environment, often acts a lot more like a liquid than a gas. I understand that the guys doing the very small remotely powered surveillance aircraft - smaller than a Frisbee - know the same thing. From that point of view, the 2050's power supply is installed UPSIDE DOWN! For those of us who haven't pulled the lower dust cover yet, the general shape of the heat sink is that of an upside down shoe box, with the power transistors and other devices mounted on the side of the box facing the main electronics bay of the receiver. Since warm air (or fluid) rises, my opinion is that mounting the shoebox heat sink upside down traps a pool of heated air beneath(inside) the shoe box. Passive convective cooling would work at least some better were the heat sink closed at the bottom and open at the top. I could measure the difference by running my tests with the receiver on its back, but I really want to get to USING the damn thing! Maybe someone else would like to run those tests.

ONE SOLUTION

Oops! I'm outta typing time tonight. I'll describe my solution to you tomorrow.

John Bryant

Date: Mon, 28 Dec 1998 20:10:19 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: 2050: Byrant's Thermal Chapter 3

Gentlemen:

Dr. Walt's recent -two thumbs up- post entitled, "Thermaldynamics Chapter II" has generated a sequel entitled, "Further Adventures in Thermal - One Solution" by our resident architect, John Bryant. I feel guilty that I didn't comment on Walt's work (no malpractice here nicely done), HOWEVER, I can't let the man from Oklahoma off so easy :-).

So I read brother John's thermo treatise and just when the reading gets REALLY good.... he says:

> ONE SOLUTION

> > Oops! I'm outta typing time tonight. I'll describe my solution to you
> tomorrow.
> > John Bryant

Are we talking a TEASE here or what..... "Oops I am out of time" .... I never knew a professor worth his salt that was "out of time". This reminds me of going to the movies as a kid and seeing the weekly serial which always ended as Red Rider and Little Beaver were falling off a cliff . Then the screen flashed "Tune in next week for the adventures of .....".

Just for the record..... My 1999 New Years resolution will be to give John one minute a day out of my 24 hours so he will have an extra 365 minutes next year .... thus eliminating any "Ooops" in the coming year.

With a smile... John, I just couldn't let it go by...

Greg

Date: Mon, 28 Dec 1998 22:34:33 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Further Advent. in Thermo Part II

P-RX Folks:

My solution to the overheating problem was predicated on my concern for heat build-up on the underside of the power supply. I feel similarly to Colin's comment the other day... this is going to be a receiver that I want to use actively for a long time anbd I want to keep it as cool as possible.

I decided to base my first attempt on the small 12 VDC centrifugal cooling fan that Dallas Lankford first brought to my attenmtion. They are Radio Shack #273-260 and sell for about $10 U.S. I like them because they are quieter than muffin fans and, more importantly to me, they put out a compact and predictably shaped airstream.

I constructed a prototype air plenum (or manifold) to cover all of the power supply air holes in the power supply area FROM BENEATH. It looks a lot like the one that Greg fabricated and sent us the jpeg photo of and measures about 12" x 4" x 1" deep. Gregs was 1.5" deep, if I recall. Visualize his air plenum without the muffin fan but with two of the small centrifugal blowers mounted externally to the plenum, blowing down into it (in Greg's picture where the receiver is shown upside down.) I positioned one blower to blow into the airspace between the side wall of the power supply compartment and the heat sink (blowing across the 1" of the plenum through the air holes, directly into the area of the power transistors) and the other to blow into the "upside down shoebox" of the heat sink. I figured that the plenum would become pressurized since the airstream was having to flow though the cooling holes, so that some of the cooling air would flow in the plenum itself and wash the rest of the power supply.

With the interior of a passively cooled power supply compartment running at 140 degrees, with power ventilation, I was hoping to hold the temperature at or beneath 100 degrees... in other words, to cut the temperature build-up by 50%. With that, I'd declare victory and go home.

The blowers operate on 10.2 to 13.8 VDC. I decided to start out with them at minimum voltage to keep the noise to an absolute minimum. Right now, I'm running the blowers with a varible bench power supply. When I get finished, I plan to use the 15 VDC power supply of the 2050, running through a dropping resistor or a voltage regulator.

I made my first temperature run three mornings ago, with the ambient temperature again at 56 degrees. The internal temperature went up rather more slowly than before, reaching 62 degrees in about 15 minutes. It took another 30 minutes to get to 63 degrees and it stayed there! I couldn't believe it.. an internal temperature increase of 7 degrees! I let the thing run 4 more hours with no change. The dust cover over the power supply was absolutely cool, of course, while that over the main electronics bay was slightly warm. I have since run the temperature test twice more with a day

between with no use of the 2050. Each time, the temperature change was either 7 or 8 degrees above ambient room temperature.

I conclude from this experience that I could probably use just one blower with the airstream sort of stradling the two areas of concern and counting a bit more on the plenum to distribute the air. However, since I have two of the little fans and am a "Belt and Suspenders" kind of guy, I'm going with two.

As far as my own permanent installation, I believe that I mentioned that I'm building a rack cabinet the same size as the 2050 to house an external speaker, and the S-meter. (I think of it as the 2050 console model.) The cooling fans are going in that cabinet, with the plenum in the space between that and the 2050 which will set on top of the new unit. Since I've room in the new cabinet, I'm putting in an antenna switch, an audio switching network and an LED or two to impress the locals.

Well, its been fun doing this and I hope some of the ideas are of interest. Assuming that some of you might have a bit of trouble visualizing the installation from my description, I'll try to do a cross-section sketch in the next few days and scan it in from school.

David Clark (of this list and Toronto) and his family are here in OKlahoma for a week. He'll be here tomorrow night to DX and we'll try out the newly cooled 2050.

John Bryant

---

premium-rx-digest Thursday, December 31 1998 Volume 01 : Number 004

Date: Mon, 28 Dec 1998 20:46:37 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: it's too hot here!

Folks,

Perhaps we are all working to hard at his. Dallas's internal blower with Walt's funny idea of just cooling the chassis yields a 2050 that can run all day long and be cool to the touch. Do you think Walt should ditch medicine and become an engineer? Now if it was just not so noisy. Maybe a cabinet ala Chuck with a fan to circulate the air around the chassis would be both cool and quiet? Where is my Premier Metal catalog?

73,

Colin

Date: Tue, 29 Dec 1998 00:13:29 -0800
From: Raymond Makul <algo@bellatlantic.net>
Subject: A Simpleton's question on 2050

To the Group:

Perhaps this was discussed earlier.

These units were in Government service, which is often 24-7 type of service. Apparently they were used as-is without any special cooling measures. Did the Canadian Government experience any unusual failure rate due to heat build up? Am I missing something?

Can anyone shed some light on this aspect of the heat?

Ray Makul

Date: Mon, 28 Dec 1998 22:32:43 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: A Simpleton's question on 2050

At 12:13 AM 12/29/98 -0800, you wrote:
> To the Group:
> > Perhaps this was discussed earlier.
> > These units were in Government service, which is often 24-7 type of
> service. Apparently they were used as-is without any special cooling
> measures. Did the Canadian Government experience any unusual failure
> rate due to heat build up? Am I missing something?
> > Can anyone shed some light on this aspect of the heat?
> > Ray Makul

I think Ray's comments are extremely pertinent. Are we looking for a problem that conceivably doesn't (or didn't) exist? In government use, no one bothered with internal cooling fans, but didn't I read somewhere, perhaps via Dave's spec sheet, or from Don, that they were mounted in racks and cooled with external fans, much as I have attempted to do. I have already thought of the next step in my experiment, when I read John's wonderful post about internal temperatures. His points are well taken, but clearly, external or surface temperatures are pertinent to this discussion. Heat travels from hot to cold, eventually equilibrating with the surrounding milieu. I have now semi-permanently mounted my measly muffin fan. Recall the maximum temperature (steady state...very much like John's half a parabolic curve), came in at 46/57/48 degrees Celsius for front, middle and rear for an average of 50.3 degrees Celsius (what's that, about 107 degrees F). With cooling, the temperature has reached steady state of 32/36/27 degrees C, for an average of 31.7 degrees C. Therefore a drop of 18.6 degrees Celsius...a HUGE drop in my opinion. In my view, I just cannot see how there cannot be a corresponding drop inside the receiver. The fan is extracting energy in the form of heat from the receiver, and according to any physics I ever learned, something has to give...ie, the temperature internally must also fall. Are you all still with me? In any case, gazing at those side holes, I should be able to use my thermosensor to check this further. 2 of 3 probes should fit, but I want to remove the cover first, case I touch something I shouldn't have ! :)

More about this as I acquire further information!

.....Walt (yeah a doc, but a radio nut at heart)

Date: Mon, 28 Dec 1998 22:52:23 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: DX performance tests

After all of this tech talk, thought I might share some DX targets with the group. At my QTH tonight (Victoria, BC), conditions were nothing short of spectacular. Put my receivers through the paces. Had been using the 2050 as the primary receiver, but fired up the 390A, newly peaked and quite awesome, as a companion receiver, with my 535D and R5000 as further back-ups, all fed by another (if I can use the term again!) awesome piece of equipment, a TMC multicoupler, with a choice of 5 antennae: T2FD (yep awesome!!!), 60m horizontal loop, eavesdropper, 25 m dipole, and 50' random wire. Boy am I happy with the set-up. In any case, spent a bit of time on 49m, specifically 5955 at 0100 to 0130. Radio Tashkent is listed in English to S Asia. A VERY difficult channel here, with a huge amount of splatter from 5950. Well the 390A put the 2050 to shame. I could get pretty good audio by tuning upto 5956.8, using AM and the 2 khz filter of the 390A. Of course the SSB of the unit is not worth using most of the time, but with such superb AM capability, who needs it. The 2050, in my estimation wasn't nearly as good, despite DSP, primarilly because of the lack of bandwidths. The 3.2 (I think), AM bandwith, didn't compare to the 390A's 2 khz one. I wish that narrower filters were available for SSB,

as there are in my 535D, as this is my primary DXing mode. I don't really feel that the AM performance of the 2050 is it's strong point.

This was by the way, Radio Tashkent, as I was able to hear them at 0130, going into Dari (as listed in the WRTH), parallel to 7285. Suggest you folks try it tomorrow!

Another difficult station to attempt would be Murmansk Radio on 5930 at 0316 heard with an exercise program in Russian. Here, both receivers were about equal. Again terrible splatter from adjacent channels. Boy the 5900 to 6000 range really needs the maximum performance of our receivers. I always enjoy Chuck's receiver head-to-heads on the 390A list, and would welcome seeing results of others.

.....Walt.

Date: Mon, 28 Dec 1998 23:06:40 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: DX performance test, part 2

Forgot one more to try for. Presumed Voice of Sharia, Afghanistan heard at 0223 on 7083.11. Once again, the R390A won out over the 2050. Lots of ham QRM on LSB, RTTY on USB. A mess!

.....Walt.

Date: Tue, 29 Dec 1998 10:47:44 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: it's too hot here!

> Folks,

> > Perhaps we are all working to hard at his.

I don't disagree. I thinks its much to do about not all that much. The receiver was designed to work in that enviroment. - ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Wed, 30 Dec 1998 00:03:11 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Heat Seeking Missives

Ray and the Group: Recent 2050 owner Jim --- hopefully soon to show up here --- who worked for Rockwell/Collins during the era these were made = told me that yes; there were heat failures in service. However he also made = the interesting observation that many of these units were operated as part = of stacked racks, with a large fan below the rack often utilised to move = air around the stack. This appears to have been a successful method of = keeping failures to acceptable levels. John's comments on case cooling versus internal however made eminent sense to me.

Myself I find a RS muffin fan gravity mounted on the case 2/3rds towards rear with power via the Daiwa PS that provides all my 12v shack needs = does the job for me. I crank it back to about 10v which reduces the fan noise to a whisper, = and the low voltage appears to be a matter of indifference to the Kiwa = pre-amp, also powered by the PS. It reduces the heat gradient to the world's largest refrigerator (Canada) to an acceptable level, while still providing = adequate heat to dry my socks on my return from forays into said refrigerator to maintain existing antennas, and raise an extremely promising K9AY loop system --- about which more eventually. None of the above is meant to = imply anything but a sense of profound wonder and pleasure that I find myself = so comfortable in the company of dare-I-say geeks like myself who enjoy devoting time and brain-cells to the laws of thermodynamics. Gentlemen = and Gentle Men; I salute us all. Raise your bottles (any convenient

spare = from the 390A or SP-600 RF-deck will do) and toast (and I do mean *toast*) = the fast on-coming New Year!

I apologise for failure to deliver the promised definitive treatise on = which brand of propping hockey puck provides the better acoustic performance; Canadian Tire, or the cheap Czech imports. The family has been ill over Christmas with an early outbreak of the Y2K virus prematurely = transmitted via an errant email attachment. I believe I inadvertently responded to a = AOL customer and the rest you can guess...

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
...Now an Official Beta Test Site for the Chaos Theory!!

- -----Original Message-----
From: Raymond Makul <algo@bellatlantic.net> To: Premium-RX <Premium-RX@kahuna.sdsu.edu> Date: Tuesday, December 29, 1998 12:12 AM
Subject: A Simpleton's question on 2050

>To the Group:
>>Perhaps this was discussed earlier.
>>These units were in Government service, which is often 24-7 type of
>service. Apparently they were used as-is without any special cooling
>measures. Did the Canadian Government experience any unusual failure
>rate due to heat build up? Am I missing something?
>>Can anyone shed some light on this aspect of the heat?

Date: Wed, 30 Dec 1998 08:39:20 -0800
From: John Reed <jtreed@poncacity.net>
Subject: HF-2050 Question

I don't own a HF-2050, but I'm curious about one item on them. I've seen references to DSP being implemented in this receiver. I should have looked closer when testing John B.'s receiver as I didn't notice this feature. Is it implemented as a low frequency IF (as in the W-J HF-1000) or as an add on audio filter/noise reducer like many of the accessory filters now available (JPS, Timewave, MFJ)?

John Reed

Date: Wed, 30 Dec 1998 09:53:20 -0700
From: Walt Novinger <wnovinger@home.com>
Subject: Quick plea re R8B adjustment

Fellow Premies:

I have been following the 2050 discussions with great interest, even tho mine has gone on to a new home (how's it workin', Dave??). My problem is that my R8B has drifted out of alignment by some 30-40Hz (just enough to be annoying when trying to zero-beat), and I don't know how to tweak it back where it belongs. Any chance one of you kind folks would have the instructions for doing so? Happy to pay copying/mailing costs, or can accept a scan in most any binary format.

My HF-1000 is also off by about 1-2Hz, but I'm not going to bother for that little bit :)

Happy holidays to all and good listening in 1999 (Walt is Y2K ready!).

Best regards, Walt

= Walt Novinger Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com

----

Date: Wed, 30 Dec 1998 11:14:12 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: HF-2050 Question

The DSP is done at 3 mhz and provides for all the selectivity and demodulation modes. The squelch and noise blanker functions also come via the DSP. Considering what they had to work with when this was designed, 3 mhz seems to me to be an unusually high number to work with. Even today, I don't know of any hobby receiver that goes much above 455 khz for the DSP implementation.

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (403) 895-2925

Date: Wed, 30 Dec 1998 12:22:35 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Re: HF-2050 Question

John,

Here is the quote from the manual:

"The signal processing maybe divided into two parts: analog (RF translator A6) and digital (IF/Audio A3). The analog circuits use conventional mixing and filtering techniques to provide frequency conversion, amplification and selectivity. Narrow-band filtering, AGC demodulation, and audio amplification are performed by the digital IF/Audio A3..."

The one ad that I've seen calls the Collins HF-2050 "the first production HF receiver with Digital Signal Processing."

I might add that some tests that Dallas Lankford ran indicate that the 2050 M*A*Y have the same problem as the new NRD-545: the filters are excellent until you get about 50 or 60 dB down and then they may widen out quite bit. I can't hear that problem on my set, although I think that it is awfully difficult to distinguish between splatter that is broadcast and that which is a filter problem.

We gotta run some more tests one of these days, or maybe someone else will!

John Bryant

At 08:39 AM 12/30/1998 -0800, John Reed wrote:
>I don't own a HF-2050, but I'm curious about one item on them. I've seen
>references to DSP being implemented in this receiver. I should have
>looked closer when testing John B.'s receiver as I didn't notice this
>feature. Is it implemented as a low frequency IF (as in the W-J HF-1000)
>or as an add on audio filter/noise reducer like many of the accessory
>filters now available (JPS, Timewave, MFJ)?
> >John Reed
> >

Date: Wed, 30 Dec 1998 18:28:19 -0800
From: John Reed <jtreed@poncacity.net>

Subject: Re: DX performance tests

> In any case, spent a bit of time on
> 49m, specifically 5955 at 0100 to 0130. Radio Tashkent is listed in
> English to S Asia. A VERY difficult channel here, with a huge amount of
> splatter from 5950. Well the 390A put the 2050 to shame. I could get
> pretty good audio by tuning upto 5956.8, using AM and the 2 khz filter of
> the 390A. Of course the SSB of the unit is not worth using most of the
> time, but with such superb AM capability, who needs it. The 2050, in my
> estimation wasn't nearly as good, despite DSP, primarilly because of the
> lack of bandwidths. The 3.2 (I think), AM bandwith, didn't compare to the
> 390A's 2 khz one. I wish that narrower filters were available for SSB, as
> there are in my 535D, as this is my primary DXing mode. I don't really
> feel that the AM performance of the 2050 is it's strong point.
> > This was by the way, Radio Tashkent, as I was able to hear them at
> 0130, going into Dari (as listed in the WRTH), parallel to 7285. Suggest
> you folks try it tomorrow!
> Walt and others:

I tried for Tashkent and you're correct, that's a difficult channel. The splatter is tremendous. I hooked up four receivers and was able to pull out some audio in between splatters. Here's my ranking from best to worst:

(1) Sylvania R1414/URR solid state, analog tuned with locked LO, modified with mechanical filters and Kiwa premium filters. Best audio at reduced USB bandwidth.

(2) NRD-525 with ESKA Plam board and added filters. The signal sounded about as good as (1), but the mushy NRD audio has always been a problem. Best signal at small (2 KHz) USB setting.

(3) Harris RF-590 and (4) Harris RF-550. These are equal. Both sideband filters are 3.2 KHz wide and are overrun with splatter.

I'll try this again tonight. The key seems to be to use as small a bandwidth as practical. Thanks for this test, it is really interesting to make these comparisons. I have a switch set up that can switch the antenna and audio for as many as four receivers. That way I can compare performance under nearly the same conditions.

By the way, if the HF-2050 filters are "brick wall" like the W-J HF-1000, it will not do well at all under these conditions. The steep filter walls make splatter sound worse. I saw this on my HF-1000 many times. These filters have impulse response sidelobes that hang around long after the initial impulse is gone.

John Reed

Date: Thu, 31 Dec 1998 09:46:08 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: More Ruminations on Thermodynamics

Fellas,

I've been DXing with David Clark, working on the under-cabinet for the 2050 and continuing to fool with power ventilation arrangements and I've fallen behind on responding to four very interesting uploads from Raymond, Chuck, Walt S. and Tony Ward. Each caused me to review my own thinking and extend it... I'm really grateful for that.

Raymond asked if all this concern over overheating wasn't "much ado about nothing." That is a very fair question and caused me to rethink a good deal. Part of the reason I'm so obsessive/compulsive about solving the (over)heating problem is the information contained in Tony's most recent message (that the Canadians used them in vertical stacks with power ventilation and STILL had heat-related failures.) That info was shared with the group in a less succinct form fairly early in the life of this list... possibly before Raymond joined. Also, Don Moman shared with us (ten days ago or so) that he had four or five units which had failed and all of the failures were in the power supply. I think Don purchased around 20-25 units. While the above in not conclusive evidence that my radio will fail if I don't do something to at least replicate the Canadian installation, its good enough for me, when the solution is gonna cost less than $20.00 US. With my luck, mine will be one of the first to fail... still, I'll go to my recliner at the rest home knowing that I'd done all that I could to head the problem off.

I believe that Chuck's upload stated, more or less, that these receivers were designed for "this environment" and not to worry about it. I don't necessarily agree. Looking at the overall mechanical (not electronic) design of this set, I'm not sure that it WAS designed.... the added plates and blocks of metal on three sides of the power supply, the inverted heat sink (from a passive cooling point of view.)

There is a great deal that we don't know about the design parameters for this set. It could have been designed with power ventilation in mind. That is unlikely, but it is possible. We still don't know what the heck the steel plates were added to the case for... One theory is magnetic sheilding, but none of us can make sense of that since there is no sheilding between the power supply and the electronics bay. I still contend that they are an attempt at an additional heat sink and I think I could argue why steel is better than aluminum, in this case However, that theory doesn't explain the solid block(s) of metal on the outboard interior wall of the power supply bay. We just don't know much of anything about the mechanical design reasoning for this set. The engineering for this set was likely done in 1984-85 so most of the folks involved oughta still be with us. If somebody close-by (to Toronto or would it be Cedar Rapids??) would take one of them to lunch and use a tape recorder, several of us would chip in to buy the lunch, I'm sure!

Don, do you have any idea why the government is selling off some of these receivers??? I've "heard" that this wasn't the first lot. I've assumed that the reason was the downsizing of the military with the wind-down of the Cold War... I imagine many of us assumed so. Could it be, instead, that the failure rate on the 2050s has become unacceptably high and they are not downsizing at all but rather replacing them with "more reliable" things like the W-J HF-1000??? We just don't know, do we?

Walt, have you had a chance to measure the air temperature inside the power supply bay (near the power transistors) yet? I'm quite concerned that lowering the temperature of the dust cover by blowing air parallel to it will not change the internal temperature as much as one might think. If I remember, you have dropped the dust cover temp to just above 90 F.degrees from around 140. There WILL be a proportional temperature drop on the interior, but it won't be one-for-one, for some fairly complex reasons. Remember how shocked I was at the thermal lag? (It reaches 140 degrees air temperature on the interior 5.5 hours before it does on the dust cover just above) I was also shocked that the interior air temp hit 120 degrees before the dust cover above felt warm. My GUESS is that the interior of the power supply is probably running about 120 degrees at thermal stability when the dust cover is at 90 degrees F.

If this all sounds wrong headed, think of the analogy of the human body. If you move from a 90 degree F envirionment to a 60 degree F one, the surface temperature of your skin will drop slightly, but your core body temperature won't change much. Two of the main reasons (I think) are that your body has a continuing internal heat source and it has insulating qualities to protect the core temperature... which produces and supports a thermal gradient between the core and the skin. I'm treading on thin ice here, but our power supply and its enclosure has a continuing internal heat source and "insulating qualities" which produce/support a large temperature difference between the inside and the outside under some conditions.

Enough! Have you measured the interior temperature?

Incidently, Radio Shack has one version of the digital indoor/outdoor thermometer (which is switchable on the front) on sale down here for under $9.00 US. Its rather small and Clark suggested that I mount one permanently in place of the speaker on the front panel of the 2050. He was kidding, I think!

Tony, thank you very much for your upload about the Canadian installation. It makes all sorts of sense. I'm getting either 7 or 8 degrees of heating of a very small and slow moving airstream moving from bottom to top of the power supply compartment. Since a stack of receivers would each add about that much heat to the airstream, you could stack them 5 high and have the top one running at 110 degrees, even with the minimal air that I'm putting through. If the air velocity were boosted a bit, the top one would run a bit cooler than that, of course.

Again, thank each of you for your thoughts. I found them very useful. I'll bet many of the others did, too.

John Bryant

Date: Thu, 31 Dec 1998 08:23:08 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Keypad Problems

KEYPAD PROBLEMS

When I got my 2050, I immediately noticed that two keys were "squirrelly." The "6" key would sometimes generate a single 6 and at other times a 66. When I ran the Operators BIT routine (hit Test when the receiver is on) and got to the Keypad Test section at the end, the "6" key has always checked out perfectly. I'm a little mystified by this.

The other problem was with the "9" key. Initially, it was intermittant. Sometimes it would work, sometimes not. After a day or so, that problem cleared up on its own. However, two days ago the "9" key quit working, entirely. In the BIT mode, the test of the 9 will NOT generate a 9.... so.....

I know from Dave Clark that he has experienced a bit of keypad problems, too. This is probably another piece of fall-out from the receivers being set on a single frequency for long periods of time.

Has anyone else had similar problems?

Has anyone discovered how to get contact cleaner-enhancer into the key contacts?

Has anyone had guts enough to try to pry off one of the plastic keys???

Its still a wonderful radio!

John Bryant

Date: Thu, 31 Dec 1998 11:17:14 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Power Supply and heat issues

Well, with a winter blizzard forecast with -30 and 50km winds, it's time to turn on some of those 2050's and keep the shack warm....

One quick comment - glancing thru SW Receivers P&P I see the Harris RF-590 (and the 505a) both are listed as having a power consumption of 6w. I can't believe either of these draw just 6 watts! I have the 505a and can measure that, but what does a 590 draw?

Back to answer some of John's comments on the 2050 and heat....

As John mentioned, I have a number that had power supply failure. The 5v output typically read about 3.5 volts. I had originally blamed the 723 regulator chip - on the faulty units the Vref on pin 6 was

down around 6 volts instead of the proper 7.2 +-. Chip Vcc was 12 v which seemed about right. After replacing the 723 and getting the same - the new ones can't all be bad too - I did what I should have done in the first place - look at things with the scope.... Vcc was pure half wave DC and it just happened that my meter converted that to a value near 12 v, but the chip was dropping out between DC peaks so obviously it was having problems doing its job. C5 100uf filter cap wasn't providing any filtering. Physical removal of the cap (and subsequent units) showed one of the leads was pysically open internally as a result of the bottom of the case being bulged outwards. Heat related? I don't know. These are 105deg C caps. The larger filter caps are all 85 deg C units and I have seen no failures in these. Some of the 723 chips are the standard low temp consumer version, rated to 70C. None of these failed in my units.

I would say that a small fan to reduce the temp is a good idea or a ventilated cabinet but I wouldn't go to great efforts to keep the components just a few degrees above ambient. A little air movement will help a lot.

If something does fail - you WANT it to be a power supply! There is nothing complex about them to repair. None of the failure modes noted here have caused damage to any of the boards, although that doesn't mean it couldn't happen. Typically though, it doesn't seem to.

John asked

> > Don, do you have any idea why the government is selling off some of these
> receivers??? I've "heard" that this wasn't the first lot. I've assumed that
> the reason was the downsizing of the military with the wind-down of the
> Cold War... I imagine many of us assumed so. Could it be, instead, that the
> failure rate on the 2050s has become unacceptably high and they are not
> downsizing at all but rather replacing them with "more reliable" things
> like the W-J HF-1000??? We just don't know, do we?

I certainly haven't any info or sources to answer that. I think it may be some of both. The majority of mine were tagged with problems, either real or imagined, and therefore possibly sent for disposal instead of being repaired. Or perhaps, repaired again. The total number of units thru here is currently at 32, of which 19 checked out good and have gone to people on this list. The rest have failures that I have not resolved to my satisfaction. I have good radios that don't pass BITE and bad radios that do pass - BITE does not tell all, hi! I have been promised more (a similar qty) but until I have them, I can't speculate what their problems were. I was told most were tagged with "Condition unknown" which generally has been a good sign!

We are generally agreed 1100 were produced, or somewhere in that vicinity. I know the whereabouts of 78 of these. I know WJ Ford Surplus and Toronto Surplus both are advertising these, so there obviously has been a mass selloff lately. If these companies had just a couple, tens or even hundreds it may help to asnwer John's question. This is info they may not volunteer, but perhaps someone can get a hint of the quantity involved.

I was part of a tour at the MAC receiver site near Edmonton a few years ago but I don't recall seeing any HF 2050's there. There was a bunch of Racal (6790 style, but I can't say for certain that's what they were) in a back room remote controlled, and they had some Harris stuff in the main comm room. It looked well used.

A commercial user of these radios that I spoke with seemed to speak highly of them - they were used in a remote control memory scanning application. He also knew a local avionics place that repaired them, so he must have had need for their services at some time as well.

We will be away for a few days over New Year so let me now wish you all the best in 1999.

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (403) 895-2925

Date: Thu, 31 Dec 1998 10:49:05 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: 2050: Keypad Problems

At 08:23 AM 12/31/98 -0600, you wrote:
>KEYPAD PROBLEMS
> >When I got my 2050, I immediately noticed that two keys were "squirrelly."
>The "6" key would sometimes generate a single 6 and at other times a 66.
>When I ran the Operators BIT routine (hit Test when the receiver is on) and
>got to the Keypad Test section at the end, the "6" key has always checked
>out perfectly. I'm a little mystified by this, etc.
> Yep! My "1" key does the same thing! Also passes the BIT test without a problem. Very intermittent. Sometimes doesn't work, sometimes does, sometimes comes out 11 or even 111. Have to be careful with entering frequencies, which is not a big deal, but it is a nuisance, when it's 59:50 past the hour and you're trying to get somewhere in a hurry for the ID at the top of the hour! Kind of glad I'm not the only one with the problem. No, I haven't pried off the key. Waiting for you or Dave to do it!!!
.....Walt.

Date: Thu, 31 Dec 1998 10:56:48 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: 2050: More Ruminations on Thermodynamics

At 09:46 AM 12/31/98 -0600, you wrote:

To answer your question, John, I haven't yet performed the interior testing, though that's next on the list of priorities! I'm off for a few days of skiing, so this project will have to wait 'til the New Year. Season's greetings to you and everyone on this wonderful list.

By the way, in personal correspondence with WJ Ford, he assured me that at $3500 US, this was a great deal, since so few (I think he said fewere than a hundred) were produced! Salesmanship, or perhaps he only has a few?

.....Walt.

Date: Thu, 31 Dec 1998 14:33:27 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: 2050: Keypad Problems

On Thu, 31 Dec 1998, John Bryant wrote:
> > Has anyone discovered how to get contact cleaner-enhancer into the key
> contacts?
> > Has anyone had guts enough to try to pry off one of the plastic keys???
>
The plastic key tops pull straight off, quite easily. There are 4 tiny square channels (2 on top, 2 on bottom) by which cleaner could be forced into the switch at this point. The actual contacts are nearer the top so fluid injected into the bottom two squares won't do much. I'm not certain it will do much even in top two holes. The actual contacts are in the 10 to 11 o'clock part of the switch body when viewed from the panel side. A tiny drill hole would get the fluid in. These are not even near being hermetically sealed switches so don't worry about that aspect.

To do it properly, the front panel needs to be removed (and remove front alum panel). This is not tricky but does take a bit of time to get all spacers back in when putting back togther.

Once apart, the black square cover over the actual switch comes off, just pry off and the actual contacts are exposed. The contacts close when you push the switch which moves a small peice of plastic out of the way so the contacts can "make". Pushing the key harder won't do anything to force the contacts together, although it may make you feel better.

Even though they have the good name of Cherry on them, I feel these are poor choices for long term reliable contacts. I would have expected hermetically sealed contacts at the very least. Ours not to wonder why, just to make work....

Once you have it apart to this stage, it's an excellent time to think about unsoldering the LCD's and adding backlighting. If you are of my mind, that process would be completed in a msec, never to occur again.

As usual, I find it hard to stick to one topic per post, so I digress, but only a bit. Those AMPS 2x20 pin headers that connects the front panel to the A-2 board - wouldn't that be nice if it was 5 feet long? One could fabricate a bit of a box for the front panel and make your own remote head - - I'm sure the combination of 19" rack mount and the heat issue has caused some location issues. The small white molex plug on the right is only for AC power, that could easily be bypassed.

Any computer types have such a cable lying around - would be interesting to see if shielding is an issue and if there are any operational issues arising from the longer length...

73 Don

Date: Thu, 31 Dec 1998 15:16:35 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: getting at the keys...an afterthought.

I suppose it's not essential that the front panel be removed for this procedure. The black square covering the contacts will fit thru the large square hole cut in the front panel, so it's just a matter of finding some slim pick tools to do the job..... I defer to dentists, surgeons and car thieves.

Still, I'd suggest doing the procedure to all of them while things are apart, and when you're doing them all it would be simpler to remove the front aluminum panel completely.

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (403) 895-2925

Date: Thu, 31 Dec 1998 16:20:00 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Thank You BOTH

Walt and Don,

Thank you both for superb uploads! Both were goldmines of information. I'll lean on Clark to see if he can't go to to Toronto Surplus and WJ Ford (if they are in Toronto?) David can wear his three piece charcoal gray outfit and try his best to look affluent... maybe he can winkle a bit more information out of them. Walt, they were asking $3500 US? My oh my.

Don, thank you for the motherload of info on the power supply and the keypad. You really added to the body of knowledge. I feel much more capable of dealing with both issues. And the suggestion of using ribbon cable to remote the entire box and end up with a radio that is 19"W x 5.2"H x about 3" deep

probably has several of us slapping our foreheads and shouting "Shit! Why didn't I think of that?!!!" I know that I've got a new bruise that runs from hairline to receeding hairline.

Hope you each have a safe holiday away!

John Bryant

Date: Thu, 31 Dec 1998 18:02:54 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: 2050: Thank You BOTH

John: WJ Ford are about 250km East of here near Smith Falls (and west of Ottawa). Both they and Toronto Surplus are on the Web. I was in Toronto Surplus two weeks ago and their packer was boxing up an cosmetically indifferent 2050 going to a Japanese Ham via California for $5476C. I was suitably amazed. This would translate into about $3700 of your ready folding. WJ Ford had the Harris 505A at $600C or so... Mine performs well, though the decade switching and lack of narrow filters disqualifies it for serious DX-digging.

Toronto Surplus are at http://torontosurplus.com/ and WJ Ford at http://www.falls.igs.net/~testequipment/ for your further entertainment. Neither places are particularly communicative unless you have the fresh scent of money about you. The underlings are pleasant but the bosses are the only ones privy to the *real* information that you might need or want. He is almost never present at TS when I call. I have not yet had the chance to call Jim Rialt, but he should show up here soon.

I echo your thanks for the useful information.

I assume you are honing the great Clark's DXing skills further before returning him to civilisation. His ears are phenomenal. In fact you wonder why he needs a radio at all with that tremendous built-in dipole. (G)

Compliments of the season to you and yours.

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

>Walt and Don,
>>Thank you both for superb uploads! Both were goldmines of information. I'll
>lean on Clark to see if he can't go to to Toronto Surplus and WJ Ford (if
>they are in Toronto?) David can wear his three piece charcoal gray outfit
>and try his best to look affluent... maybe he can winkle a bit more
>information out of them. Walt, they were asking $3500 US? My oh my.

---

premium-rx-digest Sunday, January 17 1999 Volume 01 : Number 005

Date: Fri, 01 Jan 1999 14:42:42 -0500
From: Robert Ross <radiorob@serix.com>
Subject: HF2050 100 Memory Option.....

Hello Guys:

I was looking around on the rec.radio.amateur.boatanchors Newsgroup and found this "For Sale" ad that is quite interesting!! This is the first one of these I've seen for sale anywhere....so as Luc says...it must be quite hard to find!!

Don't think I would pay Twice as much for the "Memory Option" as I did for the "Whole Radio".....But if someone really wants the 100 memories.....sell the Farm and give Luc a call!!

> > > > > > # # # have for sale the 100 memories option hf-2050. very very rare. asking $2800 usd.
luc ve2lgj 73s
> > > > > > # # #
Hope everyone has a Great 1999!!!

73....ROB.

Robert S. Ross VA3SW London, Ontario CANADA

Antique/Vintage Radio Enthusiast Amateur Radio Stations VA3SW/VE3JFC

Hot Tubes Rule!!! «¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤

Date: Fri, 01 Jan 1999 16:01:43 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: 2050 Limited Observations

Gentlemen:

Happy New Year everyone!

Due to 2 forthcoming asbestos jury trials, time with 2050 has been sporadic and limited-- hence have not compiled all notes for experiences with it thus far--when trials are over, I will be able to get with it and get something out to the group, as well as give further considerations to back lighting. However, just a couple of quick observations/comments, etc.

1. Limitation in SSB filters: Using BFO offset to use the other filters in ECSS seems to work. Chuck Mitchell and I played with this last night and we noted that in cw mode with a BFO offset of 1.2 khz, the 1 khz filter, in my view, worked very well and has good, usable audio---(- 1.2 khz for usb on BFO, then tuned above actual freq. for zero beat-- should be at or near 1.2 khz above actual freq.---- arguably, the .3 khz filter is decipherable when a .8 khz offset used---definitely is on ham band for phone signals (tried on 20 meters). Of course, 3.2 and 6 khz filters also very usable (someone earlier made mention of 6 khz filter in cw, I believe). Did the opposite for lsb--- (+1.2 and tuned BFO below actual freq. for zero beat---about 1.2 khz below---but not always---maybe my ears not so hot anymore). As a result, 4 of the filters on the 2050 seem to be very usable for ssb--although BFO offset tuning can be tedious and cumbersome-- still, the 1 khz filter should be very useful for digging-out a signal--did not, however, check signal attenuation in that position.

2. Heat---have been concerned re high heat from power supply---appreciate the analysis, measurements, suggestions and comments offered by others in the group. I am not an engineer, have no background in thermodynamics, and am not very handy with a thermometer----so all I did was take a six inch muffin fan that I have used on my HC 10 (per previous very helpful suggestion from Walt Novinger) and on which I had attached 4 rubber feet to allow it to sit horizontally (also attached an ac cord) I put it on top of the 2050 over the vents to the right of center near the top front, and allowed it to draw air from the receiver (fan is only a whisper in sound and causes no interference) . Result is that cover over power supply is only warm to the touch, bottom cover under power supply (receiver has about 1 1/2" clearance underneath) is also only warm to the touch---and I have found no external part of the receiver to be anything other than slightly warm. I do not know what the temp. is inside of the receiver, but conclude that the fan is pulling air through the bottom vents---so perhaps the convection

currents resulting draw heat from the PS and other components inside--at least that is what I hope is happening. Note: fan does not blow across cover horizontally--the air flow is vertical, with air being drawn from the receiver upward. (I expect I can now close-off the furnace heater vents in my radio room). Same principle when, in a hot non-air- conditioned room in the Summer, one takes a window fan, inverts it in the window to draw hot air out of the room to the outside----it cools very quickly and pulls air from many other sources to equalize room's air pressure.

3. 3 mhz IF out. Might it not be useful to use a downconverter and convert this to 455 khz allowing use of a MAP, SE3, or other 455 khz device, assuming this would be a desirable thing to justify the trouble? Sherwood makes an upconverter to convert Drake's 50 khz to 455 khz. Cannot a downconverter be made to convert the 3 mhz to 455 khz?

73's,

Jon L. Williams

Date: Fri, 01 Jan 1999 15:58:51 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: 2050 Limited Observations

Gentlemen:

Happy New Year everyone!

Due to 2 forthcoming asbestos jury trials, time with 2050 has been sporadic and limited-- hence have not compiled all notes for experiences with it thus far--when trials are over, I will be able to get with it and get something out to the group, as well as give further considerations to back lighting. However, just a couple of quick observations/comments, etc.

1. Limitation in SSB filters: Using BFO offset to use the other filters in ECSS seems to work. Chuck Mitchell and I played with this last night and we noted that in cw mode with a BFO offset of 1.2 khz, the 1 khz filter, in my view, worked very well and has good, usable audio---(- 1.2 khz for usb on BFO, then tuned above actual freq. for zero beat-- should be at or near 1.2 khz above actual freq.---- arguably, the .3 khz filter is decipherable when a .8 khz offset used---definitely is on ham band for phone signals (tried on 20 meters). Of course, 3.2 and 6 khz filters also very usable (someone earlier made mention of 6 khz filter in cw, I believe). Did the opposite for lsb--- (+ 1.2 and tuned BFO below actual freq. for zero beat---about 1.2 khz below---but not always---maybe my ears not so hot anymore). As a result, 4 of the filters on the 2050 seem to be very usable for ssb--although BFO offset tuning can be tedious and cumbersome-- still, the 1 khz filter should be very useful for digging-out a signal--did not, however, check signal attenuation in that position.

2. Heat---have been concerned re high heat from power supply---appreciate the analysis, measurements, suggestions and comments offered by others in the group. I am not an engineer, have no background in thermodynamics, and am not very handy with a thermometer----so all I did was take a six inch muffin fan that I have used on my HC 10 (per previous very helpful suggestion from Walt Novinger) and on which I had attached 4 rubber feet to allow it to sit horizontally (also attached an ac cord) I put it on top of the 2050 over the vents to the right of center near the top front, and allowed it to draw air from the receiver (fan is only a whisper in sound and causes no interference) . Result is that cover over power supply is only warm to the touch, bottom cover under power supply (receiver has about 1 1/2" clearance underneath) is also only warm to the touch---and I have found no external part of the receiver to be anything other than slightly warm. I do not know what the temp. is inside of the receiver, but conclude that the fan is pulling air through the bottom vents---so perhaps the convection currents resulting draw heat from the PS and other components inside--at least that is what I hope is happening. Note: fan does not blow across cover horizontally--the air flow is vertical, with air being drawn from the receiver upward. (I expect I can now close-off the furnace heater vents in my radio room). Same principle when, in a hot non-air- conditioned room in the Summer, one takes a window

fan, inverts it in the window to draw hot air out of the room to the outside----it cools very quickly and pulls air from many other sources to equalize room's air pressure.

3. 3 mhz IF out. Might it not be useful to use a downconverter and convert this to 455 khz allowing use of a MAP, SE3, or other 455 khz device, assuming this would be a desirable thing to justify the trouble? Sherwood makes an upconverter to convert Drake's 50 khz to 455 khz. Cannot a downconverter be made to convert the 3 mhz to 455 khz?

73's,

Jon L. Williams

Date: Fri, 01 Jan 1999 16:15:22 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: further observation

Gentlemen:

As further observation of item 1 of prev. post, just heard very readable R.Aus. IS on 12080 at about 2100 during brief pause in VOA African service---2050 was tuned to 12080.80 to adjust for -.80 BFO offset, using the .3 khz filter in cw mode. Everything obviously extremely tight, but certainly readable.

JLW

Date: Fri, 1 Jan 1999 19:23:53 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: 2050 Limited Observations

Hi Jon: And thanks for your observations which are most useful. Just to shorten some possible experimentation on option 3 below, and to encourage the more electrically ept on-line, I have experimented with taking the 3 MHz IF out to the input (antenna) of a 535D/Kiwa and to an R7 here. The rig is tuned to 3000 kHz with offsets as needed when USB or LSB selected. This allows output to the SE III connected to the 535D. The results are acoustically quite magnificent, though I need a pad on the IF output of the 2050 really. I cab back the RF gain off here of course. There is leakage around the front end filters at the very high input levels, but this would provide some quick check as to whether a converter a little less elaborate than a complete 535D would be a desirable step.

The quick result is that it works beautifully for all but the most difficult buried signals.

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

Date: Mon, 04 Jan 1999 07:52:18 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Thermo- A Bit More Data

I've operated my 2050 for ten days or so in normal use with the cooling air supplied from below by the two centrifugal blowers (see previous messages). They are still powered by my variable DC power supply. I began with them running at the lowest rated voltage (11 VDC) and was continuing to get only a 7 F degree temperature rise in the powersupply compartment. I could still hear the blowers faintly via the air stream itself, so I decided to cut the voltage further and see what happened to the temperature.

I've been operating the 2050 in 3 or 4 hour stretches and am experiencing a still very acceptable 10 F degree temperature rise. The airstream itself is barely perceptable if you hold your hand over the air holes and the noise is only really perceptable when you get your ear close to the top or the receiver.

I think that I can conclude several things from my 10 days of fun:

1. It is more efficient/effective to have the cooling air UP thru the power supply rather than down due to the "inverted shoebox" shape of the power supply heat sink. However, air moving DOWN thru the ps would probably work, too.

2. Air pulled through from above the receiver - the Jon Williams approach - is probably not quite as effective as air blown from below, again due to the inverted shoebox shape of the heat sink. However, this solution is probably easiest of all and ought to get fine results, albeit with a bit more noise than my approach. (I'm gonna try this one and I'll put up the temperature results in a few days.)

I figure that I'll keep my system for use here as I believe that it is both the quietest and most effective to date. However, when I take the 2050 on the road, I'll be using the Williams approach, unless my temperature measurements aere really bad (which I seriously doubt!)

Well, when the kids at school ask me about how my Christmas Break went, I'm gonna tell'em that I has a BLAST. Hope that yours went well, too.

John Bryant

Date: Mon, 04 Jan 1999 08:17:07 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: A Bit More Data, Ver. II

Sorry, I had an error in the first version of this note... Please trash Ver. I and refer to the text below:

I've operated my 2050 for ten days or so in normal use with the cooling air supplied from below by the two centrifugal blowers (see previous messages). They are still powered by my variable DC power supply. I began with them running at the lowest rated voltage (11 VDC) and was continuing to get only a 7 F degree temperature rise in the powersupply compartment. I could still hear the blowers faintly via the air stream itself, so I decided to cut the voltage further and see what happened to the temperature.

I've been operating the 2050 in 3 or 4 hour stretches running the blowers at only 8 VDC and I'm experiencing a still very acceptable 10 F degree temperature rise. At this lowest voltage, the airstream itself is barely perceptable if you hold your hand over the air holes and the noise is only really perceptable when you get your ear close to the top or the receiver.

I think that I can conclude several things from my 10 days of fun:

1. It is more efficient/effective to have the cooling air UP thru the power supply rather than down due to the "inverted shoebox" shape of the power supply heat sink. However, air moving DOWN thru the ps would probably work, too.

2. Air pulled through from above the receiver - the Jon Williams approach - is probably not quite as effective as air blown from below, again due to the inverted shoebox shape of the heat sink. However, this solution is probably easiest of all and ought to get fine results, albeit with a bit more noise than my approach. (I'm gonna try this one and I'll put up the temperature results in a few days.)

I figure that I'll keep my system for use here as I believe that it is both the quietest and most effective to date. However, when I take the 2050 on the road, I'll be using the Williams approach, unless my temperature measurements aere really bad (which I seriously doubt!)

Well, when the kids at school ask me about how my Christmas Break went, I'm gonna tell'em that I has a BLAST. Hope that yours went well, too.

John Bryant

Date: Mon, 11 Jan 1999 07:08:40 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Audio Spectrum Analyzer+Audio Quality

Fellas,

I picked this up from NU (a tip sheet for senior SWBC DXers). It is a contribution from Guy Atkins, Seattle, a close friend of several of us. It looks like something very amenable to use with the 2050.

(1) Here's something I pulled off the website <http://www.monumental.com/rshorne/gram.html > The example graphics at the site are very nice, and evidently this prgm has a lot of capability. -- "Spectrogram version 4.2.11 is a freeware dual channel audio spectrum analyzer for Windows 95/98/NT which can provide either a scrolling time-frequency display or a spectrum analyzer scope display in real time for any sound source connected to your sound card. Spectrogram allows unlimited recording and playback of the sounds from the audio spectrum display, and can provide very high resolution spectrum analysis of wave files with a wide choice of frequency bands and frequency resolution, and either linear or logarithmic frequency scales. Spectrum data logging capability is also provided. Version 4.2.11 replaces all earlier versions and provides improved audio quality, print-window capability, spectrum averaging for noise reduction and detection of weak signals, and more flexible scanning and recording capabilities. Spectrogram is ideal for any purpose related to sound spectrum analysis including: Analysis and identification of biological sounds; analysis and identification of human speech; analysis of vocal and instrumental music; evaluation and tuning of musical instruments; evaluation and calibration of home audio systems; and ham radio audio reception and tuning." (Atkins-WA)
I haven't downloaded it, but it looks really interesting. Be sure and look at the examples (a lower button on the first page.)

AUDIO QUALITY There may be a few of us who haven't hooked up a good external speaker to the 2050 yet. GIVE IT A TRY! I've been working on my cabinet to go under the receiver and didn't get around to hooking up a good speaker until I installed a 4x6 dual cone Pyramid in the new cabinet. WOW! I thought that I knew the audio quality by using my really good Yaesu 600 ohm phones. I was wrong. I have never heard such good audio out of a communications receiver, bar none! I was really surprised at the response at both ends of the spectrum. I was also surprised at the audio power available. I sort of figured that they would size the audio amp appropriately for the 1.5 inch speaker and that a significantly larger speaker would be "under driven." That was wrong.... they obviously have an audio gain limiter in line with the onboard speaker. The 4 x 6 speaker pretty well fills the room... Has anyone tried a 12 incher???

School restarts for me today, so the radioing will, regretably, slow down....

JOhn B.

Date: Wed, 13 Jan 1999 16:41:35 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: 2050, Rockwell-Collins Letter

Gentlemen: A great New Year to all!

A couple items of interest:

#1. You will note that all posting to the List is now being duplicated at the address: 2050@mail.sdsu.edu This is the start of an archive for the List so don't panic and start thinking Big Brother is reading. I will let you know when it is up an operating.

#2. Not to long ago I thought I would wrap myself in the "teacher" disguise and write Collins to see what "assistance" I could beg for the HF 2050 List. Typically, if you claim you are a teacher, most companies will go to bat and fill any reasonable request. So I wrote Collins and told them SDSU had purchased a HF-2050 (Ser # xxxx). I then requested if their educational office would assist me in securing any software they had to remotely control the receiver. Figuring this wouldn't be too big of a request... perhaps get us a name, a contact, etc. Basically, I ran up the flag to see if they would salute.

In the case of Collins-Rockwell.... there is no salute. A big fat ZERO. After a week in the hold pattern, I received the following (below). I ain't one to quit, so..... Does anyone know who Joe Murrell????

73s Greg _____

Subject: HF-2050 Date: Wed, 13 Jan 1999 16:27:24 -0600

From: "Rhonda B Edwards" <rbedward@crnotes.collins.rockwell.com> To: greg.bailey@sdsu.edu
Re: Your request of 6 Jan 99 for info on our HF-2050

This equipment is obsolete and is no longer manufactured by Rockwell. We are unable to track the s/n you requested - that series of units were

manufactured by our facility in Canada, and we were unable to access this info.

Limited technical support is available from Joe Murrell at 319-295-8181.

I apologize for the delay in responding to your request - I kept trying to get more info on this unit.

Regards,

Rhonda Rockwell Collins

Date: Thu, 14 Jan 1999 09:20:37 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050 Dial Light Found?

I think that I've stumbled on one safe, semi-cheap and easy solution to the dial light problem. About 10 days ago, I got around to reading the winter 98/99 catalog from ALL ELECTRONICS, a new/used/surplus parts house in CA. I happened to notice a half page (p. 32) on "JKL Miniature Flourescent Lamps" They are tiny CCF (cold cathode flourescent) lamps in various sizes and require a solid state "inverter" to run them offa 12vDC. I sez to myself... they probably put out a TON of RF and way too much heat... maybe even too much light. Then I noticed a special deal on a 9.8" long by 4mm unit with an inverter for $12.75.... I knew that it was too long for either side of the LCD display, but it looked like the least expensive way to test the technology.

I got it yesterday. IT IS MARVELOUS. It puts out about the right amount of light, doesn't seem to put out too much heat and VERY LITTLE RF, at least testing it with a portable radio on various frequencies. If I got the ferrite antenna just next to and parallel with the light, I could pick up a little and I could hear some within an inch or two of the (currently) unsheilded inverter. The diameter of the light (4mm) is almost exactly the same as the dia. of your mouse cord. This unit draws just above .2 amps at 12VDC.

I popped the top of the 2050 and laid the lamp on top of the LCD assembly... as close to the inner surface of the front panel as possible. The darn thing works! I can see the display! I can also see that the inner surface of the dial glass is very dirty and streaked where I put a cotton swab down in there to

try to clean it. Obviously, when I go into the control board to clean the button contacts, I'm gonna have to clean the dial glass very well.

All-Electronics lists a 160mm x 3 mm lamp at $13.75 ea. that appears to be a perfect size for our purposes. At that length and smaller diameter, it ought to light the display even more effectively. It will take one lamp above each display (there is just room) and All-E lists an inverter that will run two lamps ($12.25). I'm ordering this morning.

This solution won't light the display as well as unsoldering the LCDs, pulling off the reflective backing and putting in a backlight. (The orange photo-gel that Jon Williams mentioned sounds dandy!) However, these lamps could be used as the necessary edge lighting for that gel, if I ever got up the guts to unsolder the LCDs. Right not, I feel like the mini-flourescents by themselves will be good enough for me.... And it is a completely reversable modification to the receiver.

I'll report when I have the light installation finished.

John Bryant

Date: Sun, 17 Jan 1999 12:52:43 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Pre-Rx, Off Topic-

Gentlemen:

I took the following picture for my April 1 greeting card. However, one (maybe two) of our members is saying the Reflector is down so I thought I would send it now as a test. Since this member is located in the wild of Canada, where it is reported to be cold, I figure his concern of a down Reflector is actually a result of electrons freezing in his modem, or his brand of anti-freeze causing a problem in this brain locker. According to my patio thermometer it is 27C... so what's the problem.

School starts in 8 days...Bummer, vacation is almost over.

Best Wishes.. Greg

P.S. Thanks for the Reflector report, if you are reading this I assume all is working.

---

premium-rx-digest Sunday, January 24 1999 Volume 01 : Number 006

Date: Mon, 18 Jan 1999 11:25:41 -0800
From: dma@islandnet.com
Subject: Re: Pre-Rx, Off Topic-

At 12:52 PM 01/17/99 -0800, Greg W. Bailey wrote:
>Gentlemen:
> >I took the following picture for my April 1 greeting card. However, one
>(maybe two) of our members is saying the Reflector is down so I thought
>I would send it now as a test. Since this member is located in the wild
>of Canada, where it is reported to be cold, I figure his concern of a
>down Reflector is actually a result of electrons freezing in his modem,
>or his brand of anti-freeze causing a problem in this brain locker.
>According to my patio thermometer it is 27C... so what's the problem.
Well, here on Canada's Wet Coast, the problem is that electrons tend to rust up and need a bit of WD-40 to get them squirting down the wire. As to TRASH390.JPG - watch it podner - you're treading on

thin ice! When one of the wires inside one of the big ICs on your 2050s open's up, you're gonna wish you'd saved that humble R-390A!

Cheers to all

Jan Skirrow, VE7DJX Duncan, British Columbia, Canada

Date: Mon, 18 Jan 1999 16:21:56 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: More Off Topic & its Baileys fault !

> At 12:52 PM 01/17/99 -0800, Greg W. Bailey wrote:
> >Gentlemen:
> > > > >I took the following picture for my April 1 greeting card.
> > Well, here on Canada's Wet Coast, the problem is that electrons tend to
> rust up and need a bit of WD-40 to get them squirting down the wire. As to
> TRASH390.JPG - watch it podner - you're treading on thin ice! When one of
> the wires inside one of the big ICs on your 2050s open's up, you're gonna
> wish you'd saved that humble R-390A!
Yes and let it be written that I am cut to the quick ! I couldn't
>
> believe < < that picture !!!! An R390A relegated to the rubbish heap....
You know, the IC's in the 2050 are REAL sensitive to static electricity. A little Telsa scarecrow ?? - ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Mon, 18 Jan 1999 18:14:10 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Its about audio recovery, stupid

If his supreme highness, Dr. Baily is done holding trash cans down with R390A's .... I like to actually submit some topcial material for the consideration of the List.

Remember during the 92 election when the phrase du jour from the Klinton camp was, "Its the economy, stupid." Well, we have our own version of that concept as it relates to radio receivers and receiving techniques. That's right, what its really all about is audio recovery.

Had a long, technically intensive phone chat about the relevance of audio recovery with long time friend and hobby colleague, Dave Clark last night. In as much as the HF-2050 has outstanding audio recovery, Dave and I discussed what component(s) of contemporary receiver specs, sensitivity, noise floor, selectivity, dynamic range, etc... were responsible and how they could be defined by reviewing published specifications.

The answer is: Specifications do not necessarily define a given receivers audio recovery ability.

Lets face it, audio recovery is
>everything< ! Continuing to site the HF2050 as an example, consider that its sensitivity specs are not all that spectacular and its a fairly noisy receiver. Yet, is arguably it is near the top with regard to having excellent audio recovery.
What comprises Audio Recovery is difficult to define. Its about like trying to grab smoke floating in the air. Its easy to illustrate good audio recovery however. Simply tune an R8/A/B and the HF2050 to the same station, listen and compare.

As Dave pointed out to me last evening, the R8's audio is superb but very mellow, making it easy to listen to. The audio from the '2050, on the other hand, is very defined and accurate. I would submit this is made possible by characteristics which include above average attention to enunciation combined with a certain syllibence.

Whether using a speaker or headphones, (Dave suggests the 600 ohm JRC phones) the audio recovering abilities from the 2050 seem to pick up the voice and music while at the same time, ignoring or not fully processing band noise. Thus, my judgement gives the 2050 what I would call a "6db" improvement of recovered audio over the R8A.

Just thinking.... the HF-1000A exibits this characteristic, albeit to a slightly different degree, as does the Kenwood TS-870. When a group of us listened to the KWZ-30 (albeit under far less than optimum condx) this past August, its excellent audio recovery abilities were also in evidence. I discussed with Dave that my R1051H sounds a shade better using the Timewave DSP-599. He shared that he had heard that the 2050 with a Timewave is a very effective combination.

Is the thread of commonalty here that these are all DSP based receivers? Does the secret lie in the digital detection techniques or is it because the digitally derived filters have no audio "muddling" group delay?

The only receiver that casts doubt on this whole theory is the JRC-545. We listened to that receiver at the same time the KWZ was reviewed. While the conditions were equally poor, that receiver was simply not acceptable, in my observation anyway.

In closing, I would suggest that a superb receiver is not all about <.1uv sensitivity numbers, filters with 1:1 shape factors, 34dbm intercept points or 145db noise floors. Certainly these specifications can combine and help define a truly "premium" receiving system.

I submit to those still awake that our battle will be fought and won on audio recovery and how a given receiver detects, processes and presents it to the human ear. Perhaps during a receivers design phase, the engineering focus should include ear and brain as part of the receiving system with electronic allowances made to optimize use with that system?
= Chuck Rippel
Cornland, VA (VA/NC State line 30KM Inland from coast) SWBC DX'er since 1971

Reply to: wa4hhg@amsat.org WJ HF-1000A, R8A, R390A/Sherwood SE-3, Harris RF-590 www site: http://www.avslvb.com/R390A/index.html
= =

Date: Mon, 18 Jan 1999 18:32:38 -0500
From: Raymond Makul <algo@bellatlantic.net>
Subject: Re: Pre-Rx, Off Topic-

dma@islandnet.com wrote:

> > Well, here on Canada's Wet Coast, the problem is that electrons tend to
> rust up and need a bit of WD-40 to get them squirting down the wire. As to
> TRASH390.JPG - watch it podner - you're treading on thin ice! When one of
> the wires inside one of the big ICs on your 2050s open's up, you're gonna
> wish you'd saved that humble R-390A!
> > Cheers to all
> > Jan Skirrow, VE7DJX
> Duncan, British Columbia, Canada = = = = = = = = = = = = Jan:
I'm with you. At first I regretted not getting in on the 2050 deal, but after reading all of the posts on high temperatures, I am convinced it was really designed for winter service on the DEW line intalled

in rack cabinets with ambient air moving at 10 meters per second!! I will stay warm at night with my nice old Imperial Electronics R-390A, designed for operation in the warm bowels of the US Navy :')

Cheers to the group,

Ray Makul K1XV the wilds of Northwestern New Jersey

Date: Mon, 18 Jan 1999 17:12:00 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Pre-Rx, Slightly off topic, again

Gentlemen: If you got 5 minutes, read on.....

I apologize for being off topic two times in the same week. My first epistle was the photo of the 390A in my trashcan. While this was done in the guise of a "test", it sure got some of the members attention. One of our members offered to carry out my trash for me, another congratulated the can in its ability to hold the 390A, and Chuck threatened to perform exorcism over the ICs in my 2050 so I would have more respect for the trashed 390A.

So here is my second off topic item---

Last Monday I visited our local Habitat Store. This store is like the Good Will Store only it sells donated building materials (boards, brick, carpet, etc.). While there I was looking through the electronics section (usually smoke detectors, intercoms, answering machines, etc.) when I happened to see a R390. I damn near fainted. I offered $1 per pound for it, but the manager laughing, said, "Oh, how about $40?". So, I increased my 390 collection by one. I brought it home, slowly brought up the 120 VAC to it..... and Bingo it plays remarkably well (1.5uV for 10dB at 14.2 MHz). I called Dave Medley, and through our discussion determined it is probably an original Collins version of the 390. While it is missing the ID tags, it does have both covers and meters. Cosmetically, very respectable.

Well, here is one better..... today (Monday) was my last day of vacation and as I was walking to the local coffee shop with my morning newspaper, I took a short cut down the alley. As I walked by a dumpster I happened to look over and BINGO... there were 2 - two - TWO R390A sitting next to the dumpster. Naturally I figured it was a prank...Right? So I looked around to see if Ben Wallace (a 390 lover and member of the Pre-Rx group) was pulling my leg. Once I caught the gravity of my situation, I run back to my house and got the car. I mean lifting a glass of Jack Daniel's is about the limit of my physical endurance and carting two 390A's down the block would probably kill me (but I would die with a smile). One of the receivers is an Imperial-63(?) and the other is a EAC-67. Both have ID plates, meters, no lids, but were mounted inside of big metal "receiver cases" with shock mount pads. Both work, but are in need of some 409, WD-40 and Ripple-ism.

I promise not to post off topic again... unless I happen to find a late model WJ, Harris, Collins, Racal, Drake, etc.

Best wishes to all..... Greg

Date: Mon, 18 Jan 1999 17:56:01 -0700 (MST)
From: Larry Gadallah <larry@gadallah.com>
Subject: Re: Its about audio recovery, stupid

I couldn't agree more with Chuck (having spent too many $$ based on specs alone in the past). I would suggest that there are three main components to receiver performance:

1. Front-end, mixers, RF/IF stages to the detector 2. The detector 3. The audio stages and speaker/headphone following the detector

I would suggest that perhaps one of the reasons that DSP-based receivers seem to have an edge over others is that a DSP implementation of a detector is likely quite perfect as compared to an analog circuit.

I think the state of audio amplifier design is quite good, and due to the proliferation of "hi-fi" and stereo consumer electronic equipment the quality of the audio stages is generally quite good, and technical specifications for these audio stages are quite well evolved. e.g.:

output power: 2.5 watts into 4-16 ohms frequency response: 20-20,000 Hz +/- 3 dB distortion: 0.01% total harmonic distortion hum and noise: 70 dB down

As Chuck has said, RF specifications are also fairly well evolved. However, very rarely do you see any specifications for distortion or sensitivity for an AM detector. I would submit that this is the real weak spot in many receivers, and perhaps even one that is often neglected in favour of a focus on the "sexier" RF parameters like IP3 and MDS. The 2050 has exceptional detectors because the Collins engineers had to design them from scratch, in the DSP. In a receiver with analog detector, the tendency would be to throw in a diode for an AM detector and call it a day. Rarely, people do pay exceptional attention to detector design; For example, the Drake SPR-4 design for the AM detector took into account the defects of real-world semiconductor diodes. To overcome the forward bias gap of the diode, a DC offset voltage was applied to the AM detector diode.

So, does anyone have any good ideas for technical specifications for detector stages?

Cheers, - -- Larry Gadallah, VE6VQ larry@gadallah.com Calgary, Alberta, Canada www.gadallah.com/~larry Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5

Date: Thu, 21 Jan 1999 01:57:34 -0500
From: David Clark <davidclark@home.com>
Subject: Okie DXpediton Report

Greg and list group - I don't believe this made it across the network when originally submitted on the weekend, so here's another shot at it.

73 - Dave

Happy New Year greetings to all!

Some folks who are participants on this list are members/recipients of DX Ontario, the monthly club publication of the Ontario DX Association, for which I write a monthly column entitled World Radio Report (see text of column header below). As you may have noted from jottings by John Bryant, I was able to visit and DX with him at his QTH in Stillwater, OK, at the end of November and again during the Xmas holiday period (I was using his 2050, natch!).

John and I share several common hobby interests -- international Medium Wave and Tropical Band (2-5 MHz shortwave) DXing, Tropical Band propagation (about which we have co-authored several papers) and of course classic HF receivers. In that context apropos my recent visits to Stillwater, I wrote up a brief "Oklahoma DX'pedition Report" which forms part of my column in our upcoming February issue of DX Ontario. I thought this might be of interest to some in the group and I am glad to share it with you all.

(David Clark)

World Radio Report is a news and information column oriented towards the SWBC DXer. The primary focus is to bring you tuning tips, news of frequency/schedule changes, other station developments and background reports relating typically to the more rare and difficult shortwave broadcast stations/countries from a North American DXer's perspective. To complement Target Listening, we endeavour to hilite DX news and tuning suggestions that would be relevant to our large readership base in Ontario but contributions are welcomed from all members worldwide.

OKLAHOMA DX'PEDITION REPORT

ODXA member John Bryant, my very good friend and oft-times west coast DX'pedition partner, lives in Stillwater, Oklahoma, in the southern heartland of the mid-West. John once visited me at my former, ten-acre rural Newmarket location (how I yearn for that site!) but until this winter, I had never had the opportunity to visit John at his home base which is situated on several acres on the outskirts of town. All of that changed this winter when I had occasion to make two separate trips to Tulsa, just 1.5 driving hours to the east of Stillwater.

John and I first DX'ed together at his home in the evening and the following morning of November 30th. A longer stay in Tulsa over the recent holiday period afforded us the opportunity of two more DX sessions: the morning of December 30th, and again in the evening and morning following of January 3rd. John used his trusty NRD-525 while I operated his newly-acquired Collins HF-2050. John's antenna setup consists of two 600 foot unterminated Beverages, one pointed NNW (towards eastern India) / SSE; the second pointed SW (between New Zealand & Antarctica) / NE. For the purpose of this account, it is worthwhile remembering the particular azimuth of the antennas, viz the Indian sub-continent.

John has dedicated extensive listening time this DX season (commencing last Fall) monitoring the domestic transmitters of All India Radio on the Tropical Bands. Indeed, at last count in January, he had definitively logged every outlet on 90 and 60 meters, save for AIR Leh-4760 (a frequency where co-channel AIR Port Blair dominates). John has told me that he believes his mid-west location is ideal within North America for seasonal monitoring of the sub-continentals and after my visits to his QTH to experience reception there for myself, I am certainly disposed to agree! Thus, from my point of view, this experience was akin to making two DX'peditions to a favourable (not to mention well-equipped!) listening location.

From a propagation standpoint, it is appropriate to be aware that the short path to the Indian sub-continent on an azimuthal projection from central North America (ie. Oklahoma) is directly over the northern auroral zone. Two weeks before my first end-November visit, John wrote: "Excellent Indian mornings at dawn here this week, with openings lasting from 1230 until 60 meter band fade at almost 1400. Virtually all scheduled [AIR] stations present on both 90 and 60 meters, either in the clear or at least equal with their normal co-channel QRM [for example, strong Chinese signals on several 60mb AIR channels]. Very few sub-continentals are audible at all on my 600' Beverage pointed at eastern India (to my NNW). All are audible on my 600-footer pointed between New Zealand and Antarctica (to my SW). When I can hear an AIR on both Beverages, the signal strength difference is 5-6 S-units in favor of the SW Beverage. This 'bent path' effect is observed *only* on signals believed to being propagated by ducting, and only noted at dawn (and also dusk in mid-winter) enhancement here."

By way of comparison here in Ontario, when I had the opportunity to DX with an extensive array of Beverages at Newmarket, a similar mid-winter 'bent' or 'skewed path' arrival of morning signals from the vicinity of the Indian sub- continent was often observed too. In this case, however, whereas India is in an azimuthal direction to the northeast, the signals apparently were arriving on a path from due West, as distinct from the apparent Southwest arrival in terms of John's location.

In any event, during our DX sessions together in Stillwater, the propensity of the AIR signals to arrive on a favoured path from the southwest, as John has recounted, was dramatic indeed. Our best catch (and a first-time-ever solid logging for both of us) was the very difficult signal of AIR Aizawl-5050. It was heard best on November 30th, interestingly on a morning when short term geomagnetic conditions were unsettled to active, the 1200 Boulder K index value being = 3. By 1230 it at risen to a good level, at times dominating the pesky signal from Nanning, China, to the extent that much of the specifics of the Delhi news relay in English was quite understandable. This was exciting stuff. That morning, the seldom-reported AIR Gangtok-3390 was also heard at fair levels at 1205, while AIR Shimla-3223 was weaker but readable after 1300.

A number of other AIR signals were incredibly strong on November 30th and almost as good on December 30th (that morning the 1200 K index was = 0). Notable were AIR Delhi-3365, Port Blair-

4760, Imphal-4775, Guwahati-4940 (another case of fighting off a co-channel Chinese signal using the SW Beverage) and Shillong-4970. Aizawl was heard again, although certainly not as well, on December 30th but was not really distinguishable at all on January 3rd. In general, the Indian signals were less pronounced on January 3rd, yet on that morning perhaps better signals (compared to the other dates) were noted from such as AIR Calcutta-4820, Itanagar-4990 and Jeypore-5040. Bent (and we think ducted) paths can be quite selective.

That last morning of January 3rd did yield the best reception amongst the three dates from peninsular SE Asia. For example, fair signals were noted from three low power regional outlets: from Vietnam -- Son La-4796v at 1200 s/on, and later Cao Bang-6507.9v; and from Laos -- Luang Prabang-6972.75. We finished off the morning in fine fashion with an almost certain logging of Voice of Shariah, Afghanistan, first-noted at 1330 on 7080.85 and slowly drifting down to 7080.7 at 1403 by which time the signal was almost gone. [see also Afghanistan in Broadcast News section below]

The DX was great and for me an always interesting facet was to observe the propagation and signal arrival patterns. In the greater scheme of things, however, the opportunity for personal renewal of valued relationships is the most important. It was great to spend time with John and I thank him and his wife Linda for their warm hospitality. (David Clark)

Date: Thu, 21 Jan 1999 09:40:16 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Glows In The Dark!

Fellas,

It worked! I now have dial lights working for both LCDs. I used the cold cathode flourescents (CCFs) that I mentioned previously. They came in yesterday from All-Electronics and within about two hours of bench time, I had them semi-permanently installed.

Each CCF is 3mm in diameter, about half the diameter of a normal soda straw and the ones that I used are 160mm long (about 6.3 inches). each glass tube has a single bare wire coming out of each end (about the diameter of a thick cats' whisker.) I soldered pigtails of insulated hookup wire on each end and then covered the joint with heat shrink tubing that extends out onto the glass tube about .10 inch.

The little power supply/inverter comes with an instruction sheet... it will power one or two lamps and requires 10 to 13.5 VDC. I soldered everything together, covering all exposed joints with heat shrink tubing and the bottom of the the power supply's printed circuit board with a couple of layers of tape. (The powersupply is about .75" x 1.5") I was going to attach the little flourescents to a .25" x .25" continuous brass angle to stiffen and protect them each a bit. However, I abandoned the angle idea when I realized that the flourescent tube was going to sit virtually ON all of the upper pins of each LCD display... Taking a chance of shorting out the LCD display if the light shifted at all didn't seem too smart.

I ended up "installing" the flourescents by laying them (horizontally) in the open area between the row of LCD pins and the back of the dial glass and running a continuous piece of good electricians tape on top of them. There is nothing to short, since the flourescents are glass and the heat shrink covers all metal areas. I'm not worried about the electricians tape, short term at least, since the CCFs run so very cool. The power supply/ inverter is in the bay behind the front panel circuit board, well sheilded from the main electronics bay. I was going to inclose it separately in a small cast aluminum box, but I cannot detect any RF being generated when the thing is on... even on Longwave, so "no harm, no foul.

When I powered the lights up, there were several surprises:

1) I'm running the lights on a variable bench supply right now. I noticed the tech sheet listing 10 to 13.5 VDC, so I dropped the voltage and damned if the lights didn't dim! That is pretty hard to accomplish with "normal" flourescents, so I didn't expect to have a partially dimmable dial light here,

but I do. I'm eventually gonna make the lights switchable and I think that I'll use a SPDT on-off-on switch with a dropping resistor in one side. That way, I'll have a choice of bright, off or dim.

2) I flattened several Q-Tip cotton swabs with a hammer anbd then cleaned the back of the dial glass and the front suface of the LCD with them.... using only water, since the lettering is silkscreened on the back of the right-hand dial glass. Once you have light coming down almost vertically, parallel to the dial glass, it is very obvious how dirty both surfaces are. As I feared, however, the swabs left behind a good number of dust motes and little cotton fibers that glow bright white when the dial lights are on and bug the heck outta me. I may make a cleaning paddle out of very thin plastic covered with a coffee filter or something.... or go ahead and take the circuit board off the back of the Front Panel and clean the durn things correctly. NUTS.

3) The horizontal surface that runs continuously just below the LCD (the edge of the front panel that is the bottom of the cut out for the LCD) is lit somewhat brightly by the light streaming down from the dial light. This doesn't really distract the eye from reading the dial, but might be tiring. I cut two 1/8"strips of electrician's tape and covered those horizontal surfaces. It looks like the factory did it and solves that problem.

4) The dial light also projects light on down between the circuit board and the front panel, so you can see a bit more of the speaker and a glow around the perimeter of each of the upper row of buttons. Again, not really a problem, visually, but it just ain't right... When I take the front panel off, I think that I'll install a strip of 1/4" x 1/2" foam weather strip below the LCDs to block that light. The weatherstrip mastic is removable, so that is a reversible mod, too.

5) The only serious negative to the CCF approach outlined here was also a real surprise. The light, coming down between the dial glass and the LCD display, almost parallel to both, "washes out" the silkscreen printing on the back side o' the right dial glass fairly badly. This is least apparent when viewing the LCDs square on and eye level. Unfortunately, that isn't the best angle to view the LEFT-hand LCD. It is still possible to read the lettering from almost every angle, but it is a disappointment. You can see the BOTH LCDs, themselves, GREAT, but the lettering for mode, BW, etc. is somewhat harder to read.

Despite 5) above, I'm pleased as punch with these dial lights. They work, do what is needed and are an easy and completely reversible mod. I still feel that Jon Williams photo-gel, edge lit with these same lights and placed behind the LCD (with the backing removed) is an/the optimum solution, but I'm not sure that I'll ever have the guts to unsolder alla those pins, carefully pry the glass LCD out, peel the backing off and resolder the thing in place.... hummmm... and that, of course, is not reversible... It sure would be pretty and very effective, though...

A QUESTION FOR DON MOMAN OR SOMEONE ELSE:

My fans are drawing .23 amps @ 12VDC and the lights draw .35 amps at 12 VDC. Would the main power supply handle an extra .6 amps, if I tapped the 15 volt buss and used a regulator? Thinking about trying to extend the life of the receiver as long as possible, I'm tempted to use an external .5 amp 12Vdc "wall-wart" to power the fan and lights. Whadda ya think?

The facts on the lights:

Source: All Electronics (Los Angeles area) 1-800-826-5432

lights: JLK Miniature Flourescents, 3mm x 160mm white light, Cat. #BF3160 @ $13.75 each, NEED TWO

12 Vdc Inverter: Cat. # BXA-12529 @ $12.25 each, NEED ONE

All Electronics charges $5.00 S+H.

They have had these lights in at least their last two catalogs, but I have no idea how long they will last. These folks are a "new but surplus" house, not a stocking wholesaler like Mouser, etc. I'm gonna order me an extra set of lights and an inverter for replacements, despite the $40 plus investment.

I've got some comments about Chuck's great note on audio recovery, but I'll close for today and go try to earn a living...

Later! John Bryant

Date: Fri, 22 Jan 1999 15:20:27 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Premium-Rx -- Month Two

Gentlemen:

As we pass into our second month I would like to announce we have started to archive all posting to the Pre-Rx List. As some of you know, this project has been in the wings for some time and STILL needs some fine tuning to make it user friendly.

The information at present is categorized in "Volumes" instead of "Weeks". Volume 1 is the first week the archive was established, ... volume 5 is last week's. Why the information was not categorized in Weeks with a meaningful date versus "volumes" is beyond me.

I can assure you the graduate student in charge of this project and I have discussed his unfortunate categorization technique. I have "realigned" his graduation date .... :-) ..... and we should see some changes in the NEAR future. Did I mention the term "fine tuning" ...

You can find the archive at:

http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX/archives/

A great weekend to all. I am going over to Ben Wallace's BA museum this weekend. I'll be taking the camera.

Greg

Date: Fri, 22 Jan 1999 22:03:57 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Scientific Surplus

For whatever is is worth, Scientific Surplus, Toronto, is now selling the 100 memory version of the 2050 for $ 1,850 to $3,000 C. depending upon condition. The ad represents that the receiver was almost $30,000- new to the military.

Jon L. Williams

Date: Sat, 23 Jan 1999 05:55:56 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Scientific Surplus Addendum

Gentlemen:

Should have included this information in original post. The website for the 2050 ad is:

http://www.scientificsurplus.com/hf2050.html

My purpose for posting this info. and my perceived relevance to this group, is that since this is represented to be the 100 memory version, perhaps some of these examples will have the factory backlighting, as well as other options, installed which, for those of you living in Toronto, it might be useful to stop at this co. and view these examples.

As to backlighting, I have located some orange low voltage LEDS with which I will experiment to determine suitability for backlighting. This will be a tricky situation, as I wish to do nothing which wil disturb the lcds.

JLW

Date: Sat, 23 Jan 1999 23:39:35 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Provisional Display Lighting

Gentlemen:

At this point, I am not particularly inclined to attempt internal wiring to backlight the 2050's LCD display, although I am going to do some experimentation with some orange LEDs I have located. However, I have come across a useful provisional solution to the backlighting problem--basically, frontlighting. In a local electronics parts store, I found and purchased a small light called the Littlite. This is a 12 volt gooseneck lamp with a quartz bulb and a variable intensity control (no rf from it has been detected). It has a metal plate on the bottom of the base which conveniently works with a small magnet. I attached this to the added steel plate on the top cover of the 2050, installed a piece of red photo gel in the provided filter slot at the head of the lamp, and adjusted the gooseneck to that it shines from an approximately 11:00 o'clock position about 4 inches above and 5 inches in front of the edge of the 2050's front panel. At this point, this is a temporary solution, but it does have some advantages for me, since I like to dx in the dark with red light as the only lighting.

Advantages:

1. Do not have to tear into or alter the area around or at the LCD boards; 2. Front panel, including both LCD panels, bathed in red light (or any color desired for filter slot); 3. Can see the 2050's keys and other controls needed for operation; 4. Light from the lamp is also sufficient to see frequency lists as well as log books on desktop in front of receiver; 5. Variable intensity of light.
Disadvantages:

1. External rather than internal power source (comes with small 12 volt transformer onto which lugs on lamp's wires are screwed); 2. Lamp and gooseneck are external and above front panel creating an obstruction if one is looking down on receiver while using (my receiver is at eye level and thus there is no obstruction). 3. Cost (about $60.00).
Name of manufacturer is Littlite/Cae, Inc., 10087 Industrial Drive, P.O. Box 430, Hamburg, MI 48139 Tel. No. (810) 231-9373, Fax No. (810) 231-1631.

Date: Sun, 24 Jan 1999 09:35:21 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Scientific surplus

Found out from SS that they have sold all but one 2050. This is what they wrote:

We have sold all but one receiver. It is in excellent condition. This unit is priced in canadian dollars and is ready for immediate shipment. Although there is a backlit option for this receiver this particular one does not have that option installed. It is SSB only. This receiver has AM, CW, USB, LSB as well as four installed filters, 6 kHz, 3.2 kHz, 1.0 kHz & 0.3 kHz. The unit was manufactured in July of 1985. Yes, it is ex-Canadian Forces. We are asking $3000 for this unit.

Apparently no other options installed. Sounds pretty much identical to our units. Wonder if they indeed have 100 memories? Pretty much the same vintage as ours too. At least these were priced much more realistically compared to WJ Ford's $3500 US (ouch!).

.....Walt.

Date: Mon, 25 Jan 1999 19:01:08 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: DSP Detection

1/24/99-

To Numero Uno with a copy to Mr. Kneisner of Kneisner + Doering Elektronik GmbH and the "Premium Receiver" mailing list.

- -----

I have been in communication with Kneisner + Doering Elektronik GmbH after hearing/using the KWZ-30 in R'burg. I have decided to opt for the KWZ-30 RX graciously offered to me by K&D that is currently in the US after being used for the Passport tests. I expect delivery as soon as Mr. Kneisner and I work out final details. Know that I found the audio from that RX (and presumably the audio recovery) was 2nd to none although the Collins HF-2050 is "King" under many condx at this location.

This leads me to bring up a point to the group for consideration and possible discussion. Several of us bought Collins HF-2050 military rx's some months ago and have been discussing their performance. The HF-2050 was the first production DSP receiver offered and about 1,100 were made during the late 80's until about 1991. They ware largely employed by the Canadian military and reported cost of the receiver was $30K (CDN?).

I think its safe to say that using this receiver has changed the way we think. Speaking for myself only, I can share that it has totally caused me to re-evaluate the attributes I view as important in receiver design.

While I have yet to actually test mine, Dave Clark was kind enough to forward a copy of the original Collins specs. The HF-2050 is not particularly sensitive at rated 1.25uv "soft" (whatever that means) for 10db S/N + N. One might also expect reasonable but only average performance from the filtering line up of 6.0 & 3.2kc for AM, 2.8kc for SSB and 1.0 and .3kc on CW. 3rd order is reported at -25dBm and IMD is -40dBm. To consider specs alone would logically support a conclusion of "nice, average radio; nothing really special. New Drakes and AOR's are better for a bit less money than a used HF-2050."

3 months ago, I would have enthusiastically supported such a conclusion but using the HF-2050 has caused me to re-think my position receiver specs and their effect on performance outcome. On a given listening situation, I can hear more intelligibility, more audio detail, more copiable audio from the HF-2050 than anything I use save for maybe the HF-1000A. Dave Clark, Tony Ward and John Bryant have all expressed their surprise at the ability of the HF-2050 to recover audio.

The question is: How is this possible?

I don't have a specific answer to the question. However, I can offer a short answer and some initial discussion points that might lead to some "educated," reasonable speculation.

That short answer is Collins must not be not using a diode detector for AM nor a product detector for SSB. The detection functions must be taking place in the DSP realm directed by very sophisticated programming that was optomized for SSB, CW and to a lesser degree, AM. Clearly, the receiver recovers audio better in the SSB mode although the advantage is not alone supplied by applying ECSS techniques.

My initial feelings are that the detection scheme in the receiver is the source of the advantage. Commonly available receivers today apply the output of a highly amplified and very quiet RF stage to an IF stage where mode specific filtering and further amplification takes place. This output is directed to a diode detector for AM or in the case of SSB, a product detector. As we are all aware, of late, AM snychronous detectors have become popular by reducing fading distortion in AM signals. Some sync detectors, such as that found in the Drake R8B and Sony ICF-2010 are also sideband selectable

allowing additional isolation from QRM up or down frequency from the target station. This detected audio is then amplified by a common audio amplifier.

There are several "flavors" DSP receivers which is represented by their approach to applying digital technology. Effectively applying DSP in the receiver IF in the way of filtering requires significant processing power and speed. At today level of technology, these requirements translate to the consumer as significant cost items. Some receivers simply redefine "what is an IF," DSP at the audio level then label this "new" stage as an additional IF. That would be like adding a Timewave DSP to your Drake R8x and then calling it Triple Conversion. Where there is technically some truth in such a label and a performance advantage, such an explanation certainly deviates from accepted theory.

Receivers such as the Watkins-Johnson HF-1000 and 1000A and the KWZ-30 have successfully applied DSP at the IF level using it for not only filtering, but also detection. With the possible exception of JRC's recent attempt at DSP, most radios which employ this technology have received wide acceptance.

Having used the HF-1000A and now Collins HF-2050 under challenging conditions, I would suggest that the DSP programming is actually capable of detecting AND actually enhancing desired information while ignoring unwanted information. The selection of "desired information" goes much farther than saying the receiver suppresses off frequency information, a task delegated to IF filters in conventional designs. I am theorizing that DSP technology actually goes a step further and is capable of discerning between wanted and unwanted information actually on the desired frequency of reception.

To get a glimpse of why the Collins 2050, KWZ-30 or WJ HF-1000 might accomplish this, a visit to KWZ's WWW page describing their detection technique might be in order. The detection scheme is described at:

http://www.kd-elektronik.com/index_e.html

Don't consider this information to grasp the finer design details of its specific technical application. Rather, consider it as a glimpse of how DSP technology might make what would arguably be presented an a quantum leap forward by an order of magnitude in delivering a new level of performance to be used by radio receivers for decoding an analogue signal or broadcast.

In closing, consider the possible benefits from the application of this technology when it is applied beyond "simple" IF filtering. "Smart" digital detection schemes would add what could be considered as the equivalent and additional, filtering IF stage but one instead applied to detection and audio recovery. If enhanced audio recovery from "smart" detection schemes is a design intent of the builders of this equipment, my only criticism is that they have not communicated the application of this technology in ways that we, the consumers can interpret and identify its benefits.

- ---------- Chuck Rippel - WA4HHG CCA Member Number: 4 AMI Number: 950

www site: http://www.avslvb.com/R390A/index.html

Reply to: wa4hhg@amsat.org

---

premium-rx-digest Monday, January 25 1999 Volume 01 : Number 007

Date: Sun, 24 Jan 1999 13:00:30 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: DSP Detection

On Mon, 25 Jan 1999, Chuck Rippel wrote: <snip
>

> > That short answer is Collins must not be not using a diode detector
> for AM nor a product detector for SSB. The detection functions
> must be taking place in the DSP realm directed by very
> sophisticated programming that was optomized for SSB, CW and
> to a lesser degree, AM. Clearly, the receiver recovers audio better
Yes, all the functions from 3 mhz to audio are done in the DSP realm. I still find it surprising that they were able to do this at the 3 mhz IF back in the early 80's when it had to be designed. And did it so very well.

<snip
> >
> Having used the HF-1000A and now Collins HF-2050 under
> challenging conditions, I would suggest that the DSP programming
> is actually capable of detecting AND actually enhancing desired
> information while ignoring unwanted information. The selection of
> "desired information" goes much farther than saying the receiver
> suppresses off frequency information, a task delegated to IF filters
> in conventional designs. I am theorizing that DSP technology
> actually goes a step further and is capable of discerning between
> wanted and unwanted information actually on the desired frequency
I was "watching" the output of several receivers the other day, using a sound card based spectrum analyzer (G-spec) and observing some power line noise and fiddling with the noise blankers, etc. The noise had sharp peaks every 120 hertz or so thru at least 3 khz. On the FT-1000mp it was present in AM and SSB and the noise blanker removed it perfectly well. On the HF-2050 it looked the same in AM, but to my surprise it wasn't there in SSB! The DSP blanker would remove it in AM, of course, but I didn't need to use it on SSB. Or was it already being used in a smart fashion, as Chuck suggests? Something was going on but I'll have to check if I can see this happen with other noise and such before I draw any conclusions.

If anyone is interested, G-spec is downloadable (care-ware, I think) from an Australian site, I haven't the URL handy but a search on VK1EME John Samin should locate it easily. There are many types of these programs around but this is one of the handier ones, in my opinion. It's handy for observing the action of noise blankers, filters, PBT/shift and that sort of thing. Also good for measuring tones (time pips etc) and observing carriers, that sort of stuff.

73 from the frozen north where we rejoice over small things like the temperature was only -25 last night instead of the -30 forecast.... - -Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (403) 895-2925

Date: Sun, 24 Jan 1999 18:13:37 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Scientific surplus

Walt - good sleuthing! Being in a little closer proximity than you <g
> to Scientific Surplus, I paid them a visit Saturday afternoon. This outfit is an unsigned hole in the wall (which I didn't get into) behind a computer supply store at the address specified on their website. I did get to talk to the owner-? who emerged from the back to talk to me.
Indeed, he did say they only had 1 unit available currently, and it was not on the premises...I would have to arrange in advance to come and see it at this warehouse location. It was said to be near-mint

(referring of course to the outer cabinet) and obviously this is the same one cited in the response you got.

I made it clear I was familiar with the 30 channel unit and wanted to confirm if this was indeed a 100 channel unit - yes. I also asked about backlighting - it does not have the backlighting, nor has this guy ever seen one with that option provided. It does have the variable noise blanker.

Your respondent cited the 4 (displayed) standard bandwidth's but we obviously know more about this receiver than he does -- he failed to mention the standard USB/SSB (non-displayed) bandwidth which of course is the lovely 2.8 kHz.

I may still make arrangements to inspect this unit myself next week. Amongst other things, I'd like to check out the serial number.

A final point - these guys are selling the 2050 with NO manual!

73 - Dave

Walter (Volodya) Salmaniw, MD wrote:
> > Found out from SS that they have sold all but one 2050. This is what they
> wrote:
> > We have sold all but one receiver. It is in excellent condition.
> This unit is priced in canadian dollars and is ready for immediate
> shipment. Although there is a backlit option for this receiver this
> particular one does not have that option installed. It is SSB only.
> This receiver has AM, CW, USB, LSB as well as four installed
> filters, 6 kHz, 3.2 kHz, 1.0 kHz & 0.3 kHz. The unit was
> manufactured in July of 1985. Yes, it is ex-Canadian Forces.
> We are asking $3000 for this unit.
> > Apparently no other options installed. Sounds pretty much identical to our
> units. Wonder if they indeed have 100 memories? Pretty much the same
> vintage as ours too. At least these were priced much more realistically
> compared to WJ Ford's $3500 US (ouch!).
> > ....Walt.

Date: Mon, 25 Jan 1999 15:30:08 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Intresting Page on the NRD-535 vs 545

This may be interesting to the list:

- ------- Forwarded Message Follows -------

From: "davez" < davez@ticon.net
>
Subject: Intresting Page on the NRD-535 vs 545 Date sent: Mon, 25 Jan 1999 11:52:17 -0600
Hi to all, Just in case you may have missed the listing on the usergroups, I found this comparison between the Japan Radio Co. NRD-535 and the New NRD-545 to be most intresting.

http://home.earthlink.net/~ddsradio/big.htm

Enjoy, David Zantow N9EWO Janesville, WI
+++++++++++++++++++++++++++++++++++++++ Visit my web site "Dave's Radio Receiver Page" at http://www.ticon.net/~davez

- ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Mon, 25 Jan 1999 17:22:59 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Reply to DSP Detector article from KD Elektronik GmbH

- ------- Forwarded Message Follows ------- To: "Chuck Rippel" <crippel@erols.com
>
Subject: text to numero uno Date sent: Mon, 25 Jan 1999 16:45:00 +0100
From: KuD-BS@t-online.de (KD Elektronik GmbH)
Dear mr. Rippel, thank you for sending the copy of the text to numero uno. Here I will only comment on the text and write about the other items later in a separate e-mail.

From your text I understand that you confirm that DSP-receivers sound different from analog receivers and that the readability of weak signals is better. But you cannot quite pinpoint the reason for the better quality. Maybe I can. This is going to be a somewhat longer explanation and if I tell you something that you already know, excuse me for that. I am sending you this for the preparation of the demonstration and I want you to tell the people the right things.

Comparison of DSP-Receivers and analog (conventional) receivers:

There are two reasons for the better audio- or signal-quality of the DSP-receivers:

One is the properties of the bandpass-filters and the second is the properties of the demodulator or downconverter.

1. Bandpass filters The bandpass-filters used in analog receivers are either crystal or mechanical filters. Both filters suffer from phase distortion, the more the steeper the skirts are. This means that the delay time of different frequencies in the passband is not the same. The time or phase relationship of the frequency components of a signal is lost or at least distorted. This can easily be observed with digital signals like fast cw or RTTY. The pulses are severely rounded or even can get pointy. Or this can be seen by reveiving fax pictures. Due to the phase distortion the vertical lines get fuzzy of are doubled. This does happen with audio signals too, but the human ear cannot detect the phase error, but the sound and readability are affected. There are very expensive receivers, e.g. from Rohde u. Schwarz, which have quite elaborate phase compensation networks to compensate the phase distortion, but these receivers are very rare.

The bandpass filters in the DSP-receivers are of the type FIR. These filters are strictly phaselinear, which means that the delay time for all frequencies in the passband is the same. Often the expression phaselinear is used, although many people do not know what it means. It means that the phase increases in a linaer function with the frequency. If the factor is correct, the delay time is constant. That the phaselinearity of the filters is mathematically exact linear is very important for the signal quality. I have always stressed this in my brochures and publications, but the reviewers do not pay attention or they do not know why this is so important. You can reread the review from Radio Netherland (there is a link in our homepage). They too write a lot about the special sound and do not know the reason. Some reviewers even write that the sound is somewhat artificial. The contrary is correct. The sound is more natural with a DSP-receiver than with an analog receiver, but they have never heard it before. The absense of phase distortion can again best be seen by receiving digital signals and looking at the signals on a scope or by looking at fax pictures. And the digital filters do not ring. You can receive fast cw or RTTY with a very narrow filter, which is not possible with analog filters. There is no analog counterpart for the FIR-filters.

The can not be built in the analog technology. Thus these filters and their performance is really something new in the art of communication. It is important too, that the filters in the front-end of the

receiver or the first i.f. do not cause phase distortions. Therefore are we using a pretty wide crystal filter in the 1. i.f. of 15 kHz bandwidth.

2. Demodulators All demodulators are mixers or multipliers. The frequency conversion is mathematically a multiplication. The simple diode demodulator for AM uses the nonlinearity for mixing the carrier with the sidebands. This is the wanted signal. But the sideband frequencies multiply with each other too. Every frequency in one sideband generates a signal with all other frequencies which are present in the passband. This leads to an almost unlimited number of unwanted signals. These are smaller because the sideband frequencies are smaller than the carrier, but they are there. Therefore the diode demodulator has a distortion factor of 3 to 5 %. or more. The situation is a bit better with sync detectors and product detectors (product = multiplication), because the added carrier is much stronger than the signal and so the spurious signals are relatively smaller. Basically there is no difference. It can not be prevented, that the signal components multiply with each other.

This is completely different with the digital multiplication. As said before, any frequency conversion is a multiplication of two frequencies. If two frequencies are multiplied in the digital representation, only this is performed and nothing else. A multiplication of the signal components does not happen. So when the signal is downconverted in the DSP, the resulting signal is as clean as it was. There are of course different algorithms for the demodulation of am and ssb or other signals. But common for all is that they do not cause a distortion like the diode demodulator or product-detector. Basically the demodulator algorithms are free of distortion, except maybe the resolution. In a 16-bit system the resolution is 65,000 and in a 32-bit system it is 4.3 billion bits or steps. In the KWZ 30 we use double precision math, which is 32-bit. So the resolution error is not a big deal. It can be said that the digital downconversion and the demodulation does not cause a detectable distortion.

The properties of both the filters and the downconverters/demodulators were unknown before and contribute to the special and exceptional signal quality of the DSP-receivers. A real DSP-receiver is something completely different than a conventional receiver with an added Timewave filter. Do, not mention that thing again. I think that this is enough about this matter and I hope that it gives you the information that you have missed to understand the differences between a DSP-receiver and an analog receiver. If you need more information about this or have any questions, please let me know.

Best regards Hans-J. Kneisner K-D Elektronik GmbH - ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Mon, 25 Jan 1999 17:42:24 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Corrected captions

Apologies to the group but my electronic cut and paste process was = flawed and captions for the first two photos I posted yesterday were = incomplete and mangled as a result of operator error. The correct photo = captions follow. =20

1) Jan15.jpg West end of Dave Clark's shack hi-lighting 390A

Here we have a partial view of Dave Clark's "museum"/shack taken from the entranceway of the large room, for which there is little space left for any more receivers and the like! (The long interior wall opposite the window wall, not seen here, is stacked floor-to-ceiling with HF gear in heavy duty open frame metal shelving units.)

Immediately in the centre of the picture is a prized EAC 1967 Collins R-390A, fully restored by Chuck Rippel, who says this particular rig is one of the two best that he has ever worked with, having a sensitivity circa 0.1 uv for 10 db S/N + N ratio and "an extremely quiet radio" too.

On a separate desktop to the left of the R-390A is a Hallicrafters SX-88 with an RA-6790 on top, and further left, a Hallicrafters SX-28A (not the more common SX-28). The partial view of the sidewall in the background to the extreme left includes several National HRO units and a Collins 51S-1.

The 24 hour clock insert into the woodframe bookcase/cabinet in the background is a prized Christmas gift from John Bryant. = 20

2) (Jan18.jpg) West End of DC's shack including stereo 2050's and the = 515.

Here we have "The Great Clark" caught for a pose while temporarily distracted from attention to his two HF-2050's sitting on the side desk, each with a Hammond 8 ohm external speaker for superb listening pleasure. The small box wedged between the two receivers is a binaural mixer device for combining/mixing audio from the two receivers as left & right channels, typically tuned to the same signal in USB/LSB respectively for enhanced audio "depth perception" - sometimes exemplified with a selectable 180 degree phase inversion provision - and reduced effects from fading. (The setup is great for checking parallels on different frequencies too.) JRC phones with matching 600 ohm impedance are used for this purpose.

Sitting on a stand in the desk cutout below the Collins rigs is a Racal RA-6217A topped with a module consisting of the optional LF converter = and panadapter. This recently moved from Tony's shack to Dave's in another = of our = 20 complex periodic exchanges designed to keep our wives from discovering = just exactly how many radios we actually own. (David has more; many = more). On the side table extension to the right are two JRC units, an NRD-515 and the rare NRD-505 which is topped with a Sherwood SE3.

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com = 20 tward@visionol.net,
tward@spanit.com < http://www.interlog.com/~nyaa/
>
Founding President; "Entropy without Borders"

---

premium-rx-digest Monday, January 25 1999 Volume 01 : Number 008

Date: Wed, 27 Jan 1999 01:41:33 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: DSP

> This is quite fascinating Chuck, and seems to enormously clarify the
> situation.
>
Yes, and its really quite exciting. My theory here was (and it was echoed by Hans) that designers were making superior detection systems but we weren't being properly made aware of the application of that technology as a feature. EG: All the discussions on the superior audio recovery of the 2050 and why was that possible. These communications at least open the door to the answers.

Think about it, "smart" detection actually "adds a stage" of filtering/audio recovery to the reciver we have not had before. That independent of IF filters, the detector is capable of ignoring that which we do not want to hear is certainly new technology and was not previously available.

It should be talked up to help others come up to speed. Obviously, the reviewers/testeds have missed the boat on this. After all, audio recovery is not something I would know how to measure and apply a numeric specification to. I suspect that the various reviewers of receivers have had the same problem.

- ---

Chuck Rippel Reply to: wa4hhg@amsat.org

Date: Mon, 25 Jan 1999 19:49:27 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: More on Scientific Surplus and 2050

Thought everyone might be interested in further information from Andrew at Scientific Surplus in Toronto. He seems to be quite forthcoming and prompt with his replies. Perhaps Don can comment on the condition of his receivers versus what the Toronto surplus dealer offers. I hate to say this, but the way I read Andrew's response, tells me that the Japanese have been real suckers, paying prices (in USD) beyond true market value. .....Walt.

Date: Mon, 25 Jan 1999 19:51:21 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: More on Scientific Surplus and 2050

>Date: Mon, 25 Jan 1999 19:49:27 -0800 >To: 2050 >
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com
<<
Subject: More on Scientific Surplus and 2050
<<Thought everyone might be interested in further information from Andrew at Scientific Surplus in Toronto. He seems to be quite forthcoming and prompt with his replies. Perhaps Don can comment on the condition of his receivers versus what the Toronto surplus dealer offers. I hate to say this, but the way I read Andrew's response, tells me that the Japanese have been real suckers, paying prices (in USD) beyond true market value. .....Walt.
Sorry, forgot to add the comments from the surplus dealer, so here they are:

We have not sold any to hams to our knowledge. Most units have gone into the US and Japan. You wouldn't believe what the Japanese pay for this equipment! The poor condition units had front panels in very poor condition with bent bezels. We only had a few of them and they're gone. Most of our sales have been at the prices listed but in US dollars.

Date: Mon, 25 Jan 1999 20:25:55 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050:Knob Spinner

Fellas,

Greg Bailey, p-rx list guru was kind enough to send me an e-photo of the acrylic tuning knob "spinner" or "twirler" that I described about two months ago to the list (See "2050 - More Quick Comments," Dec. 8,1998) It effectively cuts the tuning rates in half and is highly recommended. I'm attaching the file, called spinner.jpg. The aging pinkie is Guru Greg's. (Thanks, Greg!)

John Bryant

---

premium-rx-digest Tuesday, January 26 1999 Volume 01 : Number 009

Date: Mon, 25 Jan 1999 22:06:57 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Audio Quality

Great article by the Chuckster and a superb reply from Herr Kneisner. Gee, I think that we are getting somewhere here! Years ago, I used the term "useable sensitivity" in a couple of receiver reviews and was roundly criticized for dealing with anything other than sensitivity as defined by the trade. What I

meant then and what Chuck means by Audio Recovery is exactly the same thing. To put it in the Okie vernacular: I can hear more o' the shit I wanta hear with this radio than I can with radios that measures five to ten times more "sensitive." Conventional wisdom is sometimes wrong or at least misleading.

On a related matter, I've finished my the prototype of my Console Unit and have a 4" x 6" Pyramid dual cone speaker (40 oz. magnet) in it. The enclosure, acoustically, is just over half of the interior of a rack cabinet which is exactly the same size as the 2050. The cabinet is made from 1/2" MDF "particle board." The audio is truly awesome... higher highs and much richer lows than I've ever heard from a communications receiver. I have replaced the metal link that controls the audio routing (on the rear apron terminal block) with a pair of wires running to a switch in the front panel of of the Console unit. That way, I casn switch back and forth between the external and internal speaker. Rapidly switching back and forth quickly shows you how poor the 1.5 inch speaker really is (unfair comparison, of course). What I've discovered recently is that the 1.5 incher is really more effective when trying to dig an ID outta the mud. Its frequency response is great for that purpose.

I usually use headphones for such situations, but when the static crashes are especially bad (as during the recent thunderstorms in the Southeast) I find that I do better using a speaker. So... you might be interested in installing a pair of wires and a switch to give you quick access to both internal and external speakers.

John B.

Date: Mon, 25 Jan 1999 20:38:44 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Operating Notes: NORM

I'm probably the last guy to discover this, but I didn't realize that the NORM button could be used to solve punch-in errors. (I'm used to the CLR button on the 525.) Until a couple of days ago, when I made an error in frequency input, I just went ahead and hit ENTER, went where ever I'd punched in and then started over. If you make an entry error, just hit NORM. It clears the input data and returns the display to the last setting. 'Course you have to hit FREQ in either case to get started again.

John B.

Date: Mon, 25 Jan 1999 20:32:30 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Re: Corrected captions

Tony,

Thanks very much for all of your efforts to show us the interior of the Clark Museum. Unfortunately, my machine won't read/display any of the files. I get a message "Cannot draw this picture. Quicktime cannot recognize this file or you may be low on memory." I fired and drew one of my architectural drawings from work... also a jpg file... that is almost a meg (yours came in at about 60k.) so I've plenty of memory. Am I doing something wrong?? Could anyone display these photos? How?

Dying to see the Clark Museum!

John B.

Date: Tue, 26 Jan 1999 00:40:19 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: Corrected captions

I have responded directly to John in an attempt to help. Did others have trouble? The images were created in the Chinon, saved in BMP and then compressed to jpg (going from 900K to about 50K in the process) in Photo Shop 5.0.

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

- -----Original Message-----
From: John Bryant <bjohn@provalue.net> To: Tony Ward <tonyward@home.com>; Premium Rx List <Premium-rx@kahuna.sdsu.edu> Date: Monday, January 25, 1999 11:07 PM
Subject: Re: Corrected captions

>Tony,
>>Thanks very much for all of your efforts to show us the interior of the
>Clark Museum. Unfortunately, my machine won't read/display any of the
>files. I get a message "Cannot draw this picture. Quicktime cannot
>recognize this file or you may be low on memory.....

Date: Mon, 25 Jan 1999 21:46:53 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: 2050: Audio Quality

Regarding John's discussion re external speakers, I couldn't agree more with his statements. I pretty much immediately added an external speaker, be it nothing as fancy as John's, to my set-up, and found it much more "listenable" in the background than the built-in speaker. For more intensive DXing, I use headphones, but as I'm often using multilple receivers, the external speaker fits in nicely with the background hum of several receivers. Haven't as yet experienced the high fidelity aspects of the receiver, but I'm somewhat of the opinion that if I want HiFi, then I'll listen to my CD player.

.....Walt Salmaniw.

Date: Mon, 25 Jan 1999 23:35:52 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: More on Scientific Surplus and 2050

On Mon, 25 Jan 1999, Walter (Volodya) Salmaniw, MD wrote:
>>Thought everyone might be interested in further information from Andrew at
> Scientific Surplus in Toronto. He seems to be quite forthcoming and prompt
> with his replies. Perhaps Don can comment on the condition of his
> receivers versus what the Toronto surplus dealer offers. I hate to say
> this, but the way I read Andrew's response, tells me that the Japanese have
> been real suckers, paying prices (in USD) beyond true market value.
>> .....Walt.
My comments: those of you with 2050's can basically see the condition of yours and multiply that by several dozen. None of the rest are really bad either, but have a nick or gouge here and there. When needed, front panels have been exchanged to go with an electrically functioning unit. I'm not sure what he means by a "bent bezel" - I don't see anything I'd call a bezel on them, just cutouts in the panel. Perhaps the front panel itself is bent, I'm not sure.

Quite a few of mine have gone to amateurs but I only know of 1 (not on this list) that will be used primarily for that. While they do make listening to casual ham QSO's very pleasant, audio wise, it's not what most of us bought them for.

I do not know what the condition of the next - and last batch, unless more turn up, but will hope to be able to report that shortly, for those of you that have been waiting.

We may shortly have a gentleman from Japan qualify for this list as a new 2050 owner, and I can assure you that he will pay more than any of you for his - but only by the amount of the extra shipping cost overseas, hi!

I suppose none of the 2050 detectives have been to get similar information from Wm J Ford Surplus? The last time I checked their web site they had only one left. Does this mean Lamont is still the HF-2050 capital of the world?

73 Don

On Mon, 25 Jan 1999, Walter (Volodya) Salmaniw, MD wrote:

> > Sorry, forgot to add the comments from the surplus dealer, so here they are:
> > We have not sold any to hams to our knowledge. Most units
> have gone into the US and Japan. You wouldn't believe what
> the Japanese pay for this equipment! The poor condition units
> had front panels in very poor condition with bent bezels. We
> only had a few of them and they're gone. Most of our sales have
> been at the prices listed but in US dollars.
>

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (780) 895-2925

Date: Tue, 26 Jan 1999 01:55:36 -0500
From: David Clark <davidclark@home.com>
Subject: Re: 2050: Audio Quality

The other advantage of providing a switch to engage or disable the external speaker is to enable headphones-only listening when desired.

Whereas the audio to the front panel speaker is disabled when a headphone jack is plugged in, this is not the case when an external speaker is connected to the terminal strip...you can still listen through the headphones but the external speaker remains enabled at the same time.

The high quality 8 ohm Hammond communications speakers that I am using with the 2050's sound just great! Unfortunately, Hammond Mfg (Guelph, Ontario) is no longer in the speaker business so keep an eye out at hamfests.

73 -- Dave

Date: Tue, 26 Jan 1999 02:26:48 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Reply to DSP Detector article from KD Elektronik GmbH

Folks - I haven't seen it yet but I understand the Feb/99 issue of QST contains a review article on the JRC NRD-545dsp.

Furthermore, the Feb/99 issue of ShortWave Magazine (out of UK but available on some newstands, at least in Canada) is supposed to have a review of the KWZ30.

Things are heating up on the DSP receiver front! All the more amazing that Collins was seemingly "ahead of its time" with the 2050, and to a performance standard of audio transparency that has yet to be surpassed (although I had a chance to briefly check out the KWZ30 that Chuck is getting and certainly in was in the same, above-par league).

73 - Dave

Date: Tue, 26 Jan 1999 02:58:59 -0500
From: David Clark <davidclark@home.com>
Subject: [Fwd: Scientific surplus]

Fellas - a separate note from Walt suggested this posting from me did not make it to the List group.

I think he's right...this forward is of a blind CC I had sent to myself in writing to Walt with intended CC to our group.

Hopefully this works.

73 - Dave - ----------

Walt - good sleuthing! Being in a little closer proximity than you <g> to Scientific Surplus, I paid them a visit Saturday afternoon. This outfit is an unsigned hole in the wall (which I didn't get into) behind a computer supply store at the address specified on their website. I did get to talk to the owner-? who emerged from the back to talk to me.
Indeed, he did say they only had 1 unit available currently, and it was not on the premises...I would have to arrange in advance to come and see it at this warehouse location. It was said to be near-mint (referring of course to the outer cabinet) and obviously this is the same one cited in the response you got.

I made it clear I was familiar with the 30 channel unit and wanted to confirm if this was indeed a 100 channel unit - yes. I also asked about backlighting - it does not have the backlighting, nor has this guy ever seen one with that option provided. It does have the variable noise blanker.

Your respondent cited the 4 (displayed) standard bandwidth's but we obviously know more about this receiver than he does -- he failed to mention the standard USB/SSB (non-displayed) bandwidth which of course is the lovely 2.8 kHz.

I may still make arrangements to inspect this unit myself next week. Amongst other things, I'd like to check out the serial number.

A final point - these guys are selling the 2050 with NO manual!

73 - Dave

Date: Tue, 26 Jan 1999 05:57:56 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Keypad

Fellas:

You may remember that my "9" button ceased to function and that my "6" button sometimes generates multiple 6 when it is punched. Don gave us a very good primer in button maintenance and I failed to follow-up here on the list. At his suggestion, I popped the 9 button off (they pull straight off, easily) and that revealed a black cover for the button contacts. It has the actuator shaft running through it and four small holes going to the interior. I turned the receiver to face the sky and flooded all four holes with DeOxit contact cleaner/enhancer. There was no immediate improvement, but about a day later my 9 button began to work most of the time... a major step in the right direction!

Don also described removing the black inner cover to reveal the contacts themselves and noted that it was physically (just) possible to remove them through the front panel holes. He suggested, tho, that it would be much easier to pop those off when the front panel was apart, with the front of the display circuit board exposed. I'm going in there next weekend to give my dial glasses a final polish and generally tidy up the dial light installation. I'll report those results then.

John Bryant

Date: Tue, 26 Jan 1999 06:22:00 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050: Dial Light

Fellas,

The first time that I stuck the two CCF dial lights together, I tried dropping the voltage and the lights dimmed a bit and then, as the voltage dropped further, flickered and went out. I now know that I either had a poor connection + a coincidence or that the CCFs needed to be "broken in." Now, they dim nicely right on down to totally dark. I've found that having them adjustable allows me to respond to the changing ambient light conditions in my shack and see the LCDs even more clearly. I also found that running the CCFs at the recommended voltage and current (about .33 amps at 12 Vdc) is just too much dial light and is part of the reason that the silkscreened words on the right LCD were washing out on me. For most light conditions, I seem to see the dial best at .13 amps, 12 Vdc.

This configuration is still not as good as a true backlighting arrangement, but it does work rather well. The little flourescents are almost touching the inner side of the dial glass at its top... right beneath the front edge of the upper dust cover. The left LCD is lit perfectly. The right LCD is a bit too tall to be perfectly lit from a single light at the top edge. I might eventually install a third light... at the bottom edge of the right-hand LCD. But that might be too much gilding of the lilly, even for an obcessive/compulsive like me!

I should also note that it turns out that the CCFs do generate a bit of heat. When I was testing them out in the open, the tubes seemed to stay at room temperature and the ends got warm to the touch. In the restricted environment just inside the dust cover, the ends become hot (though not too hot to touch) and the rest of the tube seems warm to the touch, when running the lights at rated power. I don't think that it is enough heat to worry about at all, though.

I look forward to Jon Williams' experiments with LEDs... they may run even cooler.

Don, thank you for the good suggestions on how to run the lights/blower off the 2050 power supply. I'll use a wall-wart until I get near the end of messing around and then give the 2050 supply a try.

John Bryant

Date: Tue, 26 Jan 1999 05:45:25 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Complete Idiot!

Thanks to all who offered advice on opening Tony's jpeg files. It appears that my version of Quicktime is either too old or not compatible with Tony's files. I hadn't ever had problems opening jpeg files with it before and that is what threw me. I've the 5.0 version of Photoshop aboard for professional work and I just opened the Clark Gallery with that (easily, of course... whatta idiot!) and loved both shots.

Dave, you really have to take all of those unsightly cords/wires off'n the back of those radios ... permanently... they distract from the visual glory of it all <g>.

John B.

Date: Tue, 26 Jan 1999 08:03:24 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: Complete Idiot!

Glad you got sorted on the photos John Since we both use PhotoShop how about we try a little digitising to see if we can clean Dave Clark up a bit and release him to a wider audience? (G)

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

- -----Original Message-----
From: John Bryant <bjohn@provalue.net> To: premium-rx@kahuna.sdsu.edu <premium-rx@kahuna.sdsu.edu> Date: Tuesday, January 26, 1999 7:21 AM
Subject: Complete Idiot!

>Thanks to all who offered advice on opening Tony's jpeg files. It appears
>that my version of Quicktime is either too old or not compatible with
>Tony's files. I hadn't ever had problems opening jpeg files with it before
>and that is what threw me. I've the 5.0 version of Photoshop aboard for
>professional work and I just opened the Clark Gallery with that (easily, of
>course... whatta idiot!) and loved both shots.
>>Dave, you really have to take all of those unsightly cords/wires off'n the
>back of those radios ... permanently... they distract from the visual glory
>of it all <g
>.
>>John B.
>

Date: Tue, 26 Jan 1999 08:29:00 -0500
From: David Clark <davidclark@home.com>
Subject: [Fwd: Reply to DSP Detector article from KD Elektronik GmbH]

Folks - I haven't seen it yet but I understand the Feb/99 issue of QST contains a review article on the JRC NRD-545dsp.

Furthermore, the Feb/99 issue of ShortWave Magazine (out of UK but available on some newstands, at least in Canada) is supposed to have a review of the KWZ30.

Things are heating up on the DSP receiver front! All the more amazing that Collins was seemingly "ahead of its time" with the 2050, and to a performance standard of audio transparency that has yet to be surpassed (although I had a chance to briefly check out the KWZ30 that Chuck is getting and certainly in was in the same, above-par league).

73 - Dave

Date: Tue, 26 Jan 1999 15:54:33 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: 2050 Use Comments from Tony Ward

- ------- Forwarded Message Follows -------

From: "Tony Ward" <tonyward@home.com
> To: <crippel@erols.com
>
Subject: Re: DSP Date sent: Mon, 25 Jan 1999 22:14:28 -0500
Interestingly I had followed the link to the page you noted on HCDX re the 535/545 comparison. One of the comparisons mentioned there was attempts to clean up TIFC 5055. I fired up the 535 + Timewave (599Zx) and then the 2050. The 535 did OK and had more "raw" audio (as usual). Adding the Timewave cleaned up the hets and gave a pretty good signal, though with a bit of warble. Turning to the 2050 I was astonished to realize (though I should not have been) that in sideband there was NO het to clean up. It was already disposed of by the DSP. Since Craig modified the audio (ie re-built the complete circuit) and also the Synch circuitry, I generally get such a nice audio from the 535 in AM-synch that I don't go to ecss mode. And this was true also tonight, with minor het left. But the cleanest and most readable audio was on the 2050, and no additional processing was required...

I suggest you post your comments to the Premium Group, and you may append my little footnote if you so wish...

Listened for Hargeisa 11204, but not on today. But an exciting possibility. The mid-winter window of opportunity is well closed for 6843 by now I fear....

4760 Port Blair is very strong nightly for about 20 minutes at sign-on now (on LP) .... much longer than a few weeks ago when it dropped off in minutes with all the enthusiasm of a Lemming looking for promotion...

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@visionol.net, tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

- -----Original Message-----
From: Chuck Rippel <crippel@erols.com> To: Tony Ward <tonyward@home.com> Cc: davidclark@home.com <davidclark@home.com>; Premium- Rx@kahuna.sdsu.edu <Premium-Rx@kahuna.sdsu.edu> Date: Monday, January 25, 1999 8:42 PM
Subject: Re: DSP

> This is quite fascinating Chuck, and seems to enormously clarify the
> situation.
>
Yes, and its really quite exciting. My theory here was (and it was echoed by Hans) that designers were making superior detection systems but we weren't being properly made aware of the application of that technology as a feature. EG: All the discussions on the superior audio recovery of the 2050 and why was that possible. These communications at least open the door to the answers.

Think about it, "smart" detection actually "adds a stage" of filtering/audio recovery to the reciver we have not had before. That independent of IF filters, the detector is capable of ignoring that which we do not want to hear is certainly new technology and was not previously available.

It should be talked up to help others come up to speed. Obviously, the reviewers/testeds have missed the boat on this. After all, audio recovery is not something I would know how to measure and apply a numeric specification to. I suspect that the various reviewers of receivers have had the same problem.

- ----------

Chuck Rippel Reply to: wa4hhg@amsat.org

- ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

premium-rx-digest Wednesday, January 27 1999 Volume 01 : Number 010

Date: Tue, 26 Jan 1999 17:49:08 -0500
From: Robert Ross <radiorob@serix.com>
Subject: Re: Corrected captions

At 12:40 AM 26/01/1999 -0500, Tony Ward wrote:

>I have responded directly to John in an attempt to help. Did others have
>trouble? The images were created in the Chinon, saved in BMP and then
>compressed to jpg (going from 900K to about 50K in the process) in Photo
>Shop 5.0.
> >Tony (VE3NO) NYAA StarFest On-Line
>tonyward@home.com
>tward@visionol.net, tward@spanit.com
><http://www.interlog.com/~nyaa/
> >
Hello Tony:

I got the pictures OK...and they were viewed with no problem.....Thanks for sending them. Who is that guy who can afford "2" HF-2050's?????

73...ROB.

Robert S. Ross VA3SW London, Ontario CANADA

Antique/Vintage Radio Enthusiast Amateur Radio Stations VA3SW/VE3JFC

Hot Tubes Rule!!! «¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤

Date: Tue, 26 Jan 1999 16:24:41 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: New Member

Gentlemen:

Mike Student, W7MS, has joined the List.

Members of list 'premium-rx':

gbailey@mail.sdsu.edu tonyward@home.com larry@gadallah.com k7jb@ptld.uswest.net goodwin@interlog.com burkec@goldstate.net ve6jy@freenet.edmonton.ab.ca bjohn@provalue.net salmaniw@home.com okbill@brightok.net radiorob@serix.com davidclark@home.com WagnerND@aol.com algo@bellatlantic.net bhester@ols.net cgt01@aol.com dma@islandnet.com bwallace@sd.cts.com wnovinger@home.com davez@ticon.net jtreed@poncacity.net bengoshi@iquest.net crippel@erols.com 76635.615@compuserve.com cloudhopper@earthlink.net ntp@shockware.com Mstud26073@aol.com

27 subscribers

Date: Tue, 26 Jan 1999 19:28:13 -0500
From: Raymond Makul <algo@bellatlantic.net>
Subject: Re: Corrected captions

Pictures came through fine here using Netscape Communicator 4.5

Raymond Makul

Robert Ross wrote:
> > At 12:40 AM 26/01/1999 -0500, Tony Ward wrote:
> >
> I have responded directly to John in an attempt to help. Did others have
> > trouble? The images were created in the Chinon, saved in BMP and then
> > compressed to jpg (going from 900K to about 50K in the process) in Photo
> > Shop 5.0.
> > > > Tony (VE3NO) NYAA StarFest On-Line
> > tonyward@home.com
> > tward@visionol.net, tward@spanit.com
> > <http://www.interlog.com/~nyaa/
> > > > > Hello Tony:
> > I got the pictures OK...and they were viewed with no problem.....Thanks
> for sending them. Who is that guy who can afford "2" HF-2050's?????
> > 73...ROB.
> > Robert S. Ross VA3SW
> London, Ontario CANADA
> > Antique/Vintage Radio Enthusiast
> Amateur Radio Stations VA3SW/VE3JFC
> > Hot Tubes Rule!!!
> «¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤

Date: Wed, 27 Jan 1999 01:51:22 -0500
From: David Clark <davidclark@home.com>
Subject: Re: 2050: Operating Notes: NORM

This handy trick was well worth posting, John. I remember trying this a coupla times experimentally but for some reason it never sank in...now it's operationally ingrained in my subconsciousness when using the 2050, 'cause inadvertently making a keying error, or changing one's mind mid-stream about a next-desired frequency is a common occurance, at least with me!

Of course, it helps to take note of the manual too, 3.3.2 on page 3-1: "Note that pressing the NORM switch at any time will abort any input sequence..."

73 - Dave

John Bryant wrote:
> > I'm probably the last guy to discover this, but I didn't realize that the
> NORM button could be used to solve punch-in errors. (I'm used to the CLR
> button on the 525.) Until a couple of days ago, when I made an error in
> frequency input, I just went ahead and hit ENTER, went where ever I'd
> punched in and then started over. If you make an entry error, just hit
> NORM. It clears the input data and returns the display to the last setting.
> 'Course you have to hit FREQ in either case to get started again.
> > John B.
>

Date: Wed, 27 Jan 1999 20:43:50 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Premium-Rx, New Member

Gentlemen:

George Zeller has joined the List. His address is: georgez@acclink.com

Present members of list 'premium-rx':

gbailey@mail.sdsu.edu tonyward@home.com larry@gadallah.com k7jb@ptld.uswest.net goodwin@interlog.com burkec@goldstate.net ve6jy@freenet.edmonton.ab.ca bjohn@provalue.net salmaniw@home.com okbill@brightok.net radiorob@serix.com davidclark@home.com WagnerND@aol.com algo@bellatlantic.net bhester@ols.net cgt01@aol.com dma@islandnet.com bwallace@sd.cts.com wnovinger@home.com davez@ticon.net jtreed@poncacity.net bengoshi@iquest.net crippel@erols.com 76635.615@compuserve.com cloudhopper@earthlink.net ntp@shockware.com Mstud26073@aol.com georgez@acclink.com

----

Date: Wed, 27 Jan 1999 23:36:38 -0600
From: "davez" <davez@ticon.net>
Subject: Japan Radio Co. NRD-301A

I found this great picture of the JRC NRD-301A while surfing yesterday. Never had seen a picture of this set before. Anyone know if this is a DSP receiver, and is it still in production ?? I would love to grab one of these !!! Any Idea's ??

Enjoy.. DaveZ

+ +

Visit my web site "Dave's Radio Receiver Page" at http://www.ticon.net/~davez

----

premium-rx-digest Thursday, January 28 1999 Volume 01 : Number 011

Date: Thu, 28 Jan 1999 01:37:12 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Japan Radio Co. NRD-301A

This rig, and it's big brother NRD-302A, are illustrated on page 223 of Fred Osterman's book 'Shortwave Receivers - Past and Present' (vol 3). The book is available from Universal Radio, Reynoldburg, Ohio.

The receivers are current production JRC (from 1996+), selling at $US 8600. and 10,750 respectively...very scarce! Primary market is commercial marine, I believe.

These receivers are NOT DSP-based.

Hope this helps.

73 - Dave

davez wrote:
> > I found this great picture of the JRC NRD-301A while surfing yesterday.
> Never had seen a picture of this set before. Anyone know if this is a DSP
> receiver, and is it still in production ?? I would love to grab one of these

> !!! Any Idea's ??
> > Enjoy..
> DaveZ
> +
> Visit my web site "Dave's Radio Receiver Page" at
> http://www.ticon.net/~davez
> > --
> > Name: jrc-nrd301a.jpg
> jrc-nrd301a.jpg Type: JPEG Image (image/jpeg)
> Encoding: base64

Date: Thu, 28 Jan 1999 09:01:20 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Premium-Rx New Member

Gentlemen:

Robert S. Parnass has joined our List.

His direct e-mail address is: parnass@lucent.com

Greg

Date: Wed, 27 Jan 1999 20:43:39 -0600 (CST)
From: WA1ION@ix.netcom.com
Subject: logs 9-23 JAN 1999

(logs 9-23 JAN 1999: file=DX990123.LOG)

Report from Mark Connelly - Times / dates = UTC / 1999

[Connelly*H-MA] = East Harwich, Cape Cod, MA (GC= 70.021 W / 41.713 N) (near junction of Routes 39 & 137: pitch pine forest 2 km from ocean)

[Connelly*O-MA] = South Orleans, Cape Cod, MA (GC= 69.991 W / 41.735 N) (Town Landing / beach, off Route 28, 0.3 km N of Tar Kiln Road)

e-mail = WA1ION@ix.netcom.com

Receiver: Drake R8A

Antenna system: cardioid array with BBL-1 broadband loop & APW-1 active whip to DXP-1 phasing unit

= =

*** TRANS-ATLANTIC DX ***

531 | SPAIN | RNE5 synchros, JAN 23 0330 - // 684 with fast SS talk, pips on the half hour; over Algeria. [Connelly*H-MA]

549 | ALGERIA | Les Trembles, JAN 9 2303 - fair with man in AA. [Connelly*O-MA] + JAN 23 0326 - female AA vocal, strings; fair to good. [Connelly*H-MA]

558 | SPAIN | RNE5 synchros, JAN 23 0407 - // 855 with SS talk; poor. [Connelly*H-MA]

567 | IRELAND | RTE R.1, Tullamore, JAN 23 0324 - EE discussion program. [Connelly*H-MA]

585 | SPAIN | RNE1, Madrid, JAN 9 2302 - // 621 & 855 with SS talk followed by an excerpt of police-movie style music. [Connelly*O-MA] + JAN 23 0318 - // 855 with folk / classical guitar; through VOCM/WEZE slop. [Connelly*H-MA]

603 | SPAIN | RNE5, Sevilla / Palencia, JAN 23 0334 - // 684 with man & woman talking and laughing; good. [Connelly*H-MA]

621 | CANARY ISLANDS // SPAIN | RNE1 synchros, JAN 9 2300 - musical interlude, pips, then man in SS; good. [Connelly*O-MA]

639 | SPAIN | RNE1, La Coruna, JAN 23 0348 - // 684 with SS talk; poor. [Connelly*H-MA]

684 | SPAIN | RNE1, Sevilla, JAN 23 0305 - // 855 with SS news; fair. [Connelly*H-MA]

693 | AZORES | RDP, Santa Barbara, JAN 23 0312 - // 837 with nostalgic "crooning" type vocal; good. [Connelly*H-MA]

711.04 | WESTERN SAHARA | Laayoune, JAN 9 2259 - AA public address; to good peak with WOR phased. [Connelly*O-MA]

738 | SPAIN | RNE1, Barcelona, JAN 23 0307 - // 855 with folk / country style SS vocal, then SS talk; fair through CHCM-740 slop. [Connelly*H-MA]

765 | SENEGAL | Dakar, JAN 9 2239 - African folk style vocal, then accented FF talk mentioning Dakar and Paris. [Connelly*O-MA]

774 | SPAIN | RNE1 synchros, JAN 9 2257 - // 855 with SS talk; poor to fair, slightly over presumed Egypt. [Connelly*O-MA]

836.19 | unID | JAN 9 2241 - het against Canaries/Spain-837. [Connelly*O-MA]

837 | AZORES | RDP, Pico da Barossa, JAN 23 0312 - // 693 with old-fashioned vocal; mostly under Canaries/Spain. [Connelly*H-MA]

837 | CANARY ISLANDS // SPAIN | COPE synchros, JAN 9 2241 - SS talk; over presumed Azores. [Connelly*O-MA] + JAN 23 0312 - man in SS; mixed with Azores. [Connelly*H-MA]

855 | SPAIN | RNE1, Murcia et al., JAN 9 2242 - SS teletalk; good to excellent. [Connelly*O-MA] + JAN 23 0305 - SS news; very good. [Connelly*H-MA]

864 | EGYPT | Santah, JAN 9 2253 - bits of Koranic vocal mixed with others. I've actually had this in the summer with a clearer signal. [Connelly*O-MA]

873 | SPAIN | SER R. Zaragoza, Zaragoza, JAN 9 2252 - // 1044 with man in SS; slightly over others. [Connelly*O-MA]

882 | CANARY ISLANDS // SPAIN | COPE synchros, JAN 9 2227 - huge with SS news. [Connelly*O-MA]

891 | ALGERIA | Algiers, JAN 9 2243 - AA strings, flute, & vocal; fair to good. [Connelly*O-MA]

936 | SPAIN | RNE5 synchros, JAN 9 2251 - SS talk seemingly // 855; poor, jumbled with others. [Connelly*O-MA]

954 | SPAIN | R. Espana, Madrid, JAN 9 2249 - woman in SS; loud. [Connelly*O-MA]

963 | PORTUGAL | R. Renascenca, Seixal, JAN 9 2249 - muffled PP talk by man; poor in CHNS/WEAV slop. [Connelly*O-MA]

981 | ALGERIA | Algiers, JAN 9 2249 - Middle Eastern style music; over probable Greece. [Connelly*O-MA]

999 | SPAIN | COPE, Madrid, JAN 9 2248 - SS news and teletalk; through CKBW slop. [Connelly*O-MA]

1008 | CANARY ISLANDS | Las Palmas, R. Las Palmas / RadioVoz, JAN 9 2247 - SS talk by two men (not SER net); good with WINS phased. [Connelly*O-MA]

1035 | PORTUGAL | R. Nacional, Lisboa, JAN 9 2256 - PP vocal ballad; fair. [Connelly*O-MA]

1044 | SPAIN | SER synchros, JAN 9 2210 - man & woman with SER network newstalk; good. [Connelly*O-MA]

1088 | ANGOLA (t) | Radio Nacional, Mulenvos, JAN 9 2232 - likely this with audio traces; mostly just a het against UK-1089 and WBAL-1090. Angola-1116 was coming in at the time. [Connelly*O-MA]

1089 | UNITED KINGDOM | Talk Radio synchros, JAN 9 2233 - man & woman in EE; only fair on peaks, hets from 1088 and 1090. [Connelly*O-MA]

1098 | SPAIN | RNE5 synchros, JAN 9 2231 - // 855 with woman in SS; to fair peak, mixing with others, low growl present. [Connelly*O-MA]

1107 | SPAIN | RNE5 synchros, JAN 9 2230 - // 855 with man & woman in SS, then time pips on the half-hour; loud. [Connelly*O-MA] + JAN 23 0604 - // 684 with SS news by man & woman; fair. [Connelly*H-MA]

1116 | ANGOLA | E. P. do Kuanza-Sul, Sumbe, JAN 9 2228 - African instrumentation and vocals; atop SER-Spain; to fair peak. [Connelly*O-MA]

1179 | CANARY ISLANDS // SPAIN | SER synchros, JAN 9 2222 - // 1044 with fast SS talk by man & woman. Apparent Greek station way under. [Connelly*O-MA]

1215 | SPAIN | COPE synchros, JAN 9 2222 - SS talk; in bad growl. [Connelly*O-MA]

1251 | LIBYA | Tripoli, JAN 9 2221 - strings, flutes, & male AA vocal, then talk; loud. [Connelly*O-MA]

1287 | SPAIN | SER synchros, JAN 9 2219 - // 1044 with SS talk; poor. [Connelly*O-MA]

1296 | SPAIN | COPE, Valencia, JAN 9 2220 - woman in SS; fair. [Connelly*O-MA] + JAN 23 0518 - pop-rock vocal, woman in SS; to fair peak. [Connelly*H-MA]

1305 | SPAIN | RNE5 synchros, JAN 9 2220 - SS talk seemed // 855; poor. [Connelly*O-MA]

1314 | NORWAY | NRK, Kvitsøy, JAN 9 2217 - US C&W vocal; atop Spain, but heavily slopped by CKEC-1320. [Connelly*O-MA]

1332 | ITALY | Rome et al., JAN 9 2216 - emotional Italian talk by man; good. [Connelly*O-MA] + JAN 23 0520 - woman in Italian; good. [Connelly*H-MA]

1467 | FRANCE | TWR, Roumoules, JAN 9 2204 - piano music, then man in AA; to excellent peak. [Connelly*O-MA]

1503.3 | unID | JAN 9 2213 - het against 1503.0 jumble. [Connelly*O-MA]

1583.6 | CEUTA | RadiOle, JAN 9 2211 - bits of audio and het against Spain-1584. [Connelly*O-MA]

1584 | SPAIN | SER synchros, JAN 9 2211 - // 1044 with fast SS teletalk; good, over Ceuta-1583.6 het. [Connelly*O-MA]

1602 | SPAIN | EI, Vitoria, JAN 9 2210 - female SS vocal (not SER net); to fair peak over low growl. [Connelly*O-MA]

*** PAN-AMERICAN DX ***

570 | CUBA | R. Reloj, JAN 23 0400 - usual Reloj news & time show; atop WMCA/WSYR/unID SS (YV?). [Connelly*H-MA]

580 | CUBA | R. Rebelde, Mantua / Baracoa, JAN 23 0359 - // 600 with folk SS vocal; mixed with others. [Connelly*H-MA]

600 | CUBA | R. Rebelde, CMKV, Urbano Noris, JAN 23 0358 - // 620 with folk vocal; excellent. [Connelly*H-MA]

608.2 | CUBA | R. Rebelde outlet, unknown city, JAN 23 0315 - Rebelde drifter here with woman in SS // 600. [Connelly*H-MA]

620 | CUBA | R. Rebelde, Colon / Moa, JAN 23 0358 - // 600 with folk vocal; over WZON/others. [Connelly*H-MA]

640 | CUBA | R. Progreso, Guanabacoa / Las Tunas, JAN 23 0352 - // 890 with old-fashioned SS vocal duet; good. over CBN. [Connelly*H-MA]

650 | COLOMBIA | RCN Antena Dos, HJKH, Bogota, JAN 23 0351 - Antena Dos ID, then segment of female vocal with accordion; over others. [Connelly*H-MA]

660 | CUBA | R. Progreso, CMHG, Santa Clara, JAN 23 0357 - // 890 with SS female group vocal; under WFAN. [Connelly*H-MA]

670 | CUBA | R. Rebelde, CMQ, Arroyo Arenas, JAN 23 1059 - // 710 with festive group SS vocal. [Connelly*H-MA]

690 | CUBA | R. Progreso, Jovellanos, JAN 23 1101 - // 640 with SS Cuban news; good / dominant. [Connelly*H-MA]

700 | COLOMBIA | R. Net, HJCX, Cali, JAN 23 1105 - R. Net ID; under Jamaica. [Connelly*H-MA]

700 | JAMAICA | RJR, Montego Bay, JAN 23 0311 - Caribbean EE talk by man & woman; in messy mix with Venezuela, Colombia, & WLW. + JAN 23 1104 - soul oldies ("Girl Watcher" by the O'Kaysions), then muffled Caribbean EE talk by man, then light reggae; over HJCX. [Connelly*H-MA]

710 | CUBA | R. Rebelde synchros, JAN 23 0308 - woman in SS talking about Cuba; about equal to WOR. [Connelly*H-MA]

759.77 | CUBA | R. Reloj, Las Mercedes & Guanabacoa, JAN 23 0428 - Reloj station slightly off nominal 760: in the clear with man & woman with SS news, ticks, "RR" beeps. Slight background growl from HJAJ/WJR-760.0. [Connelly*H-MA]

760 | COLOMBIA | RCN, HJAJ, Barranquilla, JAN 23 0302 - Banco Popular ad, RCN ID; good, over slight het from Cuba-759.77. [Connelly*H-MA]

820 | unID | JAN 23 1118 - buzzing or jamming type signal; under WNYC/CHAM. Given the late reception time and the current by- country rankings of broadcast technical ineptitude, one's first guess would tend to be Cuba. [Connelly*H-MA]

840 | CUBA | CMHW, Santa Clara, JAN 23 1043 - with R. Reloj program at the time, mentions of several Latin American countries; dominant / loud. [Connelly*H-MA]

890 | CUBA | R. Progreso, CMDZ, Santiago de Cuba, JAN 23 0352 - // 640 with mellow vocal by man & woman with guitar accompaniment; local-like. [Connelly*H-MA]

895 | ST. KITTS & NEVIS | VON, Bath Village, JAN 9 2243 - light soul / reggae vocal; to good peak. [Connelly*O-MA]

940 | CUBA | R. Reloj, JAN 23 1046 - Reloj program; over CBM/XEQ mix. [Connelly*H-MA]

1041.3 | unID | JAN 23 1052 - het. [Connelly*H-MA]

1060.31 | unID | JAN 9 2234 - het. [Connelly*O-MA]

1139.26 | unID | JAN 9 2227 - het against CBI. [Connelly*O-MA]

1160 | BERMUDA | VSB3, Hamilton, JAN 9 2225 - // 5975 with BBC report about third world industrial accidents, then talk about Olympic chairman Samaranch reacting to corruption / bribery charges. Signal was over WOBM, others. [Connelly*O-MA]

1505 | ANGUILLA | R. Anguilla, The Valley, JAN 9 2206 - bits of news; poor. [Connelly*O-MA]

Date: Thu, 28 Jan 1999 20:43:52 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050 Console Model Picture

Fellas,

Bill Bowers was generous enough to loan me his brand new Sony Mavica for a few days and I'm in the process of learning how to use it. Here is my first effort at showing you the protype of the 2050 "console" unit.

The bar-shaped switch to the right of the S-meter is a 6 position antenna switch. The two switches to the right of that with LED indicators are the switch for the fans and the switch for the dial lights. There will soon be a pot to dim the lights in there, too. Then you see the 4" x 6" speaker. The things to the far right are (from top to bottom) three switches for audio control, the headphone jack and a line out RCA jack for two different receivers.

I connect the 525 (or any other "auxilary" receiver) to the console unit, also. The three audio switches allow me to have either receiver coming from the speaker, or either on the headphones. There is also a setting that will put each receiver in one of the stereo phones. For the non-SWBC or MW DXers, one of the main ways that we ID unknown stations which are coming in at threshold levels is listening to a parallel broadcast on the same network at the same time. For instance, All India Radio Delhi, 4860 kHz. comes in rather well at 1230 UTC here right now. AIR Shimla, a tiny station with poor modulation, high up in the Himalayas, is a real catch on 3223 kHz. The both broadcast English News at 1230 UTC... Ya put Delhi on the 525 in one ear and the unknown station in the other... and, if you are lucky..

I'll not flood the list with photos, but... wghen I get a bit better with the camera, I will record the installation of the CCF dial light installation.

John B. - --

---

premium-rx-digest Thursday, January 28 1999 Volume 01 : Number 012

Date: Thu, 28 Jan 1999 19:13:04 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Premium-Rx- New Member

Gentlemen:

Hans-J Kneisner (DJ3UW) has join our Premium-Rx List. He can be reached at: KuD-BS@t-online.de

Greg

Date: Thu, 28 Jan 1999 21:54:18 -0600
From: John Bryant <bjohn@provalue.net>
Subject: 2050:Dial Light Pictures

Fellas,

I got better with the camera inna hurry.. Here are three photyos that explain the dial light installation... The CCF flourescents are white straw-like tubes with yellow heat-shrink tubing on each end. The pigtail of wire plus the yellow heatshrink is thick enough that the upper dust cover will not seat tightly... I'm gonna put tiny grooves for the wires in the edge of the circuit board soon, so I can button things up..

David Clark... In case you think you have lost your mind in the first photos, my desk is still really brown masonite hardboard and there are a few wires hanging around.. It is NOT black as the photo would lead you to believe. I'm learning Photoshop 5.0 on the fly, too, and I spent about ten minutes doing a bit o retouching on dialite0

John B.

---

premium-rx-digest Saturday, January 30 1999 Volume 01 : Number 013

Date: Fri, 29 Jan 1999 11:48:36 -0500
From: AVSL <AVSL@erols.com>
Subject: Franklin Clock, Wall Clocks, Digital Clocks, Led clocks 12/24 Hour Clocks

This is a very interesting site. They sell all kinds of industrial clocks. They even offer 12 and 24 hour 12" clocks that plug into the wall. There is a 12" wall clock that self-corrects from WWVB.

Interesting.....

http://www.franklinclock.com/index.html

Date: Fri, 29 Jan 1999 12:00:02 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Clock Page Was not SPAM

I put the clock pare link on the list. It was not SPAM. - ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Fri, 29 Jan 1999 12:04:14 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: NRD-535 v/s NRD-545

Lessee....., has everyone seen this? Its the page where "the battle of the NRD-535D/NRD-545" is documented.

http://home.earthlink.net/~ddsradio/big.htm - ---------- Chuck Rippel !!Note New E-Mail address as of 12/01/98!! Reply to: wa4hhg@amsat.org - ----------

---

Date: Sat, 30 Jan 1999 06:33:58 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Audio Switching Network

A couple of folks on the list were interested in my version of an audio switching network. A circuit just about like the attached was published by the Danish SW club exactly a year ago. The purpose is to handle the audio of two receivers goint to tape recorders, a pair of stereo headphones and./or a speaker. The "Priority Switch" (DPDT, on-on) establishes which receiver is "dominant." The "Mono/Binaural" Switch (SPDT, on-on) determines whether one or both receivers are going to the

stereo phones.... if you are in Binaural Mode, the Priority Switch swaps the receivers between left and right phones... The Speaker Switch (SPDT, on-off-on) is really nifty in that you can have either receiver on the speaker, or in the center position, the speaker is off.

I used RCA jacks for the receiver input and recorder output ports (5 req'd) and a stereo headphone jack. The only thing that I haven't hooked up at this point is the 5.1 K ohm resistors to the recorders... I'm currently feeding those output ports with Line Out from the two receivers. If you need the capabilities of this circuit, enough to put it together (about 1 hour of bench time) I'd suggest that you buy full-size toggle switches new from a serious parts house.... you WILL be flipping the switches quite often!

I don't have a scanner yet, so I decided to try out Bill Bowers' wonderful Sony Mavica digital camera. The setting was B/W, normal mode, fine. I shot the 6" x 6" drawing laying on my desk under a single flourescent tube, hand-held. The file is well under 50K. I did some retouching in PhotoShop 5.0... but I don't know how to use PhotoShop in this way very well and I darn sure don't know how to use the camera effectively yet. Whadda ya think... does this communicate adequately???

John B.

---

premium-rx-digest Saturday, January 30 1999 Volume 01 : Number 014

Date: Sun, 31 Jan 1999 12:56:23 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Morning DX

Condx were at least passible this morning and I snagged this Lao National Radio on 6130 at 1200UTC. This was made from a digital recoding VIA mini-disk (MD). Those not familar with MD format should drop by Dave Z's site and check that out. If you haven't seen Daves, site, you ought to pay it a visit anyway. Its an informative site, nicly done. The URL is:

http://www.ticon.net/~davez/

MD is what is going to replace tape, gents. No doubt about it. Been using it here for a couple of years and my machine does not have a MONO record selection. This allows double the conventional 74min stereo record capacity of one disk (about the size of a 3-1/2" floppy). Plus, you can add written data to each cut allowing to identify station, freq, time, date, etc.... which is displayed by the machine on its front panel display as the cut is played.

I digress....

The frequency situation with co-channel QRM from CHNX is a bit convoluted but the technique to clean it up is simple. CHNX broadcasts on 6130 with Carrier + USB only. By selecting LSB you can hear Laos quite well if its there. The clincher to a positive ID on Laos are (I believe 7) strikes on the "Big Bell" which take place after the short signature tune. That is followed by an anthem and ID by YL announcer. All of that is quite evident in this RealAudio clip.

I was not able to make a mini-disk recording of the HF-2050 but it was excellent and on a par with that gotten from the WJ.

This was made unattended on the WJ HF1000A and I could have used a 2.4kc BW v/s the 2.6 actually used.

- ---

Chuck Rippel Reply to: wa4hhg@amsat.org

---

premium-rx-digest Saturday, January 30 1999 Volume 01 : Number 015

Date: Sat, 30 Jan 1999 15:24:34 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Prem-Rx: Managing many receivers...

I've enjoyed the recent comments about audio switch boxes and recording (MDisc). After anyone acquires their second radio, you have started down that path.... It becomes increasingly complex as the number of receivers and recorders multiply.

I'm always at a loss how to manage it all properly, ergonomically and physically keep it so I can reach everything from a sort of console arrangement. AS Chuck mentioned, and possibly others, having the HF-2050 has suddenly changed many of my radio habits. What once was my main DX receiver (FT-1000mp transceiver) doesn't provide the audio I'm now used to from the 2050. For ham radio contesting and DXing though, the 1000 has to be the main focus of the operating position, but I still want to enjoy the 2050's and use their audio capabilities on the tougher SWBC signals.

The audio solution here has been a couple of inexpensive mixers. (see attached mixer.jpg) Both were bought second hand inexpensively, totalling about $100 Can. Second hand stores, pawn shops and BargainFinder style newspapers often have quite a selection of units to pick from. The flexibility they provide is a welcome change from any system I ever used or even thought of building/using.

There are two handy features that one should look for when picking up a mixer for these purposes: An "Effect" or "send" feature, and a "Pan" or "position" pot. Looking at the KORG MX-8 in the picture - it has 8 channels in and mixes down to two, or in my case, 1 stereo feed. The Red gain pots at the top are set and forget - adjusts the main audio level so the sources are all the same, whether they be a mic level all the way up to line level outputs. The 8 slider pots obviously adjust the channels level on the mixed output. The Pan control lets you position any source anywhere in that stereo feed - left, right, center and between. Great for parallels , diversity reception or checking on what other (or several) channels are doing.

There are two effect feeds or "sends" - "A" and "B". These are used in my system for tape recording. The effect pots let me send any one of the 8 channels to one recorder and any of the other 7 to the second recorder. Like all tape take off points should be, these are fixed and the level sliders, pan pots, master outputs etc have no effect on their level. 4 sends would be even nicer but generally recording 2 radios and listening to a third (and recording that) usually is enough to get me through the top of the hour id zone.

One big hassle always has been playing back the tapes, quickly and effectively and usually using/needing headphones to try and decipher what you may have recorded. Both recorders (Marantz/Superscope) have line outputs so these are fed back into the mixer. Playback is as simple as tweaking one slider down and another up.....

The other mixer, an older Radio Shack 32-1210, is mainly used for extra imputs related to ham radio and contesting uses. It lacks any send channels but does have the pan position pots. It has bass and treble controls for each channel, while the Korg has them only on the output.

I'm still using my not so trusty older Marantz units for recording, but the unique features available in the mini-Disc format, as mentioned by Chuck earlier, have caught my interest. Especially the time shift feature on one of the Sonys that captures everything up to six seconds BEFORE you hit record. Talk about getting a second chance to grab that unexpected id.

If you haven't considered this mixer route (I know you all have multiple receivers to manage) you might think about it - it's really made things a lot simpler and more effective, and likely cheaper than anything I could have built.

Having a Kodak DC 210 digital camera, I have to use restraint and not bore you all with too many pictures - I have others showing the overall setup and some shots of the cabling jungle behind the

console, but I'll leave those alone for now. List member Larry Gadallah has often offered to set up a home page for things like that, so that's likely the best place to put them - when I get around to it....

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca T0B 2R0 (780) 895-2925

---

premium-rx-digest Wednesday, February 3 1999 Volume 01 : Number 016

Date: Sat, 30 Jan 1999 14:45:17 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Update on List Activity

Gentlemen:

Item #1

This week has witnessed an increase in List membership. We welcome the following:

Bob Parnass, AJ9S parnass@juno.com

Hans-J Kneisner (DJ3UW) KuD-BS@t-online.de

Mike Student, W7MS, Mstud26073@aol.com

George Zeller georgez@acclink.com

Shaun P. Merrigan smerriga@compusmart.ab.ca

If you know of others that have a "Premium-Rx" and would be interested in joining with us, please forward their name to Chuck Rippel or myself.

Item #2

For those that are new, and to remind the membership, all posting to the List is archived at: http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX/ I must admit the archive still needs a little tweaking to make it more user friendly, BUT WE ARE WORKING ON IT.

Item #3

Tony Ward suggested that a "header" be automatically attached by the server to all Premium-Rx posting. Evidently Tony gets so much mail that he can't identify which is important and which is digital noise. So, in recogniton to those of us that are getting old (number 57 in my case), you will note the header Prem-Rx is being added to all List postings. Thanks Tony for the suggestion..... now if you can just remember what Prem-Rx stands for..... :-)

Item #4

It appears that Chuck may be test driving the much heralded KWZ 30 (manufactured by member Hans) in the near future. In addition, I am in the process of "borrowing" a Cubic Communications Premium. If this becomes reality it will be sent to the "Rippel" for a test drive and some RealAudio files for all to share.

In closing, we have enjoyed a great week on the List. John Bryant has become my mentor and is trying to train me to become a DXer. As you probably know I am at home behind the front panel versus in front (some of us are lucky to know both sides).

Have a great Week all.... and keep those suggestions on how to improve OUR List coming this way.

Greg

Date: Sat, 30 Jan 1999 17:23:16 -0600
From: "davez" <davez@ticon.net>
Subject: Re: Prem-Rx: Managing many receivers...

I killed the "Audio Mixer" idea in my system a long time ago. More added electronics for the signal to have to pass in and out of, which can add more hiss and distortion. I keep the audio signal passive. Using an AKAI DS-5 switch box (4 unit) and a RadioShack 42-2115 (3 unit) works to control my 3 mini-disc decks , 2 Reel to Reels, and one cassette deck. A couple of RadioShack 42-2110 "3-button" selector boxes, do the rig selection into the other boxes.

You always try and make it as simple as you can, so when that Rare DX signal hit's you like a bug on the windshield, you are not going "Now why I'm I not getting a audio signal to this recorder", as a GREAT ID just passed crystal clear !!!

Ah yes, this has happend to us all at one time or another, as least for us that have many receivers and recording equipment. Keep it simple and as clutter free as you can, even if it means making a road map as I did of the whole mess.

73 davez

Date: Sun, 31 Jan 1999 20:40:14 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: Prem-Rx: Managing many receivers...

I take a little different tack. Like Dave I prefer to keep the audio path as short as possible. My listening position is a recliner with a rack of receivers on each side, six receivers total. The racks are set at 90 degrees from each other with the recliner bisecting the 90 degree angle. This allows each receiver's speaker to be placed in a three dimensional array. Just as it is easy to listen to individual instruments in the three dimensional stage presented by a good HiFi, one trained listener can keep track of six audio feeds. You can pick and choose what is interesting out of each receiver. I find three receivers are the maximum if I want to get all of the program contents out of each audio feed.

73,

Colin

Date: Sun, 31 Jan 1999 20:46:11 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member

Gentlemen:

Dave Holder has joined the List. Dave joins us from Birmingham, Alabama where he drives a Racal 6790. He can be reached at DavidinBham@aol.com

Greg

Date: Wed, 3 Feb 1999 13:35:42 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Winter SWL Festival

For those of you who might be inclined to visit the Winter SWL Festival this March, here is the adddress of the www page with all the facts and program list:

http://www.trsc.com/Radio/Events/Winterfest/winterfest.html

- ----------

Chuck Rippel Reply to: wa4hhg@amsat.org

Date: Wed, 03 Feb 1999 00:12:56 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Winter SWL Festival

And I see that Chuck is on the forum programme...his topic: WHAT IT'S ALL ABOUT IS AUDIO RECOVERY Now I wonder where that topic came from??? < g
> (only the Premium-Rx list group will really know for sure, eh)
73 - Dave

Chuck Rippel wrote:
> > For those of you who might be inclined to visit the Winter SWL
> Festival this March, here is the adddress of the www page with all
> the facts and program list:
> > http://www.trsc.com/Radio/Events/Winterfest/winterfest.html
> > ----------
> > Chuck Rippel
> Reply to:
> wa4hhg@amsat.org

Date: Wed, 03 Feb 1999 06:00:00 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Prem-Rx: Part Number

Gentlemen:

Does anyone have the part no./nos. for the 2050 backlighting option and if so, what is it? (e.g. the part no. for the HF 8060 preselector is 622-3386--001).

Thank you,

Jon L. Williams

Date: Thu, 4 Feb 1999 23:02:54 -0000
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: K&D KWZ-30 HF-2050 Comparison

- --Message-Boundary-5373 Content-type: text/plain; charset = US-ASCII Content-transfer-encoding: 7BIT Content-description: Mail message body

The KWZ-30 arrived today all ok. By the time I got it unboxed, its first trial was upon me. Caught the new R. Mogadishu frquency of 11204.1USB beginning at about 1930. Its hard to tell in this particular cut because of what RealAudio does to audio detail but my initial bottom line impressions are that it surpasses the HF-2050 in all important audio recovery. The Watkins-Johnson HF-1000A had an edge but was not as pleasant to listen to.

When I had seen the receiver this summer while at Universal Radio, I had initially thought the KWZ was a bit clumsy to operate due to its small number of controls. However, thus far, it is no more difficult than the first R8's or the AOR-7030.

More to come.
+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

----

premium-rx-digest Thursday, February 11 1999 Volume 01 : Number 017

Date: Thu, 04 Feb 1999 11:04:22 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: 2050: Damn It! Dial Lights

About a week ago, my 2050 clock speed started slowing down during some DXing sessions, but not others. The symptoms were that the frequency numerals would flash much more slowly than usual and the receiver was very difficult to tune because the tuning would lag so far behind knob movement. It only did that during a couple of sessions. Once the fault light came on briefly for several times and IN NEITHER CASE would the on-board BIT show any clues... the thing passed its tests with flying colors. It did not change at all as the receiver heated up.The problem only happened during two sessions and then went away.

Yesterday, it was back... I called Don last night and he suggested checking the 5v. power supply as a slightly low power (4.9, 4.8) can cause crazy things with digital gear...

Well, this morning before doing that, I decided to take another picture of the back side of the display circuit board to share with the list, one of these days. After I finished, I re-installed the front panel and the CCF dial lights. The left dial light had never been pushed down all the way on top of the LED pins and wasn't illuminating as well as the right one. I pushed it down further than ever before, turned on the receiver and dial lights and was rewarded with an even much longer flashing rate on the tuning numerals and a fairly constant fault light. I turned off the dial lights...out went the fault light and the tuning flash returned instantly to normal! I couldn't believe it... I turned the lights on and off a few times and they were the culprit!!! I solidified the case by using my new dial light dimming pot... I can control the rate of flashing of the numerals by dimming the lights... OH HELL, OH DAMN! It seems pretty obvious to me that some of the UHF RF in the flourescent tube itself is coupling through the left-hand LED and interfering with the clock speed of the 2050. NUTS, that's spelled with an F!

I hope not many of you have spent the $40 on CCFs yet... I know that our moderator Greg did... Gee, I'll probably turn mine into a 12 Vdc DXpedition note taking light. I'm really sorry, fellas... I thought that I'd been ultra-cautious.... checking out RF emissions that might interfere with the frequencies that the receiver tunes... but I never heard o this one before...

On to LEDs!

JOhn B.

Date: Thu, 04 Feb 1999 10:05:16 -0800
From: John R Bookout K7JB <k7jb@uswest.net>
Subject: Re: Prem-Rx: 2050: Damn It! Dial Lights

Hi John and HF-2050 Lovers!

Gosh John, I was thinking about trying your fluorescent light mod but decided against it! Now I am surprised to find that you discovered an unforeseen problem. CONGRATULATIONS on your discovery. Sorry you had to go though this exercise. But, we certainly applaud your disclosure to the group.

My thought was to buy a piece of Plexiglas and cut it into the a shape that would fit around the LCD. Then mill slots into the plastic to the size of grain of wheat bulbs. Since the ones I have are 5 V each I was thinking of connecting several in series so that their combined rating would be over the supply voltage. They would not be at full brilliance, but I think the light piping would make up for that and the lamp filaments would last longer as well. I am a bit slow to take action as I just have too many irons in the fire right now.

73's K7JB JB

Date: Thu, 04 Feb 1999 12:06:16 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: DSP and Analog receivers

I finally got RealAudio going on my computer here. The sound clip comparing the KD and Collins DSP receivers was real interesting. I was able to hear some things that I think make sense. I think I can hear the more limited dynamic range of the HF-2050, probably due to only being able to record 8 bits (my guess) at 3 MHz on the Collins as a loss in amplitude of the stronger signals and splatter. Also the loss of small signals can be heard as a loss of some of the finer details in the sound. 16 bits is probably the minimum that will give really good performance. HF-2050 owners may have trouble pulling a weak signal out if it is close to a very strong one without a lot of manual adjustment of the gain before the A/D conversion.

As far as comparisons to analog receivers I can quantify the distortion caused by analog filters at the top of the frequency range. Several years ago I wrote a program in Fortran to compute the unwrapped phase spectrum from a recorded impulse response. The program is able to take a .WAV file and compute the phase spectrum over a given range of frequencies. I input a spike into the receiver and record the audio output. Then I analyze this impulse response for amplitude and phase spectra. I find that different filters show different characteristics when comparing the amplitude and phase. Mechanical filters seem to be the worst at losing phase coherence near the high frequency cutoff. In the ones I've analyzed, fully 500 Hz are lost at the cutoff. This is the difference in the frequencies where the amplitude spectrum turns over and where the phase spectrum loses coherence. The components of the spectrum between these two points end up as high frequency ringing and noise. Since the amplitudes here are large, the noise is also. I also have a set of crystal filters that are phase compensated. They are large and probably were quite expensive new. The difference in frequency on these is only about 100 Hz, and this difference is clearly heard. Of course, digital filters don't have this problem, and this is probably what you are hearing when comparing analog and digital receivers, especially receivers with mechanical analog filters.

I expect that adding an audio digital filter to an analog receiver with fairly wide open bandwidth would be close to a DSP receiver since the filter can remove all the ringing caused by the analog IF filter.

John Reed

Date: Fri, 5 Feb 1999 23:19:19 -0500
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Radio Shack "Magic Speaker" back in stock !

Some may remember that about 5 years ago, Radio Shack marketed a 2-way speaker using a driver alignment consisting of a 4" woofer and 1" dome tweeter. There was also a rear panel mounted bass port which I believe to be the secret to this speakers easy driveability at the typical 1-2 watt power levels found in most communications receivers. The combination of the port and use of a 4" low/mid

frequency driver (4" drivers disperse the human voice nearly perfectly, according to James B. Lansing Sound, JBL). All were mounted in a black aluminium cabinet 7"(T) X 4-1/2" (W) X 4-3/8" (D including grill). This was the model PRO-7, catalogue # 40-2066 closed out at the price of $39US.

This speaker was well known as being the top choice when used as an external speaker in combination with about any radio receiver. Unfortunately, Radio Shack stopped marketing this model just after it "caught on" in the radio hobby community.

The speaker has returned ! Radio Shack has re-introduced this exact speaker (as near as I can tell) as the model PRO X44AV, cat # 40-2080.

I removed the grills from both it and one of my older PRO-7's and examined the drivers closely. Both the all important 4" low/mid driver and 1" dome tweeter appeared virtually identical in both the speakers. The rear firing bass port, cabinet dimensions and even the cabinet bolt alignments were also identical.

The only difference I saw was the the older PRO-7 weighs 4-1/2 lbs (2.1 kilos) and the new PRO XV44 weighs slightly more at 4-7/8 lbs (2.25 kilos). The power handling specs have been stated a bit differently with both speakers having a "power handling" of 50W RMS but the PRO XV44 has an additional, "maximum power" rating of 100W (no RMS referred to). Thus, a reasonable conclusion might be that there is a slightly larger magnet in the new PRO VX44 4" driver to accommodate the "additional" power headroom.

I connecting both to my KWZ-30 and R8B, I would say they sound virtually identical.

If you have access to a Radio Shack, I highly recommend one. BTW, they are on sale just now for, you guessed it, $39.95.
+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Sat, 06 Feb 1999 10:30:30 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: Radio Shack "Magic Speaker" back in stock !

At 11:19 PM 2/5/99 -0500, you wrote:

>The speaker has returned ! Radio Shack has re-introduced this
>exact speaker (as near as I can tell) as the model PRO X44AV,
>cat # 40-2080.
>>
>If you have access to a Radio Shack, I highly recommend one.
>BTW, they are on sale just now for, you guessed it, $39.95.

Just bought 2 of them last weekend. They are on sale in Canada during the month of February for $49.95 Cdn, much cheaper than in the States, so if you all come up and spend some of your yankee dollars in poor old Canada, you'll save a few bucks! Just kidding. Seriously, though, with the big difference in the exchange rates (1 Cdn dollar = 67 cents US, though it's been as low as 63 c (ouch)), items generally available in both US and Canada (ie Radio Shack) are often cheaper in Canada. Visitors can also receive their GST (7%) back when leaving. Plus with those exchanges, Canada is a fabulous place to visit, and very economical to Americans these days.

...........Walt (a biased Canadian, from Canada's most beautiful city, Victoria, BC).

Date: Sat, 06 Feb 1999 12:09:36 -0500
From: Joe Buch <joseph.buch@dol.net>
Subject: Prem-Rx: Re: swltalk: Radio Shack "Magic Speaker" back in stock !

At 23:19 2/5/99 -0500, Chuck Rippel wrote:

>If you have access to a Radio Shack, I highly recommend one.
>BTW, they are on sale just now for, you guessed it, $39.95.
Chuck et al,

I went out and bought one today.. The regular price is $59.95 so the sale price is really good by comparison. The sale lasts until the end of February but don't wait too long as the store I bought mine at only had two left.

As a test I hooked the speaker up to the right channel of the stereo in the living room. I put the amp in mono mode so I could pan the balance control from left to right and thereby get an A/B comparison. The original stereo speakers are 10 inch woofer, bookshelf, acoustic-suspension types with pretty good bass response. Panning the sound from the left to the right channel clearly showed the bass end was down from the big speakers but still surprisingly good for the size. The high end was very similar on both speakers. Cranking up the volume to the "Turn that damn thing down!" level using the 30 watt per channel amplifier showed it cleanly handled this power level with no sign of audible distortion.

Next I connected the speaker to the output of my Collins R-388 receiver. This receiver uses a single 6AQ5 in the audio output which is the miniature version of the 6V6. The audio frequency response specs on this receiver are rated at down less than 3 dB at 200 Hz and down less than 7 dB at 2500 Hz. The 6AQ5 will typically put out about 4 watts of audio in Class A service. Not exactly hi-fi but a good compromise for AM BC and shortwave listening. The new speaker sounds cleaner than the old one. The base is much tighter and less boomy than the 4 inch speaker in a vented wooden box that it replaced. I am listening right now to the live WWVA Jamboree from Wheeling on 1170 KHz and it really sounds good.

It doesn't compare to the R-390A driving my den stereo from the diode load output, but then I didn't expect it to.

Another advantage of the new speaker is that the big magnet makes it really heavy. It makes a great bookend for the WRTH, Passport, etc. sitting between the speaker and the radio.

Thanks Chuck. Good tip.

_____ / \ {) o o (} _____oOO_(.)_OOo_____ On the keyboard of life, | _ _ | always keep one finger on the escape key| |_| @ @ @ @ @ |_| | ~*-.,_,.-*~'^'~*-.,_,.-*~'^'~*-.,_,.-*~'| @ _____ @ | Joe Buch | @ @ | | @ | Amateur Radio N2JB | |_____| | joseph.buch@dol.net | @ @ /-\ @ /-\ | - -*~'^'~*-.,_,.-*~'^'~*-.,_,.-*~'^'~*-.,_| | | | | | There are two rules for ultimate success| @ __/Oooo__/| in life. Never tell everything you know.|____oooO____( )____| \ ( ) / _) (_/

Date: Sat, 6 Feb 1999 21:32:11 -0500
From: "Thomas R. Sundstrom" <trscons@bellatlantic.net>
Subject: Prem-Rx: RE: swltalk: Radio Shack "Magic Speaker" back in stock !

I've been using the RS Optimus PRO-7AV speakers for years with very good results on all shortwave, ham and scanner receivers, including the "copper-top" HF-150 where it sounds superb. 40w RMS/80w max. Shielded, so nothing video/computer-wise near it bothers it. 40-2048 black, 40-2059 black, $80, often on sale for $40. And these units have been in the catalog continuously over the years.

Tom Sundstrom - --- Thomas R. Sundstrom <trs@trsc.com

> TRS Consultants <http://www.trsc.com
> PO Box 2275, Vincentown, NJ 08088-2275, USA +1 609 859 2447 | Fax +1 609 859 3226
Contributing Editor, Radio Netherlands' Media Network <http://www.rnw.nl/realradio/
> Contributing Editor, 'Radio & Communications' <http://www.trsc.com/Radio_and_Communications
>

Date: Sat, 6 Feb 1999 21:36:12 -0500
From: "George Maroti" <curious.george@worldnet.att.net>
Subject: Prem-Rx: Re: [HCDX]: Radio Shack "Magic Speaker" back in stock !

I am presently evaluating both the X44AV, and the larger X55AV with the 5 inch woofer and 1 inch tweeter. Both these units are on sale at Radio Shack, and I plan to return one of them within their 30 day return period.

Both these speakers are magnetically shielded, and can be used near your TV set or computer monitor. I believe the added weight compared to the older PRO-7 that Chuck Rippel observed is due to this shielding.

My first impression is that the XV55AV is better suited to reproducing music (particularly the bass) - not surprising since it has a 5 inch woofer.

Either speaker is a nice improvement over the top firing, built-in Drake R8B speaker.

73's

George Maroti - ----------
>
From: Chuck Rippel <crippel@erols.com
> >
> The only difference I saw was the the older PRO-7 weighs 4-1/2 lbs
> (2.1 kilos) and the new PRO XV44 weighs slightly more at 4-7/8
> lbs (2.25 kilos).

Date: Sat, 06 Feb 1999 20:39:22 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Update on List Activity

Gentlemen:

Item 1- This week one of our member questioned me as to how to post to the List.... just in case there are others in the same situations, simple send your post or e-mail to: premium-rx@kahuna.sdsu.edu OR "reply" to any Prem-Rx post (deleting the subject material and entering your own).

Item 2- The address of the Premium-Rx archives is: http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX/

Item 3- This week generated some discussion by John Bryant and Larry Gadallah regarding a WebSite for Premium-Recievers. I have to admit I was working on this earlier and in fact secured an address for our site. However, given the added interest by the two mentioned, I thought this would be a good time to launch the WebSite.

I think it is best to come clean from the get-go, gentlemen... I don't know a thing about generating a WebPage. Additionally, while I can "lean" on a graduate student to generate a WebPage for us, I truly have a hard time justifying assigning a student to do this. However, many of our members have excellent Web presentations and so I am looking for someone (or group) who would like to work on this

project. We need someone who can fondle jpgs and RealAudio files into a presentable package. Did I say VOLUNTEERS?

The address for the Page is: http//kahuna.sdsu.edu/~Premium

Item 4- I did battle with the flu this past week. There is life after the flu. I only mention this to those that either (A) presently have the flu, or are (B) still to come down with the miserable crud. FYI- I gargled daily with Jack Daniel's, it didn't diminish the flu symptoms, just made the total revolting episode seem more palatable.

Item 5- Below is a list of our membership. If you would like to recommend an individual for membership, please drop me a line.

<Greg W. Bailey
> gbailey@mail.sdsu.edu <Tony Ward
> tonyward@home.com <Larry Gadallah
> larry@gadallah.com <John R. Bookout
> k7jb@ptld.uswest.net <James Goodwin
> goodwin@interlog.com <Colin Thompson
> burkec@goldstate.net <Don Moman
> ve6jy@freenet.edmonton.ab.ca <John Bryant
> bjohn@provalue.net <Walter (Voloyda) Salmaniw, MD
> salmaniw@home.com <Bill Bowers
> okbill@brightok.net <Robert Ross
> radiorob@serix.com <David Clark
> davidclark@home.com <John T. Wagner
> WagnerND@aol.com <Raymond Makul
> algo@bellatlantic.net <Ben Hester
> bhester@ols.net <Colin Trass
> cgt01@aol.com <Jan Skirrow
> dma@islandnet.com <Ben Wallace
> bwallace@sd.cts.com <Walt Novinger
> wnovinger@home.com <Dave Zantow
> davez@ticon.net <John Fisher
> 76635.615@compuserve.com <John Reed
> jtreed@poncacity.net <Jon Williams
> bengoshi@iquest.net <Dennis Polito
> cloudhopper@earthlink.net <Nigel Pimblett
> ntp@shockware.com <Mike Student
> Mstud26073@aol.com <George Zeller
> georgez@acclink.com <Bob Parnass
> parnass@juno.com <Hans-J Kneisner
> KuD-BS@t-online.de <Shaun Merrigan
> smerriga@compusmart.ab.ca <Dave Holder
> daveinbham@aol.com
32 subscribers

Best wishes to all, have a safe and rewarding week....

Greg

Date: Sun, 07 Feb 1999 15:09:09 -0800
From: dma@islandnet.com
Subject: Prem-Rx: The Ultimate Transceiver ???

Hi folks ...

If it's good enough for the Marines ... but no DSP!

Have a look at http://www.bbcyber.com/signalone/

Anyway, fantastic specs - Collins mechanical filters for what they say is the "ultimate" in SSB selectivity - I wonder how it would stack up against some of the other premium hardware found on this list?

Cheers

Jan Skirrow, VE7DJX

Duncan, British Columbia, Canada

Date: Sun, 07 Feb 1999 21:17:46 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Speaker, Web Page

Fellas,

Thanks to Chuck, I acquired the last PRO-77 speaker at my local Radio Shack. It was marked "CLEARANCE Sale." My experience has been that RS is serious about Close Outs... so, if you want one of these wonders at a great price, NOW is the time.

I shot several series of photos of the 2050 with Bill Bowers' great Sony Mavica digital and will be uploading them to Greg and Larry Gadallah in the next couple of days... as soon as I finish retouching and captioning. One series is just several portraits with the dust covers off. I know that a number of the list members have not yet had time to "pop the top" so these will be of some interest. I then shot a short series on cleaning and lubricating the tuning knob encoder. That is a very easy operation, but a few pictures might really help the folks like me who are fairly faint of heart when messing around with an expensive set. Lastly, I shot a series on disassembling and cleaning the pushbuttons. This involves taking the main display circuit board off the back side of the front panel, but it turned out to be a very easy operation. It was so easy to take the button assembly apart that I ended up doing preventive maintenance on all of the pushbuttons. Again, a few close-ups might prove helpful to the faint of heart. The whole series is about .6 meg, so it makes sense to have it on a web page rather than uploading it to everybody.

I sure hope that one or two of the list besides Larry G. are knowledgeable about web pages. I don't know a thing about them, myself. Volunteers???

Larry and Greg... I reloaded Photoshop and it is stabile, so stuff will be forthcoming soon.

John Bryant

Date: Sun, 07 Feb 1999 20:49:08 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Prem-Rx: speakers

Gentlemen,

I am also a Pro 7 fan. It's limited range is well suited to communications gear. It is also ok for phase linearity and driver match. Especially at the inexpensive cost.

I don't care for the Pro 77. It has a extensive phase shift and pumped up bass and treble at the expense of the midrange. Voices do not resonate naturally. This is easy to hear if you listen off axis while playing music from a good HiFi.

My personal favorite are the smaller speakers from Linn. The Kan series being the best. They are expensive, but the extra resolution is worth the cost. You will need an outboard amp to drive a Linn speaker.

Perhaps the best compromise between ultra expensive HiFi speakers and RS are the JPW book shelf speakers. To my ears, they make the best budget HiFi speaker on the market and they are ideally suited to communications use, given suitable amp to drive them.

For any new speaker you buy, be sure to break it in. The simplest way of doing this is to hook it up to your stereo play it loud with rock or hip hop for a couple of days while you are away at work. If you buy a pair, you can cut down on the noise during break in by wiring them out of phase and placing the grills facing each, about two inches apart.

73,

Colin

Date: Mon, 08 Feb 1999 01:07:08 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: RS Speakers

The 1999 RS catalogue (for Canada) shows the Optimus Pro X44 AV speakers as being "New", and having a normal list price of $89.50/pr, so 49.95 is a good bargain.

As Chuck as indicated, they seem essentially a direct replacement for the Optimus Pro 7, of which I have two picked up in a sale some time ago. They are really good with communications rcvrs having 4-8 ohm audio output impedance. Sherwood Engineering cites them as good performers with the SE-3 sync detector too.

Date: Mon, 08 Feb 1999 01:14:56 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: 2050 Sources

The Scientic Surplus web page indicates they are sold out. I never got to actually see the sole 100 channel unit they had a few weeks ago. The asking price for this "near-mint" unit was $Cdn 3000, although when I visited the proprietor he offered it to me at the time for $2700 (no manual).

On Saturday I visited Toronto Surplus. They had one unit (30 channel) on the shelf which looked so-so, having one bad paint gouge on the front panel. The asking price was $US 3000 (with manual). Big difference!!

No doubt, Lamont, Alberta remains the 2050 capital of the world.

73 - Dave

Date: Sun, 07 Feb 1999 22:38:11 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Collins HF-2050

For the group, here's 3 more 2050's out there in the world...Thanks to Paul Peters for locating them for us.

.....Walt.

> Walt... at http://vhamfest.com/wtb.html I saw the following ad and
>thought you or Jan might find it of interest.
> RF Communications (Harris) Power Supply Wanted
> Model:
> Harris RF-130 and RF-230 system Harris RF-230 I have for sale or for
>trade 3 Harris RF-110a kilowatt amplifier (2x
> 4cx1500b drived by 2x 8122) broadband covering 2 MHz to 30 MHz in 19
>segments. 2 RF-131 excirer for RF-110a.
> Also RF-1810 test set. I'm in need of RF-124 power supply and of
>interconnecting cables. I have all the service
> manuals except the manual for the test set. Also have 2 RF-236 power
>supply and 4 RF-252 frequency controllers for
> RF-230 transceiver but I miss the transceiver. Also have for trade
>HyGain R-1530 (galaxy) and the famous
> Collins/Rockwell HF-2050. I can also sell the Rockwell/Collins HF-2050
>for $2200 usd. I have 3 of those. Also have
> 125 communication receivers for trade. Luc Dugas VE2LGJ
> Contact info: 418-723-9689 7 am - 11pm EST / collins2@globetrotter.net
>(WY) 12/07/98 Ad Number: 1847 --
>Paul B. Peters
>StoneyGround Station
>QTH: 48'42"N x 123'35"W
>Cobble Hill, B.C., Canada "Learn to listen... so you can listen to learn"
>

Date: Mon, 8 Feb 1999 21:00:42 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: HF1000/HF1000A audio question

I'm considering purchase of what is apparently on older Watkins-Johnson HF1000 -- one with the audio output brought out to a D-connector instead of a terminal strip.

The initial 1995 review in QST criticized the HF1000 audio for being polluted with "digital noise," but I vaguely recall reading of a WJ modification, perhaps adding chokes as a countermeasure.

Can anyone comment on the effectiveness of this modification?

I don't want to spend a lot of money on a receiver if it has a spurious noise problem.

Also, if anyone else has an HF1000 or HF1000A for sale, especially with preselector, please contact me.

Thanks.

= =

Date: Tue, 09 Feb 1999 06:10:21 -0500
From: David Clark <davidclark@home.com>
Subject: [Fwd: Prem-Rx: RS Speakers]

Sorry, fellas! Of course I meant to say the regular/sale price of the speakers in Canada is $89.50 / $49.50 EACH (not per pair).

They are magnetically shielded for those who care also, although there is an error in this regard on page 58 of the 1999 (Cdn) RS catalogue.

73 - Dave -

Date: Tue, 09 Feb 1999 09:43:55 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: RCA CU-5069 Multicoupler

Thought I'd let the group know of ex Canadian military surplus solid state RCA CU-5069 multicouplers available from WJ Ford (as yet not on his website). These were used in the famous elephant cage antennae array for signals intelligence purposes. They have 32, count them, 32 BNC outputs. Price paid was $150 Cdn plus GST and shipping.

.....Walt.

Date: Tue, 9 Feb 1999 11:14:24 -0700
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: RE: Prem-Rx: RCA CU-5069 Multicoupler

Following up on the CU-5069's, the ones I received are distribution multicouplers as opposed to primary multicouplers. The difference, as used in the AN/FRD-10 installation is that the primary multicouplers included filters (highpass,lowpass, bandpass) to limit the bandwidth from the various antennae before the signals hit the distribution multicouplers. The upshot is that, the units I received have a bandwidth of about 350kHz to
> 50Mhz. The upside to this is that these couplers could be used for BCB and HF work instead of the usual HF only coverage. The downside is that input filtering is required to prevent overloading on certain receivers. I built a couple of simple highpass filters which do the job.
Shaun Merrigan

Shaun P. Merrigan Edmonton, Alberta, Canada 53.43N 113.25W smerriga@compusmart.ab.ca

---

Date: Tue, 9 Feb 1999 17:18:03 -0700
From: Walt Novinger <wnovinger@home.com>
Subject: Re: Prem-Rx: HF1000/HF1000A audio question

Hello Robert,

On Monday, February 08, 1999, you wrote:

> I'm considering purchase of what is apparently on older Watkins-Johnson HF1000 -- one with the audio output …
I have the HF-1000 with the terminal strip (according to WJ, with whom I have chatted on a number of occasions, the latest version), and I can tell you that the audio that comes out the speaker channel (on the back of the rx) is *loaded* with digital hash. On the other hand, the audio coming out of the phones channel (on the front panel) is absolutely clean. So, I use the phones output, either to a sensitive speaker or to the input of an amp, and forget about the speaker channel.

No, the WJ isn't for sale at this time :) Sorry...

Best regards, Walt

= Walt Novinger
Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com

---

Date: Tue, 9 Feb 1999 17:19:22 -0700
From: Walt Novinger <wnovinger@home.com>
Subject: Re: [Fwd: Prem-Rx: RS Speakers]

Hello David,

On Tuesday, February 09, 1999, you wrote: DC
> Sorry, fellas! Of course I meant to say the regular/sale price of the DC
> speakers in Canada is $89.50 / $49.50 EACH (not per pair).
DC
> They are magnetically shielded for those who care also, although there DC
> is an error in this regard on page 58 of the 1999 (Cdn) RS catalogue.
DC
> 73 - Dave
Actually, according to the chart in the RS catalog I just picked up last evening in Calgary, the speakers mentioned are *not* shielded. I was surprised at this, as Chuck and others have said they are...catalog misprint??

Best regards, Walt

= Walt Novinger
Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com

---

Date: Tue, 9 Feb 1999 17:21:16 -0700
From: Walt Novinger <wnovinger@home.com>
Subject: Re: Prem-Rx: RCA CU-5069 Multicoupler

On Tuesday, February 09, 1999, Walter wrote: WVSM
> Thought I'd let the group know of ex Canadian military surplus solid state WVSM
> RCA CU-5069 multicouplers available from WJ Ford (as yet not on his WVSM
> website). These were used in the famous elephant cage antennae array for WVSM
> signals intelligence purposes. They have 32, count them, 32 BNC outputs. WVSM
> Price paid was $150 Cdn plus GST and shipping.
WVSM
> .....Walt.
Hey, that's almost enough outputs to handle all of Clark's receivers, eh, Dave??

Best regards, Walt

= Walt Novinger
Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com

---

Date: Tue, 9 Feb 1999 19:03:49 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: RS spkr mag shielding

Walt said:

> ...Actually, according to the chart in the RS catalog
> I just picked up last evening in
> Calgary, the speakers mentioned are *not* shielded. I was surprised at
> this, as Chuck and others have said they are...catalog misprint??

Bought two Radio Shack Optimus PRO-X44AV speakers today (cat # 40-2080 black color) for $39.95 US each.

The instruction sheet packaged with each speaker claims "the speaker is magnetically shielded so you can safely place it next to your television or monitor."

They do sound better than the older, particle board enclosed speakers I had on the Mackay 3031A and NRD535D.

= =

Date: Tue, 09 Feb 1999 18:07:38 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: Prem-Rx: RS spkr mag shielding

The AV in the model number means Audio Video. To have this in the model number indicates that they are shielded.

73,

Colin

> Bought two Radio Shack Optimus PRO-X44AV speakers
> today (cat # 40-2080 black color) for $39.95 US each.

Date: Tue, 09 Feb 1999 22:09:15 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Current HF 2050 use

Sources tell me that the 2050 (the 30 channel variety) is still currently used on the Tribal class destroyers, with 9 units on the particular ship she was familiar with. She was aware of the heat problem, but denied ever having failures. The sticky key problem was well known, and were fixed with WD40 (!!). The radios were cooled by the ship's air conditioning system.

Walter Salmaniw, Victoria, BC.

Date: Thu, 11 Feb 1999 08:49:07 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: 2050-UnLocking the Dial

Gentlemen:

I was having a conversation with Dr. Walt on the sidebar when he noted that his "...biggest peeve I have now (with the 2050) is the necessity to unlock the dial with every frequency change. I'm unaware of any way around this. Is there? ..."

I too have this problem. In addition, sometimes when I go to a preset/memory frequency, and then want to manually tune "around", I find not only is my dial is "locked' but the tuning rate is on maximum

This means I have to unlock the dial AND re-adjust the tuning rate or I find myself at 28MHz in a few turns.

Anyone got a solution..... Are we the only ones that are 2050 dysfunctional?

Greg

70 today, 78 predicted for tomorrow..... just another shitty day in paradise but someone has to live here.

---

premium-rx-digest Tuesday, February 16 1999 Volume 01 : Number 018

Date: Thu, 11 Feb 1999 11:06:45 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: Prem-Rx: 2050-UnLocking the Dial

Howdy,

On my rig you have to unlock the dial in the normal mode after the enter key is pressed. In the after tuning do a preset memory I do have to unlock the dial but the tuning rate stays where it was. In other words it does not automatically jump back to the fast tuning rate. I would be interested to know if this difference in operation is a glitch or is a production change.

For the record, I find the HF-2050's idiosyncrasies minor and is is a joy to operate. Granted it doesn't give you that wonderful feeling of operating a real radio like a R-390A. Bare in mind these comments come from one who finds interface of the AR5000 and 7030 intuitive and easy to operate.

73,

Colin

Date: Thu, 11 Feb 1999 16:36:42 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: Prem-Rx: 2050-UnLocking the Dial

Here's how all the ones I have work:

If you recall a preset frequency (CH,#,enter) then it LOCKS and the tuning rate goes to SLOW. Greg, does yours really go to Fast? That would be different than any I recall, and from those I have.

If you just key in a freq, it LOCKS but the tuning rate is unchanged.

Yes, it would be nice not to have to reset these functions, but I find myself just automatically hitting the extra 1 or 2 buttons at the end of a sequence out of habit.

I doubt there is any way, short of rewriting the operating software, to accomplish this. In their original military "channelized" life this was likely considered a feature worthy of implementing.

Thanks to Walt for the notice on the RCA multicouplers... I've been looking for a m/c with response down thru the low end of BCB, so I'm hoping these will do the job. While 32 channel outputs may be a bit of an overkill, it may be possible to split them into 2x16, 4x8 etc. I did that with a TMC 16 channel solid state unit - now used as a 4x4 configuration.

73 Don VE6JY

On Thu, 11 Feb 1999, Greg W. Bailey wrote:

> Gentlemen:
> > I was having a conversation with Dr. Walt on the sidebar when he noted

> that his "...biggest peeve I have now (with the 2050) is the necessity
> to unlock the dial with every frequency change. I'm unaware of any way
> around this. Is there? ..."
> > I too have this problem. In addition, sometimes when I go to a
> preset/memory frequency, and then want to manually tune "around", I find
> not only is my dial is "locked' but the tuning rate is on maximum This
> means I have to unlock the dial AND re-adjust the tuning rate or I find
> myself at 28MHz in a few turns.

Date: Fri, 12 Feb 1999 20:50:58 -0700
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: Prem-Rx: RCA CU-5069 Multicoupler

Hello everyone,

Just some further remarks on the RCA-5069 multicoupler (which is a TMC AMC-32). In the units that I received, the heatsink compound under each of the 34 or so screw-on (unique!!) heatsinks was dried out . This should be replaced ASAP (after removing the old, flaky compound) in order to prevent transistor failure. Also, I have found that the units run *quite* warm, even mounted on the top level of an open rack. I will be adding a small muffin fan to each, just to keep the chassis (and hence the transistors) cool. If you are considering mounting these in any type of enclosed space, I would strongly recommend forced air cooling of some sort.

Shaun

Shaun P. Merrigan Edmonton, Alberta, Canada 53.43N 113.25W smerriga@compusmart.ab.ca

---

Date: Sat, 13 Feb 1999 20:06:07 -0800
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Prem-Rx: Schematics for HF-2050

I'm trying to better understand my HF-2050 but have an incomplete set of schematics with my technical manual. Where can I get a set?

Thanks, Ben -- WB8HUR San Diego

Date: Sun, 14 Feb 1999 07:17:23 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Re: Prem-Rx: 2050-UnLocking the Dial

Fellas,

As far as I've found, there is no way to keep the tuning knob from defaulting to LOCK when any parameters are input via the button switches.... BUT,

The "problem" with the tuning rate defaulting to SLOW or to FAST when you get in volved with the CHANNEL mode is simple to solve, at least on my 2050. I discovered by accident that A*L*L channels default to the last tuning rate STOREd in any channel. So, if you want to change the default tuning rate in CHAN mode to SLOW, get to one of the stored channels, change the tuning rate to SLOW manually, hit STORE and re-enter the same channel number. That should change the default to SLOW for all channels. The reason that most were set to SLOW, probably, is that tuning thru the channels with the knob, when the tuning rate is set even to MEDIUM is really twitchy. I find that the FAST default for channels is impossible to operate.

Another thing that I stumbled on to is that, if I've input a partial frequency and have a punch in error, I do not have to hit NORM and then FREQ to start over.... I just hit FREQ and the partial entry is cleared and I can immediately restart punching in the numbers. A keystroke saved is a keystroke earned.

As far as I can tell, neither of the above are covered in the manual. Has anybody stumbled onto any other handy quirks???

John Bryant.

Date: Mon, 15 Feb 1999 20:05:07 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Nominations are now open---

Gentlemen:

For those members NOT in Canada, Deutschland, or employed by the State of California..... I trust everyone had a good President's Day?

Larry Gadallah, our Web-master has requested our assistance in constructing the Premium-Rx Website. He proposes to have a "page" on each premium receiver. This page would parallel the format of Osterman's book including a , however, each member that has the specific receiver illustrated would be able to include his comments regarding the device under question.

Thus, our first challenge is to generate a list of "Premium Receivers" for Larry to include in the Website. Be advised, the receivers we nominate will only be the initial starting point. Others can be added as the technology matures.

Larry started his list with the following:

K&D KWZ-30 Collins HF-2050 Harris RF-590 Harris RF-550 Collins 651-S1 Racal RA-6792 Racal RA-1792 Rohde & Schwartz EK-070 W-J HF-1000

Surely there are a flock of other makes and models that should be included. I trust you will forward your nominations (suggestions) to the List. Larry will be taking notes and making the final decision.

Let's not be shy now.....

Greg

P.S. There is a rumor out here on the on the west coast of the US of A that there was a gathering of the "minds" somewhere up in Maple Leaf country this past weekend. I trust we will get a report and some pictures.... Remember this is a G Rated group! :-)

Date: Tue, 16 Feb 1999 08:13:57 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Prem-Rx: Premium Receiver List

Gentlemen:

This is an attempt to respond to Greg's recent request for "premium" receiver nominations. First, in my view, a web page illustrating premium receivers is a great idea. However, since I do not have the early postings of this group, I am not precisely sure what constitutes a "premium receiver". One reference I have noted in a previous posting is that this group is for those who own, use, or design on a daily basis "high performance uP controlled HF receivers". It would be helpful, I suggest, to know the criteria which might qualify or not qualify a particular receiver as "premium" for inclusion in the proposed list--e.g. initial price, quality of build, manufacturer, level of performance, rarity, reputation, one which is considered a classic (e.g. SP600)--some of these criteria, all of them--or maybe "you know one when you see it". Does an R390A qualify as opposed to an R392 or R388---or a Drake 4245 and

not an R7/R7A., or a Mackay Marine 3010 & not a Drake R4B or R4C---or maybe the receiver must have an original selling price of $2,000- minimum.

What I can say is that as I write this, I am listening on the 2050 (and recording with an R7) to some of the hauntingly beautiful musical interludes on 6130 (lsb) which I believe to be Laos, and am reminded that using an HF receiver that is capable of receiving this is a real joy.

Definitional suggestions?

Jon L. Williams

Date: Tue, 16 Feb 1999 08:59:42 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: Nominations are now open---

Good idea, but first of all we need to decide what constitutes a premium receiver. From the list above, the requirement of uP control isn't one of the attributes of a premium receiver since the Harris RF-550 doesn't have a uP in it. As far as performance, I have an old (early '70s) navy surplus solid state receiver (R1414/URR) that doesn't even have synthesizer frequency control that beats the HF-1000, RF-550, RF-590 NRD-525 sets on the broadcast band due to ultra low phase noise. The analog LO on the set is locked to 100 Hz points and the background noise in the crowded broadcast band is much lower. Is this a premium receiver?

John Reed

---

premium-rx-digest Saturday, February 20 1999 Volume 01 : Number 019

Date: Tue, 16 Feb 1999 18:37:49 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: HF-2050 cited on web page

For those Collins HF-2050 enthusiasts who have not already seen this Canadian Air Force web page, there's a paragraph describing the HF-2050 and other high end equipment at this URL:

http://www.8wing.trenton.dnd.ca/8accs/equip/hf.htm

For more high end communications equipment, surf up a level to this page:

http://www.8wing.trenton.dnd.ca/8accs/equip.htm

= =

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Thu, 18 Feb 1999 13:58:04 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Comment on the Beasts-

Gentlemen:

Last week I posted an "invitation to nominate" receivers for inclusion to the proposed Prem-Rx Website. As stated at the time, I was trying to gather some information for Larry who is presently putting together our Prem-Rx homepage. I feared my invitation would generate an shower of posts, ... perhaps as much as, ... say... , mentioning "radioactive meters" on the R-390 List. But I found my concerns were misplaced.... only three members replied. Two of these, Jon Williams and John Reed,

questioned how one defines a Premium-Rx. I had hoped others would join in, but the noise level on the "band" has been dead.

Being a wires and pliers type, I am at a disadvantage when it comes to operating one of these devices and thus evaluating one box against another. My background includes my first receiver, a Heathkit AR-3. At the time I thought is was the world's finest, however, I am not sure it would earn the right to be on the Webpage.

In an effort to establish a starting point:

1. I propose to drawing a line in the sand..... sand state that is. The 600 and the 390 (plus others) are excellent Premium-Rx but their production date and associated vacuum technology sets them aside.

2. Electronic digital display, I think we need to say gear trains and dial strings may work, but technology has moved on.

3. ?

So, gentlemen, this eliminates my AR-3, but opens the door to a pot full of other machines. What is your pleasure? Let's hear from some of the heavy DX hitters. I recently saw a picture of some really ugly guys and a whole room full of beautiful radios.

What say membership.... at least comment on the beasts in the picture, or add to my list above. This is our List/Webpage, it is what we will make it.

Greg

>

> This is an attempt to respond to Greg's recent request for "premium" receiver nominations. First, in my view, a web page illustrating premium receivers is a great idea. However, since I do not have the early postings of this group, I am not precisely sure what constitutes a "premium receiver". One reference I have noted in a previous posting is that this group is for those who own, use, or design on a daily basis "high performance uP controlled HF receivers". It would be helpful, I suggest, to know the criteria which might qualify or not qualify a particular receiver as "premium" for inclusion in the proposed list--e.g. initial price, quality of build, manufacturer, level of performance, rarity, reputation, one which is considered a classic (e.g. SP600)--some of these criteria, all of them--or maybe "you know one when you see it".
Does an R390A qualify as opposed to an R392 or R388---or a Drake 4245 and not an R7/R7A., or a Mackay Marine 3010 & not a Drake R4B or R4C---or maybe the receiver must have an original selling price of $2,000-minimum.

What I can say is that as I write this, I am listening on the 2050 (and recording with an R7) to some of the hauntingly beautiful musical interludes on 6130 (lsb) which I believe to be Laos, and am reminded that using an HF receiver that is capable of receiving this is a real joy.

Jon L. Williams

>

> Good idea, but first of all we need to decide what constitutes a premium receiver. From the list above, the requirement of uP control isn't one of the attributes of a premium receiver since the Harris RF-550 doesn't have a uP in it. As far as performance, I have an old (early '70s) navy surplus solid state receiver (R1414/URR) that doesn't even have synthesizer frequency control that beats the HF-1000, RF-550, RF-590 NRD-525 sets on the broadcast band due to ultra low phase noise. The analog LO on the set is locked to 100 Hz points and the background noise in the crowded broadcast band is much lower. Is this a premium receiver?
John Reed

Date: Thu, 18 Feb 1999 19:15:37 -0800
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Re: Prem-Rx: Comment on the Beasts-

OK Greg....I will give you possible candidates -- receivers I have:

AOR 7030

JRC NRD-515

JRC NRD-525

Drake R-7(A)

Ben -- WB8HUR San Diego

Date: Thu, 18 Feb 1999 21:52:19 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Comment on the Beasts-

When I think "premium receivers," these attributes come to mind:

usually designed for commercial and/or government markets instead of consumer use high quality physical construction

often designed for field servicing, e.g., modular construction high quality, detailed service/maint. documentation available, including parts lists, board layouts, etc.
munufacturer's literature contains full specifications which use industry standard metrics (e.g., 12 dB SINAD for FM sensitivity specs) "crunch resistant" front end uncommon, intriguing
= =

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Fri, 19 Feb 1999 10:05:36 -0700 (MST)
From: Larry Gadallah <larry@gadallah.com>
Subject: Re: Prem-Rx: Comment on the Beasts-

> > OK Greg....I will give you possible candidates -- receivers I have:
> > > > AOR 7030
> > JRC NRD-515
> > JRC NRD-525
> > Drake R-7(A)
> > > > Ben -- WB8HUR
> San Diego
> Ben's note inspired me to suggest that we simply call for nominations for Premium RXs and then vote on them using the list. I would add to Ben's list:
Drake R-8/R-8A/R-8B JRC NRD-535/NRD-545 Harris RF-590/RF-505 W-J HF-1000/Other Mil SigInt RXs Racal RA-6790/RA-1790 Collins 651-S1/2050/Other? McKay-Dymek DR-333

It is interesting to note that of all the receivers mentioned above, only the R-7 and the Harris RF-505 are _not_ computer controllable. This was Greg's original criterion, and perhaps it would still work.

Another possible criterion would be to accept any receiver used for serious DXing by "Premium DXers". How about a show of who uses what? (Mr. Clark is exempted from this, as he appears to have one of everything. :-))

I would also ask whether it would be reasonable to eliminate all glass-FET (tube) based receivers, on the grounds that they are more than adequetely represented by the various other boatanchors, R-390, etc forums?

Mr. Parnass subseqently points out that the RF performance of a given reciver should also be taken into consideration, to keep out the Ten-Tec RX-320 and Icom R-100 and other recent "Black Box" radios.

In order to keep every receiver manufactured in the past 5 years out of the list, I would also suggest that any receiver manufactured and sold solely to the consumer market (i.e. Amateur, SWL) be eliminated. Note that in the case of the AR-7030, since variants of this receiver were built and sold to marine/government customers, it is not excluded.

The summary of attributes of Premium RXs:

- - Digital Frequency Synthesis - - Computer Controllable - - Solid State - - In Active Use By "Real DXers"(TM) - - Above Average RF Performance - - Not Built Solely for Consumer/Amateur/SWL Market

73, - -- Larry Gadallah, VE6VQ larry@gadallah.com Calgary, Alberta, Canada http://www.gadallah.com/~larry Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5

Date: Fri, 19 Feb 1999 23:09:37 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: Premium-RX Candidate Criteria and List Proposal

Fellas - please refer to attached plain text file

(if anyone can't retrieve the attachment, let me know)

73 - Dave

Date: Fri, 19 Feb 1999 23:12:19 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: Premium-Rx Candidate Criteria & List (w/attachment)

Opps - sorry - forgot the attached text file in prev message

73 - Dave -

Keeping in mind that we probably won't have all of these receivers represented, even amongst this august group <g>, following is my suggested Premium Receiver list (all of which can be found in vol 3 of Fred Osterman's book).
For our purposes, I suggest we still clear of hollow state (as much as I love 'em) and other pre-digital-readout gear which is generally represented well on other hobby list groups. With few, perhaps debatable exceptions, I suggest our primary focus should be on "semi-professional" and other commercial/military/government target market gear. That would thus exclude otherwise worthy "popular" mass market receivers such as the Drake R7 & R8 series, and the JRC-515/525/535 rigs.

However, I do think we should definitely include the two (so far) recent "top-end" hobby market DSP receivers, namely, the K + D KWZ-30 and the JRC NRD-545...the 2050 of course begs for comparison with these upstart puppies!

BTW, I agree with and include herein all the receivers on Larry's starter list, except I'd exclude the Harris RF-550.

COLLINS:

451S-1 [try and find one!] 651S-1 HF-2050 (DSP)

CUBIC:

R-3030 R-3050

DRAKE:

DSR-2 R4245

JAPAN RADIO:

NRD-93 NRD-505 NRD-545 (DSP)

KNEISNER + DOERING:

KWZ-30 (DSP)

RACAL:

RA-1792 RA-6790GM (not 6792-typo)

HARRIS RF:

RF-590/590A

ROHDE & SCHWARZ:

EK-070

TELEFUNKEN:

E1800/1800A

WATKINS-JOHNSON:

HF-1000/1000A (DSP)

Of this group, the models I currently have at hand are: 651S-1, HF-2050, NRD-505, KWZ-30, RA-6790GM

Referrring to the RA-1792, shuffle the main tuning knob and the front-facing speaker around a little and the resemblance to the HF-2050 is quite striking. Anyone else notice that?

Anyhow, as Greg says, let's have some further input from others to assist Larry in moving this excellent project forward!

73 -- Dave

Date: Fri, 19 Feb 1999 20:34:53 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Premium-Rx Candidate Criteria & List

I've been thinking about this one all day, and see that David Clark has beat me to the punch. For what it's worth, however, I too wish to echo the view that the various common table top receivers (Icoms, JRC, Kenwoods, etc) should not be included in the list. When I acquired the 2050, I was astounded at the quantum leap in performance and technology. That is the magical thing about these receivers.

They weren't manufactured for the hobby market, but rather for the vigorous demands of the commercial/military user at costs often upwards of $10,000. The fact that they are so uncommon, and to me at least, completely unknown, until the publication of Receivers Past and Present, places them in a category to themselves. Lets not dilute them with the common receivers we've all owned and loved! Ditto for the older BA's. Agree that they are well represented elsewhere. Of course, I encourage comparisons in performance, etc.

Just my 0.02 worth.

.....Walt. (Victoria, BC)

Date: Fri, 19 Feb 1999 20:55:36 -0800
From: Colin Thompson <burkec@goldstate.net>
Subject: Re: Prem-Rx: Premium-Rx Candidate Criteria & List

Walter says it well. I believe the list should be restricted to high performance and or comercial/military grade receivers that are fairly exclusive. While Drake, AOR, JRC consumer models and several older tube receivers are certainly high performance rigs, there are plenty of on line resources available for them. This list would do well to fill in the gap and focus on the eclectic super RXs. Given the limited distribution and high performance, I would think the HF1000A and KWZ would fit also the list perameters.

73s from a room heated by R-390As and a HF-2050,

Colin

"Walter (Volodya) Salmaniw, MD" wrote:
> > I've been thinking about this one all day, and see that David Clark has
> beat me to the punch. For what it's worth, however, I too wish to echo the
> view that the various common table top receivers (Icoms, JRC, Kenwoods,
> etc) should not be included in the list. When I acquired the 2050, I was
> astounded at the quantum leap in performance and technology. That is the
> magical thing about these receivers. They weren't manufactured for the
> hobby market, but rather for the vigorous demands of the
> commercial/military user at costs often upwards of $10,000. The fact that
> they are so uncommon, and to me at least, completely unknown, until the
> publication of Receivers Past and Present, places them in a category to
> themselves. Lets not dilute them with the common receivers we've all owned
> and loved! Ditto for the older BA's. Agree that they are well represented
> elsewhere. Of course, I encourage comparisons in performance, etc.
> > Just my 0.02 worth.
> > .....Walt. (Victoria, BC)

Date: Sat, 20 Feb 1999 00:26:28 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Premium-Rx Candidate Criteria & List

Walter's comments and input on this list are obviously a lot more valuable than 2 cents (.02) worth <g> !!
Walter makes a helpful statement which (in our shared view, obviously), makes a good case for what we wanna do on this list and on the website, for which we are clearly indebted to Larry G. for taking up that challenge!

73 - Dave

Walter (Volodya) Salmaniw, MD wrote:
> > I've been thinking about this one all day, and see that David Clark has
> beat me to the punch. For what it's worth, however, I too wish to echo the
> view that the various common table top receivers (Icoms, JRC, Kenwoods,
> etc) should not be included in the list. When I acquired the 2050, I was
> astounded at the quantum leap in performance and technology. That is the
> magical thing about these receivers. They weren't manufactured for the
> hobby market, but rather for the vigorous demands of the
> commercial/military user at costs often upwards of $10,000. The fact that
> they are so uncommon, and to me at least, completely unknown, until the
> publication of Receivers Past and Present, places them in a category to
> themselves. Lets not dilute them with the common receivers we've all owned
> and loved! Ditto for the older BA's. Agree that they are well represented
> elsewhere. Of course, I encourage comparisons in performance, etc.
> > Just my 0.02 worth.
> > .....Walt. (Victoria, BC)

Date: Sat, 20 Feb 1999 06:44:10 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Re: RCA CU-5069 Antenna Coupler/Splitters

Fellas,

I recently purchased a 1-into-5 active antenna splitter from a fairly new outfit called Strindsberg Engineering of Shreveport, LA. It ran about $150 but I bought it... nice compact and 12Vdc. Perfect for DXpeditions and ever so much better built and with far better customer service than the ICE group outta Indianapolis. I'm gonna write us a review of the Strindberg unit one of these daus soon. However, I'm looking for a back up to my Navy 1-into-32 splitter and was very interested in the notes on the RCA unit at Ford's in Ontario.. mentioned these past several days. I'm appending the correspondence from Ron Ford. (I'm ordering one today, if they are open.)

John Bryant

Following up on the CU-5069's, (they were from FORD, recently, JHB) the ones I received are distribution multicouplers as opposed to primary multicouplers. The difference, as used in the AN/FRD-10 installation is that the primary multicouplers included filters (highpass,lowpass, bandpass) to limit the bandwidth from the various antennae before the signals hit the distribution multicouplers. The upshot is that, the units I received have a bandwidth of about 350kHz to
> 50Mhz. The upside to this is that these couplers could be used for BCB and HF work instead of the usual HF only coverage. The downside is that input filtering is required to prevent overloading on certain receivers. I built a couple of simple highpass filters which do the job.(This by Shaun Merrigan)
>Comments: Authenticated sender is <testequipment@host.falls.igs.net
<<
From: "W.J. Ford Surplus Enterprises" <testequipment@falls.igs.net
<<To: John Bryant <bjohn@provalue.net
<<Date: Thu, 18 Feb 1999 22:57:54 -0500 >
Subject: Re: RCA CU-5069 Antenna Coupler/Splitters >Reply-to: testequipment@falls.igs.net
>Priority: normal >X-mailer: Pegasus Mail for Windows (v2.23) >X-RCPT-TO:
<bjohn@provalue.net

< < > John,
< < Yes, we do have the RCA CU-5069 on hand. These appear to be in good > shape, and we check them to ensure they are alive before shipping. > Foloowing is a quick summary for your reference:
< < RCA CU-5069 $150.00 > est. shipping UPS $32.00 > = = = = = = = = = = = = = = = > est total $182.00 Canadian > approx. $121 U.S.
< < Please let me know if you would like to order one of these > multicouplers, or if you have any further questions. I have attached > our standard ordering notes to help explain payment options etc.
< < thank you for your inquiry > i will look forward to hearing from you.
< < Regards, > Ron Ford
I then asked about frequency coverage and were they the same as Shaun's units. The Reply:

John,

Seems to me I sold Shaun one of these things a little while ago....I believe these are the units Shaun is talking about.

An alternative number to use if you are looking for spec's is AMC 32 (by TMC). It is rated ate 100 kHz to 60 MHz, which roughlycorresponds to the results we got when we swept one (we didn't worry about going under 1 MHz).

Please let me know if you decide to order one, or if there is anything else we can do for you.

Regards, Ron Ford
> W.J. Ford Surplus Enterprises / RF Science & Technology phone: (613)283-5195 {8-4 EST}
> 21 Market St. N., P.O. Box 606, fax: (613)283-0637 {24 hr/day}
> Smith's Falls, Ont. K7A 4T6, Canada
> > http://www.falls.igs.net/~testequipment email: testequipment@falls.igs.net
> http://www.falls.igs.net/~rftech (a new site for new stuff...) rftech@falls.igs.net
> **********
> All Prices are quoted in Canadian Dollars, exclusive of shipping & domestic taxes.
> Current conversion to U.S. currency is approximately 0.66
> **********
> >
>

Date: Sat, 20 Feb 1999 17:27:37 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: LittleLites, BNC 50 Ohm Cable, etc.

Fellas,

I just received my first order of stuff from Derek Yungling, K7FF, and I'm so happy that I thought I'd better give you a heads-up on this excellent source. Derek buys and resells electronic surplus, both used and (primarily) new-in-the-box. Most of the surplus appears to come from the military.

My new Strindsberg 1 to 5 splitter and my Navy splitter both use BNC connectors as does the 2050, of course. I decided to finally surrender and abandon PL-259 type coax. I'll save the best o what I have for DXpeditions and junk the rest. I ended up ordering about $150 worth of cable from Derek. Multiple lengths at 6', 8', 12' and several at 70' for connection to my beverage farm. All of the shorter lengths came still sealed in their original mil-spec paper or foil envelopes and the longer lentgths, clearly marked as "lightly used" in the K7FF list were each in really fine, almost mint, shape. The prices for alla this mil-spec stuff (and the connectors look fabulous) were VERY reasponable. I also bought a very nice, very sturdy and only slightly used fiberglass case that is large enough for a well padded NRD-525 plus accessories, should I need to check the 525 thru on an airline or UPS it to myself at some remote location. The case was $35.

Finally, what forced me to write this was a mention in Derek's list of clipboards with goose-neck lights attached, used, from the California Highway Patrol... they used the things to write tickets on... Well, it was $15.00, so what the 2050 heck....Well, it turned out to be a LittleLite.. the item discussed on this list by Jon Williams and something that I know quite a bit about.

I first met LittleLights about 15 years ago..... I believe that they were developed to use on sound control boards and big mixers in the music and radioTV industries. I think that the original one had a BNC connector at the base and plugged into the 12Vdc output that is found on many operators panels.. The LittleLite is often refered to as a goose-necked lamp because the heart of it is a 12" or 18" armored flexible cable (about 1/4" in diameter) that is very similar to the old incandescent bulb "goose neck" lamps from the 30s and 40s. Atop the flex cable is a typical bayonet base for a small dial-light sized bulb. The cheap version of the lamp uses normal dial-light-type bulbs, with a smooth tubular lamp cover, so light does not get in the operator's eyes. The more expensive version is set-up for quartz halogen bulbs (of the same size) which put out a lot more and a lot whiter light. Their lamp cover is a finned heat-dissapation device and has grooves to hold a light filter (like the red one that Jon got.)

The base of the LittleLight is either a screw fitting to permanently mount to equipment, the afore-mentioned BNC connector, or an aprox. 3/4" x 3/4" x 3" base that contains a dimming pot. and is supplied with a hard wired 12 volt wall wart.

I first discovered LittleLights while doing a gig as a soundman for a local radio station on live broasdcasts (a lot more fun than being an architecture professor, but the $ is bad!) When I saw that light, I knew it would be perfect for DXpeditions... lotsa light, very directional, very dimmable, 12 Vdc. I ended up paying $80 for an 18" halogen unit with a wall wart so I could use it at home, too. It has been my bedside light for about 12-14 years as well as my constant DXpedition companion. The 12" version with the standard dimming base, wall wart and halogen bulb costs in the $40 range, these days.

What Derek is selling is the 12" quartz-halogen version, with the heat dissapation lamp cover, with a red plastic light filter that slides (so you can have either red or white light) and the fixed base with the dimming pot aboard. There is no wall wart, of course since these were for CHP cars. Mine had a working halogen bulb aboard. I was particularly happy about that, since the bulbs cost about $9.00 each. My unit showed a bit of wear, but not very much. I'm so pleased at what I got that I'm gonna order two more, today. You might consider doing the same.

Lastly, most of the shorter lengths of coax had one in-line connector and one 90 degree connector... very handy.

Derek's service was prompt and friendly... This was my first purchase from him, but I recommend him highly and without reservation..

I'm attaching his lastes but ever-changing list to this message.

John Bryant

NOTE: Derek is no longer in business, so the list has been deleted to conserve space!

---

premium-rx-digest Sunday, February 28 1999 Volume 01 : Number 020

Date: Sat, 20 Feb 1999 19:26:22 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Re: RCA CU-5069 Antenna Coupler/Splitters

John, et. al.,

I was interested in reading about your multicoupler(s).

I have 3 multicouplers and each performs differently:

1) a passive Stridsberg Engineering MC202, 2 port, 10 MHz - 1 GHz. 2) an active Stridsberg Engineering MCA204, 4 port, 10 MHz - 1 GHz. 3) a passive Mini-Circuits ZFSC-4-1, 4 port, 1 MHz - 1 GHz.

I've swept both the passive splitters in my lab using an HP spectrum analyzer and tracking generator.

The Mini-Circuits splitter is better behaved than my Stridsberg splitter, which has a large notch in the 700 MHz range. I suspect the notch is due to lead lengths inside the oversized cast metal box. That shouldn't be a problem in the shortwave models (but you can't be sure until you measure it).

The Mini-Circuits splitter is much smaller and employs silver plated connectors. It exhibits an almost uniform frequency response down to below 500 kHz. Being a 4-way spitter, it incurs about twice the loss of the Stridsberg 2-way splitter.

The Stridsberg active 4-way splitter contains a low gain amplifier which, I recall, has a gain about 3 dB. On VHF, my splitter is prone to intermod from TV and FM broadcast stations, even though the closest station is located miles away.

I published a frequency response graph for the passive MC202 splitter in my column in September 1997 Monitoring Times magazine.

BTW, the first passive MC202 I tested was defective. It would have taken a while to find the defect had I not swept it. The losses were higher than spec'd in most places and it went "ballistic" at higher frequencies. John Stridsberg promptly sent a replacement.

= =

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Sat, 20 Feb 1999 18:38:01 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: Re: RCA CU-5069 Antenna Coupler/Splitters

At 06:44 AM 2/20/99 -0600, you wrote: However, I'm looking for a back up to my Navy

>1-into-32 splitter and was very interested in the notes on the RCA unit at

>Ford's in Ontario.. mentioned these past several days. I'm appending the

>correspondence from Ron Ford. (I'm ordering one today, if they are open.)

John, received mine last week. They're in perfect condition, and will fit very nicely into a 19" rack, complementing the 2050 and 390A I have. The main problem, as Shaun and Jan Skirrow have described is heat (where have I heard this one before). They run very hot, and the heat sink material has dried out, and not to be trusted. I haven't as yet looked inside mine, but I'll have to run similar tests like with the 2050 for heat. A fan appears to be a must again. At this rate I'll have dozens of fans cooling the various equipment in my shack! For now, I'm still using a TMC older surplus Dept of Transport multicoupler with 8 outputs. Looks quite similar, but also includes bandpass filters. Also has a good response from longwave to shortwave. The RCA (really a TMC) multicoupler should be great for those DXpeditions with multiple receivers. I have my antennae going to a 6 position rotary box purchased at a hamfest, with the output going to the TMC, then out to my 4 main receivers. Works like a charm, without any hint of interference. Has made a world of difference to my DXing.

.................Walt.

Date: Sat, 20 Feb 1999 18:46:07 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx:BNC 50 Ohm Cable,

At 05:27 PM 2/20/99 -0600, you wrote:
>Fellas,
>>I just received my first order of stuff from Derek Yungling, K7FF, and I'm
>so happy that I thought I'd better give you a heads-up on this excellent
>source. Derek buys and resells electronic surplus, both used and
>(primarily) new-in-the-box. Most of the surplus appears to come from the
>military.
> I ended up ordering about $150 worth of cable from
>Derek. Multiple lengths at 6', 8', 12' and several at 70' for connection to
>my beverage farm. All of the shorter lengths came still sealed in their
>original mil-spec paper or foil envelopes and the longer lentgths, clearly
>marked as "lightly used" in the K7FF list were each in really fine, almost
>mint, shape. The prices for alla this mil-spec stuff (and the connectors
>look fabulous) were VERY reasponable.

Jan Skirrow was down at the Boeing Surplus store last weekend, and brought back a pile of BNC to BNC connectors, about 7' each for real cheap. I paid him $15.00 Cdn for 10 of them, real nice at that. Perfect for the 32 outputs (a start anyways :)) of the multicoupler. Perhaps members in the Seattle area, might want to venture over to Boeing to check them out!

................Walt.

Date: Sat, 20 Feb 1999 20:25:20 -0700
From: "Walt Novinger" <wnovinger@home.com>
Subject: Re: Prem-Rx: Re: RCA CU-5069 Antenna Coupler/Splitters

I, too, have one of the couplers (an 8:1) from Strindsberg, and am in love with it! Works extremely well. Just wish it didn't use BNCs, as all of my cabling is done up with PL-259s.

Highly recommended!

== Walt Novinger Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com -
----

Date: Sun, 21 Feb 1999 07:05:29 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: K7FF, Derek's e-address

Oops, sorry, it appears that I neglected to give Derek's e-address... Thought that it was at the bottom of his super list.

"derek j yungling" <k7ff@inreach.com
>
I've had all of my dealings with him via e-mail.

Sorry for the inconvenience, John Bryant

Date: Tue, 23 Feb 1999 11:10:14 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Stand By

Gentlemen:

A number of you have e-mailed me regarding the receiver survey, nomination of new members, and the Web site. My silence has been a result of spending last weekend in Phoenix. This week I am putting out "fires" at school.

My sincerest thanks for the activity regarding the suggested criteria for selecting receivers as well as to those who listed actual devices. There was some great pros and cons mentioned. I don't think I have ever spent so much time in Osterman's (sp) book.... reviewing the mentioned receivers.

My plan of attack this coming weekend is to summarize the nominated receiver types and post them for discussion. I have received input form some members questioning some of the nominations..... but I think fine tuning the criteria will help to eliminate some of the problems. I see the list of accepted receivers paralleling the our list of members, IT WILL GROW.

Finally, I will get a digital camera and blast some black and whites out of Osternman's book to give Larry a starting place. As time passes, perhaps we can get a member to "adopt" a receiver in the Website and get better pictures, info, and so on.

These are only ideas, and as I mentioned before, this is our Website and your suggestions are its guidelines.

Greg

Date: Thu, 25 Feb 1999 20:44:42 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: [Fwd: [R-390] Re: Mods for the R390A]

This is a multi-part message in MIME format. - ----------42B6E390F398855601C13A2C Content-Type: text/plain; charset = us-ascii Content-Transfer-Encoding: 7bit

This may be of interest to the group (note ref to the HF-2050) 73 - Dave - ----------

At 07:26 PM 02/22/99 -0500, Bruce J. Howes KG2IC wrote:

> To a one, all responses were very much thumbs down on the Electric Radio
> mods for the R390A.

Maybe it's because of my engineering background, but I find it amazing that some folks think they can make a substantial improvement on a complex radio like the R-390A without redesigning the whole thing from the ground up. The R-390/390A was built to fill a number of missions, and you might be able to peak one spec or another to improve some aspect of performance, but I'll bet something else will suffer. Even where a genuinely better tube came out after the design was set, making a sub is anything but trivial.

OTOH, the more rcvrs are "improved" this way, the more valuable the ones that remain "original." I'd say the same for a lot of other comm/ham gear that gets modified.

The rcvrs I've rebuilt are as "stock" as I can make them. I like the audio mod that Chuck Rippel has suggested - but then I like listening to AM on my radios and the sound is greatly improved by his simple, easily reversed mod. I intend to try the simple SSB mod that someone posted here awhile back. But I'm sure going to look hard for a downside! But this mod is also easily reversed so the risk is minimal. For SSB I'd rather use an external adapter designed for the purpose, or something as close to this as I can find.

It's always useful to remember that the R-390/390A specs are about as good as you can get with hot filament vacuum tubes for sensitivity and noise. I've had the chance to compare a garden variety R--390A with a Collins-Rockwell HF-2050, an R-1051 and a variety of modern Japanese comm rcvrs. They all < < sound
>

> different (and there's not likely to be any agreement about which sounds best!) and the newer rcvrs have features to die for - especially vernier tuning and IF DSP. But on noise and sensitivity, the R-390A is consistently better. And I love its mechanical filters. For me it is the best rcvr I've seen for AM and CW. For SSB, I'd take a newer receiver anyday. Still, my R-390 paired with the CV-591A/URR sideband adapter is an amazingly good SSB rcvr - it's just a lot more cumbersome than the newer rigs. So, think twice before taking cutters and soldering iron in hand to modify one of our classic radios. Chances are the "improvement" will be minimal, the downside substantial, and the value of your radio reduced.

Cheers

Jan Skirrow, VE7DJX

Duncan, BC, Canada

****

http://www.islandnet.com/~dma/Boatanchors/

Information, Parts, Pictures, Articles: The R-390A and other classic gear.

****

Date: Fri, 26 Feb 1999 21:29:14 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Premium-Rx Candidate Criteria & List

John - absolutely! You may be the only person in NAm to own one of these! And we should add it's big brother too: NRD-302A.

73 - Dave

WagnerND@aol.com wrote:
> > David, would my new JRC NRD 301A qualify as a receiver for that new club? It's
> very expensive & is mfg'd for the proffessional market. There is a photo in
> Fred's book all about it!
> 73 John T Wagner, Ohio

Date: Fri, 26 Feb 1999 20:04:22 -0700 (MST)
From: Larry Gadallah <larry@gadallah.com>
Subject: Re: Prem-Rx: Premium-Rx Candidate Criteria & List

> > John - absolutely! You may be the only person in NAm to own one of
> these! And we should add it's big brother too: NRD-302A.
> > 73 - Dave
> > WagnerND@aol.com wrote:
> > > > David, would my new JRC NRD 301A qualify as a receiver for that new club? It's
> > very expensive & is mfg'd for the proffessional market. There is a photo in
> > Fred's book all about it!
> > 73 John T Wagner, Ohio
> Ditto for the NRD-93 too, eh?
- -- Larry Gadallah, VE6VQ larry@gadallah.com Calgary, Alberta, Canada
http://www.gadallah.com/~larry Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5

Date: Sun, 28 Feb 1999 18:19:18 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Starting our 4th Month

Gentlemen:

A great March to all- and the start of our 4th month on the Premium-Rx List

Item 1-

I would like to take this opportunity to welcome Akio Fujikawa, our first List member in Japan. Akio operates a Collins 2050. Our new members e-mail address is fujikawa@nk.rim.or.jp Welcome Akio, we look forward to reading you progress with your receiver.

Item 2-

Two weeks ago I asked the membership to nominate types of receivers for a Premium-Rx WebPage that Larry Gadallah in Calgary offered to generate. Things went slow at first, then like any good teacher I pinged your input again and Bingo.... we got some great suggestions. I have summarized these for sharing with you. PLEASE do not get offended if your comment's are not included here, or if I editorialized your original works a little.

Suggestions for a format:

"So I have a suggestion, why not create a web page site where all of the premo's can be viewed and we can read about their specs." John Bookout,US

"This (proposed) list would do well to fill in the gap and focus on the eclectic super RXs." Colin Thompson, US

"I too wish to echo the view that the various common table top receivers (Icoms, JRC, Kenwoods, etc) should not be included in the list. When I acquired the 2050, I was astounded at the quantum leap in performance and technology. That is the magical thing about these receivers. They weren't manufactured for the hobby market, but rather for the vigorous demands of the commercial/military user at costs often upwards of $10,000. The fact that they are so uncommon, and to me at least, completely unknown, until the publication of Receivers Past and Present, places them in a category to themselves. Lets not dilute them (the WebPage) with the common receivers we've all owned and loved! Ditto for the older BA's." Walt Salmaniw, British Columbia

"..... I suggest we still (stay??) clear of hollow state (as much as I love 'em) and other pre-digital-readout gear which is generally represented well on other hobby list groups. With few, perhaps debatable exceptions, I suggest our primary focus should be on "semi-professional" and other commercial/military/government target market gear. That would thus exclude otherwise worthy "popular" mass market receivers such as the Drake R7 & R8 series, and the JRC-515/525/535 rigs. ..... However, I do think we should definitely include the two (so far) recent "top-end" hobby market DSP receivers, namely, the K+D KWZ-30 and the JRC NRD-545...the 2050 of course begs for comparison with these upstart puppies!" Dave Clark, Canada

" .....When I think of premium receivers ....."usually designed for commercial and/or government markets instead of consumer use high quality physical construction often designed for field servicing, e.g., modular construction high quality, detailed service/maint. documentation available, including parts lists, board layouts, etc. manufacturer's literature contains full specifications which use industry standard metrics (e.g., 12 dB SINAD for FM sensitivity specs) "crunch resistant" front end uncommon, intriguing..." Robert Parnass, US

The following is a list of nominated receivers. I have to admit, Chuck Rippel forwarded me a list which is lost in my digital mail box at present. My apology to his Holiness (ed note, I call Chuck his Holiness, because I was fighting some R-390A problem for about a week when I finally decided to admit defeat and ask Chuck for assistance. In less time than it takes to read this note, his Holiness

blasted me a reply that illustrated my errors and stupidity, and raised him to Holiness level in my estimation!).

Colin Thompson: HF1000A and KWZ - 30

Ben Wallace: AOR 7030, JRC NRD-515, JRC NRD-525, Drake R-7(A)

Dave Clark's List COLLINS: 451S-1 [try and find one!], 651S-1, HF-2050 (DSP), CUBIC: R-3030, R-3050, DRAKE: DSR-2, R4245, JAPAN RADIO: NRD-93, NRD-505, NRD-545 (DSP), KNEISNER+DOERING: KWZ-30 (DSP), RACAL: RA-1792, RA-6790GM (not 6792-typo), HARRIS RF: RF-590/590A, ROHDE & SCHWARZ: EK-070, TELEFUNKEN: E1800/1800A, WATKINS-JOHNSON: HF-1000/1000A (DSP)

Unknown contributor: NRD-93, JRC NRD 301A, NRD-302A.Drake R-8/R-8A/R-8B

Larry Gadallah: JRC NRD-535/NRD-545, , Harris RF-590/RF-505, W-J HF-1000/Other Mil, SigInt Rxs, Racal RA-6790/RA-1790, Collins 651-S1/2050, McKay-Dymek DR-333

In summary- Reviewing the above nominated receivers against the suggested guidelines for establishing a Premium-Rx list, I can see some conflict. For example, the Harris 550 is in question, as well as many others. Perhaps after the WebPage is introduced and matures, a natural elimination process will take place, specifically receivers will be added and others removed.

Walt Novinger (Again I apologize if I got the wrong name?) has offered to provide some photographs of the receivers for the WebPage.

With this information Larry will be able to get started. So, gentlemen, watch for the announcement of the Premium-Rx WebPage, coming to your local terminal in the near future.

Item #3

I have received word from Cubic Corporation that they will provide a Cubic 3550 receiver for our List's review. At present I have been trying to arrange a schedule with Clark, Bryant, and Rippel so the receiver can be passed around and critiqued.

That is it from here. Have a great week. Looking forward seeing your posts....

Greg

----

premium-rx-digest Monday, March 8 1999 Volume 01 : Number 021

Date: Mon, 01 Mar 1999 07:25:52 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Re: ICOM 9000

Sir George is correct, I dropped the ball.

In my review of the nominated receivers I checked out the IC-9000 in Receivers Past and Present. While it is a general production radio for consumer use, it does some amazing things. I will add it to the list unless their is a violent reaction.

FYI: Final approval of the nominated will be by the general membership in say another two weeks???

Did I miss any other nominations..... now is the time?

Greg

< < < < < < < < < < < < < < < < < < < < < < < < < < < < < <
>
George Zeller wrote:

> I got your interesting message about the receivers nominated for the list.
> This was a good summary of what we have seen in the comments so far. I sent
> in a message some time ago about the ICOM 9000, which is somewhat of a
> unique case. I'm not offended that we dropped this already; perhaps my
> message did not get out properly anyway. But, this receiver costs well over
> $4,000, contains a spectrum scope built in, and covers an enormous
> frequency range with a pretty good HF receiver in it. It's not specialized
> like the 2050, but it probably is as good as a JRC 93 or something like
> that. I thought that I'd send this message straight to you so I have some
> confidence that it got out.
> > George Zeller

Date: Mon, 01 Mar 1999 09:15:23 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Late or Lost Nomination, Racal 6830JD

Greg:

The Racal 6830JD -- top notch circa 1986-1995 -- should be on the list -- I also have Racal 3701 on the way.

Sincerely,

Colin Trass

Date: Tue, 02 Mar 1999 09:19:31 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Premium Receiver Perimeters

Gentlemen:

The following comment/opinion was received yesterday. With the author's permission I took the liberty to reflect it with some editorializations to conserve bandwidth.

While this member elected to send his opinion to my personal attention, be advised all members are invited to post their opinion or opposing viewpoints directly to the List. This is an open forum, the goal here is to exchange ideas. I see our present efforts of defining a "premium receiver" similar to designing a filter circuit.... it needs to be sufficiently wide to encompass the desired, yet narrow to exclude noise. The problem is.... defining noise, and selecting the filter. ;-)

Submission-

>"My thoughts on your summary. #1 Absolutely No consumer radios qualify. No KWZ-30 either for that matter as it doesn't make the price cut off $4000 US nor is it particularly manufactured to exceedingly high specs befitting a "premium product."
>I think the qualifiers for being on the list are being diluted from owning a premium rx to a rx "I think is one that is premium."
>A Premium receiver is one that is built and presumably performs beyond consumer grade specifications. Although nice boxes, the Icom 9000 does not fall in a qualifying category nor does the KWZ-30 or NRD-545. The build quality does not even approach that of mil-spec or even commercial grade construction and specifications. The Drake R8 series is in the same boat.
>Thus, you have my thoughts and protests about adding consumer grade rx's to our flock.

>I think an easy litmus test to apply would be not to include any receiver commonly available to the general public. While the Icom 9000 currently is not sold to the general public in this country, it was at one time and is available in Canada. The WJ HF-1000A has a direct military number it is sold under mil-spec but I don't know for sure what it is. 8718 comes to mind but I may not be 100% right on the exact number." Rippel US
- -----------

Date: Tue, 02 Mar 1999 09:36:45 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Premium Reeiver Perimeters

Submission:

>"The opinion of my friend Mr. Rippel (posted earlier) substantially "raises the bar of exellence" required for a reciever to be considered Premium. Many of his points are well taken, however, others open Pandora's box for further consideration. In reply to Sir Charle's remarks:
In reviewing the information presented in Osterman's book, I noted the fine print provided in the "Comments" section on many receivers often states a military version is/was offered even though he elected NOT to include an illustration.

In addition, I would propose the quality of many non-military "nominated" receivers would surpass mil-specs, however, because there was no demand on the part of the military at that point in time, they were never packaged as a military device.

If the US military is the benchmark, then I don't met the critera for membership in this List because my 2050 came south from Maple Leaf country even though a "southern" group by the name of Rockwell/Collins made it.

Lastly, what military are we holding up as benchmark, ... perhaps the US military did not adopt an NRD product, but I would not put it past the Japanese to select one of their own and slap a "rising sun logo" on it. Consumer in the US and Military in Japan .... hummmm. Bailey US

Date: Tue, 2 Mar 1999 13:00:41 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Premium Reeiver Perimeters

We probably shouldn't spend too much more time wrestling with which receiver models qualify for placement on web pages unless disk space becomes a problem.

A better tact would be to welcome well prepared web page contributions and annotate each with remarks about the construction quality and intended market: consumer, military, etc.

In volunteer organizations one rarely has to worry about a flood of donations :-)

= =
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Tue, 2 Mar 1999 19:32:48 -0500
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: Premium Reeiver Perimeters

> Submission:

> >
>"The opinion of my friend Mr. Rippel (posted earlier) substantially
> "raises the bar of exellence" required for a reciever to be considered
> Premium. Many of his points are well taken, however, others open
> Pandora's box for further consideration. In reply to Sir Charle's
> remarks:
> > If the US military is the benchmark

Not at all. The NRD-93 family certainly qualifies. Indeed, the benchmark is "Premium." The average consumer grade rx, while excellent does not, IMHO qualify as a "premium" product.

A premium rx has a far superior build level (hence, the price justification) and hopefully offers a higher level of performance.

I am familar with the constraints put on builders of mil-spec equipment. Even the individual components are of a far superior grade and are held to incredible tolerances. I am not readily able to purchase these parts for professional use in consumer equipment. Add to that, the price of these parts makes their use prohibitive.

I am not necessarily talking about active components like transistors, IC's and diodes. Passive components like capacitors and resistors are premium grade.

Thus, the use, care and feeding of these machines require a different approach from that which would be taken with consumer grade equipment. We can also expect a different result from mil- spec or commercial grade equipment. Hence, the purpose of this list is to provide a forum where like minded individuals with like product can discuss the various associated issues.

If I were working on a Drake R8A, I would not encounter the same build level and even component conventions found in the Harris RF-590.

They just ain't even close.
+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Wed, 3 Mar 1999 19:54:02 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: For sale: WJ company

FYI,

Watkins-Johnson board of directors put the company up for sale. See:

http://www.techweb.com/wire/finance/story/INV19990302S0001

= =
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Sat, 06 Mar 1999 00:23:05 -0500
From: David Clark <davidclark@home.com>

Subject: Prem-Rx: [Fwd: [BoatAnchors] Plessey R 2250]

Maybe we should sign this chap up! The R-2250 definitely qualifies as a prem-rx...see Fred's book page 327. I would think the price musta been upwards of $7-10K.

73 - Dave -
Subject: [BoatAnchors] Plessey R 2250 Date: Wed, 3 Mar 1999 17:32:28 +0100 MIME-Version: 1.0 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: 7bit X-Priority: 3 X-MSMail-Priority: Normal X-Mailer: Microsoft Outlook Express 4.72.3110.5 X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3 Sender: owner-boatanchors@qth.net Precedence: bulk Reply-To: "Kurt Brandstetter" <kurt.brandstetter@teleweb.at>
Hello from Vienna!

Today I've got a Plessey R 2250 HF receiver; was used in the past for air control as a remote receiver; looks like new. Does anybody know this receiver and has some information about it. Fine would be if anybody knows an URL dealing with this one (f.i. the URL of Plessey). Does anybody know what was the price of this receiver back in 1978 (or so) ? Would be nice to send me an answer to my questions.

end

73's de OE 1002419 Kurt from Vienna Austria You are welcome. Bye for now.

Email to kurt.brandstetter@teleweb.at If this adress is blocked use: oe1002419@mail.yahoo.com

HomePage: http://members.teleweb.at/kurt.brandstetter/ Please visit my page!

Date: Sat, 06 Mar 1999 00:29:44 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: Other Premium RACAL receivers

I would endorse the submittal by Colin Trass of this list on March 1st (sorry I deleted original) that the RA6830 (pg 339) and RA3701 (might as well add its near-twin RA3791 too) (pg 335) are eminently qualified for inclusion on our premium-rx list. Page refs are to Fred's book.

73 - Dave

Date: Sat, 6 Mar 1999 07:49:30 -0700
From: "Walt Novinger" <wnovinger@home.com>
Subject: Prem-Rx: JRC NRD-301A (http://www.universal-radio.com/catalog/commrxvr/3673.html)

If this doesn't qualify as a premium rx, nothin' does! Wonder how long it'll take Dave or Chuck to write their review of one? :)

My spouse already gave me the evil eye when I just showed her the web page :(

http://www.universal-radio.com/catalog/commrxvr/3673.html

Date: Sat, 6 Mar 1999 09:17:45 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: RF-590 vs. RF-590A?

What are the differences between the Harris RF-590 and RF-590A?

Thanks.

= =

Date: Sat, 06 Mar 1999 18:20:40 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: RF-590 vs. RF-590A?

Robert S Parnass wrote:
> > What are the differences between the Harris RF-590 and RF-590A?
> > Thanks.
They are just about identical as far as specs. The 590A has a single board synthesizer and the 590 has a bunch (five in all) of small boards that make up the synthesizer.

John Reed

Date: Sun, 07 Mar 1999 00:37:51 -0500
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: JRC NRD-301A (http://www.universal-radio.com/catalog/commrxvr/3673.html)

Absolutely qualifies, along with it's big brother 3102A. Great pic too! 73 - Dave

Walt Novinger wrote:
> > If this doesn't qualify as a premium rx, nothin' does! Wonder how long it'll
> take Dave or Chuck to write their review of one? :)
> > My spouse already gave me the evil eye when I just showed her the web page
> :(
> > http://www.universal-radio.com/catalog/commrxvr/3673.html
> > ----------
> > Name: JRC NRD-301A.url
> JRC NRD-301A.url Type: Internet Shortcut (application/x-unknown-content-type-InternetShortcut)
> Encoding: 7bit

Date: Sun, 7 Mar 1999 11:58:55 -0500
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: JRC NRD-301A (http://www.universal-radio.com/catalog/commrxvr/3673.html)

> If this doesn't qualify as a premium rx, nothin' does! Wonder how long
> it'll take Dave or Chuck to write their review of one? :)
>
You can talk to John Wagner. He has one (or maybe its a 302) and is a bit dissapointed. Last I heard from a 2nd hand but reliable source, his Drake R8B "smokes it."

- ---

Chuck Rippel Reply to: wa4hhg@amsat.org

- ---

Date: Sun, 07 Mar 1999 15:00:48 -0800
From: Dennis Polito W6DEN <cloudhopper@earthlink.net>
Subject: Prem-Rx: Cubic R-3030A

Is there anyone on the news group that has experience with this receiver? I am looking for a source for software that will control the receiver via the RS-232 port.

Also, any history or other information on this receiver would be greatly appreciated.

Regards Dennis W6DEN

Date: Sun, 07 Mar 1999 20:15:29 -0500
From: "Jon L. Williams" <bengoshi@iquest.net>
Subject: Prem-Rx: Unusual receivers

Gentlemen:

I was going over some old archival files I have and came across a catalogue I saved on a very unusual communications receiver, the manufacturer for which I worked in the Summer of 1966. I seriously doubt that anyone has ever heard of this receiver, or the company. The company is/was (do not know if exists anymore) F.G. Mason Engineering, Inc., Fairfield, CT, and designed and built miniature solid state building block/modular high frequency surveillance receivers which were sold to governmental agencies around the world. Was known as the A2 Receiver System, covered 2-kc to 1200-mc, was portable, battery operated (also AC), and utilized 11 modular plug-in tuners plus a plug-in display, etc.. I did get a chance to tune one while I worked there, but obviously could not afford one, were I even to be permitted to purchase one, which I was not. Premium receiver? Do not know. Complete receiver with all modules was about $6,000- in 1966; was not DSP or digital readout; but never available on commercial market and was sold for surveillance only--I recall the co. shipping some to Canada while I was there as well as to countries in Europe. I do not have a scanner, but I would be glad to copy this catalogue and fax or mail the information to someone if this would be of interest to anyone as an extremely unusual and rare receiver.

Jon L. Williams

Date: Sun, 7 Mar 1999 19:25:22 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Unusual receivers

> ....I seriously doubt that anyone has ever heard of this receiver,
> or the company. The company is/was (do not know
> if exists anymore) F.G. Mason Engineering, Inc., Fairfield, CT, and
> designed and built miniature solid state building block/modular high
> frequency surveillance receivers ...

Thanks for the explanation. It helps sheds light on a posting from K7ZTM who was looking for a Mason receiver last January:

| wtb mason receivers | Author: | | Pete Smith <psmith@xmission.com> | Date: | | 1999/01/02 | Forum: | sci.electronics.equipment | | | | Hi | wtb mason receivers ,suitcase receivers and plugins for the scientific | atlanta 930b receiver .. thanks pete k7ztm
= =

Locate & identify transmitters in your area with a color RadioMap(tm)

Date: Sun, 07 Mar 1999 17:51:11 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: Cubic R-3030A

Dennis:

Cubic is a local company and I should be able to get some info given time. As you may have noted in one of my "State of the List" addresses a few weeks back, I hope to score on a receiver from Cubic. fred harris (he does not capitalize his name), a fellow teacher, was one of the designers of the DSP portions of some of the receivers Cubic produces.

Once Cubic loans me the receiver and it is in my grippers, I proposed to share it with Rippel so it can be evaluated for our WebPage data sheet.

Securing the receiver is one of my orders of business this week. I'll keep the List informed.

Greg

Dennis Polito W6DEN wrote:

> Is there anyone on the news group that has experience with this
> receiver? I am looking for a source for software that will control the
> receiver via the RS-232 port.
> > Also, any history or other information on this receiver would be greatly
> appreciated.
> > Regards
> Dennis W6DEN

Date: Sun, 07 Mar 1999 23:04:00 -0500
From: David Clark <davidclark@home.com>
Subject: Prem-Rx: [Fwd: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX]

This is possibly a pretty nice deal from some premium-rx affectionado in the lower 48. 73 - Dave - ----
Subject: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX Date: Sun, 7 Mar 1999 16:18:43 -0600 MIME-Version: 1.0 Content-Type: text/plain; charset="iso-8859-1" Content-Transfer-Encoding: 7bit X-Priority: 3 X-MSMail-Priority: Normal X-Mailer: Microsoft Outlook Express 4.72.3110.5 X-MimeOLE: Produced By Microsoft MimeOLE V4.72.3110.3 Sender: owner-jrc@qth.net Precedence: bulk Reply-To: "davez" <davez@ticon.net>

FS: CORRECTION (JRC NRD-93/NDH-93) RX PRICE I have to correct the PRICE on the FOR SALE Posting that I sent yesterday. In error I had sent a draft message. The CORRECT price is $ 3850. You may also check out my web site for a picture of all, and can I e-mail better pictures to show the condition of all to anyone who might be intrested. I will resend the entire message below with the corrections. Sorry about that..Dave
+ Web page at: http://www.ticon.net/~davez/wants.html
+ FOR SALE: (A VERY RARE....)

JAPAN RADIO CO. (JRC) NRD-93 COMMERICAL HF RECEIVER. with: * NVA-92 outboard speaker * 6.0, 2.5 , 1.0 and 0.3 kHz bandwidth filters * One- BK Cable (MPKC03108) * English Instruction Manual * AC Power Cord (Unit wired for AC 117 Volts)

Includes the following OPTIONAL accessories: * Cabinet MPBX 10832 for NRD-93 (Standard Light Green Color) * JRC Scanning Unit NDH-93 * JRC CSD-182 wired remote control for NDH-93 * English Instruction Manual for NDH-93 * Cabinet MPBX 10828 for NDH-93 (Standard Light Green Color) * JRC 2 Meter Line Out Audio cable (MPKC03108) * JRC 2 Meter- 24 VDC Power Cable (MPKC01741) * Additional JRC IF Filter in "AUX" slot. (0.5 Khz) * 4- Extra BK Connectors * Spare semiconductor kit (6ZXJD00005) * CMH-330 card extension board * Extra Main Tuning Knob * Extra Foster 1 watt Audio Matching Transformer (identical 600 to 8 ohms as is in NVA-92 speaker).

Unit(s) and accessories are in "excellent" physical and electrical condition. All is 100% operational, no problems what-so-ever !! I do not have the original box or packing. Unit was purchased new in 1989. I'm the second owner of this set.

Price (includes UPS Ground shipping) $ 3850. FIRM !!. USA, lower 48 only please !! Cashier's Check or Money Order , NO COD's. Please e-mail direct. (Not to the newsgroup). Selling as I'm going to a DSP based receiver.

Dave davez@ticon.net

Date: Mon, 08 Mar 1999 09:52:27 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: Unusual receivers

Jon L. Williams wrote:
> > Gentlemen:
> > I was going over some old archival files I have and came across a
> catalogue I saved on a very unusual
> communications receiver, the manufacturer for which I worked in the Summer
> of 1966. I seriously
> doubt that anyone has ever heard of this receiver, or the company. The
> company is/was (do not know
> if exists anymore) F.G. Mason Engineering, Inc., Fairfield, CT, and
> designed and built miniature solid state building block/modular high
> frequency surveillance receivers which were sold to governmental agencies
> around the
> world. Was known as the A2 Receiver System, covered 2-kc to 1200-mc, was
> portable, battery operated (also AC),
I have a Mason Engineering A-3B receiver. It covers 2 KHz to 1200 MHz and has a spectrum analyzer scope built in, all contained in a large briefcase and operated from AA batteries or an AC supply. It was used by the NSA or CIA for surveillance countermeasures. A lot of attention was given to bugs operated as subcarriers of FM signals and it has a built in subcarrier receiver as a part of the unit. Works well and I use it occasionally. I also have the manual for it. Whether or not it would be considered a premium receiver or not, I don't know. It's analog tuned, no microprocessors, however I'm kind of partial to receivers that may not be "premium" but are unusual. Among my collection:

Mason A-3B Surveillance countermeasures Eddystone EC958/3 Wadley triple mix LF MF HF Canadian surplus CEI 373A-2 Analog tuned surveillance countermeasures HF Sylvania R1414/URR Navy surplus early 1970's special purpose HF receiver National R1490/GRR-17 Marine Corps synthesized HF receiver Sylvania WLR-6 Submarine covert surveillance receiver "Water Boy 1"

All these are solid state and cover the shortwave bands. I would put the R1414 up against any premium receiver as far as quality of reception. I've done many A/B tests with Harris, W-J and Racal receivers and the Sylvania beats them all on MW.

John Reed

---

premium-rx-digest Monday, March 15 1999 Volume 01 : Number 022

Date: Sun, 14 Mar 1999 12:35:04 +0100
From: KuD-BS@t-online.de (KD Elektronik GmbH)

Subject: Prem-Rx: ceramic switches

Dear friends, does anyone know a supplier in the U.S. for ceramic rotary switches, for receiving as well as for transmitting application?

Best regards Hans-J. Kneisner kud-bs@t-online.de

Date: Sun, 14 Mar 1999 09:29:03 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: Prem-Rx: ceramic switches

Hi Hans: And welcome to the Premium Receiver group. I am certain that some of the people in the group can help you or find a third party who can. I will make a couple of phone calls tomorrow (Monday) and see what we can find ... it is not my particular expertise. I used to build very nice antenna tuners using ceramic parts reused from surplus equipment. (G)

David Clark is out of town for a week, but may also have some leads.

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Is it just me or are the nights *really* getting shorter.....?

- -----Original Message-----
From: KD Elektronik GmbH <KuD-BS@t-online.de> To: premium-rx <premium-rx@kahuna.sdsu.edu>
Date: Sunday, March 14, 1999 6:38 AM
Subject: Prem-Rx: ceramic switches

>Dear friends,
>does anyone know a supplier in the U.S. for ceramic rotary switches, for
>receiving as well as for transmitting application?
>>Best regards
>Hans-J. Kneisner
>kud-bs@t-online.de
>>

Date: Sun, 14 Mar 1999 13:42:45 -0500
From: James Goodwin <j.goodwin@sympatico.ca>
Subject: Re: Prem-Rx: ceramic switches

Hello Hans,

A major US manufacturer of rotary switches is Electroswitch. Their Web URL is

http://www.electro-nc.com/

The switch product line (metric sizes), with PDF catalog access, can be found at

http://www.electro-nc.com/sel_m.htm

You'll see that some switches are still available with ceramic insulation as a non-standard alternative.

The Company has been in business for 50 years, previously under the Centralab and CRL labels. As a hobbyist, I've had a few Centralab ceramic switches in use for 30 to 40 years with never a failure.

The URL for one retail dealer carrying the line, Allied Electronics, is

http://www.allied.avnet.com/

James Goodwin j.goodwin@sympatico.ca Toronto, Ontario

> Dear friends,
> does anyone know a supplier in the U.S. for ceramic rotary switches, for
> receiving as well as for transmitting application?
> > Best regards
> Hans-J. Kneisner
> kud-bs@t-online.de

Date: Fri, 12 Mar 1999 20:13:24 -0600
From: parnass@bell-labs.com
Subject: Prem-Rx: MC202 splitter freq response plot

This is a multi-part message in MIME format. - ----------20D976BE61ACCCD97BA7F67A Content-Type: text/plain; charset = us-ascii Content-Transfer-Encoding: 7bit

Here is a freq response plot of the Stridsberg Engineering MC202 passive 2-port VHF/UHF receiver multicoupler (splitter) I mentioned in an earlier message. Hope the image is clear.

I used the HP-8568A spectrum analyzer and HP-8444A Opt 59 tracking generator in my home lab to sweep the splitter. Though the spec. an. has an IEEE-488 computer interface, I don't have it connected to a PC.

I transcribed some of the data points into a spreadsheet-type program to produce the graphic.

Bob Parnass, AJ9S parnass@bell-labs.com

---

premium-rx-digest Wednesday, March 17 1999 Volume 01 : Number 023

Date: Wed, 17 Mar 1999 16:23:01 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic Communications

Gentlemen:

Recently the CEO of Cubic Corporation walked through my Lab at SDSU. He was on one of those dog and pony shows we give to VIP $ donors. While I had his ear, I hit him up for the loan of a Cubic Receiver. I had him by the "short ones" because the President of SDSU was a part of the conversation. In addition, fred harris (fellow teacher), was on the same tour as a PR rep for the EE department. Fred is a nationally known expert on DSP audio (and knows RF DSP COLD) and was a part of the design team that consulted for Cubic's DSP efforts. So here we are, the four of us, fred, the President of the University, the CEO of Cubic and me .... and I am hammering this guy for a radio!

Well the Premium-Rx List struck pay dirt today with the announcement that Cubic Corporation will provide an evaluation copy of their present model 3550 (that number may not be exact # as I don't have Oster's book in my office). There is a question if it will be the single receiver model or the dual receiver model.

The length of the loan will be negotiable. When I heard this I immediately started thinking... 10 years, maybe 15... hummmmm? How many years will it take to pass this radio to all the members of the List???

In addition, one of the List said that he had a Cubic receiver and was looking for documentation or date on the machine. I forgot who that was, but now is the time to ping me a "want" list and I will see what I can do.

Changing the subject slightly- (and perhaps off topic)

There hasn't been too much bandwidth wasted on this List recently. I was wondering if you guys in the North (East or West) have had enough of winter yet? Remember, there is life after ..... winter. It is 78 F today in San Diego, its hell but somebody has to live here.

Greg

Date: Wed, 17 Mar 1999 18:32:51 -0700
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: RE: Prem-Rx: Cubic Communications

If anyone is interested in the specs/block diagram of this unit, check here:
http://www.cubiccomm.com/pdf/cdr-3580.pdf

> > Well the Premium-Rx List struck pay dirt today with the announcement
> that Cubic Corporation will provide an evaluation copy of their present
> model 3550 (that number may not be exact # as I don't have Oster's book
> in my office). There is a question if it will be the single receiver
> model or the dual receiver model.
>
Shaun

Shaun P. Merrigan Edmonton, Alberta, Canada 53.43N 113.25W smerriga@compusmart.ab.ca

---

Date: Wed, 17 Mar 1999 21:20:07 -0600
From: parnass@bell-labs.com
Subject: Prem-Rx: Mini-Circuits 4-port multicoupler

This is a multi-part message in MIME format. - ----------F18C0A8FD1510AAE736DBF5E Content-Type: text/plain; charset = us-ascii Content-Transfer-Encoding: 7bit

I posted a frequency response plot a couple of days ago of my Stridsberg

Engineering passive 2-port receiver multicoupler. If you recall, it had

a large notch in the 700 MHz range.

Here is a plot of a Mini-Circuits ZFSC-4-1 passive 4-port multicoupler. It is better behaved, though it has more loss because it has twice as many ports. The ZFSC-4-1 is much smaller and the BNC connectors are silver plated.

Bob Parnass, AJ9S - parnass@bell-labs.com

---

premium-rx-digest Saturday, March 20 1999 Volume 01 : Number 024

Date: Sat, 20 Mar 1999 18:01:40 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Bandwidth Test Results, 2050

Gentlemen:

Results of HF 2050 bandwidth measurements.

I had some time spare time today so I connected my Wavetek model 178 generator to the HF-2050. The generator was operated in the continuous linear sweep mode with a starting frequency of 8.490 MHz, stopping frequency of 8.510 MHz, and a sweep time of 5 seconds. The output of the generator was 5 uV with no modulation. An eight foot single length of double shielded coax was used to connect the generator 50 ohm output to the receiver's antenna input BNC connector. The generator's trigger output was used to trigger the external trigger input of the scope. The scope used was a Philips model PM 3323 digital storage (500MS/s). Two displays were project, with "A" being the AGC output voltage of the 2050, and "B" being the generator's marker. Center graticule is 8.5 MHz. X-axis is 1 KHz/Div. The receiver settings were: AGC FAST, Mode AM, RF Gain midway, Squelch minimum, Noise Limiter minimum, and Freq. 8.5 MHz.

Photograph 1: HF-2050 tuned to 8.5 MHz in 6 KHz BW setting. Marker is operating at 8.501 MHz.

Photograph 2: Basically same as photograph 1 with 2050 in 3.2 KHz BW

Photograph 3: Basically same as photograph 1 with 2050 in 1KHz BW. Unknown glitch on top of waveform.

Photograph 4: Basically same as photograph 1 with 2050 in 300 Hz BW. Increased in amplitude marker at 8.5001 MHz.

Photograph 5: Front panel of 2050 showing settings in 300 Hz.

To say I was impressed with my findings would be an understatement.... I have studied all my life, seen hundreds of ideal textbook cases .... BUT this is the first time I have ever witnessed a "textbook" curve in real person.

I look forward to testing the Cubic receiver next week.

Greg

---

premium-rx-digest Sunday, March 21 1999 Volume 01 : Number 025

Date: Sat, 20 Mar 1999 19:40:51 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Test - Disregard

This is a test of the Premium-Rx List.

Greg Bailey

Date: Sun, 21 Mar 1999 06:58:55 -0500
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: Bandwidth Test Results

> > Gentlemen:
> > Results of HF 2050 bandwidth measurements.
> > I had some time spare time today so I connected my Wavetek model 178
> generator to the HF-2050.

Very, very nicely done and very illustrative. Only DSP based filtering can produce a passband that flat. Did you have the "Y" axis calibrated? I can see the passband width perfectly but wonder if the "db down" figures are quoteable from your pictures.

Your have redeemed yourself from the R390A comments/trashcan picture. I take back the nanny-nanny boo-boo comment.

- ----------

Chuck Rippel Reply to: wa4hhg@amsat.org

- ----------

Date: Sun, 21 Mar 1999 14:24:12 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: The other four photos

For those uninterested in this gear, sorry for the inconvenience. - --

---

premium-rx-digest Sunday, March 21 1999 Volume 01 : Number 026

Date: Sun, 21 Mar 1999 14:25:19 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Premium Antenna Splitters Available NOW

Premium Antenna Splitter/Couplers Now Available

Several years ago, I purchased a military surplus rack-mounted antenna splitter from Dan Ferguson. The CU-1280/FRD-10A(V) was manufactured by Sylvania for the U.S. Navy and split the signal from a single antenna to feed 32 receivers, with slight amplification in the process. The front panel is 3 1/4" high by 19" and the rear panel sports 1 BNC antenna input and 32 BNC outputs. I had hoped to be able to modify the unit to split four antennas to eight receivers, but that was not to be. Internally, there is a central amplifier to make up for the losses inherent in splitting the signal 32 ways, followed by cascaded groups of passive splitters. I could have injected four new inputs high in the passive network, but the losses in splitting a single signal into eight parts, passively, would not have been acceptable. Over the years, I have come to love that antenna splitter - - very high quality/low noise - despite never coming anywhere close to needing to feed 32 receivers at one time.

Recently, there was mention on internet of a very similar splitter, the CU-5069/FRD-10A(V), being available from WJ Ford Surplus in Ontario. These units, of the same rack-mount size as my older unit, were manufactured by RCA Canada for the Canadian military. The CU-5069 also splits one signal to feed 32 receivers and has BNC connectors on the rear panel. The price ($125 USD, delivered in the US) was certainly right, so I ordered one to squirrel away as a backup for my CU-1280.

Delivery was prompt, dealing with WJ Ford was a delight and the unit was packed superbly using that liquid pour-in-place foam - very professional all around. The unit was near-mint cosmetically, though internally it showed some signs of heat-related aging. The biggest surprise of all was that the circuit was quite different from my CU-1280 splitter. The 5069 has a central distribution amplifier that provides about 7 to 10 dB of gain, but following that are four ACTIVE splitter modules, each sporting eight transistors. Each one-into-eight module has approximately unity gain.

Although I have not yet done it, modifying the 5069 to take four separate antennas and split each eight ways with no loss, looks to be dead easy. I'll just have to install five more BNC connectors on the rear panel: a new RF out for the central amplifier + four new antenna inputs for the 1-into-8 modules. I'll end up with a stand-alone 10 dB RF amplifier (the old distribution amplifier) in the bargain. For a short while, I debated taking each module out of the rack chassis as a stand-alone unit, since I really need only two of the modules and the RF amp at any one time. However, I'd end up having to make regulated filtered 27 vDC power supplies for each and come up with shielded but well ventilated cabinets for each, as well. I've decided that I'll just modify the unit with new inputs and use as many or as few of the modules as I need at any one time.

A few of my radio-enthusiast friends might actually need a 32-way antenna splitter. Most, though, are probably in my own minor league of only needing 8-way groupings. In either case, I have just checked with WJ Ford in Ontario (March 19, 1999) and they still have a twenty of the CU-5069 units available. Their number is 1-613-283-5195 and they accept VISA or Mastercard. With that few, you might give them a call early next week if you want one. The Ford people also mentioned that there is a TMC(Canada) model number on the side of the chassis. I have put an article similar to this on one other private list and WJ Ford has asked permission to put it on their webpage on Monday... so if you are interested in one of these hummers, maybe you ought to call Ford today.

I have recently invested in a Sony FD-91 digital camera for professional purposes and, not incidently, to be able to communicate over internet using pictures as well as words. I'm attaching three photos of the interior and exterior of the 5069 to this note and four others attached to a separate message (to fool the SDSU computer message length gateway.) I've captioned them and added other graphics to the last three.

Here are the gain figures that Bill Bowers and I found when we ran tests on both units using Logimetrics 921A RF Generator, a Ballintine 323-07 True RMS voltmeter and a HP 1200B oscilloscope:

FREQ CU-5069 CU-1280 150 kHz +5 dB +0 dB 250 kHz +7 dB +2 dB 400 kHz +7 dB +5 dB 550 kHz +7 dB +8 dB 750 kHz +7 dB +11 dB 1.0 MHz +7.5 dB +12 dB 2.0 MHz +7.5 dB +9 dB 3.0 MHz +5.5 dB +8 dB 5.0 MHz +4.0 dB +0 dB 7.5 MHz +2.0 dB - 10.0 MHz +3.0 dB +2 dB 12.5 MHz +5.0 dB - 15.0 MHz +7 dB +5 dB

John Bryant

---

premium-rx-digest Sunday, March 21 1999 Volume 01 : Number 027

Date: Sun, 21 Mar 1999 20:29:56 -0700 (MST)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: Prem-Rx: Premium Antenna Splitters Available NOW

Hi All;

John made some interesting comments about the multicoupler that a number of us have gotten recently, from Wm J Ford. I have been looking for a unit like this that covered below the usual 1.6 mhz cutoff of all my other units. Even with the filters bypassed, gain was still only good to about 1 meg. These work well down to several hundred khz or so..... Their noise floor on HF in general is even better than some of the tube m/c units I have, which are better than all the solid state ones I have. Yes, I confess - I have a collection of these! However, now I think I can stop collecting - these fit my needs.

In the past I had modifed one of my solid state TMC 16 channel units to provide a 4 x 4 unit, and it worked well enough, with somewhat reduced gain - but that was usually not a problem with the log periodic as an input source. Like John, I was hoping to do a similar thing with one of these but my initial tests just running a sig gen into one of the 8 channel boards didn't yield very good results. Quite a gain loss - 20 db or so (I didn't check it closely but it was significant). I'm thinking the output from the main amp is very low impedance (notice the wide strapping they use to carry the signal to the other 4 distribution cards) and feeding a 50 ohm source at the same point causes quite a mismatch. I'm interested in what others find - I was in a rush and may have slipped up somewhere....

These units do run rather HOT so, not needing all 32 outputs, I cut the Vcc to half of them. I also put a bypass relay between the input and the ch 1 output so the antenna input passes directly to this BNC when the unit is off.

These units came from the big array (elephant cage antenna) at Massett (sp?) up in the Queen Charlotte Islands, so I wonder a: what receivers they were using? and b: where are they now ??....

As an aside, has anybody got a more recent e-mail address for Gerry Lockett - newer than
<glockett@lightspeed.net
> or ask him to drop me an e-mail.
73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

Date: Sun, 21 Mar 1999 20:08:47 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: Premium Antenna Splitters Available NOW

At 08:29 PM 3/21/1999 -0700, Don Moman wrote:
>Hi All;
> >John made some interesting comments about the multicoupler that a number
>of us have gotten recently, from Wm J Ford.
> >
>These units came from the big array (elephant cage antenna) at Massett
>(sp?) up in the Queen Charlotte Islands, so I wonder a: what receivers
>they were using? and b: where are they now ??....
> > I was stationed at CFS Masset in 1979 and again between 1982 and 1984 as a medical officer. The 291ers, the trade involved in the spying at the elephant cage, were always very secretive about their work. I raised more than a few eyes when it was obvious that I knew more than I was supposed to know (all from public sources). I was able to find out from a 291er recently, that the 2050 was definitely installed at Masset, and so presumably Inuvik, Carp, Alert, and Bermuda (other sites of 291 activity), in large racks, remotely controlled, hence the lack of any visible wear on the knobs of our sets. Wasn't able to ascertain from him what's used there now, although a tech in Edmonton told me that he didn't think there were any left in the system, "try the Coast Guard", I was informed. Masset, and Alert are remotely controlled now through Carp, just outside of Ottawa. Inuvik and Bermuda closed years ago. Hope the history helps... .....Walt.

Date: Mon, 22 Mar 1999 08:37:00 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: Antenna Splitters

After seeing a lot of comments on antenna splitters, I'm curious about something. I've always used a two pole four position switch that switches both the input antenna and output audio lines of any of four receivers. I don't see any advantage to adding the complexity of a splitter with its attenuation and/or possible IMD problems if it has a built in preamp. The audio outputs of the receivers will have to be switched in the end to select one receiver out of the ones that are split into. For the large antenna arrays, it was necessary to have all these outputs for beam forming, but my setup isn't that fancy. I only use one antenna at a time, and one receiver at a time. Seems like a switch is the simplest (and best) solution.

Am I missing something here?

John Reed, KA5QEP

Date: Mon, 22 Mar 1999 09:21:26 -0600
From: parnass@lucent.com (Robert S Parnass)

Subject: Re: Prem-Rx: Antenna Splitters

Hi John, Splitters (multicouples) are handy when one wants to "simulmonitor" multiple channels. I often monitor USCG on 5696 kHz on one receiver while tuning around on another.

From: John Reed <jtreed@poncacity.net
>:
> I always used a two pole four position switch
> that switches both the input antenna and
> output audio lines of any of four receivers.
> I don't see any advantage to adding the
> complexity of a splitter with its attenuation and/or possible
> IMD problems if it has a
> built in preamp....
===
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com Locate & identify transmitters in your area with a color RadioMap(tm) http://www.megsinet.com/~parnass

----

Date: Mon, 22 Mar 1999 07:38:05 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: File Size upped to 0.5MB

Gentlemen:

Over the weekend you may have received a posting by John "E" Bryant on an antenna splitter. The file contained some great photographs. John first sent the package as one file with a size greater than 400K. Unfortunately, the server bounced this file as being too large.

I have spoken to the "server" and we have a new understanding....we have upped the limit on file size to 0.5 MB.

Now this doesn't mean you should push the envelop again John.... please, no new centerfold pictures of your splitter (as in antenna) .... :-)

No change was made in the Lists image standard... still JPG.

Greg

Date: Mon, 22 Mar 1999 18:06:21 +0100
From: KuD-BS@t-online.de (KD Elektronik GmbH)
Subject: Prem-Rx: bandwidth test results

Dear Mr. Bailey, at a first glance the pictures look very nice. But at the second glance the question arises: what is the dynamic range of the measurement? If the y-axis is linear, the visible dynamic range is less than 40 dB, corresponding to a 1% resolution. You did display the AGC voltage which may be logarithmic and so the resolution is a bit more. In either case the pictures do not allow the evaluation of the dynamic range of the filter or to measure the adjacent channel suppression. Another point is the phase linearity of the filter. To really evaluate a filter the passband curve is not quite enough. The phase distortion or absense of it is equally important.

I suggest the following measurements, if possible:

1. Sweeping across the passband, as already done, but relatively fast, with AGC in pos. slow or off. Then look at the output signal with a logarithmic amplifier or display. In principle this is what a

spectrum analyzer like the HP 8552/8554 does. A dynamic range of 80 dB can be seen and with some tricks even more.

2. Measuring the phase linearity is not easy. But it can be estimated by keying the transmitter at moderate to high speed and looking at the output signal. If the cw signals are not distortet, just rounded a little bit, the phase linearity is good. If the pulses look different, with ringing or pointy, the phase linearity is poor. In QAM systems a special display is used to judge phase linearity, the cat-eye display. I do not know how this can be implemented with simple means, but someone knows maybe.

The DSP filters mostly are of the type FIR (finite impuls resonse). They do not show ringing and therefore can cope with fast CW signals in narrow bandwidths. FIR filters are phase linear. This is the only type of filter which is strictly phase linear. But if the filters show some ringing, they are of the type IIR (infinite impuls response). These are easier to implement because they need much less computing time compared to the FIR filters, but they are tricky to calculate, as they can be instable and oscillate. Any real world (hardware) filter can be simulated by an IIR filter with the same properties. There is no real world filter corresponding to the FIR filter. This exists only in software.

Please do not consider this as criticism, but as a suggestion to get a better information about the DSP filters and to evaluate how good they really are compared to hardware filters.

Best regards Hans-J. Kneisner

Date: Mon, 22 Mar 1999 15:00:28 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: bandwidth test results

Guten Tag Herr Kneisner:

Thank you for your comments on the bandwidth measurement. You were the fourth member of the List to call for the missing y-axis or vertical index. Basically, I did not make any vertical measurement, thus I didn't claim the filter to be X number of dB, etc. I have vacation next week and I will try measureing the filter using your suggestions.

It is nice to see our Deutschland member posting to the list. Please let us hear from you more often.

mit freundlichen GruBen

Greg

>

Date: Mon, 22 Mar 1999 20:16:41 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Multicoupler

Hi, John! In my case, the purchase of a multicoupler was the best investment I have made in a long time. I presently have 4 receivers, and 5 antennae. In the past, I was constantly fiddling with the antennae, switching between receivers...pretty messy business, and I was constantly having problems with the receivers picking up QRM from eachother. For instance, my 535D's LCD appeared to put out hash when it was turned off. This disappeared only when the receiver was on. I've been able to eliminate this problem, with an elegant setup. The 5 antennae are connected to a hamfest surplus rotary 6 position switch. The output is fed to the multicoupler, with the outputs to the receivers. I can then choose any of the 5 antennae. The only thing better, I suppose, would be a setup in which I could independently select the antenna...Oh well, life's a compromise.

Walt.....Collins 2050, R390A, JRC 535D, and Kenwood R5000. By the way, my setup allows for nice side by side comparisons of the receivers. I'm constantly amazed how much the 2050 blows the 535D out of the water!!!

Date: Tue, 23 Mar 1999 05:43:56 -0600
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Premium Antenna Splitters

Hey,

There is life on the list! Great conversation on the 5069. I've several responses.

!. I really appreciate Don's concern about a possible impedance mismatch if the unit were broken apart. That funny sheet metal distribution buss is a bit worrying and Don may be right. Bill and I did inject a signal directly to the distribution buss and we did not notice any loss. However, we did not check closely and we did not disassemble the unit to check (yet), either. I'm afraid that it'll be a couple of weeks before Bill and I can get back together to do any further checking. In the meantime, now that I know that it is/was the companion unit to the 2050 and such a premiere unit, I'm gonna order another one as back-up.

2. Both Don and Walt mentioned "Elephant Cage" antennas at the Canadian intel sites. What the heck is an Elephant Cage antenna???? One of the relatively few advantages to living in Oklahoma is we often have plenty of land to put up antennas. How big is an Elephant Cage? On second thought, if it was practical at all, Don would already have one. If I can't have an Elephant Cage antenna, can I build a Buffalo Cage? Seriously, what is that antenna?

3. John Reed asked a very fair question about what the heck anyone would really want with one of these splitters, anyway. John, its its partly from the needs of a different subgroup of the hobby and partly from shear laziness. We routinely use two receivers simultaneously in SWBC DXing and also in Medium Wave DXing. One of the main reasons is checking for parallel (network) programming. For instance, on medium wave.. with a threshold trans-Pacific signal, you can often ID it by finding a known MW or shortwave parallel broadcast. When one or both of the signals are at threshold, switching back and forth between two sources, no matter how quickly done, is not nearly as reliable as hearing both simultaneously. On shortwave, many of the target countries (India, Indonesia, China, etc.) have many SW outlets, some very powerful, some flea powered. Most go to a network news broadcast several times a day, so the same technique works very well for IDing the flea powered SW stations, too.

Once you are using two receivers simultaneously, you have gotten out on the "slippery slope" and the sickness can multiply rapidly from there. I routinely use three receivers simultaneously. Two as described and a third sitting on a single station, feeding a tape recorder. There are times when I've had two receivers feeding tape recorders and was using two more, as above. Really excellent openings for flea powered stuff from half way around the world are a "two or three times per season" happening on SWBC, as I presume they are on the ham bands, so lots of receivers running at once is an advantage, especially when the openings only last about an hour or so at dawn or dusk.... at least that is the excuse that my wife doesn't really believe.

I'll admit that the first time I visited David Clark, before he was collecting radios and while I was just using my new 525, I thought that he was a bit obcessive to be using two HQ-180As and two R-7As simultaneously. That was before we got up and DXed the next morning.

There are two other reasons for the splitter... I have two listening positions in my shack. I also run a receiver down in the garage while I'm working there (BBC) and have one at my bedside. I don't DX from those positions, but even listening to BBC, I'd like as good a signal as possible. The last reason, for the real sick-os |:
>) like Clark, is that it is nice to be able to turn on any of dozens of receivers and have a signal right there waiting for you (at least, I assume it is nice!)
Anyway, I hope everyone who ordered a splitter had read Don's note first..

Date: Tue, 23 Mar 1999 08:49:55 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: Elephant Cages

Since the question was asked about Elephant Cage antennas, here's what I think they are:

They really go by the name Wullenweber or Circularly Disposed Antenna Array (CDAA). They consist of monopole antennas arranged in a circular ring 500 to 1000 feet in diameter (depending on the lowest frequency to be analyzed). The signals from each antenna on the old style arrays were combined with a gonimeter. However I suspect on the new arrays this is done with electronic beam forming. Probably the installation had 32 antennas and the splitters were part of the beam forming network.

These installations are used for DFing HF signals. If the signals from each antenna are combined with the correct phase it is possible to form a tight beam and locate the direction to the transmitter accurately.

John Reed, KA5QEP

Date: Tue, 23 Mar 1999 18:41:25 -0800
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Re: Prem-Rx: Elephant Cages

In the USAF, we called them "Flair Nines".....I believe they were part of a system ....AN/FLR-9. I seem to remember a AN/FLR-9 site in Ramasun, Thailand -- one at Clark AB, PI, one at Misawa, Japan.

Ben -- WB8HUR San Diego

At 08:49 AM 3/23/99 -0800, John Reed wrote:
> Since the question was asked about Elephant Cage antennas, here's what I think they are:
> > They really go by the name Wullenweber or Circularly Disposed Antenna Array (CDAA).
> They consist of monopole antennas arranged in a circular ring 500 to 1000 feet in
> diameter (depending on the lowest frequency to be analyzed). The signals from each
> antenna on the old style arrays were combined with a gonimeter. However I suspect on
> the new arrays this is done with electronic beam forming. Probably the installation
> had 32 antennas and the splitters were part of the beam forming network.
> > These installations are used for DFing HF signals. If the signals from each antenna are
> combined with the correct phase it is possible to form a tight beam and locate the
> direction to the transmitter accurately.
> > John Reed, KA5QEP
>

Date: Tue, 23 Mar 1999 22:29:07 -0500
From: Robert Ross <radiorob@serix.com>
Subject: Prem-Rx: RCA CU-5069 Coupler.....Me Too!!!!

Hello Guys:

Well....I haven't exactly been burning up the list with messages lately.....but I am still out here and alive!! I "Have" been reading the mail and keeping track of what has been happening here on the Premium Rx List. As a result of John Bryant's review of the RCA Antenna coupler from Ford Surplus, I sent in my order for one on Monday....and one day later it was here!! Great service from Ford's. It was Foam packed and arrived in fine shape by UPS. The unit I received is Serial # 117 and is a real nice

unit. It looks like new and although I haven't hooked it up yet....it has passed the smoke test....everything is lighting up and appears to be functioning. There was 2 Stickers on the front of the unit....but they peeled off easily, and the front of the unit cleaned up real nice. The chassis is real clean, and what little dust was in it.....blew out with little effort. These units appear to have been looked after, I'm very happy with the one I received.

Mine will be mounted in my "3 Bay 19 inch Rack that holds 12 Boatanchors in 3 Banks of 4. This is a great Rack that I obtained from an Oldtime Local Ham. I have never seen another one like it. It is like 3 Racks.....all joined together to form a wall. Right now the Coupler will be feeding the following Receivers.....

Collins HF-2050 Collins 651S-1 Collins 51S-1 Collins R-388 Collins 75S-3 Collins 75A-4 Hammarlund SP-600 Hallicrafters SX-28 Racal RA-17 Nems Clarke 1674 National HRO-60 Marconi CR-150

There is a Nice 3 1/2" Space ....right above the SP-600, the RCA coupler will fit nicely into that space!! I have another 6 Foot Rack...that I will fill with other receivers....and they too can be hooked up to the coupler. Maybe I'll turn them all on at once...and dim the lights in the neighbourhood!! I received a Power Cord with the Unit...but unfortunately it is only about 1 1/2 Feet long!! I've contacted Fords to see if they have any that are longer. If not...I may have to make one....or use an extension cord!!??? Did anyone else receive one of these short Power Cords....or am I just getting what was left...since I ordered my unit a little late???

They are well built Units. Looks like the Canadian Gov't spent some big coin back in the 70's/80's. Nice to see us getting some of our tax dollars back in the form of Surplus Radio Equipment!!

Thanks to all who provided tips on the availablility of these units...and to those who offered tips on their care and feeding.

Regards...ROB.

Robert S. Ross VA3SW London, Ontario CANADA

Antique/Vintage Radio Enthusiast Amateur Radio Stations VA3SW/VE3JFC

Defy Physics.....Play Table Tennis!! (Ping Pong with an Attitude)

«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤

Date: Tue, 23 Mar 1999 20:14:19 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Kicking Off Month Five.....

Gentlemen:

1. Are you sitting down.... this is going to be embarrassing.... Somehow my name was "dropped" from the List and I have missed the posts for the past so many days. I swear, this "dropping" action was probably the skullduggery of some guy that speaks in short choppy words like "nanny-nanny boo-boo" (in house joke identifying Sir Charles of Rippel). Seriously, since I am theoritically the only one that can remove people .... I must of "dropped" myself. Talking about shooting yourself in the foot! Additionally, the term u-n-s-u-b-s-c-r-i-b-e-d is typically used instead of "dropped" but as I found out, if you use that "un" word in any part of the text the server goes wacko and BOUNCES the entire message back to me. _____

2. Most of the membership has been unaware of the behind the scenes discussions that have been taking place regarding the recent "premium receiver nominations". An ad-hoc committee of those who nominated receivers was formed and we have been working to tentatively come to a solution. Our findings:

>A. Many of our present members were invited to join this List based on their interest and ownership of a "Premium-Rx" receiver. Since then we have defined what is to be considered a Premium-Rx. There is a likelihood that some present members of the List may not have a receiver that meets the committee's NEW Premium-Rx definition. With concern for these individuals, the committee feels, without exception, that all present members will be considered charter participants and thus remain so.
>B. Future individuals requesting membership/participation in the List will have to own a Premium-Rx as defined on our WebPage.
>C. The Premium-Rx WebPage will have two receiver classifications: (1) "Premium Receivers" consisting of solid state, digital display (typically microprocessor based) mil-spec, and constructed in limited numbers. (2) "High-End" consumer receivers: solid state, digital display (typically microprocessor based). Receivers in this classification will not be exhibited elsewhere on the internet and/or be associated with any special interest internet user group.
Any members of the List may nominate/sponsor a receiver for either of the above two categories. The member making the nomination will have the responsibility of working with the Webmaster to generate the WebPage (pictures, specs, technical review). Receivers not sponsored will be drop from the WebPage due to limited interest.

The above is not in stone and is still open to discussion. My thanks to all those who participated and offered suggestions while the nomination committee was in session.

---

3. Larry Gadallah informs me that his work schedule demand placed our WebPage on his back burner for this past two weeks, however, this week should see the unveiling of the first edition of the WebPage. As the editor, Larry will have the privilege of announcing its official opening. Be advised, Larry is a VOLUNTEER, and he is accepting assistance from all Listees. If you have suggestions or information that could be included in the WebPage, dump some digital bytes his way.

In all fairness to Larry it should be pointed out that at the same time Larry has been designing the WebPage the committee was arguing about what constitutes a Premium- Rx. Consequently, his editorial efforts has been trying to "define" a moving target. It was our thought to post the Page as it now exists and then fine tune it in the weeks to come. Actually, the Page will require constant massaging if it is to be contemporary. Already Larry addresses it as "Ver. 2".

Our thanks to Larry.

---

4. As already announced, the maximum file size for posting to the List is now 0.5 MB. Standard accepted image format is JPG.

End of message, have a great month gang.....

Greg

Date: Tue, 23 Mar 1999 23:37:05 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: Prem-Rx: RCA CU-5069 Coupler.....Me Too!!!!

Hi Rob: What did Ford charge for shipping?

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@spanit.com
<http://www.interlog.com/~nyaa/

>
Is it just me or are the nights *really* getting shorter.....?

Date: Tue, 23 Mar 1999 23:49:48 -0500
From: Robert Ross <radiorob@serix.com>
Subject: Re: Prem-Rx: RCA CU-5069 Coupler.....Me Too!!!!

At 11:37 PM 23/03/1999 -0500, Tony Ward wrote:

> Hi Rob: What did Ford charge for shipping?
> > Tony (VE3NO) NYAA StarFest On-Line
> tonyward@home.com
> tward@spanit.com
> < http://www.interlog.com/~nyaa/
>
Hi Tony:

Ford charged me $27.22 for Overnite UPS.....the Receiver was shipped Monday night at 1920 PM....and was in my House at 0910 AM the next morning!! It was packed in a Big Cardboard box...that was Foam Filled to fit the shape of the Coupler.....The same way my HF-2050 arrived from Don!!

73...ROB.

Robert S. Ross VA3SW London, Ontario CANADA

Antique/Vintage Radio Enthusiast Amateur Radio Stations VA3SW/VE3JFC

Defy Physics.....Play Table Tennis!! (Ping Pong with an Attitude)

«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤»§«¤»¥«¤

Date: Tue, 23 Mar 1999 21:57:10 -0800
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: Elephant Cages

Further to Ben's information, I have seen these arrays in Hawaii (by the Dole plantation outside of Honolulu), in Germany (I don't remember where), and I believe in Scotland. The excellent book, "Puzzle Palace", about the NSA has a great deal of information about them. Highly recommended bedside reading.

.....Walt.

Date: Wed, 24 Mar 1999 10:17:40 -0800
From: Jan Skirrow <dma@islandnet.com>
Subject: Re: Prem-Rx: Antenna Splitters

At 08:37 AM 03/22/99 -0800, John Reed wrote:
> After seeing a lot of comments on antenna splitters, I'm curious about something. I've
> always used a two pole four position switch that switches both the input antenna and
> output audio lines of any of four receivers. I don't see any advantage to adding the
> complexity of a splitter with its attenuation and/or possible IMD problems if it has a
> built in preamp. The audio outputs of the receivers will have to be switched in the end
> to select one receiver out of the ones that are split into. For the large antenna

>arrays, it was necessary to have all these outputs for beam forming, but my setup isn't
>that fancy. I only use one antenna at a time, and one receiver at a time. Seems like a
>switch is the simplest (and best) solution.
>>Am I missing something here?
Hi John et al ...

I too used to wonder. But I found the switch approach too inflexible. The final straw came one day when I was working on a rcvr that seemed dead. Several hours of effort went by before I noticed my antenna switch (in another room remote from my workshop) was in the wrong position.

I have an operating area with a shifting number of rcvrs and transceivers. The connection of the transceivers is switch controlled. But it's nice to know that whatever rcvr I decide to use has an antenna. At the moment, each radio has a separate speaker - but that is about to change as well. My antennas come into the house at this position, and there is a CU-5069 multicoupler here.

One output runs through an in-wall cable I installed when building my house :
>) to my workshop, and feeds a second CU-5069 that supplies my bench and another varying mix of rcvrs. This is where the MC really shines. I have several outputs running to different parts of the workshop, so that whenever anything is on the bench, or sitting somewhere on a long-term test, a known antenna connection is but inches away.
I used to be skeptical about MCs too. But I now think of them as essential - - unless the equipment setup is fixed and/or simple.

Cheers

Jan Skirrow, VE7DJX

"So many radios - so little time"

Duncan, BC, Canada

***************** "So many radios, so little time"

http://www.islandnet.com/~dma/Boatanchors/

Information, Parts, Pictures, Articles: The R-390A and other classic gear.

****

Date: Wed, 24 Mar 1999 14:02:57 -0600
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: ITT Mackay Marine rx writeup

I published a (fuzzy) photo of my ITT Mackay Marine 3031A receiver and wrote a few paragraphs about it. They appear in my Scanner Equipment column in April 1999 Monitoring Times magazine.

It's not a review. Premium receivers seldom appear in the hobby press and I'd like to give them some exposure.

= =
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com Locate & identify transmitters in your area with a color RadioMap(tm) http://www.megsinet.com/~parnass

----

Date: Thu, 25 Mar 1999 08:49:28 -0800
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: More on Elephant Cages

Here's a good web site that has some nice pictures of Elephant Cage arrays with lots of information:

http://users.neca.com/cummings/wullen.html

John Reed

Date: Thu, 25 Mar 1999 10:50:10 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Re: Prem-Rx: More on Elephant Cages

Wow John: I want one. Thanks for the post. Two questions: Have these appeared on eBay yet? And what is the overnight UPS freight one one of these little suckers? (G)

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Is it just me or are the nights *really* getting shorter.....?

- ----- Original Message -----

From: John Reed <jtreed@poncacity.net
> To: Premium RX <Premium-RX@kahuna.sdsu.edu
> Sent: Thursday, March 25, 1999 11:49 AM
Subject: Prem-Rx: More on Elephant Cages

> Here's a good web site that has some nice pictures of Elephant Cage
> arrays with lots of information:
> > http://users.neca.com/cummings/wullen.html
> > John Reed

Date: Thu, 25 Mar 1999 23:28:52 -0700 (MST)
From: Larry Gadallah <larry@gadallah.com>
Subject: Re: Prem-Rx: Kicking Off Month Five.....

> [munch]
> 3. Larry Gadallah informs me that his work schedule demand placed our
> WebPage on his back burner for this past two weeks, however, this week
> should see the unveiling of the first edition of the WebPage. As the
> editor, Larry will have the privilege of announcing its official
> opening. Be advised, Larry is a VOLUNTEER, and he is accepting
> assistance from all Listees. If you have suggestions or information
> that could be included in the WebPage, dump some digital bytes his way.
> Greetings all:
Here is the official announcement of the Premium-RX Home Page. It is at http://kahuna.sdsu.edu/~premium. Go have a look, and send me more specs especially, the receiver tables look kind of sparse right now.

Thanks and 73s, - -- Larry Gadallah, VE6VQ larry@gadallah.com Calgary, Alberta, Canada http://www.gadallah.com/~larry Key fingerprint = D6 79 5D 9D 41 27 74 03 68 FD D7 F3 86 68 EB A5

Date: Fri, 26 Mar 1999 02:48:04 -0500

From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Premium Antenna Splitters

Well, after alla this "prodding" <g
> in John's note, I ordered a 5069 from Ford today too...comes with power cord, although he has more splitters than cords left in inventory.
73 - Dave

John Bryant wrote:
> > Hey,
> > There is life on the list! Great conversation on the 5069. I've several
> responses. …..

---

premium-rx-digest Sunday, April 4 1999 Volume 01 : Number 029

Date: Fri, 26 Mar 1999 09:30:18 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Don't count your chickens....

Gentlemen:

To answer those who are asking-

As stated, the Cubic radio was to "fall" in the hands of the Premium-Rx List on Tuesday.... ah, what can I say..... I counted my chickens before they were hatched.....

The radio deal is still on, but the delivery system failed. I have faith it will happen given another week.

I was hoping to have a week of spring break from the university while hammering on the Cubic, but we will just have to wait.

I've considered cutting my wrists :-(

Greg

Date: Fri, 26 Mar 1999 18:45:39 -0700
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: RE: Prem-Rx: Premium Antenna Splitters

For the benefit of those list subscribers who don't archive these list messages (doesn't everyone!!):

I have found that the heatsink compound in both of the 5069's that I have examined has completely dried out. This means it becomes a thermal insulator rather than a conductor, and that the heatsink efficiency is drastically reduced. And since heat + high current transistors + rack mount - air circulation = thermal failure, you may want to consider replacing the heatsink compound. It took me about 1.5-2 hours to do one unit (34 transistors). Coincidently, I discovered cold solder joints in one of the input amplifier transistors while doing this. It looked like improper soldering on a subsequent repair rather than a problem with the original (factory) soldering.

Shaun P. Merrigan Edmonton, Alberta, Canada 53.43N 113.25W smerriga@compusmart.ab.ca

>

Date: Sun, 28 Mar 1999 05:34:08 -0500
From: David Clark <davidclark@home.com>

Subject: Prem-Rx: [Fwd: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX]

An item of interest. 73 - Dave - ----------

Subject: Re: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX

Hi Dave, Just a comment or two...I did some research and found out the JRC NRD-301A does have an "if" ouput in back, and it does have an off position on the agc. Now it is labeled "data", but it is a true off position. I talked a a guy that owns one and he says it is even better than the NRD-93, has a very quiet synthesizer, and sounds almost as good as the Drake R8B. The price is the $4000.00+ range and tunes in 1 hz on up segments with an 8 digit readout.

Sincerely, Charles N8GMB@aol.com

Date: Sun, 28 Mar 1999 07:12:14 -0600
From: "davez" <davez@ticon.net>
Subject: Re: Prem-Rx: [Fwd: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX]

Hi to all:

Just for the information, The NRD-93 does use "optical" encoders for the PBT and Clarifer controls, so it's not just a "pot" here. The BFO/Clarifer control tunes the 1 hz step and makes ECSS a snap, no other buttons to have to fiddle with. It's always there.

The NRD-301A brochure what I used to base the info on . It looks like that it's incomplete ?? The 93 still has high points over the current sets however. But sorry about the misinformation.

Dave Zantow

- -----Original Message-----
From: David Clark <davidclark@home.com> To: premium-rx@kahuna.sdsu.edu <premium-rx@kahuna.sdsu.edu> Date: Sunday, March 28, 1999 4:34 AM
Subject: Prem-Rx: [Fwd: [JRC] FS: CORRECTION (JRC NRD-93/NDH-93) RX]

>An item of interest.
>73 - Dave

Date: Sun, 28 Mar 1999 07:22:31 -0800
From: dma@islandnet.com
Subject: RE: Prem-Rx: Premium Antenna Splitters

Hi Gang ...

There has been some interest in the CU-5069's heat generation. They do run warm, but whether or not this is a problem is still unclear to me. The conducting goop that's exposed to the air is dry, but also irrelevant - it's the condition of the goop between the transistor case and the heatsink that matters.

Before doing any of what follows, I tried removing a few of the heatsinks, and decided that there was a real risk of damage, so wondered if the problem was so great as to justify the risk.

So in my simple-minded way I decided to do a few measurements. There are two issues: how much heat would you expect, and how hot is the transistor itself.

On the first issue, notice the large resistor in each amp circuit. With the measured voltages in my unit, these each dissipate about 0.9 watts each. The transistors should each be dissipating about the same amount. So 1.8x32=58 watts. The power supply is delivering about 2.5amps, so the pass power transistor in it is dissipating about 16 watts. The power transformer itself is quite warm. And the driver amplifiers and other misc bits and pieces probably add another 10 watts. So we have each CU-5069

dissipating about 85 watts or so. Which is quite a bunch of heat, actually, and should be quite noticeable when you touch the top cover.

The second (and more important) issue (how hot is the transistor running) is more difficult for me, as I don't have a temp measuring device. So I tried the old finger-tip approach. I can touch the heat sinks - they are hot, but not that hot. This wouldn't be surprising if the conducting goop was not working. But I can also touch the transistor case itself, and I can't feel any difference - which implies that there is pretty good thermal conductivity between case and heat sink. The driver transistors are cooler (they have much bigger heat sinks and I can't get down to the transistor itself without removing one). The pass transistor case is at the supply voltage, so no touchee. But the area around it is quite hot.

So is there a problem? Everyone will have to decide for themselves. The transistors used in this unit are rated at 175C junction temp, which means they can run quite hot. They are running way below spec on Ic and the transistor case is within my finger's temperature range.

So I'm going to leave mine alone for now.

Advice to new owners? Yep:

- - Check the value of the large resistors in each amplifier. These are carbon comp units running near their rated wattage, and some in mine look distinctly tired. They will drift in value under these conditions, so are worth a check. They usually drift up in value, so they don't pose a risk to the transistor, but may result in an output not working right.

- - Do a transistor case fingertip test (carefully! - some may be hotter than others, and our fingertips may vary!) and note if any are distinctly hotter than others. The hottest may benefit from fresh goop.

- - You may also want to run a fan. The power supply should be big enough to run a 28vdc fan, of which I have several - could easily be mounted under the top cover, blowing down.

- - You could buy a few replacement transistors, just in case you blow a few and some of your 32 rcvrs are sans signal. They are still available at a modest price, but Motorola advises that production will end shortly on all transistors of this case type.

- - I like Don Moman's advice about simply disconnecting the Vcc purple wire to some of the amplifier boards (depending on how many outputs you actually need). This will reduce the heat dramatically and result in longer power supply life.

- - And lastly, don't run them 7/24. These are aged electronics and should be treated with the respect age deserves! (I keep hoping!)

Cheers

Jan Skirrow

Duncan, British Columbia, Canada

Date: Mon, 29 Mar 1999 08:52:34 -0800
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Server went down Sat AM

FYI

Our Premium-Rx Server went down on Saturday morning. This was a planned event and I have been informed the backup system was operational and that no information was dumped.

If you posted Saturday between 0725 and 1600 PST and had problems, you may want to send your information a second time.

I apologize for the inconvenience, I'll pay the power bill on time next month :-).

Greg

Date: Thu, 1 Apr 1999 18:34:33 -0500
From: "Tony Ward" <tonyward@home.com>
Subject: Prem-Rx: Fw: [R-390] Ebay listing!

Offered in the spirit of the date... and may we never forget it's just a hobby eh?

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=85534394

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Is it just me or are the nights *really* getting shorter.....?

Date: Thu, 1 Apr 1999 16:57:33 -0700
From: "Walt Novinger" <wnovinger@home.com>
Subject: Re: Prem-Rx: Fw: [R-390] Ebay listing!

The real shame, Tony, is that some yuppie from East Jesus, MN will probably bid US$1150.00 because he never sees them at his local garage sales and he's heard they're collectable.

Oh well, that's no stranget then the $1100+ R390A that sold last week.

Walt

= Walt Novinger Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com - -----
---

Date: Thu, 1 Apr 1999 19:01:34 -0500
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: Fw: [R-390] Ebay listing!

I see that spelling is a hobby also. They spelled "Prototype" wrong.

> Offered in the spirit of the date... and may we never forget it's just a
> hobby eh?
> > http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=85534394
- ----------

Chuck Rippel Reply to: wa4hhg@amsat.org

- ----------

Date: Thu, 1 Apr 1999 16:23:17 -0800 (PST)
From: k1xv@nac.net
Subject: Prem-Rx: Interesting item on eBay web site item#84391743: Hallicrafters SX-115 Receiver & Manual

Check this one out. Now at $820.00 and the reserve is not yet met.

Ray K1XV

Title of item: Hallicrafters SX-115 Receiver & Manual Seller: k4cgy@yahoo.com Starts: 03/29/99 09:38:02 PST Ends: 04/05/99 10:38:02 PDT Price: Currently $820.00 To bid on the item, go to: http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=84391743

Item Description: This may be one of the nicest SX-115's around. I'll call it an 8.5 but it's most likely a 9.5. I purchased it from the original owner through a third party in 1987 and used it as my main receiver for over three years. I don't believe the orginal owner was a smoker and I'm not. It's in excellent physical and operating condition but with 36+ years it might be time to consider replacing the tublar capacitors. The cabinet has a couple of scratchs on the right side near the top latch and one on the left side in the middle. There are a couple of paint chips around the front edge of the cabinet that are about half the size of a pin head. The Black bezle looks like new with not a sign of even a build up of dust on the crinkle. The knobs are perfect with all the inserts intact. The chassis is like new with no sign of any corrosion. The tubes, I think, are all original and all tube shields are intact. Most of the tuning slugs still have the factory green paint but two MAY have been adjusted. The manual is in excellent condition but is not the one originally shipped with this receiver as that one was lost. Manual has a couple of value changes shown on the schematic but since I bought this one seperatly they have not been made to the receiver. I don't think that anything has been touched since it left the factory. The serial number is 115002-215353 and the chassis number is 199214. I will have it packed, if possible with foamed in-place packing and insured for full selling value. Buyer to pay packing and shipping cost. Buyer must agree to use the i-Escrow feature of eBay for payment for which the seller will pay. Please e-mail with any questions.
Visit eBay, the world's largest Personal Trading Community at http://www.ebay.com

---

Date: Sun, 04 Apr 1999 12:54:19 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic 3150 Receiver

Gentlemen:

This week finally saw the delivery of a Cubic Communication model 3150 receiver. The device is covered in Osterman's book which parallels the published specs inthe instruction manual.

For those without the Osterman bible, the 3150 covers 10 KHz to 30 MHz, sweeps frequency ranges, scans 200+ memories (at a ripping 100 memories/sec), squelch, 50 BW from 100 Hz to 16KHz, U/L/ISB, AM, FM, FSK, CW, variable tuning rate of 1Hz to 10 MHz. (Yes that is 10 MHz), and so on. The device is rated at 10dB Sinad at -105 dBm for AM (6 kHz at 90%).

The package is only 4" H X 17" W X 21" D. Unlike the Collins 2050, the 3150 has a switching power supply which draws only 90 W and makes for luke warm "touchy - feely" operation. The variable intensity fluorescent display allows for easy observation in darkness and bright daylight.. A "meter/menu" button allows switching from the menu to 3 virtual meter projections which shows (1) RF input signal strength in - -dBm, (2) audio output level in dB, and (3) a Freq. meter which shows the difference between the carrier frequency and the center of the IF bandwidth. Maximum on the Freq. meter is +/- 2KHz. The feature allows you to tune for a zero on the meter, versus changing to CW mode and tune for zero beat. I found this feature very useful.

According to Cubic there were approximately 250 of these receivers constructed from 1994-96 (give or take). The cost was in the $7K range depending on what pre-selector and remote control options were requested. The 3150 followed the lead of the R-390 in that soon after introduction, a less expensive model (3250) was produced in the $4K ballpark.

The operation of the receiver is to be evaluated by Ripple/Clark/Bryant within the next few months.

JPG pictures will follow under separate files.

Greg

---

premium-rx-digest Sunday, April 4 1999 Volume 01 : Number 030

Date: Sun, 04 Apr 1999 14:46:29 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic 3150 front panel

The overall receiver can be seen in the photograph (please excuse the background clutter). A tape measure is extended to illustrate the size of the unit. In addition my left hand shows the vertical parameters of the casework and display area.

The front of the 3150 is divided with the left portion being the RF controls, and the right being the three audio and 120 VAC power switch. I assume the receiver was designed for selecting specific frequencies and then storing them in memory locations. In this way the operator can recall memory locations without turning the frequency knob. I say this because the large KHz tuning knob and the RF buttons are insufficiently separated for confortable operation. In additon the knob is a little on the stingy side in the diameter department.

The receiver's vertical deminsion is insufficient to support the mass when it is mounted in a rack. Thus, a support in the rack is required to hold up the back of the receiver.

The three audio output are: line, speaker, and auxilary (for the ISB operation).

---

premium-rx-digest Sunday, April 4 1999 Volume 01 : Number 031

Date: Sun, 04 Apr 1999 15:11:11 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic 3150 Display

The photograph illustrates the RF section. The KHz tuning knob is on the right.. Two finger dimples are provided for "spinner" operation.

The fluorescent panel shows the receiver is tuned to 10 MHz, the squelch threshold is -115 dBm (far below the incoming noise level) mode in AM, AGC is set for 0,05 seconds delay and the BW is 6 KHz.

Five soft rubber entry keys are for selection of the menu (illustrated are Freq, Mode, BW, Squelch, and RF gain). Pressing frequency will allow you to input desired setting via the buttons or by the tuning knob. Operating the mode button will permit CW, U/LSB, and AM. The BW allows you to select up to 50 present BW's. The squelch is adjusted in - -dBm level to the desired incoming signal. Gain adjustment is in dB (you just dial how much gain you want the receiver to have!).

A next key (off to right of photograph) goes to a sub menu. There are dozens of sub menus, many being used for the initial set up of the receiver and not typically used again. Learning to "walk around" in the menu hierarchy takes some time and is frustrating at first.

There is no delay between making an adjustment and hearing the result.

Entry buttons are conservative in size.

---

premium-rx-digest Sunday, April 4 1999 Volume 01 : Number 032

Date: Sun, 04 Apr 1999 15:18:59 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic 3150 "meter" display

The "MTR/MNU" (meter/menu) feature is excellent. Here we see the meter function with the receiver tuned to 14.999 MHz.

The left meter shows the 15 MHz WWV signal is at -82 dbm, the center meter shows the audio level is -9 dBm, and the right meter shows that the true frequency of the carrier is 1 KHz higher than the receiver is tuned.

Small pointers are seen in each meter semi-circle. The message on the display is telling you to turn the KHz control or enter by the key pad the frequency you desire.

---

premium-rx-digest Tuesday, April 6 1999 Volume 01 : Number 033

Date: Sun, 04 Apr 1999 18:25:00 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Re: Prem-Rx: Cubic 3150 front panel

Greg,

Nice pictures -- thanks for sending them to the group. Looks like a great receiver -- you have all the fun !!!!!

However, I must ask about the nearly empty glass of wine in the upper left of one of your pix??? Looks like some of that "cheap-ass" yuppie sippin' stuff??? Where's the Jack Daniels??? Seems like a person of your means could drink better stuff??

And another thing.....how do you keep your workbench so clean?

Ben -- WB8HUR San Diego

Date: Mon, 5 Apr 1999 12:03:14 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Cubic

Man, check it out !! The hand resting on the front left of the receiver looks almost real. Does it come with it? Is this part of some sort of autotune scheme? - ---------- Chuck Rippel

The problem with lawyers is the 98% of them that make the other 2% look bad.

Reply to: wa4hhg@amsat.org - ----------

Date: Mon, 05 Apr 1999 14:20:32 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Reply to dysfunctionals- slightly off topic

In reply to Chuck and Ben's comments:

Chuck has requested some verification as to the status of my left hand in the Cubic 3150 picture (see file titled: Cubic 3150, front panel). Knowing that Mr. Ripple resides in the lush rolling hills of the Smoky Mountains caused me to believe he was a refined and learned country gentlemen. But it is obvious he has been enjoying the "smoke" too much if he considers my left hand as an integral portion of the Cubic auto tune system. It is, unfortunately, a part of my auto tune system not Cubics. As Ben so adroitly observed, I had to put down my glass of wine (see left back of pix) while I held the Cubic for the photo-op.

And while I have your attention, Ben, you have besmirched my public persona by suggesting I should be drinking Daniels on the rocks. Ben, you need to understand, Mack truck drivers drink Jack Daniels on the rocks, but driving a premium class HF receiver demands a class act beverage. That is a glass of Baron Rothschild vin. 47' not your typical fermented California Kool-Aid.

I apologize to the members of the List for the actions of these dysfunctionals.

Greg

>
>
> < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < < <
Chuck Rippel wrote:

> Man, check it out !! The hand resting on the front left of the receiver
> looks almost real. Does it come with it? Is this part of some sort of
> autotune scheme?
> ----------------------------------
> Chuck Rippel
> > The problem with lawyers is the 98% of them
> that make the other 2% look bad.
> > Reply to: wa4hhg@amsat.org
> ----------------------------------

Date: Tue, 6 Apr 1999 12:59:23 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Autotune and Dysfunctional List Members

- --Message-Boundary-4737 Content-type: text/plain; charset=US-ASCII Content-transfer-encoding: 7BIT Content-description: Mail message body

At the pleasure of the list, I would like to respond in kind to the note our esteemed Listowner/Grand Pooh-Bah sent regarding my interpretation of the auto-tune feature of the Cubic receiver.

It would seem that while its not widely known, the R390A shares such a feature. Indeed, I was able to capture it jpeg format and have attached it to this communication.

Isn't it interesting that when the communicating gets rough, its the good ole' R390A that gets through the noise and actually communicates. - ---------------------------------- Chuck Rippel

The problem with lawyers is the 98% of them that make the other 2% look bad.

Reply to: wa4hhg@amsat.org - ----------------------------------

----

premium-rx-digest Tuesday, April 13 1999 Volume 01 : Number 034

Date: Tue, 06 Apr 1999 12:12:41 -0700
From: John R Bookout K7JB <k7jb@uswest.net>
Subject: Re: Prem-Rx: Autotune and Dysfunctional List Members

GREAT COME BACK, CHUCK.

73's K7JB.

Date: Wed, 07 Apr 1999 09:58:52 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Reply to dysfunctionals-

Dave and other Premium-Rx Drivers:

As much as I would like to send this receiver to each member of the list.... and recognizing your comment was in humor as was Chucks and mine..... I can't.

The ultimate for those interested enough to be a member of this List is to tweak or own one of every Premium-RX. However, I propose to connect a spectrum analizer to the 3150 (and the 2050) to obtain some bandwidth curves (with dB gain versus frequency). I promised Hans-J I would do this over my Spring Break vacation, but I never got to the event. Why can't there be 30 hours in a day???

Greg

DAVEINBHAM@aol.com wrote:

> In a message dated 4/5/99 4:20:58 PM Central Daylight Time,
> gbailey@mail.sdsu.edu writes:
> > << Mack truck drivers drink Jack Daniels on the rocks,
>
> > **********
> Would you gentlemen like a "sober" opinion about how this radio compares to a
> R390A and a Racal RA6790GM ?
> Send it to me for a couple weeks.
> > Dave

Date: Fri, 9 Apr 1999 12:39:04 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: ITT Mackay Marine 3031A info

Here's some info on the ITT Mackay Marine 3031A. The description in Fred Osterman's book contains some inaccuracies, e.g., years produced.

From what I can tell, about the only difference between the 3031A and 3041A is that the 3031A mode switch contains an RTTY position which enables an optional RTTY IF filter. The 3041A mode switch has an LSB position instead of RTTY.

I didn't measure my 3031A against Mackay's specs.

Mackay was part of ITT and is now a part of Thomson-CSF:

http://www.tcc.thomson-csf.com/about_us/internat/mackay.htm

Year introduced: 1981

Freq Range: 15 kHz - 29.99999 MHz in 10 Hz steps

Third order intermodulation intercept point (IMD3): +17 dBm

Intermodulation product: "With a desired signal of 31.6 microvilts EMF set to give standard output (50 mW), two equal level undesired signals offset +30 and +60 kHz, respectively, do not produce more than standard output when their levels are as specified in the following table:"

Freq Range BW (kHz) Mode Dummy Antenna Preselector Min. Level Position of Each Unwanted Sig.

100 - 525 kHz 8 AM 10 ohms/220 pf as tuned 100 mV 525 - 1600 kHz 8 AM 10 ohms/220 pf as tuned 31.6 mV 1.6 - 30 MHz USB SSB 50 ohms wideband 68.0 mV

Sensitivity: 0.8 uV for 10 dB SINAD, SSB, 1.6 - 30 MHz

Blocking: "With a wanted signal of 1 millivolt (2 kHz bandwidth), an unwanted signal of 100 millivolts (separated by 10 kHz) causes less than 3 dB change in output; for the 0.10 to 0.16 MHz frequency band, the separation is 5 kHz (1 kHz bandwidth)."

Spurious response rejection (external): "Greater than 80 dB, referenced to rated sensitivity (includes image and IF rejection)."

IF: 92.01 and 5 MHz

IF technology: crystal filters. 8, 2, 1, 0.4 kHz bandwidth positions

Tuning: Steps of 100 kHz, 100 Hz, 10 Hz Triple PLL synthesizer locked to high stability 10 MHz reference oscillator

= =

Date: Fri, 09 Apr 1999 11:36:59 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: BACKLIGHT FOR THE 2050?

Gentlemen:

Some time back John Bryant authored an article on the List regarding the backlighting of the Collins 2050. Soon after, John sent out a panic memo saying that he discovered a secondary result from his lighting effort. Evidently the lights caused a "slow down" of the receivers operation. It was thought the uP of the 2050 was sympathetic to the rise time of the fluorescent (SP) tube's "switching" supply. Upon reading John's warning, I put my lighting circuit in the hold pattern, and went on to new things.

Well, after four months I got bored one day and so I decided to install my rendition of John's circuit. It has now been three weeks since the installation and I have not experienced any of the problems John found.

My powersupply was mounted in the front compartment of the receiver. I hot glued the circuit to the aluminum plate which separates the display cavity from the RF compartment. Admittedly, the hot glue is not beautiful, but it comes off if the receiver is to be return to its original condition. I used twisted #28 insulated wire to carry the juice to the tubes. I ran the wire between the front panel and the LCD PC board (Not behind the PC as illustrated in John's photograph). I powered the display from the +12 VDC supply of the receiver.

So far so good. I got my fingers crossed. I will send out a second announcement if I find a problem.

Anyone else tried this with positive results?

Greg

Date: Sat, 10 Apr 1999 14:14:16 -0700
From: Dennis <cloudhopper@earthlink.net>
Subject: Prem-Rx: R-2050 p/n 523-0774112 Depot maintenance manual wanted.

Greetings to the list.

I am looking for the depot manual for this receiver, does anyone have a copy that they would be willing to loan out or copy for me. Of course I would be happy to pay for the copy and freight.

Regards Dennis

Date: Mon, 12 Apr 1999 20:25:52 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: Harris RF590 questions

Hello premium-rx owners:

Move over Mackay, I just took delivery of a Harris RF590.

The RF590 appears to work well, but I have no documentation, which leads (of course) to questions:

1) What is the procedure to write a frequency (mode, BW, etc.) into a memory channel?

2) How can I copy a frequency from a memory channel to the VFO?

3) Here are the Rockwell filters inside my RF590:

526-9957-110 10073 7305 129 526-9957-100 10073 7304 034 526-9957-090 10073 7303 026 526-9957-080 10073 7302 016 526-8349-010 10073 7300 009 526-8348-010 10073 7301 004

From these part numbers, how I can determine their design bandwidths (at the 6 dB point), irrespective of the nominal bandwidths on the VF display? I tried a Rockwell web site, but it's out of service.

4) This RF590 is equipped with a Cinox T-346 crystal timebase (P/N 0073-6600). How can I tell if this is the "RF593 high stability" option listed in Osterman's book?

5) The two 8-pin barrier strips on the back panel are not labeled so I don't know where to connect a 3.2 or 8 ohm speaker, nor what the connections are for. Any help?

6) There are 3 IF output jacks on the rear panel. Which is which? (This RF590 is equipped with an ISB option.)

My back is aching from moving this thing around -- but it's a "good type" of ache :-)

Thanks!

= =

Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com Locate & identify transmitters in your area with a color RadioMap(tm) http://www.megsinet.com/~parnass

----

Date: Tue, 13 Apr 1999 09:43:25 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: Harris RF590 questions

Robert S Parnass wrote:
> > Hello premium-rx owners:
> > Move over Mackay, I just took delivery of a Harris RF590.
> > The RF590 appears to work well, but I have no documentation,
> which leads (of course) to questions:
> > 1) What is the procedure to write a frequency (mode, BW, etc.)
> into a memory channel?
Here's what I do:

Get all the displays (Freq, B/W, mode, AGC, BFO) where I want them Press the PROG button Enter the channel number I want to store this information in Press the LOAD button Go back to normal operation by pressing the RCV button

> 2) How can I copy a frequency from a memory channel to the VFO?
In the channel mode, when the channel you want to move is displayed, press the RCV button. The tuning rate will be set to 1 KHz, you might want to go slower than this.

One other neat trick: You can store information in the scratch channel by pressing the LOAD button at any time in receive mode. This information can be recalled by pressing the RECALL button later.

> 3) Here are the Rockwell filters inside my RF590:
> > 526-9957-110 10073 7305 129
> 526-9957-100 10073 7304 034
> 526-9957-090 10073 7303 026
> 526-9957-080 10073 7302 016
> 526-8349-010 10073 7300 009
> 526-8348-010 10073 7301 004
> >
> From these part numbers, how I can determine their
> design bandwidths (at the 6 dB point), irrespective of the
> nominal bandwidths on the VF display? I tried a Rockwell
> web site, but it's out of service.
There is another web site somewhere with some information on this. The indications on your display are in general pretty accurate. There are a lot of options on how this can be set up, and if it is done correctly should be close. No info in the manual on filter part numbers.

> 4) This RF590 is equipped with a Cinox T-346 crystal timebase
> (P/N 0073-6600). How can I tell if this is the "RF593 high
> stability" option listed in Osterman's book?
> This is the low precision timebase (1X10-6). The high precision timebase is 1X10-8.
> 5) The two 8-pin barrier strips on the back panel are
> not labeled so I don't know where to connect a 3.2 or 8 ohm speaker,
> nor what the connections are for. Any help?
These two strips are labelled 1-16. Here's what they do:

1 GND 2 USB AGC dump 3 USB AGC in 4 Combined AGC 5 ISB AGC out 6 ISB AGC dump 7 ISB AGC in 8 Fault 9 USB Line audio 10 USB Line Audio CT 11 USB Line audio 12 USB AGC out 13 ISB Line Audio 14 ISB Line Audio CT 15 ISB Line Audio 16 Ext mute

> 6) There are 3 IF output jacks on the rear panel.
> Which is which? (This RF590 is equipped with an ISB option.)
J2 - ISB out J3 - Unfiltered 455 IF J4 - Filtered 455 IF

> My back is aching from moving this thing around -- but
> it's a "good type" of ache :-) It's not a boatanchor, but all that weight is shielding. Hard to get in consumer receivers, and it makes a big difference in hearing spurs.
John Reed, KA5QEP

Date: Tue, 13 Apr 1999 12:50:37 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: Harris RF590 continued

John and Chuck,

Thanks for the help on the RF-590 and the offer for more help.

The seller originally had three RF-590s, a matching exciter, and power amplifier.

He sold two of the RF-590s and is keeping the rest. I asked if he wanted to sell another RF-590 but he said no.

The first thing I did was figure out how to convert this RF-590 to 120 VAC power. The previous owner left it set to 240 VAC from when it was used in a US embassy. In the USA, he ran it using a 120-to-240 VAC transformer because he didn't know how to change the RF-590 power supply :-)

You don't have to open the case. You just remove the AC fuse from the rear panel, remove, reposition, and reinstall the small printed circuit board inside the Corcom fuse holder/RFI filter assembly so the proper voltage label is visible.

I've got the memories programmed ok using John's procedure.

Is there something special about memory 0 (or other channels)? I ask this because some receivers designate a few channels for special purposes (e.g., to hold search or "sweep" limits).

Next, I need to learn about RF-590 memory "groups" and scanning, too.

There are 3 D-style connectors on the rear which I presume are for remote control. One is a DB25 and the other two connectors have more pins.

> This is the low precision timebase (1X10-6).
> The high precision timebase is 1X10-8.
Ok. Looked at the rear panel Internal Timebase BNC on the spec. analyzer and saw 5 MHz and harmonics.

Does the RF590 want to see a 5 MHz or a 10 MHz external timebase? I have an HP 105B 5 MHz standard (2.5 x 10** -9, or 5 x 10 ** -12 short term) to connect.

Guess there is no 3.2 or 8 ohm audio output as found in the Mackay :-(

> These two strips are labelled 1-16. Here's what they do:
> > 1 GND
> 2 USB AGC dump
> 3 USB AGC in
> 4 Combined AGC
> 5 ISB AGC out
> 6 ISB AGC dump
> 7 ISB AGC in
> 8 Fault
> 9 USB Line audio
> 10 USB Line Audio CT
> 11 USB Line audio
> 12 USB AGC out
> 13 ISB Line Audio
> 14 ISB Line Audio CT
> 15 ISB Line Audio
> 16 Ext mute
> >
> 6) There are 3 IF output jacks on the rear panel.
> > Which is which? (This RF590 is equipped with an ISB option.)
> > J2 - ISB out
> J3 - Unfiltered 455 IF
> J4 - Filtered 455 IF
Thanks. I looked at these using a spectrum analyzer and could see the 455 kHz IF though I wasn't sure if there was more to it.

I couldn't tell if the noise blanker option is installed, though the green NB LED works.

> John Reed, KA5QEP
= =
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com Locate & identify transmitters in your area with a color RadioMap(tm) http://www.megsinet.com/~parnass

----

Date: Tue, 13 Apr 1999 20:20:50 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Prem-Rx: DX weekend

Just a reminder for the more local and semi local members of this list...

We're having our usual spring DX listening session out here this weekend (17,18th). Anyone wishing to join in is welcome - you can e-mail me for directions and any other info....

I'm more prepared than usual - the extra channels on the TMC multicouplers are ready and waiting for you to connect your receiver to. And there are several "spare" HF-2050's to play with, however I think pretty well everyone attending already has one. Antenna wise, the big 4-30 log periodic has survived the winter and thanks to TransAlta fixing most of my power line problems, we should be able to take full advantage of it this year. I just finished repairing some moose damage to a couple of the beverages as well. Now if the sun will just just behave...

73 Don VE6JY

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

----

premium-rx-digest Saturday, April 24 1999 Volume 01 : Number 035

Date: Wed, 14 Apr 1999 16:33:43 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: Harris RF590, Round 3

Hi John, et. al., Wed Apr 14 16:15:18 CDT 1999
Thanks a million for your insights about the Harris RF590. This *is* a neat radio.

As a utility listener, I don't have a Sherwood SE-3 sync detector. For grins, I tuned an NRD535D to approx 455 kHz and plugged it into the RF590's 455 kHz IF out jack. This let me use all the features of the NRD535D, including its sync detector and Pass Band Shift. The Harris has better audio so I don't think I will use that configuration often.

A test using an electric drill to generate QRN shows my radio is unlikely to be fitted with the $2000 noise blanker option :-(

Here are some other questions:

1) What are the titles and part numbers for the RF590 user and service manuals? Is there a direct phone number I can call to order them?
2) Can one bypass the built-in preselector by pressing a keyboard combination or must one physically insert a coax jumper (or adapter) inside the radio? (I see where to do it, but perhaps there's a keyboard command as found in the JRC NRD535D.)
3) Is the S-meter supposed to be illuminated?

4) The RF590 SSB voice squelch is interesting and effective. When squelched, I can still hear some audio leaking through, but at a greatly reduced level. Is this normal?

Thanks!

= =

Date: Sat, 24 Apr 1999 16:10:40 -0700
From: Dennis Polito <cloudhopper@earthlink.net>
Subject: Prem-Rx: manual for HF-2050 needed

Greetings to all:

I am in need of the manual for the above receiver. I have a complete copy of p/n 523-0773407-001211, Intermediate Maintenance, unfortunately, this manual does not address the receiver at the component level.

There is a Canadian manual out there, p/n C-51-534-000/MS-001 that does address component level repairs. I have a partial copy but I certainly would like to have a reproduction of the entire manual.

Can anyone help out?

I will be happy to pay copy cost plus extra for your time.

Regards Dennis W6DEN

----

premium-rx-digest Wednesday, May 5 1999 Volume 01 : Number 036

Date: Tue, 27 Apr 1999 20:11:18 -0700
From: "Greg W. bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Archive Address

Gentlemen:

I have had a request for the address of the Premium-Rx archives.

Go to: http://kahuna.sdsu.edu/cgi-bin/lwgate/PREMIUM-RX

Then: Select: Browse List Archives in HyperText Format

Please be advised the archives are listed by "volumes" or weeks, with this being the 35 week of operation. Thus, if you want to find an article, you will need to estimate the period of time and best guess the week.

I am sorry this is such a poor method of cataloging. I requested the "server driver" to improve this, but he isn't one of my student (if you get my drift) and so I can't threaten him with a failing grade. This results in his motivation level being slightly less than optimum.

Greg

Date: Tue, 27 Apr 1999 20:44:13 -0700
From: "Greg W. bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Powering the 2050 from 12 VDC

Gentlemen:

Question- I propose to do a three week driving/camping trip this summer in the North-West. I have a pop-up tent trailer which has a wonderful table that just fits my 2050. Naturally, the trailer comes with plenty of 12 VDC and no 120 VAC.

So... I would like to purchase a Triplite 12 VDC to 120 VAC converter. My concern is: (1). the electrical noise from the chopper, and (2) the wave shape of the chopper doing damage to the power transformer of the 2050. (Note , the powersupply of the 2050 isn't any great engineering marvel, but just the same I don't want to "waste" it jamming some make believe sine wave down its input.)

So I propose to use a 300 watt isolation transformer between the 2050 and the converter. Hopefully this would round off the spikes a little and make the waveform more palatable for the 2050.

Any one ever attempted this scatter brained idea before?

Greg

Date: Tue, 27 Apr 1999 22:59:26 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: Prem-Rx: Powering the 2050 from 12 VDC

I have a fairly large (1350 watt) UPS that has been used to run radio equipment when the power is off, no problems noted. But these have at least a approximate sine wave output, certainly better than most simple inverters. You may look at getting a slighter better inverter that has a modified sine output - a bonus in the amount of switching noise reduction should also be noted.

There's plenty of "overhead" in the 2050's PS so a slightly lower voltage certainly won't hurt.

By the way, I can now report first hand on the 2050 and MW reception - at our DX weekend out here a few weekends ago, the highly disturbed conditions somehow allowed one or two the better European openings on MW that we've had all season (that's not saying much, BTW!). Compared to the FT-1000mp rcvr, the 2050 produced audio well before the 1000 did, and was very free from internal noise/birdies as one would expect. Great on LW too. Although it is pretty quiet here, and I have many beverages to choose from, it still would be great to have the 2050 out at the end of a few thousand feet of wire at some of our favourite beverage sites like the good old days!

Good luck on the camping trip and let us know how the inverter behaves. You'll likely need a couple of forklift batteries to run it all night long and still be able to start the vehicle in the morning, hi!

73 Don

On Tue, 27 Apr 1999, Greg W. bailey wrote:

> Gentlemen:
> > Question- I propose to do a three week driving/camping trip this summer
> in the North-West. I have a pop-up tent trailer which has a wonderful
> table that just fits my 2050. Naturally, the trailer comes with plenty
> of 12 VDC and no 120 VAC.
> > So... I would like to purchase a Triplite 12 VDC to 120 VAC converter.
> My concern is: (1). the electrical noise from the chopper, and (2)
> the wave shape of the chopper doing damage to the power transformer of
> the 2050. (Note , the powersupply of the 2050 isn't any great
> engineering marvel, but just the same I don't want to "waste" it jamming
> some make believe sine wave down its input.)
> > So I propose to use a 300 watt isolation transformer between the 2050
> and the converter. Hopefully this would round off the spikes a little
> and make the waveform more palatable for the 2050.
> > Any one ever attempted this scatter brained idea before?
> > Greg

> > > > >
VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

Date: Thu, 29 Apr 1999 11:38:56 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Announcement- New Member

Gentlemen:

I would like to welcome Karl-Arne A. Markstrom to our Premium-Rx membership. Our newest member is located in Enskede, a suburb of Stockholm, Sweden. Karl "stumbled" across our website while making an Altavista search for information on the RA1792.

He received his amateur call (SM0AOM) in 1971, and has a principle area of interest in avionics and military communication. His work assignment deals with HF systems which has drawn him to the area of Premium-Rx devices.

In the short time I have communicated with Karl two things have impressed me..... (1) His English is better than mine (so drop him a letter of welcome) and (2) he has a collection of Premium-Rx's that is longer than anyone should be allowed to own, and which there is insufficient room to include on this page (including a 2050).

Welcome Karl-

Greg

>
> < < < < < < < < < < < < < < < < < <
Dear Greg,

It's correct,we have not had any e-mail correspondence before.

I happened to stumble across the web-site when making an Altavista search on the Racal RA1792...

Allow me to introduce myself, I'm an radio systems engineer, with a major Swedish telecommunications operator, I have the amateur callsign SM0AOM since 1971, MSEE from Chalmers Univ. of Technology, and I have also a background in avionics and military communications.

My location is Enskede, which is a south Stockholm suburb.

The interest in "premium-rx" technology is part personal as an amateur radio operator and part professional. As some of my work assignments deals with HF systems, I have had the opportunity to study high-performance HF receivers in some detail.

My own setup, accumulated over quite a few years, consists of primarily European receivers;

Collins 51J-4 Collins 51S-1 Racal RA1792 Racal RA6790/GM Raytheon Standard Radio Marine CR2000 Rockwell/Collins HF-2050 Rockwell/Collins HF-8054A Skanti R-5001 Skanti R-5000M Skanti TRP-8750 (transceiver) Standard Radio CR91 Standard Radio CR90 + TD90 + ARTRAC + SSA1000 (computer controlled solid-state 1 kW HF communications system) Standard Radio CR302 + CTD500 + SSA400 (solid-state 400 W HF communications system) Standard Radio CR307 Standard Radio SR35

Hope this gives you a picture of who is on the other end..

Best regards,

Karl-Arne

Date: Fri, 30 Apr 1999 01:22:04 -0400
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Announcement- New Member

Greg - could you let us all know Karl's email ID? Thanks! 73 - Dave

---

Date: Sat, 01 May 1999 08:41:41 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Marconi discontinues Eddystone

Gentlemen:

The attached was posted on the Boatanchor List this morning. Thought it may be of some interest to the group:

MW1DUJ@aol.com wrote:

> Hi:
> Just a short posting from South Wales, England. First some very sad news,
> The EDDYSTONE radio company is in the next few weeks going to close it's
> doors for the last time. It's parent company, Marconi, is closing it down.
> Where this leaves people who want spares for the newer models, I do not know.
> For those who have looked for spares for older models, and come across Centre
> Electronics, unfortunately, this too has ceased trading. However, all is not
> lost, his stocks of spares have been rescued by Mr. Dave Simmonds, tel 01869
> 347504, or e-mail
> at eddyspare@orangenet.co.uk I hope this is of use to someone, Dave Jones
> >

Subject: [Exotics] EDDYSTONE SPARES To: exotics@qth.net MIME-Version: 1.0 Content-Type: text/plain; charset="us-ascii" Content-Transfer-Encoding: 7bit X-Mailer: AOL 4.0.i for Windows 95 sub 118 Sender: owner-exotics@qth.net Precedence: bulk Reply-To: MW1DUJ@AOL.COM

Hi Just a short posting from South Wales, England. First some very sad news, The EDDYSTONE radio company is in the next few weeks going to close it's doors for the last time. It's parent company, Marconi, is closing it down. Where this leaves people who want spares for the newer models, I do not know. For those who have looked for spares for older models, and come across Centre Electronics, unfortunately, this too has ceased trading. However, all is not lost, his stocks of spares have been rescued by Mr. Dave Simmonds, tel 01869 347504, or e-mail at eddyspare@orangenet.co.uk I hope this is of use to someone, Dave Jones

---

Date: Sun, 02 May 1999 19:49:29 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Members

Gentlemen:

Unknown to the standing members of the List, this past week has has seen the List server go into overtime with 15 new applications for list membership.

It all started with Karl-Arne in Sweden. He mentioned that his application was motivated by seeing Larry's WebPage regarding Premium-Receivers. So, after reviewing Karl's application in respect to the criteria the List membership formulated last Feburary, I subscribed him with the server. As a sidelight, I accidently published the list of receivers Karl has in Sweden, and many of you mailed me directly

"seconding" his nomination to membership. Looks like we need a field day in Sweden guys.... we won't need to take our radios.... Karl's got enough for everyone :-).

The next day the server went wacko and dropped 14 applications in my lap. I contacted a few of you and asked what the heck was going on, but no one seemed to have a hint as to how come the mass application dump took place. Then Chuck and Don mentioned they had noted a thread on one of the newgroups about our Premium-Rx List. So, those that were motivated checked out the Page, resulting in 14 applications.

I sent each applicant a general introduction letter (SOP) and 10 responded with some introduction information. I can only assume the others either have not received my letter or decided not to respond to my inquiry. Two of the respondents are still being reviewed at this time.

I will be publishing a simple Bio on each new member for the next couple of days. I think you will be positively impressed by our new members. I don't want to let the cat out of the bag, but we have some heavy DX hitters, some Techie types, and a few software artists including one that has rewritten the BIOS of his Harris 590.

We welcome all the new members to the List and trust from your collective credentials, that your participation will enhance our group.

I extend my appreciation to Don, Chuck, Dave, John, and Jan for your input on the new members.

Greg

< < < < < < < < < < < < <
>
>
> Members:
tonyward@home.com larry@gadallah.com k7jb@ptld.uswest.net burkec@goldstate.net ve6jy@freenet.edmonton.ab.ca bjohn@provalue.net salmaniw@home.com radiorob@serix.com davidclark@home.com WagnerND@aol.com algo@bellatlantic.net bhester@ols.net cgt01@aol.com dma@islandnet.com bwallace@sd.cts.com wnovinger@home.com davez@ticon.net jtreed@poncacity.net bengoshi@iquest.net crippel@erols.com 76635.615@compuserve.com cloudhopper@earthlink.net ntp@shockware.com Mstud26073@aol.com georgez@acclink.com parnass@lucent.com KuD-BS@t-online.de smerriga@compusmart.ab.ca daveinbham@aol.com fujikawa@nk.rim.or.jp j.goodwin@sympatico.ca greg.bailey@sdsu.edu k1xv@nac.net karl-arne.a.markstrom@telia.se jeffa@ix.netcom.com wj8617b@ix.netcom.com jmcvein@tinet.ie skywaves@bw.webex.net bfollett@ditell.com peter_gottlieb@msn.com feinstei@earthlink.net ulformat@teleport.com

42 subscribers

>
>

Date: Sun, 02 May 1999 19:57:23 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Jim McVein

Gentlemen:

JIM McVEIN has joined the group.

Jim checks the internet from (what he claims) the finest listening post in the northern hemisphere..... Dublin, Ireland. In addition to downloading RF from his QTH, he has found it is ideally situated for tilting Guinness (?).

Jim is another Racal 6830 driver and has 2 of those Harris 590s loaded with the RF 551-A pre-selectors. He claims to have a Reaction Instruments 685, a cold war Ronny Reagan chunk of hardware. Jim says it is ideal for mounting four wheels and using as a skateboard.

Although his present QTH is a temporary duty station (last located in the Portland area) he will be attending Dayton this year. Anyone up that way from the Premium group will need to stop by booth 2353..... he says he will buy the first beer.... well he didn't really say that, but I'll bet he will share one with you. No telling if the beer will be cold and green.

Good to have you join us Jim

Greg

Date: Sun, 02 May 1999 20:38:45 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: 2050 Tricks

After playing with my 2050 for some months, I had more or less forgotten about some of the other useful features of the unit. The AUX position is easilly accessed with a single touch of the pad, and by pushing the NORMAL key, one is back to the frequency you had monitored. It's therefore very useful for rapidly checking between two frequencies, if, unlike Dave Clark (:) we don't yet have two 2050's. From page 3-2, to store an AUX channel, while in Normal operation, press store, press AUX, press enter. Press NORMAL to return to normal function.

The same page describes the Channel storage, another feature I hadn't used much until now.

.....Walt.

Date: Sun, 02 May 1999 20:46:20 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Thermodynamics revisited

Invested in a nice Staco variac the other week, and decided to power up the 2050 with it. Works absolutely fine on 100VAC. At the same time, I thought I would do some temp measurements. Recall I had taped three electrodes to the rear, middle and front of the top cover over the power supply over Christmas. Well they're still there. I know, one day I'll open the cover again, and do a proper temperature survey inside the chasis. In any case, within 3 hours of powering down, the surface average temperature had dropped by about 15.3% from 28.7 degrees Celsius to 24.3 degrees Celsius. What the heck, I cant see any reason not to run it a this lower voltage, if only to keep the unit cooler. These temperatures are with two axial fans at 12V, one blowing forward from the back, and a larger one "sucking up" over the mid (hottest) portion of the top chasis, right side. For now, works fine.

.....Walt.

Date: Mon, 03 May 1999 20:19:40 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Robert Follett

Gentlemen:

From Utah, ROBERT FOLLETT has joined our List.

Some of us go on field days to experience noise free QTHs, and then there are others that are so involved in this hobby that they just flat out move to a noise free QTH.

Here is my type of radio enthusiast. Growing up in LA, he found the high electrical noise level limited his hobby of DX SWLing. Sooooo, he picks up his antenna and moves it to Utah. It must have paid off,

as he is one happy DXer with -225 logged- in one of his areas of interest. Bob is also interested in generating a little RF, relax guys, he is a QRP buff using CW. He holds an Extra class and was first licensed 33 years ago.

Bob comes to us with a vocational background of computer/telecommunications (since 1963) and its associated fields of interest: DSP and noise cancellation.

I am sure we will hear from this member when the topic of DSP surfaces again..... Say, how about holding our first general List meeting next summer in Utah, I hear it is quiet up there??????

Drop Bob a note and say hello-

Greg

Date: Tue, 04 May 1999 19:33:01 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Geoff Greer

Gentlemen:

GEOFF GREER has joined the Premium-Rx group. Geoff, like most of us started with one of those 390A "heaters" (easy Ripple, I can see you reaching for your keyboard and poison darts) and graduated toward RA6790/GM, a 590, and a few pieces of WJ gear inluding HF and VHF/UHF. He tells me his enlightenment came when he bought his Racal, from then on he was spoiled on Premium devices.

Geoff brings to our group a continuing thread of those that collect and share technical documentation. I know John Bryant also has a "paper collection" of manuals as do others in our group. Geoff (and another new member to be anounced) is located north of Detroit about 30 miles in a town by the name of Mt. Clemens. Presently he is constructing an antenna farm so I assume that he will be hearing from Beverage boys.

Welcome to the group Geoff, we look forward to hearing from you.

Greg

Date: Wed, 05 May 1999 17:19:11 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Valentino Zardi

Gentlemen:

From Denmark- Val Zardi has become our latest member.

Val enjoys the technical AND the SWL part of Premium-Rxs. After working with a commercially available receiver, he switched to the WJ's 1000 and has become enchanted with its DSP. While most of us would be happy just having a WJ1000, Val decided to invest in a Rohde & Schwarz EK895. His 895 came with the fast-DSP module and software upgrade.

At the moment Val is living just north of Copenhagen, Denmark, but he will be moving to Rome, Italy in a couple of months. Val can be presently reached at: "Valentino Zardi" <valz@csi.com
>
In closing, when I saw the name Valentino Zardi and the return address of Denmark..... I immediately said to myself that this guy has got to be a displaced Italian. Displaced or not, we are happy to have a Danish/Italian representative join our List.

Greg

----

premium-rx-digest Thursday, May 13 1999 Volume 01 : Number 037

Date: Wed, 5 May 1999 21:01:29 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: RF-590 Configuration No.?

Thanks to fellow premium-rx member Colin Trass, I now have a copy of the RF-590 manual.

My RF-590 bears a Configuration No. 1140110512. How does this number compare with the RF-590s of other premium-rx members?

Is there a way to decode the Configuration No.?

Thanks.

= =

Date: Thu, 6 May 1999 09:46:12 +0000
From: "Jim McVein" <jmcvein@mail1.tinet.ie>
Subject: Re: Prem-Rx: RF-590 Configuration No.?

>
From: parnass@lucent.com (Robert S Parnass) > Date: Wed, 5 May 1999 21:01:29 -0500
> My RF-590 bears a Configuration No. 1140110512.
> How does this number compare with the RF-590s
> of other premium-rx members?
> > Is there a way to decode the Configuration No.?
> > Thanks.
Start a database.. Here's 2 more:

Rx#1 1120110511 Config: ISB board LSB2.8, USB2.8, 0.3, 1.0, 3.2, 6.0 KHz filters Serial remote 5MHz ref. BCD driver output for RF-551A 1/2 octave BPF presel. No captive screws on ECB's, no soldermask Made in Canada

Rx#2 1120110512 Same as above With captive screws on ECB's, with soldermask Made in US

Both came from US embassy service

Slainte

Jim McVein jmcvein@tinet.ie Dublin, Ireland

Date: Thu, 06 May 1999 08:42:30 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: RF-590 Configuration No.?

Robert S Parnass wrote:
> > Thanks to fellow premium-rx member Colin Trass, I now have
> a copy of the RF-590 manual.
> > My RF-590 bears a Configuration No. 1140110512.
> How does this number compare with the RF-590s

> of other premium-rx members?

> > Is there a way to decode the Configuration No.?

> Here's how to decode Harris RF-590 configuration numbers:
1140110512:

1 = Remote control, yes 1 = 2 ISB 4 = Preselector code 0, none; 1,suboctave; 2, digital tuned I don't know what 4 is 0 = no noise blanker 1 = standard TCXO 1 = rack mount, yes 05 = Standard control firmware 203 1 = RF-553-01 remote preselector 2 = fast switching PLL

Hope this helps.

John Reed

Date: Thu, 06 May 1999 14:13:03 -0500
From: "John Bryant"<bjohn@okway.okstate.edu>
Subject: Prem-Rx: Thanks for your thoughts

I've received notes from many of you in the last 72 hours about one of three things. Thank you each for your thoughts (and prayers)....Since so much has gone on and since so many have written, I think that this blanket reply might be the best means to respond.

First, my mother. I am an only child and my father has been dead for over thirty years. For the past five years, Mom has been under our direct care, living with us for three years and then in a nearby "assisted living" place for the past two. She has been in very fragile health for over a year, blind and in pain for long periods. She went in the hospital two weeks ago and died peacefully there this past Sunday evening with family members and trusted medical staff in attendance. She was just a month past her 90th birthday. The funeral was yesterday, simple and meaningful. We are each grateful that she is in a better place now and no longer in pain. We (and she) are also grateful that our little family got to live in the same town throughout most of our lives and we got to share her for so much longer than many folks get to share close family ties. Anyway, she was a heck of a lady and we will all miss her.

The second item is the latest salvo down Tornado Alley. Having grown up here and having the flat-out finest weather service in the nation from three local TV stations plus the National Severe Storm Center (60 miles south) our odds of survival are considerably higher than folks in Alabama or elsewhere. Now, here, they can tell us TO THE CITY BLOCK where those damn things are.... and everyone with any sense at all knows where and how to take cover (inna bath tub with a mattress or two over you)... if you are inna car, GET OUT and get flat an the deepest dirtiest ditch you can find or get up in the bridge girders of overpasses... Still, it is amazing that so few people were killed. We worry most about folks from outta state coming thru on the highways, relatively unsuspecting. Several of the 40 plus deaths were travelers.

The thing was a real tradegy of monumental proportions, no question. Having one of these terrible things destroy EVERYTHING that you have worked a life-time for is just devastating.

Several of the worst storms were pointed right at us here in Stillwater(northcentral) Oklahoma. It is very frightening watching them creap up on you on the radar screen for most of the evening. The only similar experience I've had is being under artillery fire, which is a bit worse, but not by much. The largest one in the state... the mile wide one (I've NEVER heard of one larger than half a mile). passed 14 miles to our west and destroyed the small town of Mulhall, where we have several acquaintainces... the town is/was less than a mile wide. The closest to our house was a moderate sized hummer that pased about 6 miles west of us at 1 AM.

After Sunday night with mom and Monday night with the tornados, we are all still pretty well wrung out.

Lastly, I've gotten congratulatory notes from several of you. I was informed yesterday morning that I had been named the 1999 Hallibutron Outstanding Teacher in the College of Engineering, Architecture and Technology here at OSU. The award is based on current student evaluations plus letters of recommendation and support from former students/alumni. That means a lot to me... a teaching award very near the end of my career would indicate that I haven't lost all of the snap on the ole fast ball, yet. The award carries a $1500 stipend, too... always nice!

Anyway, the first half of the week has been real ragged, but the light at the end of the tunnel appears to be blue sky and no train!

Thanks to each of you for your thoughts.

John Bryant

Date: Thu, 06 May 1999 14:37:10 -0500
From: "John Bryant"<bjohn@okway.okstate.edu>
Subject: Prem-Rx: Web Page

Fellas,

At odd moments this semester, I've been working on my web page... Most of it is structured for serving students and others interested in architecture and/or things in asia. I have quite a complex structure to accomplish that and, as yet, have not had time to insert content.

However, strictly as an experiment and a means to teach myself about content placement, I have created a series of pages under the general heading "RADIO" Those pages DO have content. One whole series of pages is an illustrated guide to the Collins HF-2050, with a reproduction of the Rockwell-Collins catalog pages and a detailed photo tour of the interior of the receiver. There are also pages giving photo illustrated instructions for removing the front panel, lubricating the optical tuning encoder (which every owner should do) and doing maintenance on the pushbutton switches on the front panel. At some point, I'll also add a section on adding dial lights and a tour of the exterior.

There is also a feature article on the CU-5069 Antenna Coupler which can feed up to 32 receivers from one antenna.

If you have need of such, it is possible to print each of the pages on your own printer. Black and white reproduces the color pictures and printing reasonably at 600 dpi.

Since I'm not on appointment this summer and since the page is running on the computer in my office, the page may not be up from 1 June to 15 August.... so, if you are interested, now is the time.

The URL for the radio portion of my site is

<http://bryant.ceat.okstate.edu/radio1.htm
>
That's right, there is no WWW.

I'd appreciate any comments for improvement!

John Bryant

Date: Thu, 6 May 1999 16:46:13 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: Prem-Rx: New Member- Jim McVein

Hi to all, it is nice to see the influx of prem rx types and especially nice to read the short bio's of each of the new list members. Perhaps it would be nice (but certainly just optional) to have each members

bio and maybe a picture, tucked away on the homepage, so we could refresh our memories from time to time as to the faces and interests behind the names.

Jim, I'll make a point to stop by the booth at 2353 and look you up. I'd be interested to see who else will be attending Dayton with the view towards getting together. I will just be an attendee, wandering through the many flea market booths and all that....

> the Portland area) he will be attending Dayton this year. Anyone up
> that way from the Premium group will need to stop by booth 2353..... he
>
73, Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

Date: Fri, 07 May 1999 08:57:21 -0400
From: Ben Hester <bhester@ols.net>
Subject: Prem-Rx: RF-590 Config number

Robert...The configuration number on my 590 is.....1220110502 Ben Hester

---

Date: Fri, 07 May 1999 06:50:49 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Fredric Einstein

Gentlemen:

From Detroit, FREDRIC EINSTEIN has joined our group. Fred is our second member in the Detroit area.

Fred weighs in with a complete line of Drake 7 equipment. You will remember that the Drake 7 was produced for the US government (thus qualifying as a Premium) while the Drake 8 didn't make the grade. Weird huh? His line up includes a TR7, L7, MN2700, SP75, R7A, and a RV75. Presenlty you can copy Fred using the call KB7UUC which he received in 1993.

Fred worked for that small company owned by "Bill Gates" in Seattle for 16 years, but now is a part-timer with Ford.

Welcome to our group Fred.

Greg

Date: Sat, 08 May 1999 09:56:22 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Al Klase

Gentlemen:

I would like to welcome AL KLASE to the List.

Al enjoys the fascination of the older receivers that (in his words) cost as much as a "Buick" when first produced. He is a vintage radio collector, restorer, and historian specializing in communication receivers. But Al has seen the light.... and it came to him in the form of a Racal 6790/GM and a piece or two of WJ gear. He also hordes a J-4, 390, and a 390A to keep warm when the sun travels south for six months out of the year. This "seconds the motion" that even Premium drivers enjoy glowing devices.

He is active as the chairman of the New Jersey Antique Radio Club, and is newsletter editor for the Delaware Valley Historic Radio Club. During the day time Al can be found working for a major semiconductor company as a field applications engineer.

If you want to give Al a few words of welcome try: skywaves@bw.webex.net

Glad you could join us Al, nice to have you aboard.

Greg

Date: Sun, 09 May 1999 08:03:23 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Peter Gottlieb

Located about 17 miles from New York City, specifically in Dobbs Ferry, PETER GOTTLIEB joins the group.

Peter is an ME that specializes in coding and application design of embedded microprocessors. He admits to owning a Harris 590 which is housed in a rack with a 1KW RF generator (?). Being a programmer, Peter is attempting to interface the 590A to a PC via a network connection using a Java front panel. He recently brought the 590A BIOS up to date and has successfully done the basic programming of it by computer.

Peter states that he read (from the Premium List's archives) that there was a question of whether a 590 had a noise blanker. He responds: The noise blanker is a part of the preselector, so if you have the preselector, you have the NB. The LED works whether or not you have the NB. My unit does not have the preselector, but I have the RF-551B pre/post selector which is supposed to be better. This unit does not go below 2 MHz, though, and that is where I would like to use it.

Sounds interesting. I can see the 590 members hammering Peter's e-mail address for software upgrades. Glad you volunteered to help Peter?...

Oh yes, you will find Peter at the address: peter_gottlieb@email.msn.com

Greg

Date: Sun, 09 May 1999 12:00:06 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: New member- Peter Gottlieb

Greg W. Bailey wrote:
> >
> Peter states that he read (from the Premium List's archives) that there
> was a question of whether a 590 had a noise blanker. He responds: The
> noise blanker is a part of the preselector, so if you have the
> preselector, you have the NB. The LED works whether or not you have the
> NB. My unit does not have the preselector, but I have the RF-551B
> pre/post selector which is supposed to be better. This unit does not go
> below 2 MHz, though, and that is where I would like to use it.

This is not correct. The NB is a separate add-on and has nothing to do with the preselector. I asked Harris about buying one of them and the price was only $2000. You can tell if your 590 has the blanker by looking at the configuration number. If you are lucky and get one with the blanker, your configuration number will have a 1 in the fourth digit of the number. I haven't heard of any with the blanker yet. I have thought about building one, however, but my noise has not been that bad lately.

> 73, John Reed, KA5QEP

Date: Sun, 9 May 1999 20:26:41 -0400
From: "Peter Gottlieb" <peter_gottlieb@email.msn.com>
Subject: Prem-Rx: Re: 590A preselector

Is this the same situation with the 590A? When I spoke to Harris I was told the noise blanker was a part of the preselector. Maybe they are separate in the 590? I guess it doesn't matter, really, if they are $2000...

My 590A manual does not include prints for the preselector or noise blanker, otherwise we would have the definitive answer...

I have compared the guts of the 590 vs the 590A and they are noticeably different.

...Peter

> > This is not correct. The NB is a separate add-on and has nothing to do with the
> preselector. I asked Harris about buying one of them and the price was only $2000. You
> can tell if your 590 has the blanker by looking at the configuration number. If you are
> lucky and get one with the blanker, your configuration number will have a 1 in the
> fourth digit of the number. I haven't heard of any with the blanker yet. I have
> thought about building one, however, but my noise has not been that bad lately.
>
> 73, John Reed, KA5QEP
>

Date: Mon, 10 May 1999 17:08:51 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- John Miles

Gentlemen:

JOHN MILES, one of our new members, aka KE5FX, is a displaced Texan presently living in Kirkland, Washington.

John claims to be a little underqualified for the List, however, I noted he owns (or is about to own) a 2050 and a Collins 95S-1A. He hopes to see if there are any other 95S-1 operators in our group? As a software developer, John has written a small DOS app to drive the receiver. He says his work may be a little crude and flaky but still nicer to use than the Windows software that Rockwell bundles with the rig. If interested, he is willing to share.

Like many of the new members, John has been known to build some homebrew projects..... and even admits to burning his fingers on the soldering iron a few time.

Our membership continues to grow in the northwest, with John being the newest. Drop him a line at: jmiles@pop.net

Greg

Date: Tue, 11 May 1999 20:45:57 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Donald Nelson

Gentlemen:

Another new member from the Portland area has join our List. DONALD NELSON had been active as a DXer for the past 25 years. Albeit, his interest has ebbed a little at times, he is active at the present time.

When Don is not operating his HF1000A, or his newly aquired NRD 545, he manages a hardware/software design team for a major microprocessor company in his home town. He considers the 1000 more sensitivtive, but he gives the 545 the edge in the DSP area. I figure that single statement should provide sufficient material to burn up 2 months of bandwidth on this List.

Don has been a Premium driver for some time as he tells me that he recently drifted away from a Drake 7 device.

Best wishes to you Don, nice to have you join with us.

Greg

Date: Wed, 12 May 1999 18:15:01 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Fwd: Performance Test: RCA Multicoupler

With the kind permission of Jan Skirrow, I am forwarding this interesting posting about the RCA Multicoupler a lot of us own:

.....Walt Salmaniw, Victoria, BC, Canada.
< < > Date: Mon, 26 Apr 1999 20:51:22 -0400 > > To: Old Tube Radios
< boatanchors@theporch.com
< < >
From: Jim Garland W8ZR < 4CX250B@miavx1.acs.muohio.edu
< < >
Subject: Performance Test: RCA Multicoupler > > Reply-To: 4CX250B@miavx1.acs.muohio.edu
> > Sender: owner-boatanchors@theporch.com > > X-Loop: Islandnet.com PEP Version 2.017 >
< < > Hi Gang, >
< < > Here's my impression of the RCA multicoupler CU-5069, which I've now had a > > chance to check out. My unit came without a power cord, and an unusual > > connector, so I installed a standard computer-type AC power connector. This > > was very easy to do. I removed the slide-out circuit cage by disconnecting > > the two spade lugs (ground and .-28V), removing the four rear screws, and > > sliding the cage out the rear. Then I removed the rear panel. Five minutes > > with a file, and the AC connector slid into the existing hole for the > > Amphenol connector. I soldered the wires to it, reattached the rear panel, > > and I was done. Elapsed time: 30 minutes. While I had the card cage out, I > > washed it in the sink with warm water from the sprayer and dried it with a > > hair dryer. (None of the parts are water-sensitive). >
< < > After checking the fuses to make sure they were 1A (they were), I turned on > > the unit. The LV power supply produced a measured -26.1VDC. I set the > > trimpot on the power supply board to -28.0V, for no particular reason other > > than it was a nice round number. The power transformer is a pretty Hammond > > transformer, with taps for 26, 27,28, and 29 V. Mine was set at 28V. >
< < > Here are some of the specifications I measured, with unit terminated in 50 > ohms >
< < > Input Z: 50 ohms (nominal) > > Output Z: 47-75 ohms, depending on frequency > > Lower Frequency Limit: below 450 kHZ (lower limit of my HP8640B) > > Upper Frequency Limit: It began to roll off at about 26 MHZ, and was 6 db > > down at 30 MHz. >
< < > Voltage Gain: 1.0 when terminated in 50 ohms > > 2.2 with open-circuit output (at 14 MHz). Slight frequency > > variation >
< < > Strong Signal Capability: No noticeable distortion on output waveform at 5 > > Volts P-P. It may be better than this, but that's as high as my signal > > generator would go. Pretty impressive! >
< < > Noise: None detectable! I couldn't hear any increase in noise level on my > > Signal One transceiver when I switched the unit on. Also, couldn't detect > > any overload or cross-mod , with a 160 meter inverted vee on the input, > > with strong local AM radio stations. >

< < > Gain Variation among 32 outputs: less than 5%, except for channel 27 on my > > unit, which was dead. I traced this to a bad transistor. >
< < > Circuit Description: I don't have a diagram, but the multicoupler appears > > very straightforward. Input from the antenna goes through a wideband > > transformer to a single stage 2N5160 amplifer, the output of which is > > amplified by a pair of 2N3866 transistors. The combined amplification > > factor of these two stages is a voltage gain of about 2.5. The transistors > > are all biased hard to preserve linearity, and consequently run hot, with > > large heatsinks. >
< < > The output from the two-stage amplifier is then distributed to the input of > > 32 identical single transistor stages (also 2N3866). These transistors are
< < > also biased hard, and run hot. They have a voltage gain of about 0.9, which > > leads me to believe they're probably just emitter followers, designed to > > give a 50 ohm output Z. The output of each of these amplifiers is routed to > > an output BNC connector, 32 in all. >
< < > On balance, I'm delighted with the multicoupler. I'll run cables around to > > each of my receivers, which will be very convenient. I think it's quite a > > bargain at $150 (Canadian). >
< < > 73, >
< < > Jim Garland W8ZR >

Date: Thu, 13 May 1999 07:26:44 -0500 (CDT)
From: jeffa@ix.netcom.com
Subject: Prem-Rx: Wanted - manual for WJ receiver

I have a WJ-8880 in need of some TLC and would like to find a manual for it, but am having a very difficult time trying locating one. If anyone has any WJ manuals it's quite possible that there will be some boards in common - often WJ used the same boards in different receivers. I'd happily pay for copies of appropriate sections.

Best Regards,

- - Jeff, WA6AHL

---

premium-rx-digest Thursday, May 20 1999 Volume 01 : Number 038

Date: Thu, 13 May 1999 07:56:18 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Bruce Sugarberg

Gentlemen:

Akron, Ohio is the site were BRUCE SUGARBERG, or newest member, reads the Premium-Rx List. Bruce applied for membership some time ago, but I am just now getting around to posting his membership. My sincerest appreciation for his patience.

This member's vocation is in the area of computer software and hardware, however, exotic radio gear rates numero uno. According to Bruce, the more exotic (or was that erotic?), the more interesting they are.

His benchmark device is the Harris 590, but he includes a special order Drake 7 originally designed for the FCC, and a Mackay marine 3031, and a unique Racal 6217 which Osterman states "...widely used by the FBI, FCC and other governmental agencies." He lists a number of other pieces of hardware as "receivers, past and present".

Licensed in 1966, and presently using WA8TNC, you can drop Bruce a post at:

bsugarberg@stratos.net

Greg

Date: Thu, 13 May 1999 12:10:45 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: WWW Site Updater

I recently did a massive upgrade to the "Listening Section" of my R390A www site. The URL is in my signature, below.

Included is my treatise on DSP audio detection with Han Kneisner of K&D and some information on the Sherwood SE-3. Check out the links also.

A hearty welcome to the new members. There is usually a bit more traffic than you are now seeing but traditionally, the summer months are the hobby "down time." - ---------- Chuck Rippel, WA4HHG R390 List Co-Administrator Reply to: wa4hhg@amsat.org

To learn more about R390A's visit: http://www.avslvb.com/R390A/index.html

1968 Contract Dittmore-Friemuth R390A #38 1967 Contract EAC R390A #2808 with outboard Sherwood SE-3 Sync. Detector 1967 Contract EAC R390A #5295 1967 Contract EAC R390A #5591 1967 Contract EAC R390A #1023

All in regular use as premier Shortwave Broadcast DX Receivers -and- Vintage AM Amateur use - ---------- ----------

---

Date: Thu, 13 May 1999 21:41:22 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member - Bob Duckworth

Gentlemen:

From Atlanta, BOB DUCKWORTH is now reading the List. I must admit, Bob's application for membership was received about two weeks ago. I reviewed his letter of application (which included a list of hardware that any member would love to claim) but unfortunately I did not recognize a piece of hardware which fulfilled our Premium-Rx definition. Thus, I had to inform Bob of my findings and invite him to apply in the future when he added a Premium-Rx to his stable of hardware.

Evidently I didn't know Bob, nor the specs of his hardware collection. I no more than hit the SEND key than I got a reply politely asking me to review his WJ 9049 "monitoring system" and included the following specs:

Watkins Johnson WJ9049, Watkins Johnson Developmental Specification. October, 1978. WJ-9049 Digitally Controlled Receiving System 0.5 to 1000 MHz

FEATURES:

Integrated multi-position multisite signal acquisition and monitor capability High Performance receivers/demodulators Full digital local or remote control Microprocessor based prioritizing and scheduling Digital refreshed displays Position/site hardware interchangeable

OPERATIONAL ADVANTAGES:

Acquire/monitor signal handoff capability Preset up to 100 receiver/demodulator configurations Frequency scan or preset scan capability Up to 15 monitor positions per acquisition position

DESCRIPTION:

The WJ 9049 is comprised of the following items:

1. WJ-9049/HF HF receiver 2. WJ-9049/TSU VHF/UHF Tuner Synthesizer 3. WJ-9049/IFD VHF/UHF IF demodulator 4. WJ-9049/DRD Digital Refreshed display (this is a 20" HP color monitor) 5. WJ-9049/PS power supply 6. WJ-9049/SMU signal monitor unit 7. WJ-9049/IPD IF pan

display 8. WJ-9049/SMR signal monitor/regenerator 9. WJ-9049/DCU digital control unit 10. WJ-9049/DIU digital interface unit 11. WJ-9049/AIO asynchronous interface card

The system I have was custom built for the Shah of Iran but never shipped owing to his becoming rather unpopular with his people.

It's "X" serial numbered so I guess it qualifies in the 'limited production' category?

It was not set up for remote monitoring but does have 2 HF and 3 VHF/UHF receivers and two operator positions, each with DCU and PAN

I do not have any documentation other than some notes taken while talking to a retired WJ sales rep, the development specification, a copy of some marketing collateral (which has interconnect info), and technical specs on each component.

For example, the HF RX specs read as follows.

Tuning range 0.5 to 30MHz Preselection sub-octave filters, automatically switched RF selectivity (table but it's basically 1/2 octave with 20db down at -10% and +20% of the 1/2 octave bandpass Noise figure 15db Oscillator radiation -87dbm IF bandwidths(3db) 0.2,0.5,2,4,8, and 16kHz IF Selectivity (table but filters are a good compromise between minimal phase distortion and 60db bandwidth) Detection modes AM/ANL, AM, CW-fixed, CW-variable, USB, LSB, ISB, FM

Bob states "ss near as I can tell, this is all WJ 8000 series based except that it's all digitally controlled with no front panel controls on any of the receivers, demods, etc.".

So where does one "attach" himself to a receiver like this, well Bob buys and sells surplus. Naturally you would think it is surplus radio gear.... wrong, he is in the computer business dealing mainly with Unix based computer systems. Rippel will appreciate that he includes some glowing radios in his collection as well as a Drake or two. Bob has been a ham since 1967, presently sporting the call WB4MNF.

For those of the List that are true hardware connoisseurs, Bob's collection has included a "Condor" with a tuning range of LF - 30 GHz. He tells me some "guys from W. Va. paid him a visit after he bought it on the government surplus market. Seems they made him an offer he couldn't refuse". For more information on this little gem, you will just have to contact Bob direct.

I apologize for delaying Bob's application into our group, and thank him for not giving up with my letter of rejection. Bob can be reached at: "Bob Duckworth" <wb4mnf@atl.org
>
Greg

Date: Thu, 13 May 1999 21:45:40 +0100
From: "Bob Duckworth" <wb4mnf@ns.atl.org>
Subject: Prem-Rx: New kid says hello

Thanks to Greg for the nice intro.

I live in Atlanta and am in love with radio as a medium. Especially HF radio DX listening. I don't log and I don't collect cards, I just listen around for interesting programming and propagation. Antenna is a vertical plane loop which seems to be much quiter than anything else tried. I'm only three miles from five-points so there is a good bit of urban noise.

I also sail a thistle, do a lot of kids stuff with Ana, 15 and Bobby 14, who both play league and highschool soccer and are sailing lasers.

Business wise, I trade used unix hardware and technical/electronic surplus, do some system integration, networking, and instrumentation. I play with Linux but run Solaris for the home/office network. The three major business projects currently underway are a database with www front end to

lessen the effort require to sell stuff on the net, part owner of a network appliance company that is looking for a marketing guy, and funding (angel for now, VC down the road), and resolving security issues with my network.

I expect to be done with the security stuff in another week and after that will put the web site back up with photos of the WJ and basket case R7.

I'll probably be asking for some suggestions for hot rodding R7 mixers for better dynamic range.

73,

- -bob WB4MNF Atlanta

Date: Sun, 16 May 1999 23:45:11 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Prem-Rx: R-7 Basket case resurrection project...

Yo to PRX listees sporting Drake R-7s and other interested patrons.

My 'new' R7 arrived today and is pretty much a basket case. This means that I have a big box full of parts that might get me a complete R7 with some major effort at reassembly and trouble shooting.

Toward that end, I need a set of extender cards and wonder if anyone has a set that they do not use, or a spare set that they might want to part with.

I'm also looking for a manual, if anyone has a spare. If not I should be able to order the manual from Drake.

However, the grapevine says the extender cards are long gone from Drake warehouse.

Yo to PRX listees sporting Drake R-7s and other interested patrons.

My 'new' R7 arrived today and is pretty much a basket case. This means that I have a big box full of parts that might get me a complete R7 with some major effort at reassembly and trouble shooting.

Toward that end, I need a set of extender cards and wonder if anyone has a set that they do not use, or a spare set that they might want to part with.

I'm also looking for a manual, if anyone has a spare. If not I should be able to order the manual from Drake.

However, the grapevine says the extender cards are long gone from Drake warehouse.

It looks like I am missing a few parts and have duplicates of a few so if anyone else is working on a similar project, pleae write to see if we can swap for completeness.

WB4MNF Atlanta

Date: Tue, 18 May 1999 16:23:35 -0700
From: dma@islandnet.com
Subject: Prem-Rx: Cooling the RCA CU5069 Multicoupler

Hello All ...

I know quite a few of you bought these MCs from W.J. Ford, and there has been some back and forth about their care and feeding.

They run hot! Too hot? Hard to say - as I've gone into before. But for certain it is better for longevity for them to run cooler!

I decided a fan was in order, and as the power supply provides a nominal 24-28vdc or so, decided to use a 24vdc brushless fan. I have an eclectic bunch of 24vdc muffin fans in the junk box - but nothing

that conveniently fitted inside the CU-5069 case. Then, lo, I found some nice ones at Wacky Willies in Hillsboro, OR, that were perfect. These are about 3" square and 0.5" thick. They attached to the top perforated cover, in the existing holes, without banging into anything underneath. Perfect.

The power supply pass transistor is a big heat source, and I didn't want to increase that potential problem by increasing the current drain. By disconnecting the purple B- wire supplying one of the four amplifier banks, I freed up about 450ma, which was more than enough to run the fans.

I wasn't sure I wanted them to run at full voltage - it would be a bit over the fan rating, and might be too noisy. Indeed! The fans made a sound like a loud, angry mosquito. So I used an appropriate resistor to drop the operating voltage to about 20vdc and they quieted right down.

The result? After running for some time, the transistor heat sinks are just slightly warm - and this is the case throughout the banks. The power supply pass transistor still runs quite warm, but cooler than it was. It doesn't get a lot of the airflow.

On my second MC, I decided to try a single fan running at about the same voltage (18-20vdc). The result is that it barely noticeable in my quiet shop area, but the cooling isn't as great, nor as even.

So I think one would be enough, but two is better. I have one thin 5" fan that's currently cooling the pass transistors on a homemade battery eliminator for an old farm radio. If I can dig another of these out I may try it instead of the single 3" one. The greater airflow would probably give as much effect as with the two smaller units.

No - I don't have 63 radios (one MC uses one output from the other) - well at least not operating all at once!

Cheers

Jan

Duncan, British Columbia, Canada

Date: Thu, 20 May 1999 16:52:40 -0700
From: cloudhopper@earthlink.net
Subject: Prem-Rx: W-J8718A/MFP

Greetings to the list:

Is there anyone on the list that can assist me with a manual for the above listed radio? It is frustrating to say the least to attempt to perform any maintenance without proper documentation.

Although the options punch out list on the rear panel suggests only the MFP and ISB are installed, I suspect that the radio has been field modified to include the SMO and IEEE-488.

Being a newcomer to the WJ line, I am at a complete disadvantage as to the goings on in there. I can see the build philosophy at W.J, they build them "ala carte".

One immediate malfunction that was apparent was the "scrambling" of the radio's brains at power up. This was traced to a very dead Gates 2.4 vdc ni-cad memory backup battery on the CPU board. It appears that these batteries have since been discontinued. It is an easy matter to series wire a couple of AA ni-cads to get by this problem. Purists may be happy to know that Varta battery company produces a replacement battery (not a ni-cad) that is speced out as an exact replacement. It's name is: 55615-702-012.

At first blush the radio seems to perform in a reasonable manner but until I get the specs and make a few measurements I cannot be sure that my ears are telling me what I hear (or don't) is reliable and quantitative. It was necessary to reseat all of the circuit cards prior to power up, they all worked loose in transit. I don't think that these radios saw much of anything other than fixed use.

If there is anyone that can help out documentation wise I will surely appreciate it.

Dennis Polito near San Francisco

---

premium-rx-digest Tuesday, June 1 1999 Volume 01 : Number 039

Date: Mon, 24 May 1999 00:17:52 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Cornel van Ravenswaaij

Gentlemen:

From Holland, Cornel van Ravenswaaij is a new reader of our List.

Cornel started tinkering with radios when he was 12, and has worked as a radio officer on a number of merchant ships from 1981 to 1986. Since 1986 he has worked as an air traffic controller at Amsterdam's Schiphol Airport. He operates his ham station (PA3BTS) from his home in Den Dolder (located in the central part of the Netherlands).

Cornel has the typical pieces of Racal, JRC, and Drake devices. As far as I know, Cornel is the first member to list a Skanti receiver in his collection (check out Osterman's comments).

Cornel is our first Dutchman to join the list. We look forward to hearing from him.

Greg

Date: Mon, 24 May 1999 13:30:06 +0000
From: "Jim McVein" <jmcvein@mail1.tinet.ie>
Subject: Prem-Rx: Dayton RX finds

Hi All.. Found at Dayton this year:

2 ea. ACL/Norlin etc. SR-2176 UHF/VHF Rcvr. 20-512 MHz Got both working, could use any info on serial interface, tech manual etc. Apparent build date mid 1985.

CU-1382F/FRR HF antenna coupler, 8 outputs. Works, no info, could use some. Doubles as coffee warmer. This also seems to be built by ACL (CAGE 19905) in 1978. I had to lift the extremely large mains bypass caps to keep from blowing the GFI breakers here.

A few Racal 6830 bits, and a transfer relay to cut the RF-551A out of circuit when switched off, saves on cable wrangling. The $10.00 WJ YIG's were pretty good finds, may be a while before I can fire them up.

We visited Fair Radio, didn't find much, sold a RF-590/551A setup at our Dayton space. A good time as always, the Guinness was quite tasty on a hot Saturday afternoon.

Cheers

Jim McVein Dublin, Ireland jmcvein@tinet.ie

Date: Mon, 24 May 1999 07:11:45 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Charles Alexander

Gentlemen-

Monitoring the world from Columbus, Ohio, Charles Alexander has become our newest member. He says he is a grandfather who is old enough to think frequency should still be identified in cycles

versus this new "hurts" stuff. Beginning his interest in radio before he became a teenager, Charlie shares a major interest with many of you in the Tropical band DX.

His first serious receiver was a Drake 2 which was replaced by a 7 (making him eligible for membership) and then a model 8. But he is about to 'feel the force' for sure this weekend when he takes delivery of a 2050. I assume he will be proof reading our remarks on the 2050 from the List's archives?.

Charlie rates the rank of Vice President of a "small machine and foundry shop" in his area. We can only assume his deliver trucks are equipped with Premiums?

Welcome to the List, we hope to hear from you regarding your impressions on the 2050.

Greg

Date: Mon, 24 May 1999 19:47:43 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: WTB: Info on Premium

Gentlemen:

I have been approached off List by a non-member who has found our WebSite and is requesting assistance in locating a "premium-rx" device. He has been looking at 2050s and 590s, but would entertain others.

I think it is a justifiable use of the List's bandwidth to assist a person who desires to join us. I trust this does not break the non-commercial rule of the List?

Thus, if you have a premium, or know of any that are available, would you please drop Jerry Strawman a post. His E-Mail is:

strawman.jerry@mcleod.net

Thanks Greg

Date: Mon, 24 May 1999 21:16:30 -0000
From: "Don" <ulformat@teleport.com>
Subject: Re: Prem-Rx: WTB: Info on Premium

Try W.J. Ford Surplus Enterprises BUY / SELL / TRADE OVER 10,000 SQU.FT.

21 Market St. N., P.O. Box 606 Smith's Falls, Ont. K7A 4T6 Canada

phone: (613)283-5195 fax:(613)283-0637 e-mail: testequipment@falls.igs.net

I just purchased a 2050 from them two weeks ago. At the time they had 2 more. Good luck. Nice receiver but we'll see how it stacks up against the HF1000A's.

Don

Please remove an x characters from the email line that were added to defeat the spammers - ----- Original Message-----

---

Date: Tue, 25 May 1999 13:09:25 -0700
From: earthlink <cloudhopper@earthlink.net>
Subject: Prem-Rx: WJ 8718A/MFP

Greetings to the list:

I have a newly acquired WJ receiver that is in need of some tlc. Thanks to list member Jeff Anderson who lives locally, I have a copy of the WJ 8718 manual. However, although similar in many ways there are enough differences that

I am still in the quest for the proper manual. Is there anyone out there

in premium land that has the WJ 8718A/MFP manual that I may copy? Of course I am more that willing to pay for all of the associated costs.

For those that are interested, I have found a plug in replacement battery for BT-1, the memory keep alive battery for this and I am sure other WJ receivers. I found a Gates "Datasentry" P/N DS2-SD, 2.4 vdc ni cad battery installed in my receiver. This battery of course is no longer available.

The replacement is available from any distributor that sells Varta batteries. The P/N is: 55615-702-012. This is a 2.4 vdc battery with four pins and it plugs on to the A6A1 board.

Regards Dennis Polito

Date: Wed, 26 May 1999 19:37:13 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: SIX Months and FIFTY Members

Gentlemen:

Yesterday, May 25, was the sixth month anniversary of the inauguration of the Premium-Rx List. It also represented, with the addition of Jerry Strawman, our 50th member.

As they say.... "in the beginning".... Tony, Chuck, Dave, and myself decided we needed a "premium" radio List. Chuck selected the name, Dave justified the need for the List, and Tony bet me I couldn't do it. In fact, I remember some good natured ribbing from Tony Ward about how long it would take us to get the List operating. Well, I told him he would be the first member. No sooner was that e-mail sent than Tony's name appeared as the first person authorized to use the server (see list below).

Ripple was added next, however he changed his e-mail address which dropped him to number 20. You will note my name is number 31. This isn't because I was the 31st member. Seems I digitally shot myself in the foot by accidentally unsubscribing myself. Four days later I wondered why I was not getting any postings and then found I was not subscribed. Talk about dumb. I took all kinds of heat for that screw-up.

Two members have asked to be unsubscribed, one because of moving, and the other due to frustration (I guess).

My goal this summer (I am on summer break until Aug 21) is to embellish Larry's WebSite and see if I can't get some of you to sponsor a receiver with a new page or two.

That is it from here. Best wishes to all-

Greg K6QPV

Date: Fri, 28 May 1999 04:25:40 -0000
From: "W. Charles Alexander" <charlie@netset.com>
Subject: Prem-Rx: HF 2050

Well, first I would like to thank everyone on this list. I read a lot of info about my HF 2050 in the past 2 days. It was great to have it ahead of time. I received mine today and it seems to be in excellent condition. Yes, they sure do run hot! Mine seems to shut down after it gets to hot, after 1 1/2 hour or so. Is this normal? So I just put a little CPU fan on top and that fixed it. It stopped shutting down. I did have it off of my desktop as warned by archives and by Greg. Needless to say I will not get much sleep tonight! Too bad it is not a very good night for 60 meters, or for any band I have scanned. So far I am

very pleased with it. Anyway thanks to all! I am glad to be here with you. More to follow after a good night or two !

charlie@netset.com

= 73 de charlie KC8IKG W. Charles Alexander Monitoring the world from Columbus, Ohio USA 39.951 N 83.124 W Rx's HF: Collins HF 2050, Drake R7, R8B & Kenwood TS-870 VHF/UHF: ICOM R2 Alinco DJ-X10T Bearcat BC235XLT Antenna's (All in attic) 33 Ft Off-center Fed Dipole, Slinky Dipole, 44 Ft Longwire and a Dressler ARA60 Active
= =

Date: Sat, 29 May 1999 19:55:53 -0500
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Very Economical BNC'd Coax

For the fellow receiv-a-holics out there:

I've purchased several items in the past year from an outfit called Computer Gate International in Santa Clara, CA. (408)730-0673 or their on-line catalog at http://www.computergate.com. I got their most recent catalog (vol. 107) about two weeks ago and happened to notice the prices on their BNC'd RG58/U 50 ohm coax. I couldn't believe my eyes! Its got nickle-plated fully moulded in connectors and is intended for LAN work. I ordered several for myself and some for David Clark... The stuff came the other day and it looks excellent. I believe that it is double sheilded, but I'm not certain.

The prices:

CCC5815 15 ft. $2.39 each CCC5825 25 ft. $2.69 each CCC5850 50 ft. $4.19 each

Jack to Jack connectors, to hook two runs together are 59 cents each unless you buy 25 and then they are 39 cents each. Their part number is ABACOJJ.

Sure beats the prices that I see in my part o the radio hobby.

John B.

Date: Sun, 30 May 1999 12:57:27 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Prem-Rx: Water Boy

Does anyone know of a source for maintenance info for R-1451A (V)3/WRL-6(V) HF Manual Receiver manufactured by Sylvania on a 1972 Navy contract. This radio is sort of a solid state SP-600 with Nixie-tube digital readout.

Any help appreciated, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Tue, 01 Jun 1999 19:46:14 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: CUBIC 3000 Series Info

Gentlemen:

Sometime back one of our members asked for some information on a Cubic receiver. I have reviewed our archives and I can't find any history of the request. As a professor it is tradition that I am "allowed"

to forget... and this is an example that I have lived up to my image. So, would the member who needed the Cubic data drop me a line?

Thanks

Greg

P.S. Before any of you give me a hard time about the index of the archive .... I AGREE! Using it is a pain in the output connector! I promise that I will get my computer nerd student to establish a better index system.

---

premium-rx-digest Thursday, June 10 1999 Volume 01 : Number 040

Date: Wed, 02 Jun 1999 09:35:55 -0700
From: earthlink <cloudhopper@earthlink.net>
Subject: Prem-Rx: HF-2050 Backlight Mod

Hello to the list:

I finally got around to performing John Bryant's fluorescent tube modification and I can say that I am very happy with the results. Thanks John for all of the great documentation! Overall I will agree with John's statement regarding less than optimal lighting as a result of the angle of the tube placement. However the alternative (no backlighting) is certainly far from ideal as well. I find the radio much more user friendly at this point. If anyone needs information or encouragement regarding this project, please e-mail me and I will be glad to help out in any way that I can.

As for the thermal problem....My good friend KH6M has a HF 2050 that sees little use because of the fear of damage from the heat. We sat sown with the power supply schematic the other day and after review we both concluded that it is a stupid design. Yes, Rockwell is capable of stupid designs. KH6M's stock and trade in life is the power supply business (aside from being the consummate ham radio equipment collector). He is willing to design an efficient modification utilizing modern technology components.

So...what we need is a HF 2050 power supply, preferably one that is dead that we can use as the prototype. is there any one on the list that can loan out one? What you will get in return will be a fully functional power supply that won't keep your coffee warm.

Date: Wed, 02 Jun 1999 10:16:27 -0700
From: earthlink <cloudhopper@earthlink.net>
Subject: Prem-Rx: Poul Henning Kamp

I sent you an e-mail today but it bounced, please contact me again. Dennis Polito

---

Date: Wed, 2 Jun 1999 19:49:50 +0200
From: "Valentino Zardi" <valz@csi.com>
Subject: Prem-Rx: Is it Premium or is it?

I am a new member of this list and I am having a bit of trouble figuring out what makes a receiver a Premium Receiver. In the available table of Premium Receivers I see a lot of equipment normally considered as commercial grade receivers, while in the High-End table I see some poor performers mixed with little masterpieces, which happen to have the wrong form factor to appeal to the 19" crowd and lack standard I/O ports.

For example: why is the WJ-HF1000 a premium receiver and the K+D KWZ30 not? The reason can't be RF performance since it takes a preselector to make the HF-1000 perform like the wideband

kwz30. It can't be the full front panel since most modern commercial grade receivers are sold without front panels and are remotely controlled by a single panel, or by computer. WJ considers the HF-1000 a consumer grade receiver, and some of the options available for its commercial grade sibling are not sold to HF-1000 owners. It is available in greater numbers than the kwz30 and it is normally sold in any Ham radio store which cares to order it.

There seems to be a dividing line across the original purchasing price. Anything below USD3500 ends up in the High-End section, while the more expensive units end up in the premium receiver section.

Could someone help me understand the distinction?

Val Zardi

R&S EK895 WJ-HF1000 K+D KWZ30

AOR7030 JRC 545/535/525/515 Drake R7A-RV75 + Sherwood SE-3

Date: Wed, 2 Jun 1999 18:57:42 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: Is it Premium or is it?

> I am a new member of this list and I am having a bit of trouble figuring
> out what makes a receiver a Premium Receiver. In the available table of
> Premium Receivers I see a lot of equipment normally considered as
> commercial grade receivers, while in the High-End table I see some poor
> performers mixed with little masterpieces, which happen to have the wrong
> form factor to appeal to the 19" crowd and lack standard I/O ports.
> > For example: why is the WJ-HF1000 a premium receiver and the K+D KWZ30
> not?

This is an easy answer. The Premium receiver list was created to facilitate the sharing of information regarding commercial grade receiving products. The HF-1000 (now HF-1000A) is a commercial grade product and is in use by our State Department as well as other government agencies notably in those tasked with security. The HF-1000 carries a military nomenclature of 8718 or 8721, I beleive.

The K+D while a fine receiver, was designed as a consumer grade product.

To give an example of a European product which might "qualify" would be any of the Rhode & Schwarz receivers.

Hope this helps clarify the position of the list. - ---------- Chuck Rippel - WA4HHG CCA Member Number: 4 AMI Number: 950

www site: http://www.avslvb.com/R390A/index.html

Reply to: wa4hhg@amsat.org

Date: Wed, 02 Jun 1999 20:40:53 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: Is it Premium or is it?

Valentino Zardi wrote:

> I am a new member of this list and I am having a bit of trouble figuring out ….

To tell you the truth Val, I sometimes ask myself that same question, what is premium and what is high end. I admit there is ample room for confusion and frustration. Let's see if I can give you some background on the WebPage, and what the difference is between a Premium versus a High End radio-

Nine months ago a number of Collins 2050s became available to the public. Those who purchased the radios didn't have an active reflector by which they could share information. So Tony Ward (tonyward@home.com), David Clark (davidclark@home.com), Chuck Rippel (crippel@eros.com), John Bryant (bjohn@provalue.net) and myself (if I missed some names I apologize) kicked around the idea of starting a List server. The initial goal of this List was to provide a path to exchange information about unique receivers, their problems, modifications, and applications.

Once the List was in operation, other people started showing up requesting to be added. Since there was no "minimum qualifications" I typically bounced their request to the group and unless there was a strong negative vote, ALL applicants were accepted. In February, with our numbers reaching 30, the membership started kicking around the problem of defining what is "premium" and what is "high end consumer". The justification for this decision was two fold, (1) the number of receiver types seemed to increase with each new member, and (2) we wanted to create a WebPage which summarized the more unique receivers. I prepared and sent a general post to the List asking them to identify what they considered the attributes of a "premium-rx" . Those who responded were placed on the volunteer ad hoc committee to resolve the issue.

At the same time the committee was throwing ideas around, Larry Gadallah (Larry@Gadallah.com) was "chipping digital stone" and making the WebPage. So, during this period I was receiving request for information from Larry, and simultaneously reading the off line discussion of the committee on one receiver versus another. The decision of the committee was not unanimous, however, when the dust settled we had some guidelines that all agreed upon, and some guidelines that all agreed could use some more fine tuning as the List matured.

Once these quasi guidelines were established, the committee notified Larry. Unfortunately, this happened as he was wrapping up the WebPage so what is posted doesn't necessarily reflect the total decisions of the committee. In addition, (I admit guilt) we never revisited the WebPage to make it reflect the committee's work.

Basically the committee determined, a receiver is considered Premium if it is:

1- Microprocessor controlled 2- Digital display 3- Manufactured for governmental/military application (Mil-Spec) 4- Limited in production (typically produced in a specific quantity or lot) 5- Is not the subject of another internet List

To my knowledge, there was never any discussion of price, inclusion of DSP, or physical dimensions to gain acceptance.

There are some inherent problems in the list. For example, the R-4245 was a governmental version of the Drake R-7A so it is listed, however, the Drake 8 was not purchased by the US government so it is considered "consumer" and not on the list. How can one list the Drake 7 and then omit the Drake 8? Another problem is what do you do with the Collins 2050? It was built to Canadian and Israeli government specs, by a US company, manufacturing outside the US?, and so on. The list needs a way to deal with these problem, as well as those that surface in the future. This is the justification for the inclusion of a statement allowing receivers to be "nominated" to the list. Hopefully, this will allow the list to grow into areas of need.

I hope this has answered some of your questions. One of my goals during my university summer vacation is to work on the WebPage and re-catagorize the list to better reflect the committee's guidelines. I am looking for a few good men to assist me on this adventure.....

Greg

Date: Thu, 3 Jun 1999 19:28:43 +0200

From: "Valentino Zardi" <valz@csi.com>
Subject: Re: Prem-Rx: Is it Premium or is it?

Actually, if I remember well, the HF-1000 was launched as the 8711 and the manual has both models in it. I think I still have the original ad somewhere that was published on one or two ham radio magazines. I remember I was in Honduras at the time and that I called WJ and asked for the price of the 8711 as soon as I saw the ad. The 8711 had very few bandwidths, and one of them was really wide.

As I said before, I tried to buy one accessory for the HF-1000, but WJ declined to sell it to me because they don't sell directly to consumers, and dealers such as Universal Radio are not allowed to order commercial products for general sales. I am sure you see the logical difficulty here.

As you know, when a government agency needs something it asks several supplier to provide bids that satisfy the agency's needs. I think that WJ wanted to cut production costs, possibly to satisfy some agency's requirement within the available budget, and took advantage of the existing DSP technology to simplify design and production of an HF receiver. If you look inside your HF-1000, you'll see something rarely seen in commercial grade receivers. Most of the other receivers are made of self contained modules that plug into a bus. You can lift and replace any module very quickly. Try that with the HF-1000. It was designed to be cheap and easy to manufacture.

If the criteria for the title of Premium Receiver is the fact that a Federal Agency bought a number of units of a particular receiver, then the ICOM R-7000/R-9000 should be premium receivers, since there is a least one Federal Agency that is/was using them. I don't think that the R-7000 is commercial grade design. But if you had a limited budget and had to equip several locations would you spend USD60K for each unit? I don't think so. You would look around and see if there was something out there that could do the job for a lower price. You can take care of troublesome frequency spots and the signal distribution level. The price/performance ratio is the secret of the HF-1000's success among commercial customers and government agencies. Furthermore, since the State Department must buy American products whenever possible, by your own standards receivers made by RACAL, R&S and DASA-Telefunken would have to be left out of the premium and downgraded to high-end consumer receivers. How many consumers are ready to pay USD33k for a HF receiver? And who in his or her right mind would design a consumer grade receiver that cost that much? I have the impression that the kwz30 was designed to perform at a premium receiver level but sold at a consumer level price. Just like the HF-1000.

Cordially,

Val Zardi

Date: Thu, 03 Jun 1999 10:27:18 -0700
From: dma@islandnet.com
Subject: Re: Prem-Rx: Very Economical BNC'd Coax

At 07:55 PM 5/29/99 -0500, you wrote:
> For the fellow receiv-a-holics out there:
> > I've purchased several items in the past year from an outfit called
> Computer Gate International in Santa Clara, CA. (408)730-0673 or their
> on-line catalog at http://www.computergate.com. I got their most recent
> catalog (vol. 107) about two weeks ago and happened to notice the prices on
> their BNC'd RG58/U 50 ohm coax. I couldn't believe my eyes! Its got
> nickle-plated fully moulded in connectors and is intended for LAN work. I
> ordered several for myself and some for David Clark... The stuff came the
> other day and it looks excellent. I believe that it is double sheilded, but
> I'm not certain.

Hi John and all ...

These may well be great cables. But a word of caution. My experience with cables produced for LANs suggests that they are the main way that computer techies keep busy on return calls. I've had major problems with beautiful looking cables that became intermittent at the connector end very quickly. By all means use these economy cables, but if strange things start happening - look at the cables.

In my experience, a safer gamble is the inexpensive mil-spec cables available from many surplus sources. They may cost a bit more than the computer versions but may save a lot of aggravation!

Same warning for the cheaper connectors and adapters. Some of the nickle plated connectors sold in typical parts stores are excellent, but others are junk. I've had adapters come apart and some don't fit their mates all that well, or have a lot of play even when mated (where am I going with this!). Anyway, if you can find good old American made silver plated connectors and adapters - buy them and treasure them! They are a vanishing species.

Jan Skirrow, VE7DJX

Duncan, British Columbia, Canada

Date: Thu, 03 Jun 1999 18:33:33 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Marvin Born

Gentlemen:

Located in Worthington, OH; Marvin Born is now reading out List.

Some of our members are in education, many in engineering, some retired, and yet others are programmers/computer dealers, however, I think Marvin is our first commercial broadcaster. At present he is employed by the Dispatch Broadcast Group and oversees two TV and two radio transmitters as the VP of engineering. His e-mail address tells it all: Marvin Born <mborn@wbns10tv.com > So, members, here is your chance (off line) to get all those answers you have been looking for on HDTV.
It is obvious that he possesses a split personality. In the day he generates RF, but as the sun sets receiving is his interest and that is accomplished on 2 (that is two) 2050s, ICOM 9000, 651S-1A, plus some other goodies. Marvin also tells me he has a 390A that holds down one end of his bench (I mention this because of you know who?).

Marvin generates some RF from home using the call KF8XU.

Welcome to the List Mr. Born, we look forward to hearing from you.

Greg

Date: Thu, 3 Jun 1999 19:24:32 -0600
From: "Walt Novinger" <wnovinger@home.com>
Subject: Prem-Rx: Selling my WJ HF-1000A

I would like to offer my HF-1000A to members of the Premium Receiver list before it goes on eBay. It is in mint condition and has a new Hammond cabinet. I am asking US$3200 with the cabinet, or $3000 without, plus actual shipping. I have the manual and the original box in which Tucker shipped it to me. The radio is working perfectly...need to raise a bit of cash to feed another hobby (photography). One 100% reversible mod: added a switch to turn the internal speaker on and off. I used one of the extra holes on the back panel (used for the preselector) so as not to drill any new holes.

Please contact me via email or phone (403.247.4396) to discuss if you're interested.

Thanks, Walt

= Walt Novinger Real Radios Keep You Warm At Night! Collector of hollowstate communications receivers and test equipment wnovinger@home.com

---

Date: Thu, 3 Jun 1999 23:22:54 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: Re: Prem-Rx: HF-2050 Backlight Mod

On Wed, 2 Jun 1999, earthlink wrote:

> So...what we need is a HF 2050 power supply, preferably one that is dead
> that we can use as the prototype. is there any one on the list that can
> loan out one? What you will get in return will be a fully functional
> power supply that won't keep your coffee warm.

Behind on my e-mail, but if no one else has stepped forth, I will volunteer one (or two if needed).

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

Date: Fri, 4 Jun 1999 07:44:27 +0200
From: Karl-Arne.A.Markstrom@telia.se
Subject: Re: Prem-Rx: Is it Premium or is it?

Hello,

Just want to add my views about this question.

In my opinion, it is the technology and performance that should rate if a receiver is "premium" or not.

A few short years ago DSP technology, high-IP mixers and very low-noise frequency synthesizers were the domains of the high-priced receivers made by defence contractors only.

Now these are within reach of anyone with engineering and manufacturing knowledge, which for example the AOR-7030 and KWZ-30 has shown.

As an example, I once evaluated HF receivers for air/ground use in the mid-80's, and found that the ICOM IC-R71E was an equal performer to many marine or Mil-spec HF receivers but only cost 15% of their price.With respect to longevity, the batch of 7 receivers installed in 1984 and in H24 operation since are still going strong...

Should I do such an evaluation again, it is likely that the KWZ-30 would enter the competition.

The cost of Mil-spec receivers should be seen in the proper perspective, rugged mechanical features and a -40 to +55 C temperature range together with small manufacturing volumes makes them expensive.

I feel that these features are of secondary importance for most commercial users especially when the receivers are remotely controlled at a site where the operator can't get at the knobs.

73/

Karl-Arne Markstrom SM0AOM

Date: Fri, 04 Jun 1999 16:51:06 -0700
From: earthlink <cloudhopper@earthlink.net>
Subject: Prem-Rx: Power supply mod/ HF2050 Too much heat.

Hello Don:

Well, so far you are it! If you have a spare power supply we can certainly put it to good use as the prototype. I must warn you however that this project will not be an over nighter. It will take back seat to the income producing products that pay the bills.

Most likely we will be designing a special transformer that will be incorporated into the new power supply design along with several newer generation components. The original transformer puts out too much secondary voltage to be of any use. The new design will have several primary tape to allow for a wide variation of input voltages. At first blush it looks like the power supply is producing at a minimum, 20 watts of wasted power just in the voltage drop through the pass transistors alone. This was only a preliminary guesstimate, I fully expect that the dissipation will be even greater.

Is there a definite need for a 240V tap as well?

I have had the 5 volt supply die on me recently in my receiver, it seems that when cold the output was only 3 volts or so. Given time to warm up, the 5 volt supply came up to normal values. Then it was a matter of cycling the power to get a good re boot. I managed to track down the culprit, a very sick C-5, 100 mfd capacitor. This capacitor is rated at 20 VDC 105 degrees C. I put a strong flashlight on it and the cap appeared to be a bit discolored. After a good hosing of "freeze it", the multimeter plummeted down into the low 3 volt range, the fault light illuminated at about 4.5 VDC and of course the radio blew it's beets. A new 100 MFD/25wvdc cap was the sure fix. I had a few mil spec. caps laying around but I am not sure what the temperature ratings were. We will see if the replacement will last a while. That poor thing was all brown, it surely wasn't happy living in the corner of that oven, I even had a 12V fan pushing air through the area.

Don Moman wrote:

> On Wed, 2 Jun 1999, earthlink wrote:
> >
> So...what we need is a HF 2050 power supply, preferably one that is dead
> > that we can use as the prototype. is there any one on the list that can
> > loan out one? What you will get in return will be a fully functional
> > power supply that won't keep your coffee warm.
> > Behind on my e-mail, but if no one else has stepped forth, I will
> volunteer one (or two if needed).
> > 73 Don
> > VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca
> Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca
> CANADA T0B 2R0
> (780) 895-2925

Date: Fri, 4 Jun 1999 16:47:48 -0700
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Power supply mod/ HF2050 Too much heat.

I am still waiting on my 2050 to show up, so can't speak with authority. But it sounds like a triac preregulator would be a good solution here, similar to what's done in the HP 6xxx-series power supplies. Much simpler and less invasive than a new power transformer. The idea would be to use a triac, heavily bypassed and switched at zero crossings to avoid RF noise, to back off on the line voltage until the voltage drop across the series pass transistors is only a couple of volts. That way you

cut down on unnecessary heat dissipation, while preserving all the 'headroom' in the power-supply's operating specs. Any thoughts?

- -- jm KE5FX

Date: Fri, 4 Jun 1999 18:52:46 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>
Subject: RE: Prem-Rx: Power supply mod/ HF2050 Too much heat.

Yes, the 100 uf cap C5 is the common failure mode - here's my comments on the from a note to John Bryant and the group (a much smaller one then) some months ago...

= As John mentioned, I have a number that had power supply failure. The 5v output typically read about 3.5 volts. I had originally blamed the 723 regulator chip - on the faulty units the Vref on pin 6 was down around 6 volts instead of the proper 7.2 +-. Chip Vcc was 12 v which seemed about right. After replacing the 723 and getting the same - the new ones can't all be bad too - I did what I should have done in the first place - look at things with the scope.... Vcc was pure half wave DC and it just happened that my meter converted that to a value near 12 v, but the chip was dropping out between DC peaks so obviously it was having problems doing its job. C5 100uf filter cap wasn't providing any filtering. Physical removal of the cap (and subsequent units) showed one of the leads was pysically open internally as a result of the bottom of the case being bulged outwards. Heat related? I don't know. These are 105deg C caps. The larger filter caps are all 85 deg C units and I have seen no failures in these. Some of the 723 chips are the standard low temp consumer version, rated to 70C. None of these failed in my units. - ---

I run some of my 2050's on a lower AC voltage thru a variac. It does help, but in an enclosed space, the temperature will still rise. I run a small fan sandwiched between the 2 radios, that and the lower line voltage makes me feel that I'm doing my share to keep them running comfortably.

73 Don

On Fri, 4 Jun 1999, John Miles wrote:

> I am still waiting on my 2050 to show up, so can't speak with authority.
> But it sounds like a triac preregulator would be a good solution here,
> similar to what's done in the HP 6xxx-series power supplies. Much simpler
> and less invasive than a new power transformer. The idea would be to use a
> triac, heavily bypassed and switched at zero crossings to avoid RF noise,
> to back off on the line voltage until the voltage drop across the series
> pass transistors is only a couple of volts. That way you cut down on
> unnecessary heat dissipation, while preserving all the 'headroom' in the
> power-supply's operating specs. Any thoughts?
> > -- jm KE5FX

Date: Fri, 04 Jun 1999 18:59:07 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: 2050- Jerking the "heater" aka powersupply-

Powersupply People:

Interesting to read the discussion. If I can add my 4 cents worth (used to be 2 cents but you know about inflation)...

I know you are going to roll your eyes and moan when I ask if there is a chance that the switcher (or replacement supply) could be made to operate on 12VDC. If I could pull the present analog power supply/heater (saving it) and at the same time, drop in a pre-existing switcher or a List designed switcher to do the job .... then then I am all ears. I have even thought about purchasing a 12 VDC to 120 VAC inverter.

Half the fun of this receiver is lost unless you're willing to have an unlimited length of extension cord.

Greg

>

Date: Sun, 06 Jun 1999 20:54:50 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: WTB Harris 590

Gentlemen:

As the webmaster of this List I receive a number of e-mail applications, questions, and SPAMs each week. A few weeks ago a non-member contacted me regarding the procurement of a Premium-Rx. You may remember, I passed this request on to the entire List. I am happy to say one of our members assited him, and now the new Premium-Rx owner is one of our newest members.

In this same regard, Paul Bigelow (see address above) is interested in finding a Harris 590. If you have a lead on such a device you may want to contact him.

Thanks,

Greg

Date: Thu, 10 Jun 1999 09:35:25 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Kevin D. Murray

Gentlemen-

Kevin Murray has become our newest member. Kevin operates a number of Watkin-Johnson pieces of equipment in his business (www.spybusters.com) but joins us with a WJ 8718. When not in the receive mode, Kevin generates RF in the New Jersey area under the license of WB2ZSD.

In addition to the WJ hardware, he operates a Rhode & Schwartz EB-200, as well as a ACL SR-209, 2MHz - 4GHz. (Editor's note: let's see, 4 GHz?, ... isn't that just south of light frequency?).

Welcome to our group Kevin...

Greg

---

premium-rx-digest Friday, June 18 1999 Volume 01 : Number 041

Date: Thu, 10 Jun 1999 21:16:41 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Mark L. Bryant

Gentlemen:

Another Bryant has joined the List. This Bryant, with the first name of Mark, versus John who is already a member, works for IBM Global Services (in media). Specifically, he helps deploy internet

audio and video streaming for special projects within the advertising industry. Home is in the Kentucky area, however, Mark travels a great deal with prolonged stays.

Mark lists a pickup truck full of hardware, however, he points to a Racal 6790 and the Drake 4245 as qualifiers for our List. Then there is the NRD 91, 515, a 535D, an Eddystone, a Mackay, and a R-8B for backup (?).

Those of you that travel and have had trouble with customs may want to contact Mark. He makes mention that he has had a "problems with his R-8B and customs" in the past.

Looking forward to hearing from you Mark.

Greg

Date: Wed, 16 Jun 1999 18:02:29 +0000
From: "Jim McVein" <jmcvein@mail1.tinet.ie>
Subject: Prem-Rx: US Resistors needed in Ireland!

Hi List, Jim McVein here-

I have need of 4 ea, 39 0hm 2 Watt 2% or 5% non-inductive resistors, to replace the "crispy critters" that now reside in my antenna multicoupler. I guess I would like to find the light blue flameproof sort that does not change value as they roast into oblivion. The ones in my coupler are now around 10-12 ohms, which makes for a lot more heat dissipation off the transistors than I (or they) like.

I am in a severely parts deprived section of the world, Dublin, Ireland. I can get no 2W resistors at all.

I would pay all costs in good ol' US dollars for getting these here with minimum fuss.

TIA for assistance-

Jim McVein jmcvein@tinet.ie

Date: Wed, 16 Jun 1999 16:34:54 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: US Resistors needed in Ireland!

- ----------3E5B99E9F91FEB4A51CF681E Content-Type: text/plain; charset = us-ascii Content-Transfer-Encoding: 7bit

Hello Jim:

This shouldn't be a problem.

Go to WWW.MOUSER.COM Click on Product line Click on product index Click on R Click on Resistors Click on Power Resistors or whatever using the PDF format.

Pick what you want and I will send it your way in an envelop. I live about two miles from the store and can have it in the envelop faster than it took you to find it on the internet. As long as you are at it..... go shopping but watch the weight. In return I will take a pint of your best!!! ;-)

Greg

Date: Fri, 18 Jun 1999 06:37:42 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Gerald Caouette

Gentlemen:

Gerald Caouette, our newest member, enjoys the sun and warmth (this time of the year) in Canada. He operates VE6NAP when not playing with his collection of receivers.

He reports that he has a "few 2050s" as well as a single R-390A "heater" that keeps the place warm during this winter months. Then there are those Kenwoods, Yeasu, and an Icom just incase he needs to monitor a number of frequencies at one time.

Gerald is interested in driving this 2050 collection with a serial port. I don't know if anyone has accomplished this task but if so, Gerald would like to hear about it (as would the List).

If you are interested in adding a 2050 to your collection, you may want to contact Gerald as he has a few that are looking for good homes.

Welcome to the List Gerald, we look forward to hearing from you in the future.

Greg

---

premium-rx-digest Monday, June 28 1999 Volume 01 : Number 042

Date: Fri, 18 Jun 1999 07:32:26 -0700
From: "Gerald Caouette" <ve6nap@oanet.com>
Subject: Prem-Rx: Tnx for Intro

Greg thanks for the introduction

One small correction I would like to make

No R390A would be nice but oh well

I am working towards a trade for a Cubic R3030 though and will soon have a Watkins Johnston 8718-19 from a trade araingement .

Glad to meet you all

73 from Gerald Caouette de ve6nap@oanet.com

Date: Fri, 18 Jun 1999 15:44:30 +0100
From: "W. Charles Alexander" <charlie@netset.com>
Subject: Prem-Rx: Welcome Gerald Caouette & Tkx!

I just wanted to say thank you to Gerald, he is who I purchased my HF 2050 from and It was in as good or better shape than he described. So welcome to the list Gerald & Tkx !

= 73 de charlie W. Charles Alexander KC8IKG 39.951 N 83.124 W Monitoring the World from Columbus, Ohio USA Collins HF 2050, Kenwood TS-870, Drake R7, R8B Antennas: 33 Ft Off-Cneter Fed Dipoles, 45 Ft Longwires Slinky Dipole and a Dressler ARA 60 Active Antenna (All In Attic)
= =

Date: Fri, 18 Jun 1999 14:50:10 -0700
From: "Gerald Caouette" <ve6nap@oanet.com>
Subject: Prem-Rx: HF 2050 Receivers

Greg had indicated

That I might have a few Collins HF 2050 Receivers that were looking for new homes. I am happy to say that ALL my orphans, have presently been spoken for..

Though I understand that Mike at Toronto Surplus may still have some.

If anothor becomes available I will let Greg know

As Greg mentioned, I was wondering if any one on the list had success building an RS232 to RS422 converter for controling a Collins HF2050 and what software are they using.

73 de ve6nap@oanet.com

Date: Fri, 18 Jun 1999 22:01:03 +0000
From: "Jim McVein" <jmcvein@mail1.tinet.ie>
Subject: Re: Prem-Rx: HF 2050 Receivers

>
From: "Gerald Caouette" < ve6nap@oanet.com
< < To: "Premium Receiver List" < premium-rx@kahuna.sdsu.edu
< <
Subject: Prem-Rx: HF 2050 Receivers > Date: Fri, 18 Jun 1999 14:50:10 -0700

> As Greg mentioned, I was wondering if any one on the
> list had success building an RS232 to RS422 converter for controling
> a Collins HF2050 and what software are they using.
> > 73
> de ve6nap@oanet.com
> >
Should be able to use jellybean parts to do the level conversion, E.g. 232Rx-ttl-422Tx, and the other way around. With the Maxim parts, it can all be done with a single 5v supply. For test purposes, I have talked to other serial Rx's with a copy of Procomm, or any other terminal program, and a command list for the receiver in question. WinDoze terminal can be programmed to shoot command strings to any device very easily. Doing it in an elegant matter, though is beyond me. (Scanning, database control, etc.)

Cheers,

Jim McVein jmcvein@tinet.ie

Date: Sun, 20 Jun 1999 21:59:27 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- George Wagner

Gentlemen:

George Wagner is our 56th, and newest member. George works in marketing and product planning at Westell Technologies in the Chicago area. Although he makes apologies for not using his EE degree in a field of interest like RF, he never-the-less has found a niche in digital, including high speed digital and DSP.

For those 2050 drivers..... listen up ..... George has his 2050 connected to his computer. Perhaps we could twist his arm for some published information?

As those before him, George is concerned about the heat of the linear powersupply (whatever happened to the the power supply group?) as well as back lighting the LCD.

Welcome to the group George, I look forward to hearing about the computer control of the 2050.

Those wishing to contact George should send their mail to :

geewagons@worldnet.att.net

Greg

Date: Mon, 21 Jun 1999 23:34:15 -0500
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Hi There and Web Page

A collective HOWDY to the new members of the list who have joined since I went sort of silent in March. I hope those of you who own HF-2050s, especially, will take the time to go through the list archives. There are lots of hints/ideas/worries about the 2050 that are really worth your time. I also want to call your attention to my own web page which has a lot of stuff about the 2050 on it... illustrated with some detailed photos that may be worth down-loading. I did not think that my website would be accessible this summer. It is hosted on a machine in my office at Oklahoma State University... and I'm in the state of Washington for the summer. However, I checked yesterday and it was still up. The first time that we have a power interrupt in my building, the page will be down until about 20 August, so you might want to check it out soon, if you are interested. The address is:

<http://bryant.ceat.okstate.edu
>
That gets you to the first page. From there, choose the category of "Technology" and from that page, choose "Radio" and you are there.

Hope you all are having a nice summer!

John Bryant

Date: Tue, 22 Jun 1999 21:06:01 -0500
From: "George Wagner" <geewagons@worldnet.att.net>
Subject: Prem-Rx: Adventures in HF2050 Computer Control

Hi

I've been working on computer control of the HF2050 and would like to share my experience with the group.

The problem really has two parts: First, getting a PC to talk to the HF2050 serial port, and second, finding an appropriate software program for the PC to facilitate control.

1) Serial control of the HF2050 The HF2050 has a RS422 control port appearing on a 37 pin female connector on the rear panel. RS422 is a different electrical and physical interface than the RS232 interface on the PC. RS232 is an unbalanced interface while RS422 is balanced. There are two possible ways to get a RS422 interface from a PC. 1) Buy a RS422 serial port NIC card for the PC. These are not only hard to find, but the ones I've seen are rather expensive. The "Black Box Catalog" (724-746-5500) has them for $200 and up. It's then a simple matter of fabricating a 4 wire custom cable to go between the DB9 on the NIC and the DB37 on the HF2050. I chose a less expensive solution described next. 2) This alternative approach involves buying an outboard RS232 to RS422 converter "box" and connecting it between the PC and the HF2050 with an appropriate cable. I like this approach better since it is lower cost and I don't have to open the PC, eat a PCI or ISA slot and screw around with Windows "Plug and Pray", new drivers, etc. This solution comes in at well under $100. I purchased the components from Black Box Catalog . Here's the parts you need:

1 ea. IC473A-F ASYNC 232-422 interface converter 1 ea. FB310 DB37 Male solder shell 1 ea. FA330 DB37 plastic hood 1 ea. FA910 Screw locks male set A piece of 4 conductor cable long enough to reach from the PC to the receiver

The RS232 to RS422 converted has a DB9 female connector built in to it on the R232 side. This can plug directly in to the PC serial COM port, that is usually equipped with a DB9 male connector. The RS422 side of the converter has 4 screw terminals. Connect the cable to these terminals and solder the other end of the cable to pins on the DB37 connector that goes to the receiver. Here's how it's wired:

Converter side DB37 side RCV A ----------Pin 4 (send data +) RCV B ----------Pin 22 (send data -) XMT A ----------Pin 6 (receive data +) XMT B ----------Pin 24 (receive data -)
2) PC Application program (dumb & ugly) Once we take care of the physical and electrical connections between the PC and the HF2050, we can start to (try to) pass data between the systems. The HF2050 control structure allows for a single computer to control up to 15 HF2050 receivers. Each receiver has a unique address so that the computer knows who it is talking to. The address of the HF2050 is set by connecting various pins to ground on the 37 pin RS422 connector. Since most of us will be controlling only one unit, it doesn't really matter what address we choose, but we'll have to know which address our particular unit is set to in order to be able to talk to it from any PC application program. I set my HF2050 up for address 15. This is the "lazy-man's address" since NO pins need to be tied to ground in the connector for address 15 :-).

Next the HF2050 needs to be set up for the data rate we want to communicate at. This data date is set on a 4 position DIP switch under the receiver's top cover. (I can hear the bitching now...all those # # %!!!* screws). My unit came to me set up for 9.6 Kb, which is where I left it. For 9.6Kb, S2 is ON and S1, S3, and S4 are OFF. For very basic computer control we should now be able to talk to the unit from our computer with any simple communications program such as HyperTerminal or ProComm. Set up the communications program for 9.6Kb, 7 data bits, odd parity and one stop bit. This is the setup that works for me on my Gateway 266 MHz laptop. You may need to "tweak" some of the communications parameters for your particular computer. For example, I still can't get these identical program settings to work properly when HyperTerminal is running on my Dell 450 MHz desktop machine. The configuration that works on the Dell is 9.6Kb, 8 data bits, no parity and one stop bit. Totally NUTS!!! Does anyone else have a clue here?

The HF2050 uses a simple ASCII character based protocol described in the manual. You can type the appropriate commands in the communications program and the HF2050 responds. When you first turn on the receiver and fire up the communications program the first command that needs to be sent is the receiver address command e.g. UNIT 15<-. Next I usually send the FD<- command that puts the unit in to a full duplex (echo) mode so I can see what I'm typing. After this it's the normal commands and responses described in the manual. For example to tell my HF2050 to go to 6345.55 kHz I would type in FR 6346.55 <-. In a similar fashion I can query the HF2050 as to it's current settings with a ?<- command. The really great thing about the HF2050 is that everything is controllable except volume. The only negative is that there is no query command for signal strength.

3) PC Application program (smart & sexy) The "dumb terminal" application described above is an interesting science fair experiment, but typing the commands by hand soon grows old once the novelty wears off. What we really need is some sort of sexy graphics oriented program on the computer that displays the controls and is also integrated with a database program of listening targets. There are a number of these around for receivers other than the HF2050. Here are the ones I found: - - KF5OJ's Free RX320 Controller Software http://pages.prodigy.net/kf5oj/KF5OJ.htm - - Visual Radio Control Software http://members.aol.com/cgt01/soft.html - - "Visual Radio" http://ourworld.compuserve.com/homepages/visualradio/ - - "ERGO" http://members.home.net/creativexpress/
These are all great programs, and many already control Premium Receivers like the HF1000, and RA6790. I suggest that the list members check out these sites and encourage the authors to port their program to the HF2050.

Have Fun

George

Date: Tue, 22 Jun 1999 19:22:15 -0700
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Adventures in HF2050 Computer Control

On a similar note, I wrote a fairly crude receiver control program awhile back for the 95S-1, which (thankfully) uses a conventional RS-232 interface that can be directly connected to any PC serial port. I ended up having to write some simple C routines that can be used to send and receive RS-232 commands from within a protected-mode DOS app (Watcom compiler).

If anyone would like a copy of the receiver-control app's source code just say so, and I'll zip 'er up. The COM port routines would probably work fine with George's HF-2050 cable, although it's unlikely I'll have a chance to try them anytime soon. They would probably work fine with a real-mode DOS compiler as well, if you omit the bimodal IRQ handler code.

- -- jm KE5FX

Date: Mon, 28 Jun 1999 08:32:13 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Prem-Rx: Racal RA6217

I've been playing with an RA6217E for a couple of weeks now, and I'm starting to contemplate a meaningful newsletter/web page article. Osterman suggests these radios were "widely used by the FBI, FCC and other government agencies." Do any of you have solid info on the application of these sets, production numbers, amusing anecdotes, etc? Was this Racal's first US built radio?

The RA6217 is a solid state version of the basic Racal Wadley-loop receivers such as the original RA17. It tunes 1 to 30 MHz, has an proper product detector and crystal controlled BFO for SSB reception, and offers excellent selectivity via a set of crystal IF filters. They were built by Racal in Silver Spring, Maryland starting in 1965. That's just a year later than the HRO500 and this is a vastly superior (and expensive) radio.

My example is accompanied by an RA6367 Dual Spectrum Display Unit and AN RA6397A Antenna Filter (tracking preselector). This combination yields what appears to be a first rate HF intercept receiver.

Any help greatly appreciated.

Best regards, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

premium-rx-digest Monday, July 5 1999 Volume 01 : Number 043

Date: Mon, 28 Jun 1999 18:53:05 -0700
From: earthlink <cloudhopper@earthlink.net>
Subject: Re: Prem-Rx: Racal RA6217

Al: I have a R6217A with the VLF pre selector and the single tube display. The preselector and receiver both have a barcode sticker with 'F.C.C." on them. Most likely these units saw service with a field office (remember those)? All in all, not a bad receiver for it's day.

Dennis W6DEN

Date: Wed, 30 Jun 1999 23:02:08 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Prem-Rx: Racal RA6772E Tuning Mod.

I just worked out an extremely simple logic modification, two cuts and two jumpers, that allow this otherwise fine receiver to tune below 1MHz.

1. Remove Front Panel Control PCB (A21)

2. Cut trace to U24 - pin 4. (4510 up-down counter) (component side)

3. Wire U24 - pin 4 to U24 - pin 3.

4. Cut trace to U8 - pin 11. (4076 8-input gate) (component side)

5. Wire U8 - pin 11 to U24 - pin 6.

6. Reinstall A21

That's it! When you turn the power on, the display will read 00.00000 instead of 01.00000. The set will now tune 0 to 29.99999MHz. I can't swear how well it works on VLF. Mixers often crap out at low frequencies, but it works fine on the broadcast band, and I can easily hear Loran-C on 100KHz and RTTY on 137KHz on a sub-standard antenna.

Your mileage may vary. Not responsible for damage or personal injury, etc. etc.

73, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Wed, 30 Jun 1999 23:59:53 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Prem-Rx: Re: [Exotics] Racal RA6772E Tuning Mod.

"Neil L. Chavigny" wrote:

> Do you know of such a modification for the RA 6790GM?
>
Unlike the 6772E, the 6790GM is microprocessor controlled. The equivalent modification involves changing the firm-ware EPROM's. They plug in, so it's an easy deal. I have a set in my 6790GM that does this, but I'm not set up to copy them, nor am I sure they represent the latest revision.

Perhaps someone else on the list has a better handle on this situation.

Best regards, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Thu, 01 Jul 1999 10:12:52 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Re: 3881 positively ID'd

Fellas, the Grayland DXpedition is still going strong, and asks that I pass the following on to you: The site, incidentally is fantastic, so please have a look.

>Walt--
> >Please post the Grayland DXped. URL on the Premium List, sez Greg... he
>can't seem to get it posted so that we will have a little more PR for the

> group. Also, Greg asks that you put the URL on the R390 list. Thank you.
> > http://surf.to/grayland99
> > Also, thanks for the further info on 3881.
> > Gotta get back to the receivers and the DX!
> > 73, Guy
Walter R. Salmaniw, MD email: salmaniw@home.com Victoria, British Columbia DXING FROM CANADA'S WEST COAST, using CANADA premier radio receivers: Collins HF2050, (250) 592-1033 Collins R390A, JRC NRD535D, and the Kenwood R5000.

Date: Thu, 1 Jul 1999 13:56:27 EDT
From: DAVEINBHAM@aol.com
Subject: Prem-Rx: Racal RA6790GM on VLF

Is anyone else out there trying to use the Racal RA6790GM on VLF ? In the shop manual it says there is a version of this radio that tunes down to 5kHz. A friend told me the only difference between the VLF version and the regular one was the EPROMs. I borrowed the EPROMs out of his and copied them. My 6790 now tunes 0.000000 mHz to 29.999999 mHz. Only trouble is, it does not appear to be very sensitive below about 400 kHz and is totally silent below 17kHz. I have not yet been able to measure the sensitivy of this conversion because my signal generator does not go that low. I can tell the radio is not very sensitive by simply tuning into known VLF stations and listening. There are also several images in that appear below 500kHz. By the way, any Racal RA6790GM can be spot tuned down below 500kHz by fooling the synthasizer. Here is how you do it. Ever notice when you tune from one frequency to another how the synthasier tunes each digit as soon as you punch it in? If you want to tune , say,WWV at 60 kHz do it like this. Punch in a frequency the radio can handle and then subtract from it. The sequence goes like this"enter", 15060000. You are now tuned to 15.060000 mHz. Now punch in "enter"00. and the radio will be tuned to 60 kHz. Do not touch the tuning dial because if you do the radio will immediately revert back to its designed tuning range. Does anyone have any suggestions ? Dave Holder

---

Date: Thu, 01 Jul 1999 14:56:10 -0400
From: Roy Morgan <roy.morgan@nist.gov>
Subject: Prem-Rx: Grayland Hoax

At 10:12 AM 7/1/99 -0700, Walter (Volodya) Salmaniw, MD wrote:
> Fellas, the Grayland DXpedition is still going strong, ... Greg asks that you put the URL on the R390 list. Thank you.
>
> >
> http://surf.to/grayland99
Ok, ok. I looked at all the pictures. Not one R-390 to be seen.. Not one.

What gives??

Keep em Glowing! Roy, K1LKY since 1959 (now 40 years!)

- -- Roy Morgan 7130 Panorama Drive Derwood MD 20855 work: 301-975-3254 Fax: 301-948-6213 roy.morgan@nist.gov --

---

Date: Thu, 1 Jul 1999 17:02:46 -0400
From: "Tony Ward" <tonyward@home.com>
Subject: Prem-Rx: Re: [R-390] Grayland Hoax

Have you any idea how many R390/390A's Chuck and David Clark own between them! A jumbo jet is separately transporting them to Grayland yea even as we speak ....

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com tward@spanit.com
<http://www.interlog.com/~nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

Date: Thu, 01 Jul 1999 21:21:41 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Re: Grayland Hoax

At 02:56 PM 7/1/1999 -0400, Roy Morgan wrote:
> >Ok, ok. I looked at all the pictures.
>Not one R-390 to be seen.. Not one.
> >What gives??
>
Hi, fellas. I was at Grayland between Saturday and Tuesday. I had considered bringing my 390A, but it was simply a matter of logistics. For those arriving by air (50% of attendees at least), this was simply not an option. For me, I chose to bring my Rockwell/Collins HF-2050. In this type of DXpedition, things get hot and heavy for a one to two hour period around dawn. There's lots of jumping around frequencies (primarilly MW and tropical bands). Can you imagine band scanning and frequency hopping with the 390A. Talk about asking for carpal tunnel syndrome and/or tennis elbow. Not the ideal radio for this type of work. Direct tuning via keyboard, with memories is the way to go. Heck, Chuck Rippel, Mr. R390A himself, brought a JRC NRD545, although I did kid him about not bringing a few R390As. Nick Hall-Patch, well known MW DXer, coined a nice one, when he said, "who needs memories, when all you need is a bank of r390s!!!". Right on.

Walter R. Salmaniw, MD email: salmaniw@home.com Victoria, British Columbia DXING FROM CANADA'S WEST COAST, using CANADA premier radio receivers: Collins HF2050, (250) 592-1033 Collins R390A, JRC NRD535D, and the Kenwood R5000.

Date: Mon, 5 Jul 1999 20:30:17 -0400
From: bryantm1@us.ibm.com
Subject: Prem-Rx: 2050 Compare??

Gang,

Hello from the Mid Hudson Valley. I have been following the Grayland DXpedition on the web with interest. Lots of very good catches. As I am new to the group, and see many references to the Collins 2050, I wondered if anyone had put together a comparitive review of the 2050 with other premium receivers. How does it stack up with the R7's and Mackay's and Cubics and the WJ 1000's. If this has been covered before, I appologize.

Regards,

Mark L. Bryant Beacon, NY/Lexington, KY

Date: Mon, 05 Jul 1999 20:34:44 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: 2050 Compare??

At 08:30 PM 7/5/1999 -0400, you wrote:

>Hello from the Mid Hudson Valley. I have been following the Grayland DXpedition
>on the web with interest. Lots of very good catches. As I am new to the group,
>and see many references to the Collins 2050, I wondered if anyone had put
>together a comparitive review of the 2050 with other premium receivers. How
>does it stack up with the R7's and Mackay's and Cubics and the WJ 1000's. If
>this has been covered before, I appologize.
>
Hello, Mark, and welcome to the group! I've been a member pretty much from the beginning, and don't recall any discussions re one receiver vs another. Might be something worth doing, especially for those who own several of these premium receivers. Chuck (Rippel), I recall you occasionally doing comparisons and posting results on the 390 list, I believe. Very interesting (especially the RA clips). Having just returned from Grayland, I was able to observe a number of premium class receivers in action. Essentially everyone heard the signal observed. The quality differed substantially. The 2050 produced very crisp readable results, compared to the Japanese receivers, which classically sound quite wooly to me. We also had a Cubic receiver, courtesy of Greg Bailey, probably the most costly receiver. I'd be very interested in hearing how Chuck's 545 performed, as he arrived after I had departed.

Walter R. Salmaniw, MD email: salmaniw@home.com Victoria, British Columbia DXING FROM CANADA'S WEST COAST, using CANADA premier radio receivers: Collins HF2050, (250) 592-1033 Collins R390A, JRC NRD535D, and the Kenwood R5000.

----

premium-rx-digest Tuesday, July 13 1999 Volume 01 : Number 044

Date: Tue, 6 Jul 1999 08:48:33 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Attn: Don - RE: Sherwood

Don, drop me a note so we can discuss the Sherwood with your HF-1000's.

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Wed, 7 Jul 1999 15:35:43 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

In one of the many rags that show up here I spied an advert for the ICS data acquisition board and wonder if anyone is messing with same as a PEECEE based RX. http://www.ics-ltd.com I haven't written to ask the price of the board but it looks pretty neat. I'm messing around with a SHARC DSP at the moment when there is time but these guys have a DSP daughterboard with a lot of functions already programmed. That 2 channel,12bit 65MHz (200MHz bandwidth) would allow for some pretty neat stuff. One could sample the entire 30MHz HF spectrum at once or any 30MHz bandwidth limited chunk up to 200MHz. - -bob wb4mnf Atlanta

----

Date: Wed, 7 Jul 1999 18:53:02 -0400
From: "Peter Gottlieb" <peter_gottlieb@email.msn.com>
Subject: Re: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

With a 65 Mhz sample rate your highest input frequency (by the Nyquist criteria) will be half of that, or 32.5 MHz. This also means you need to low pass filter the input at that point or you will get aliasing problems.

12 bits will not give you satisfactory dynamic range if you don't apply a selective filter on the input. The high end you need to handle the local broadcast stations will yield a LSB size much too large for any usable sensitivity.

Also, just because you can sample at 65 MHz doesn't mean you can do meaningful real-time processing at anywhere near that speed.

Peter Gottlieb PP-ASEL AOPA # 01323350

Date: Wed, 07 Jul 1999 20:58:59 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

Bob Duckworth wrote:
>
> That 2 channel,12bit 65MHz (200MHz bandwidth) would allow for some
> pretty neat stuff. One could sample the entire 30MHz HF spectrum at once
> or any 30MHz bandwidth limited chunk up to 200MHz.
Yes, but you're not going to have all thet much dynamic range with 12-bit accuracy.

Regards, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Thu, 8 Jul 1999 13:04:48 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Re: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

Al-

Whoops.

On the surface, it would seem that 65db is not much dynamic range.

The 65db is adequate for a spectral display to 'see what's on'. It's especially nice to be able to see the entire spectrum at once to find interesting frequency hopping signals.

Do any of the 'premium' receivers offer a 30MHz instantaneous bandwidth?

One can always trade bandwidth for dynamic range and still see a sizeable chunk of the HF spectrum once the interesting chunk is found.

DX propagation (to a point) is not going to be good over the entire spectrum anyway so once you have found your point of interest it makes sense to make this trade.

- -bob wb4mnf

Date: Thu, 8 Jul 1999 14:07:30 +0100

From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Re: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

Peter-

I'm not a DSP expert but as I understand it the signal has to be bandlimited to meet the Nyquist criteria.

Is aliasing an issue when undersampling if the Nyquist criteria is met for the bandlimited signal? In this case, isn't the alias the envelope of the bandlimited signal which is the same thing we would get if we converted to baseband, low pass filtered, and sampled at 65MHz. The alias is what we want and the 200MHz bandwidth of the device saves the trouble of frequency conversion up to 200MHz.

The 65db dynamic range is conversion range. If a signal exceeds the LSB conversion criteria by more than 65db then the information about the signal above this level is not obtained.

Meaningful real time processing was the impetus for my original message. What can be done with 100 megabytes/sec.

It would be nice to display the entire 30MHz and look for those exotic freq hopping signals that fall outside the 'window' of a classical spectrum analyzer. Once found the bandwidth could be limited further affording increased dynamic range and/or lower data rates. Lower data rates
> more time to process.
- -bob wb4mnf

Date: Thu, 08 Jul 1999 14:36:39 -0400
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Is anyone messing around with PEECEE based RX using ICS PCI DAQ card(s)?

Bob & The Group,

Well, I start to get out of my comfort zone here. So if you know more about this than I do (which won't be hard) ignore me.

I suppose you can grab a convenient time series off the converter and do an FFT on it even if it's not in real time, and get a represenation of the whole HF spectrum, but I can imagine all kind of problems. I think this is usually done by step tuning a conventional receiver and graphing the s-meter reading.

I've been messing around with a RACAL RA6217 with spectrum display unit. (1960's analog) Sure make it easy to spot open bands.

73, Al

Date: Tue, 13 Jul 1999 09:32:09 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Prem-Rx: HRO-500 mods

Have any of you guys been collecting HRO 500 mods or made any that you feel improved the radio? I'd be very interested in hearing from you. - -bob

---

premium-rx-digest Friday, July 30 1999 Volume 01 : Number 045

Date: Fri, 23 Jul 1999 07:15:31 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- David Jones

Gentlemen:

I have not been keeping up with the Bio's of our new membership. My justification for my tardiness was VACATION and some distracting activity in Grayland, WA (just in case you missed it: http://surf.to/grayland99)

Our newest member is Dave Jones from South Wales, UK. After thirty years of monitoring, he finally decided to get a license and can now be heard using the calls MW1DUJ. However, Dave's true interest is in collecting pieces of hardware that appeal to him. These include: RACAL RA6790/GM, RACAL RA1792, RACAL RA1795, COLLINS 651/S1, EDDYSTONE 1650/6, EDDYSTONE 1650/9, EDDYSTONE 1837/2, WATKINS-JOHNSON WJ8626, At present he would like to communicate with others that have the WJ8626 as it is in need of some TLC.

Dave enjoys exchanging ideas on receivers with fellow owners. He admits that some of these receivers are so complex that even with the manual, there is always something to learn. In this regard, he is interested in hear from anyone that has the name/s of a web site with additional receiver information.

Dave is our third member to check in from the UK.

Date: Fri, 23 Jul 1999 07:47:05 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Cubic Receiver Computer Control

Gentlemen:

As many of you know, I have been working with the cooperative folks at Cubic Corporation. They first loaned me a 3150 which had a few "bums" in its operation. I am not sure of the technical definition of "bums" but that was the word they used? Upon uncovering the 3150's problems, they loaned me a 3250 and it operated in the true Cubic form.... perfection!

One of the highlights of the receiver is its ability to be driven by a remote PC and the RS-232 port. Although any number of software formats can be used to drive the machine, Cubic selected LabVIEW software to be include with the receiver for its remote operation.

As an instructor at SDSU I have become familiar with LabVIEW. This software is icon driven, and is without question becoming an industrial standard in the controls industry. ALL my students learn it, or they aren't students (kind of a simple concept huh?).

LabVIEW is copywrited by National Instruments, however, for those willing to scrounge a little, it can be found on the net (not legally if you get my drift). In fact, National Instruments (of TX, http://www.natinst.com) will send you an evaluation booklet and a CD for free. Check their website for additional information.

For those with Cubic hardware, and a RS-232 port remote: If you will drop me a line I will forward to your e-mail a copy of the Cubic software (you still need the LabVIEW to make it operate). Let me tell you, this software makes the Cubic levitate.

Greg

Date: Fri, 23 Jul 1999 12:32:44 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Tadashi Ishimori

Gentlemen:

A welcome to Tadashi Ishimori, checking in from Japan.

Tadashi forwarded very much information to share in his biography, so my introduction will be somewhat short. This is not a problem because as a premium user, we certainly welcome him to the

List. Obviously, from his return e-mail address, he works for some company by the name of Memorex. :-)

Tadashi checks in with a HF-2050 as well as a number of other pieces of equipment. These include JRCs and a few Collins (yes Chuck even a 390a).

He desires information on where to purchase other types of receivers including Racals, WJ, and Harris. Perhaps some of our membership would take the time to drop Tadashi an e-mail welcoming him to the List and making some suggestions for enlarging his radio collection.

Tadashi can be reached at: Tadashi Ishimori <ishimori@memorex.co.jp
>
Tadashi, welcome to our List....

Greg

Date: Fri, 23 Jul 1999 15:49:38 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Oooops- My Inglish Goofed

In my most recent introduction I obviously goofed-

It should have read:

"Tadashi forwarded very little (versus "much" as printed) information to share in his biography, so my introduction will be somewhat short...."

University professors are normally classified as "absent minded", however, when you are an engineering professor, you are not only poor in Inglish but also absent minded. I know that Rippel will probably want to add the characteristic "nerdish" to the already accepted "poor Inglish" and "absent minded".

My apologies to Tadashi, and the List,

Greg

Date: Sun, 25 Jul 1999 08:26:34 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Bob Milne

Gentlemen:

Our newest member admits to being a receiver "nut" ever since he was 8 years old (Editor's note... I guess that makes him about normal in this mob). Bob is the Chief Technical Editor of Electronic Design Magazine and lives in New Jersey with the AM transmitters of WABC (770 KHz) being one of his closest neighbors. A Zenith console radio was one of Bob's first receivers.

At present he is driving a Racal 6790/GM, and a Drake 8 and 7A. Bob states; "I'm always on the lookout for any stories, tips, opinions, technical info and comments about receivers. Your list looked exactly like something I'd be interested in". Bob ran across our List while scrounging around for a 2050. Perhaps some our readers could assist him in this endeavor?

Okay members, it is evident that our "Inglish ritin skils is goin to have to emprove" now that we have an Editor reading the posts. I can see Bob reaching for his red pencil now....

Welcome aboard Mr. Editor.

Date: Sun, 25 Jul 1999 15:50:13 -0700

From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Nick Blades

Gentlemen-

From way up in Avon, CT., Nick Blades joins our List. Nick says the mountains nearby make wonderful longwire antenna supports. Seems he is not the only one with that idea as one of his neighbors, known for their three letter acronym, has a great antenna farm near by. Nick also has a second QTH on Kent Island in the Chesapeake Bay, which he claims is excellent for DXing.

He got active in short wave in 1962 when he built a Kinght Kit, soon moving to a Hallicrafters S-120. Typically a SW listener, he got the RF bug and his first ticket in 1988, then to an Advanced class in 1990. When in the transmission mode, Nick generates RF under the letters KE2WG.

Like many of our Listee, he is an active receiver buff, i.e. radios come and go in an effort to always improve. Nick is presently in the hold pattern for a WJ 1000A. He has a stable full of Drakes, and a RA-6790/GA thrown in for good measure.

Our newest member is in the digital world working for a Swiss firm as a Project Manager, in Information Systems & Technology, (IS/T). He tells me, "I make the impossible happen daily, and bring it in under budget". With an attitude like this, certainly we can find him a job on our List.....

Gentlemen, please drop our newest member an e-mail at ke2wg@aol.com.

Greg

Date: Mon, 26 Jul 1999 14:34:01 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Fred Osterman

Gentlemen:

Some time ago our newest member sent e-mail greetings to those of us that participated in the Grayland99 "assault". In the e-mails that followed, I took the liberty to extend to Fred Osterman a membership in our List. He has graciously accepted and is looking forward in sharing our List comments.

Fred is presently working on the fourth edition of his benchmark reference: Shortwave Receivers, past and present.

Welcome to the List-

Greg

Date: Tue, 27 Jul 1999 12:00:37 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member Jerry Gardner

Gentlemen:

From San Ramon, a RF quiet little place some 35 miles SE from San Francisco, comes our next member. Jerry Gardner's major vocational work has been in real-time software and operating systems, however, he is presently a project manager for Periphonics Corporation, a computer telephony company.

Jerry has owned and used a boat-load of receivers and antennas over the years but has finally whittled his collection down to a WJ HF-1000A and a spider's web of random wires, which he carefully keeps hidden from the local homeowner's association. His major interest is in pirates and utilities (military CW and aviation) . He is also found DXing the AM broadcast bands once in a while.

He claims that 2% of his time is spent generating RF under the call of W6UV, a call he has held for a number of years. Recently he has been active in two meters due to the antenna restrictions. He says, "If I had the opportunity, I'd be on 20M CW, which has always been my favorite band and mode".

You can drop Jerry an e-mail at: jgardner@peri.com

Greg

Personal thought: San Ramon may be quiet RF wise..... but I'll bet is Shakes Rattles and Rolls when the San Andres Fault moves. :-)

Date: Wed, 28 Jul 1999 17:59:45 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Prem-Rx: Sensitivity Measurements and Return Loss

I've always wondered when performing receiver sensitivity measurements whether my receiver's input impedance stayed a constant 50 ohms -- or rather....how much did the impedance change over the entire receiver operational range -- and what affect this had on the power transfer of RF energy between the signal generator providing the input signal and the receiver.

Maybe someone in the group may want to comment.

Meanwhile, I'm going to try to find a network analyzer within my company and perform some measurements on a couple of receivers.

Ben -- WB8HUR San Diego

Date: Wed, 28 Jul 1999 20:16:37 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Selling items on the List

Gentlemen:

I have received a number of inquires regarding the policy of using the List to announce items that are for sale. I don't know if we ever really established a policy on this topic other than it was "frowned upon". Perhaps some of the charter members could help me on this?

On two occasions I have been contacted outside of the List and asked if I knew of a source for a "premium" receiving device. I announced the inquiry to the List, and I think that both announcements ended in an exchange.

My personal thoughts are that we certainly could adopt a policy somewhere between our present position of nothing, to say a maximum of hacking CD's, meters, and bottom covers.

Parting with hardware is an emotional experience to a true remium-rx driver.... knowing it is going to a "good home" makes the loss far less stressful :-).

UNLESS there is strong opposition from the membership, I would be for some form of liberalization.

Date: Wed, 28 Jul 1999 20:27:46 -0000
From: "Don" <ulformat@teleport.com>
Subject: Re: Prem-Rx: Selling items on the List

Greg

Guidelines ought to state that sale items should be premium receivers, antenna multicouplers, and the like, as opposed to a general flea market, IMHO. Borderline items might include receivers that were

not premium receivers but that are highly regarded by a least some (R8B should qualify, as would the 545 if a certain 390A advocate gives a thumbs up ;-) -- what would be the policy there?

Just my 2 cents...

Don

Date: Thu, 29 Jul 1999 05:33:01 -0700
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Selling items on the List

"Greg W. Bailey" wrote:
> > UNLESS there is strong opposition from the membership, I would be for
> some form of liberalization.
I agree with Greg. One of the principal challenges of this hobby is acquiring receivers in the first place, not to mention, passing excess units along to an appreciative home. Perhaps we could take a lead from the "Boatanchors" mailing list. This is a moderated, or at least managed, list. We all pay an annual fee to participate. A fairly interesting culture has evolve here in the last three years, and it's a good thing for that corner of the hobby. For-sale announcements are welcome from members. Adds from commercial concerns, cross posts from other sources, "look for this item on E-bay" announcements, etc. are not permitted. Conducting auctions via the list is also verboten. Generally, one states what he has with an asking price, and takes all further activity off line with any interested parties. My two cents!
Best regard, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Thu, 29 Jul 1999 07:58:24 -0700
From: dma@islandnet.com
Subject: Re: Prem-Rx: Selling items on the List

At 08:16 PM 7/28/99 -0700, Greg W. Bailey wrote:

>My personal thoughts are that we certainly could adopt a policy
>somewhere between our present position of nothing, to say a maximum of
>hacking CD's, meters, and bottom covers.
> >Parting with hardware is an emotional experience to a true remium-rx
>driver.... knowing it is going to a "good home" makes the loss far less
>stressful :-).
> >UNLESS there is strong opposition from the membership, I would be for
>some form of liberalization.
Speaking as someone living in a rather isolated part of the world (i.e. no real sources of good parts/goodies outlets) these lists serve a really critical function in obtaining the otherwise unobtainable - and of occasionally offering things appropriate to the list's central focus. To forbid such buy/sell reduces the value of the list - to me at least - greatly.

So I would think the buy/sell of stuff related to the kinds of radios covered here would be great. I wouldn't want to see long lists of Hamarlund/Hallicrafters clunkers though. But I suspect the wrath of Bailey could be counted on to decend on the transgressor if suchlike started to appear.

Jan Skirrow Duncan, British Columbia, Canada

Date: Thu, 29 Jul 1999 08:36:09 -0700
From: dma@islandnet.com
Subject: Re: Prem-Rx: Sensitivity Measurements and Return Loss

At 05:59 PM 7/28/99 -0700, Ben Wallace wrote:
> I've always wondered when performing receiver sensitivity measurements
> whether my receiver's input impedance stayed a constant 50 ohms -- or
> rather....how much did the impedance change over the entire receiver
> operational range -- and what affect this had on the power transfer of RF
> energy between the signal generator providing the input signal and the
> receiver.

To add a bit to this ...

Part of the interest here is to establlish some procedures that provide reliable and reasonably absolute numbers for state of the art receivers, with good - but not state of the art - test gear. There are ppretty amazing numbers tossed around on some of the lists in good faith, and sceptical me would like to know if these numbers can be believed.

The question Ben raises is central. Of additional interest to me is whether there is a difference in a rcvrs input impedance across its design range for rcvrs with a broad front end, if the situation changes whem a matching tuned preselector is added, and how these situations compare to older top end rcvrs (like the R-390A,Racal and R-1051 series) with a highly selective front end.

Enquiring minds want to know!

Jan Skirrow, VE7DJX Duncan, British Columbia, Canada

Date: Thu, 29 Jul 1999 08:41:49 -0700
From: dma@islandnet.com
Subject: Prem-Rx: Sensitivity Measurements and Signal Generator Characteristics

By now it's probablly becoming obvious that my main interest in premium rcvrs is why they are premium! The specs on these radios really do push the limits of the kind of measuring gear many of us have access to, so often the problem of interpreting test results brings up the question of artifacts introduced by the measurement setup.

An exchange of e-mails with a similarly obsessed person on another list has raised the issue of how to verify the spectral purity of a signal generator to verify that it is within specs. Residual FM and AM clearly has an impact on measurements. My HP8640B manual kind of skates over this issue, and I don't have access to a spectrum analyzer capable of doing what I want. Is there another way???

Thanks all

Jan Skirrow Duncan, British Columbia, Canada

Date: Thu, 29 Jul 1999 13:11:02 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Impedence

Depends on the design. Receiver input impedence varies somewhat when the front end antenna trim tuning is fixed. Some receivers, like the R390A have tracking front ends thus presenting a stable load the the antenna and a fairly constant transfer of energy across the designed coverage spectrum. Some designs employ varatcor diodes and relay switched coils to accomplish close to the same thing. EG: NRD-525/535/545. Although not nearly as bullet-proof from an RF overload standpoint, (EG: Harris

RF-590 requires a optional pre-selector in high RF inviroments) a continous tracking design, is far better than feeding the antenna into a fixed network whose cut offs are .5 and 30 mhz.

I've always wondered when performing receiver sensitivity measurements whether my receiver's input impedance stayed a constant 50 ohms -- or rather....how much did the impedance change over the entire receiver operational range -- and what affect this had on the power transfer of RF energy between the signal generator providing the input signal and the receiver.

= Chuck Rippel Cornland, VA (VA/NC State line 30KM Inland from coast) SWBC DX'er since 1971

Reply to: wa4hhg@amsat.org WJ HF-1000A, R390A/Sherwood SE-3, Harris RF-590, Collins HF-2050 www site: http://www.avslvb.com/R390A/index.html
= =

Date: Thu, 29 Jul 1999 10:30:56 -0700
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Sensitivity Measurements and Return Loss

I wouldn't get too excited about measuring sensitivity and related parameters like noise figure and return loss. Most all of these rx's are plenty sensitive and quiet when hooked to a signal generator. The more important things are less universally understood issues such as rejection of spurious signal (resistance to overload) and problems caused by local oscillator phase noise (reciprocal mixing). Third order intercept is not too difficult to measure if you have two signal generators and a calibrated attenuator. This gives a pretty good figure of merit for strong signal performance. The difficulty is getting everybody to agree on the frequency separation of the two signals. Measuring oscillator phase noise is generally done with EXPENSIVE RF spectrum analyzers. I have a hunch we might be able to do something with a clean signal source (xtal oscillator) and an audio spectrum analyzer running on a PC connect to the audio output of the set. I'll try to report on this later.
Best regards, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Thu, 29 Jul 1999 12:48:49 -0600
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Sensitivity Measurements and Signal Generator Characteristics

There have been a few Usenet threads (and an ARRL Handbook article) on phase noise characterization with the 8640B and similar instruments. You can eliminate AM effects from a measurement by using the generator to drive a DBM with the LO port well into saturation. Phase noise on an 8640B is going to be lower than just about any synthesizer short of a $25K 8662.

It seems to me that an inexpensive audio spectrum analyzer like an 8556 would be a good candidate for phase-noise measurements, using a mixer/crystal oscillator scheme to heterodyne the source under test down to DC.

- -- jm KE5FX

Date: Thu, 29 Jul 1999 14:36:01 -0700
From: Jerry Gardner <jgardner@peri.com>
Subject: Prem-Rx: WJ 1000 Tips?

I'm looking for any WJ 1000 hints and tips that users on this list may have discovered.

I've had my 1000A for two years now and am constantly learning new things about it. Thanx.

- -- Jerry Gardner, W6UV jgardner@peri.com

Date: Sun, 29 Aug 1999 15:30:52 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Selling Items on the List

This item was accidently forwarded to my e-mail address versus that of the List. Chuck has requested I pass along-

Greg _____

My own thoughts are "absolutely not." As a vetern of several "focused subject" mailing lists I might share that those lists went to hell as soon as they became an outlet for buy/swap/sell. One classic example is the Collins list which, IMHO has completely lost its purpose.

As soon as money is introduced list members are subjected to the inevitable "I got screwed by" posts and "My radio is on E-Bay" notices.

Although I started the Collins list, I haven't been subscribed in some time for this very reason.

There is an overabundance of places to buy and sell radios. On the other hand, there are very few outlets for information that are free of commercialism.

= Chuck Rippel
Cornland, VA (VA/NC State line 30KM Inland from coast) SWBC DX'er since 1971

Date: Thu, 29 Jul 1999 20:18:35 -0600
From: "Walt Novinger" <wnovinger@home.com>
Subject: Re: Prem-Rx: WJ 1000 Tips?

One of the bets tips I can pass along regarding the WJ HF-1000 (and most every receiver with an adjustable RF gain control) is to learn to use this control to optimise the recovered audio. With the 1000, you can select AGC Threshold mode (described in the manual); in this mode, the RF Gain control will set the AGC threshold when any of the AGC modes are selected. Using the RF Gain control in this mode is a real plus...by backing off the RF Gain to the point that the AGC stops pumping (especially in Synch AM mode), nearly all effects of fading and the like can be either eliminated or greatly minimised.

Due to the position in the circuit where the S Meter signal is derived (it is more an RF signal strength meter than an S-meter as most other receivers do it), the use of the RF Gain control will not be seen on the meter. On receivers where the S Meter signal is derived from the AGC line, you will see the meter reading rise when the RF Gain is reduced; when the meter has stopped fluctuating with fading (i.e., it is higher than with full RF gain but is stable), you've hit the optimum setting. Just sit back and enjoy consistent audio level.

This method of using the RF Gain control has the added benefit (usually) of reducing distortion in the recovered audion due to possible overloading of the detector.

Walt - ----- Original Message -----

From: Jerry Gardner <jgardner@peri.com
> To: <premium-rx@kahuna.sdsu.edu
> Sent: 29-Jul-99 3:36 PM
Subject: Prem-Rx: WJ 1000 Tips?

> I'm looking for any WJ 1000 hints and tips that users on this list may have
> discovered.

> > I've had my 1000A for two years now and am constantly learning new things
> about it. Thanx.
> >
> --
> Jerry Gardner, W6UV
> jgardner@peri.com
> >

Date: Thu, 29 Jul 1999 23:08:00 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: WJ 1000 Tips?

> I'm looking for any WJ 1000 hints and tips that users on this list may
> have discovered.
> > I've had my 1000A for two years now and am constantly learning new things
> about it. Thanx.
> >
Like you, I also have an "A" varient. Hopefully, you have a Sherwood SE-3 as that is the #1 accessory.

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Thu, 29 Jul 1999 23:53:06 EDT
From: Daiungoed@aol.com
Subject: Prem-Rx: RACAL RA-1792 BITE

Dear fellow list subscribers, I have a RACAL RA1792 with BITE, and it seems to be working perfectly well, but for some time now, I have been running the BITE sequence every week or so, just for fun more than anything, but sometimes it comes up with a fault indication on test 16. Although I do not have the proper manual, I have heard a few explanations of this code as being audio gain low, etc, but I cannot make much sense of the description of this error code. Does anyone have an idea of the meaning of this code in good old plain english? Any help much appreciated, Dave

---

Date: Mon, 30 Aug 1999 08:33:58 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Selling Items on the List

The following post was a reply to Chuck Rippel by Dr. Walt. It was sent to my attention by error, ... should have been posted to the List.

Greg _____

Walter (Volodya) Salmaniw, MD wrote:

Sorry, can't agree with you, Chuck. Simply put, I too don't want to see a lot of trashy ads for the non-Premium receiver or accessory. However, if it meets the bill, why not have a brief description, price, and if one is interested, one can pursue it. Same goes for eBay. Saw a 2050 a week ago, and I passed it on via this list to a member (new) looking for one. What's wrong with that? Takes up very little bandwith. What really ruins the Collins group is the silly bantering about totally off-topic issues, crying the blues over someone making a buck on e-Bay, and the like. Take that sh** off the group, and it's still very interesting to me. To recap, then. Let's have some strict rules, make the ad brief and to the point, and please, when replying delete the previous message, except where pertinent to the reply!

.....Dr. Walt. Walter R. Salmaniw, MD email: salmaniw@home.com Victoria, British Columbia DXING FROM CANADA'S WEST COAST, using CANADA premier radio receivers: Collins HF2050, (250) 592-1033 Collins R390A, JRC NRD535D, and the Kenwood R5000.

---

premium-rx-digest Thursday, August 5 1999 Volume 01 : Number 046

Date: Fri, 30 Jul 1999 09:36:13 -0600
From: "Walt Novinger" <wnovinger@home.com>
Subject: Re: Prem-Rx: Selling Items on the List

I agree with Walt...some strict guidelines and the judicious use by all of us of our email filters should make this a non-issue. Since this is a moderated list, those who abuse can be easily evicted.

Walt -

Date: Fri, 30 Jul 1999 20:19:50 GMT
From: romill@csnet.net (Bob Milne)
Subject: Prem-Rx: Racal 6790GM NiCd Voltage

Hi Everybody,

I haven't been able to get a manual yet for my recently acquired Racal 6790GM, but I have to replace the NiCd backup battery on the computer board (it doesn't hold the filter data when shut off). Can anyone tell me what the voltage of the battery is. Is it a 1-cell, 2-cell, etc, battery?

Thanks.... ....Bob

Date: Fri, 30 Jul 1999 13:30:23 -0600
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Selling Items on the List

I agree with you, Walt -- I don't mind FS: or even FA: posts, but when the EBay-whiners start airing their jeremiads on the list, I am all in favor of booting 'em out with no warning.

There's nothing sadder than a Usenet newsgroup that's being taken over by people bellyaching about a few (barely visible by comparison) auction notices, and I'd hate to see that kind of thing happen here.

- -- jm (call me an EBay-whiner-whiner)

Date: Fri, 30 Jul 1999 13:48:28 -0700
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Racal 6790GM NiCd Voltage

2 cells. 2.4 volts.

Best regards, Al

Bob Milne wrote:
> > Hi Everybody,
> Can anyone tell
> me what the voltage of the battery is. Is it a 1-cell, 2-cell, etc,
> battery?
>
- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Fri, 30 Jul 1999 16:52:28 EDT
From: DAVEINBHAM@aol.com
Subject: Prem-Rx: Advertising

< < I agree with Walt...some strict guidelines and the judicious use by all of us of our email filters should make this a non-issue. Since this is a moderated list, those who abuse can be easily evicted.

Walt
>
> ********** Gentlemen, I have a suggestion about advertising on the list. Every list I have subscribed to, except one, has gone to hell in a handbasket when advertising is permitted. The one list which is sucessfull only permits advertising 1 day a month. Ad day is the 15th day of the month as per the calander day in the members' time zone. Anyone violating the ad policy is removed from the list forthwith. No exceptions. It works!
I suggest if this list wants to permit advertising that we do it in this fashion.

Dave Holder Birmingham, Alabama

Driving a Racal RA6790GM and a couple of R390A's

Date: Fri, 30 Jul 1999 21:36:13 GMT
From: romill@csnet.net (Bob Milne)
Subject: Re: Prem-Rx: Racal 6790GM NiCd Voltage

Thanks Al.

Regards.... ....Bob

On Fri, 30 Jul 1999 13:48:28 -0700, you wrote:

> 2 cells. 2.4 volts.
> > Best regards,
> Al
> > Bob Milne wrote:
>
> >
> Hi Everybody,
>
> Can anyone tell
>
> me what the voltage of the battery is. Is it a 1-cell, 2-cell, etc,

>
> battery?
>
>

Date: Fri, 30 Jul 1999 14:57:36 -0700
From: dma@islandnet.com
Subject: RE: Prem-Rx: Selling Items on the List

I agree with what Walt said. The R-390 list (and others) is marginal because of the food fights and name calling that erupts now and again. But liberal use of the delete button, and good Subject headers, still makes it far more valuable than the Usenet groups I sometimes look in on.

The Boatanchors mail list that some of you belong to is my idea of a good, well-run list. Jack (the owner) can be a bit overzealous in stomping on wrong-doers, but the result is a list with a very high S/N. The buy/sell stuff seems to be kept in check nicely. If anyone abuses the rules, they hear about it privately from Jack - and get dumped if it persists.

On a very practical note, I installed some small muffin fans on Walt's multicoupler (and on mine) and intend to offer the extras I have to others who bought the WJ Ford units as soon as I get around to it. If I can't offer them here, exactly where would I offer them so's you guys get first go? I know they'll disappear like long johns in January (this is Canada after all) if I offer them on one of the other lists. But they're a nice solution to a problem kind of unique to this list! If our buys/sells stick to things unique to this list, I can't see the problem.

Jan Skirrow, VE7DJX Duncan, British Columbia, Canada

Date: Fri, 30 Jul 1999 18:26:09 -0400
From: Geoff Greer <wj8617b@ix.netcom.com>
Subject: Prem-Rx: Harris RF 590 audio quality

Hi,

I've noticed that my Harris 590 has noticeably less crisp audio than my 6790/GM. This is especially noticeable with the 6.8 khz filter and the 16 khz filter. I've heard this from other 590 users too. Has anybody looked into this?

The bench is tied up currently with a receiver that doesn't seem to want to go home. I'm hoping this weekend that I can finally send it on it's way. I will put the Harris on the bench and run some frequency response measurements.

Regards, Geoff

Date: Fri, 30 Jul 1999 22:32:06 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: RE: Prem-Rx: Selling Items on the List

> I agree with you, Walt -- I don't mind FS: or even FA: posts, but when the
> EBay-whiners start airing their jeremiads on the list, I am all in favor
> of booting 'em out with no warning.

Booting someone off will result in catcalls and accusations of the administrator being mind police. What has happend on other lists in the past is that the bootee then goes to rec.radio.whatever and aires his dirty laundry. I haven't looked lately but i'll bet that if one were to go to rec.radio.swap and there are at least two instances there.

I know there are good faith suggestions on how to "keep the list clean" and the riff-raff off but it even the best efforts won't work once money becomes involved.

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Sat, 31 Jul 1999 08:57:37 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: Receiver Sensitivity at LF

I thought this might be of interest to the group. I've written an article for the Lowdown (Long Wave club journal) on receiver sensitivity tests at LF (200 kHz to be specific). Sensitivity at LF is more important than it is for HF and MF since a passive antenna at LF is pretty inefficient and you need all the sensitivity in the receiver you can get if you're using one of these.

The test was the standard minimum discernable signal (3 dB increase in S/S+n) using an AUL analog tuned signal generator (it's quiet), a precision attenuator and an AC voltmeter on the audio output of the receiver.

The test was done in CW mode with filter setting as close to 300 Hz as possible. Here are the results from most sensitive to least sensitive receiver:

(1) CEI type 357 VLF receiver -144 dBm Using 150 Hz crystal filter. Analog tuned, nixie tube readout.

(2) Mason A-3B Surveillance Countermeasures -137 dBm Using 200 Hz crystal filter. Analog tuned, metal tape readout.

(3) Eddystone 958/3 Communications receiver -136 dBm Using 400 Hz LC filter. Analog tuned with dial readout

(4) Harris RF-550 -131 dBm Using 500 Hz crystal filter. Decade tuning, LED readout.

(5) Harris RF-590 (Bill Bowers') -131 dBm Using 300 Hz mechanical filter. Synthesized LO and BFO.

(6) Harris RF-590 (mine) -131 dBm

(7) HP 3586A Selective Level Meter -130 dBm Using 300 Hz crystal filter. Synthesized LO, crystal BFO.

(8) NRD-525 Receiver -125 dBm Modified with display power supply, 1800 Hz filter.

(9) HP 312A Wavemeter -121 dBm

(10) Watkins-Johnson HF-1000 -114 dBm Using 300 Hz digital filter. Synthesized LO and BFO.

(11) Racal RA6793A Receiver -114 dBm Using 300 Hz filter. Synthesized LO and BFO.

I expect the Collins HF-2050 would fall in with the W-J and Racal receivers, based on some other tests done earlier.

John Reed

Date: Sat, 31 Jul 1999 11:15:34 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>

Subject: Re: Prem-Rx: Selling Items on the List

IMHO:

Situation: A list member wishes to make the list aware that he has a radio or radios in his disposition queue.
Question: How to let othe list members know and yet, keep the list topical as selling radios is not (topical).
Suggested solution: If one has a radio or radios for sale, the single line, "radio(s) available" may be added to the signature portion of any topical post. That way members who are participating in the list who happen to have a radio to dispose of can let everyone know, as an aside to his topical posts. ANY and ALL discussion regarding the available radio will be forbidden from the list.
I suggest a 2 weeks suspension for violators rather than exile.
i.e.

- -bob wb4mnf Atlanta < A HREF = "http://www.debris.org/"
> radio(s) available < /A
>

Date: Sat, 31 Jul 1999 12:18:56 -0700
From: Al Klase <skywaves@bw.webex.net>
Subject: Re: Prem-Rx: Receiver Sensitivity at LF

John & The Group,

John Reed wrote:
> > (1) CEI type 357 VLF receiver -144 dBm
> Using 150 Hz crystal filter. Analog tuned, nixie tube readout.
> Very interesting data. Thanks!
Here's an example where the comments I made the other day about other factors beside gross sensitivity being important come into play. I own a CEI 357. When I was struggling to hear SAQ on 17.2 KHz last summer, I discovered that when it comes to hearing actual signals down in the noise that the 1KHz filter actually worked better than the 150Hz position due to the noise causing ringing in this very narrow filter. Try it on the air sometime.

Best regards, Al

- -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/ ~ skywaves/home.htm

---

Date: Sat, 31 Jul 1999 13:00:47 -0600
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Receiver Sensitivity at LF

"Sensitivity at LF is more important than it is for HF and MF since a passive antenna at LF is pretty inefficient and you need all the sensitivity in the receiver you can get if you're using one of these."

Is that really the case? I would think atmospheric noise would dominate. Traditionally, if the receiver's noise level increases when you connect your antenna, it's sensitive enough.

Also you might want to correct your dBm figures for the filter bandwidth you're using in each case. S/N performance increases as 10*log(f1/f2). Hence a receiver with a -144 dBm MDS in a 150 Hz bandwidth is no more 'sensitive' than one with -140 dBm MDS at 400 Hz.

I could be wrong, would be interested in any correction.

- -- jm KE5FX

Date: Sat, 31 Jul 1999 22:48:28 -0400
From: "W. Charles Alexander" <charlie@netset.com>
Subject: Re: Prem-Rx: Selling Items on the List

Hello: I am "putting in my two cents worth" (After all, that is all I have left after purchasing my HF2050) I must agree with Chuck Ripple on the issue of selling Rx's on this list, I do not feel it is a good idea for the same reasons Chuck mentioned. While I like the idea, I know that sometimes, very wonderful and kind people can get pretty "rough" when dealing with money issues.

One possible solution might be, to allow list members to post a "Wanted" notice ?? I don't know how that would work either, but it is a thought.

= 73 de charlie W. Charles Alexander KC8IKG 39.951 N 83.124 W Monitoring the World from Columbus, Ohio USA Collins HF 2050, Kenwood TS-870, Drake R7, R8B Antennas: 33 Ft Off-Cneter Fed Dipoles, 45 Ft Longwires Slinky Dipole and a Dressler ARA 60 Active Antenna (All In Attic)
= =

Date: Sat, 31 Jul 1999 14:30:44 -0700
From: dma@islandnet.com
Subject: Prem-Rx: Cooling the RCA CU-5069 Multicoupler

Hi all ...

I thought some of you might be interested in what I cooked up to cool the RCA multicouplers quite a few of you have.

http://www.islandnet.com/~dma/Boatanchors/mc.html

This short piece also has a pix of an "emergency" cooling system to keep Walt Salmaniw's HF-2050 from melting down during the hot nights at Grayland. I don't recommend the use of these hard to find fans for the 2050, but they are perfeect for the RCA. For the 2050 I'd use a larger fan with more airflow, or some other arrangement entirely!

Jan Skirrow, VE7DJX

Duncan, BC, Canada

***************** "So many radios, so little time"

http://www.islandnet.com/~dma/Boatanchors/

Information, Parts, Pictures, Articles: The R-390A and other classic gear.

****

Date: Sat, 31 Jul 1999 17:59:52 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: Receiver Sensitivity at LF

Al Klase wrote:

> Here's an example where the comments I made the other day about other
> factors beside gross sensitivity being important come into play. I own
> a CEI 357. When I was struggling to hear SAQ on 17.2 KHz last summer, I

> discovered that when it comes to hearing actual signals down in the
> noise that the 1KHz filter actually worked better than the 150Hz
> position due to the noise causing ringing in this very narrow filter.
> Try it on the air sometime.
For LF DXing I like the combination of the 1 kHz filter on the 357 combined with a passive audio filter with Gaussian shape factor and 30 Hz bandwidth. The 150 Hz filter does ring more and the Gaussian filter is excellent for being narrow banded with minimum ringing.

John

Date: Sat, 31 Jul 1999 18:18:54 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Receiver Sensitivity at LF

Hi John,

Thanks for posting the intesting test results.

= =
Bob Parnass, AJ9S parnass@bell-labs.com

John Reed wrote:

| I thought this might be of interest to the group. | I've written an article for the Lowdown (Long Wave club journal) | on receiver sensitivity tests at LF (200 kHz to be specific)....

Date: Sat, 31 Jul 1999 19:20:58 -0400
From: bryantm1@us.ibm.com
Subject: Prem-Rx: Selling Items on the List

Gang,

Just a thought on the FS/FA thread going on now. Any reason a FS board could not be set up on the PremDX web page where I found the group in the first place? That would keep most activity between buyer and seller without clogging the group. That is how the Drake group does it on http://www.min.net/~thom/drakelist/ I have been on that group for nearly two years with no problems overflowing onto the mailing list. A good list of what equipment is acceptable (much like the entry gate for the group) would keep beanie babies and old Microchannel PS/2 parts from wandering in BUT in case anyone needs a Microchannel MFM controller card.... If the owner of http://kahuna.sdsu.edu/~premium/index.html does not want it riding on the big kahuna, I could build up a page on a newly aquired signal-strength.com domain. I have been meaning to work on those HTML skills in my free time. :-) It could even be gated to members only if that would make people more comfortable (rather than announcing to the world all the cool toys in the house).

Regards,

Mark L. Bryant Beacon NY

By the Hudson with a: Drake R7A NRD-515 HF-2050 Thanks to Chuck for the birddogging and to Greg.

New York City 914.456.9948 - Mobile (Primary Number) 800.946.4646 - 146 7343 # # # Page 800.946.4645 - 146 7343 Text Page

----

Date: Sat, 31 Jul 1999 18:16:09 -0700
From: John Reed <jtreed@poncacity.net>

Subject: Re: Prem-Rx: Receiver Sensitivity at LF

John Miles wrote:

> Is that really the case? I would think atmospheric noise would dominate.
> Traditionally, if the receiver's noise level increases when you connect
> your antenna, it's sensitive enough. During the winter when noise is low, I can hear signals on the more sensitive receivers that I can't hear on the less sensitive ones when using a wire antenna. Passive short (100') wires aren't very efficient on LF and sensitivity is useful.
> > Also you might want to correct your dBm figures for the filter bandwidth
> you're using in each case. S/N performance increases as 10*log(f1/f2).
> Hence a receiver with a -144 dBm MDS in a 150 Hz bandwidth is no more
> 'sensitive' than one with -140 dBm MDS at 400 Hz.
> > I could be wrong, would be interested in any correction. If I wanted to correct for filter bandwidth, I would have given the noise figure (noise figure = 174 - MDS - 10log(bandwidth in Hz)) rather than the MDS. I wanted to keep things simple and give the sensitivity for each receiver as it is. I could also have given the sensitivity with a 30 Hz audio filter on the output which would standardize the measurement bandwidth for each receiver plus give the most sensitive setup. I have these two sets of numbers if anyone is interested.
John

Date: Sun, 1 Aug 1999 07:48:53 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: RE: Prem-Rx: Receiver Sensitivity at LF

Glad to see some LF information begin to pass around. I am a big believer in different areas of the hobby sharing their skills and techniques both ways. There have been some "barriers of tradition" between the SWBC and MWDX hobbies that are fast coming down (and its high time, IMHO).

LWDX is a lot of fun and for those who are further interested, a susbscription to the LOWDOWN is a great start. I have a link to the LWCA from the Listening Section of the R390A WWW Site.

While not an accomplished LW DX'er, I chase both Beacons and LF broadcast. Rx here is a Harris RF-590 backed up by the AOR 7030. No whistlers or SAC but I have tried for the Indian VTX3 on 18.3 khz but no joy yet.

The Long Wave band (v/s the VLF band) is an interesting one. Multiple beacons per frequency and very long, slow fades can change the "personality" of a frequency over the course of 30 minutes. The listener must also develop the ability to "listen down into a frequency." That is, to concentrate on a single beacon which can be 3 - 5 "deep" and hear it. Its a skill which is also used by the MW DX crowd chasing "graveyarders."

For those interested, LWCA may have copies of Bob Montgomerys, "1998 Montys Beacon guide" available for $15.

> "Sensitivity at LF is more important than it is for HF and MF since a
> passive antenna at LF is pretty inefficient and you need all the
> sensitivity in the receiver you can get if you're using one of these."
I totally agree on this issue. Putting up anything more than a compromise length wire is an impossibility unless one were to own a countys worth of real estate and a wire mfg facility. Brute sensitivity then becomes the deciding performance factor. The RF-590 is spec'd into and seems to perform very well on the LF bands but I have no generator by which to test it and have not been motiviated to try alternative means.

I use an active antenna designed by Bob Montgomery that seems both sensitive and quiet.

> Is that really the case? I would think atmospheric noise would dominate.
> Traditionally, if the receiver's noise level increases when you connect
> your antenna, it's sensitive enough.

That yardstick has always been my non-scientific approach also. If you can hear an increase in noise (barring lighting static crashes) when the antenna is connected, usually you have a fairly sensitive receiver.

As you might imagine, when the band is quiet, you can hear more than most would imagine. During the fall/winter/spring I regularly listen to 183 (I believe its a German station). Right now, our area is so hot that even radio waves are not stupid enough to come here. :-)

>
+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Wed, 01 Sep 1999 13:57:25 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Mew member- Tom Vojtek

Gentlemen:

It is surprising how many of our new members mention they became aware of our List while surfing the WWW. Our newest member was looking for information on the 2050 and happened across Larry Gadallah's home page, which directed him to our List. Thank you Mr. Larry!

Tom Vojtek joins us from Newport News, VA. where he can be found tweaking the controls of a Watkins-Johnson 8718 receiver. In addition, Tom has recently purchased a 2050 so it won't be long before another premium finds a new home. While his major interest is SWBC, he does have a new license to generate a little RF on the bands. In addition to the above, and to placate the 390A crowd, Tom also admit to having a boat anchor to keep the shack warm in the winter, as well as one of those newer BAs called ..... a General Dynamics R-1051B.

When not listening, Tom represents the Bechtel Corporation in the filed of propulsion equipment (as in Navy ships).

Drop Tom an E-Mail at: Tom Vojtek <tomj@exis.net
>
Greg

Date: Sun, 1 Aug 1999 16:21:39 -0600
From: "Walt Novinger" <wnovinger@home.com>
Subject: Prem-Rx: Racal manuals needed

I am looking for manuals (operator's and/or service) for a Racal 6366A Panoramic Display and a 6337A LF Adapter. These are accessories for the 6217A Receiver, for which I also require a schematic set. Original manuals preferred, but good copies acceptable. Happy to pay copying and/or postage costs, of course.

TIA, Walt

Date: Wed, 01 Sep 1999 18:51:08 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Steve Stutman

Gentlemen:

A personal note- With each new application to the List I typically ask for some facts about the person in an effort to construct a short biography to go along with their introduction. Some of you probably think it is a waste of time, others have sent notes of appreciation.

Normal people do not pay $2,000 for a radio, thus I figure most of us are either sincerely wacko, or operating in the non-linear portion of the curve (I include myself, you guess which category?). However, I have noted the submitted bio sketches I have received are typically conservative and short. Never have I received a bio that is slightly "off the wall" and worthy of sharing without some editorial work.... that is until today. Enjoy .... (Steve Stutman is our 65th member)

_____

"Bio for me:

Qualifying possessions: RF-590, R-1051B (which recently puffed a little), 3x R-390A (2 runners), TenTec RX-320, various riceboxes and a very cantankerous homebrew mixer which is almost a radio.

Licensed: Usually since 1966 or (7)

Likes: Women, Asian food, oceans, cars, truth, honesty, unpretentious people and physics, bench chemistry and radio, raccoons, dolphins, loud music.

Previous lives: Biomedical instrumentation, environmental instrumentation, various kinds of RF and acoustic (subsea elementary) telemetry, undersea acoustic nav and associated instrumentation.

Started: World's first wireless information services in 1986.

Currently: Startup of wireless e-commerce company head quartered in people's Republic of Cambridge. QTH Sudbury, MA; 20 miles W/NW of Boston

Schooling: Undergrad Swarthmore, Master's M.I.T.

Holds 4 patents dealing with RF systems and distribution of medical data thereby.

Thanks,

Steve Stutman KL7JT"

_____

Steve, the part I enjoyed the most was: "Licensed: Usually"

Welcome to the group, I look forward to reading more of your epistles.

Greg

Date: Mon, 02 Aug 1999 05:16:30 GMT
From: romill@csnet.net (Bob Milne)
Subject: Re: [Fwd: Prem-Rx: New Member- Bob Milne]

Hi Walter,

I just got your message forwarded to me. I did see the 2050 going on eBay. Actually I was just pursuing info the radio. Not quite in a position to buy one at the moment. But it looks pretty interesting.

Regards.... ....Bob

Date: Sun, 02 Aug 1998 18:00:12 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Nick Hall-Patch

Checking in from Victoria, British Columbia, our newest member is Nick Hall-Patch <Nick_Hall-Patch@bc.sympatico.ca
>
Many of us change vocations in midstream and Nick is no stranger to that experience. Starting out as a professional gardener Nick took a career turn and has been providing electronics support to oceanographers at the Institute of Ocean Sciences for the last six years. The Institute works closely with Scripps Institute in La Jolla, as well as other research centers. In spite of being a medium wave DXer since his teens, he has managed to marry and raise a family over the past 25+ years.

Although his primary receiver has been a home brew for the past 10 years, he also uses a McKay Dymek DR-333 (the model DR360 is the military spec. version of the DR-333). Using this very unique PC controlled "black box", Nick has been researching trans-Pacific medium frequency propagation. His software directs the Dymek to a number of pre-selected target frequencies. The signal strength of each transmitter is then stored in memory creating a history or "picture" of propagation versus, time, frequency, season, etc.. His one man research has been on going for the past two (or three) years.

This is a fascinating study, that should generate some excellent data ... which will be of benefit to Pacific MWDXer for years to come. Nick's DR-333 "radar" was in operation at Grayland and was a benchmark in informing those in attendance which frequencies were open to the Pacific Rim. In fact, John Bryant, another Graylander, was often observed looking though his telephoto equipped camera at the PC laptop screen of Nick's "radar" located on the other side of the room. In so doing, John could see which frequencies were open and thus eliminate the time required to scan up and down the entire band.

Those of you interested in MW DX, here is a contact to exchange information. Welcome to the List Nick.

Greg

P.S. Last weekend Nick, Dr. Walt, and John Bryant were "camped" on the west coast of British Columbia doing their DX thing. Nick reports a yearling black bear strolled through our site about lunch time one day. Fortunately, he didn't stop for lunch.

Date: Mon, 02 Aug 1999 22:22:36 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Prem-Rx: Harris RF-590

I recall that some members of this group were trying to develop new firmware for the Harris 590 to allow changes/optional bandwiths ???

I'd like to hear about those efforts from those who had a part in it.

Thanks,

Ben -- WB8HUR San Diego

Date: Tue, 03 Aug 1999 08:21:43 -0700
From: John Reed <jtreed@poncacity.net>

Subject: Re: Prem-Rx: Harris RF-590

Ben Wallace wrote:
> > I recall that some members of this group were trying to develop new
> firmware for the Harris 590 to allow changes/optional bandwiths ???
> > I'd like to hear about those efforts from those who had a part in it.
>
The firmware has quite a few optional filter settings that can be changed with the dipswitch on the front panel. If you are interested in changing/adding filters, I can help you with the settings as I have a complete list of them from Harris.

There are some changes that aren't possible without reprogramming the firmware however. For example if you want the AM filters to be selectable on CW, this will require reprogramming.

John Reed, KA5QEP

Date: Tue, 3 Aug 1999 11:15:53 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Harris RF-590

I'd be interested in that, also. Additionally, if there was some way to get a few filter combinations better for AM. Like.... the 2.7 for ECSS then the existing 3.2 is fine. The 6 is also fine. A 4.5 would be just wonderfully.

Possible?

>There are some changes that aren't possible without
>reprogramming the firmware however. For example if you want the
>AM filters to be selectable on CW, this will require reprogramming.
And.....

>I recall that some members of this group were trying to develop new
>firmware for the Harris 590 to allow changes/optional bandwiths ???
>I'd like to hear about those efforts from those who had a part in it.
= Chuck Rippel
Cornland, VA (VA/NC State line 30KM Inland from coast) SWBC DX'er since 1971

Reply to: wa4hhg@amsat.org WJ HF-1000A, R390A/Sherwood SE-3, Harris RF-590, Collins HF-2050 www site: http://www.avslvb.com/R390A/index.html
= =

Date: Tue, 03 Aug 1999 12:00:30 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: Harris Filter settings

To those interested in changing/adding filters to Harris RF-590 and 590A:

The list is on paper right now. I'll work on getting it in a form that can be attached to e-mail. 590 owners can send me a request for the settings and I'll get it to you as soon I have it in this form.

John Reed, KA5QEP

Date: Tue, 03 Aug 1999 10:38:14 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>

Subject: Re: Prem-Rx: Harris Filter settings

John:

Can I ask you to publish the paper you spoke about on the Premium-Rx List so that it will find its way to the archives. This way others in the future will be able to read the data.

Txs Greg

John Reed wrote:

> To those interested in changing/adding filters to Harris RF-590 and 590A:
> > The list is on paper right now. I'll work on getting it in a form that can be attached
> to e-mail. 590 owners can send me a request for the settings and I'll get it to you as
> soon I have it in this form.
> > John Reed, KA5QEP

Date: Thu, 05 Aug 1999 07:50:25 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Prem-Rx: Harris RF-590 Filter Selection, corrected version

FILTER SETTINGS FOR HARRIS RF-590 RECEIVER

If you have an RF-590, this applies to your receiver. If you have an RF-590A, it doesn't. Here is a note from a tech at Harris about the RF-590A:

********** The firmware in the RF-590A only supports some of the switch settings in the matrix. Depending on the A4 IF filter board installed the RF-590A and the U5 firmware installed in the A14 Control board the selections are limited. Paragraph 3.8 in the A14 Control PWB section of the RF-590A manual covers the Bandwidth Selection Switches. The RF-590A has no matrix for the switch selections that I know of. I hope this helps and answers your question. **********
Now, for the RF-590, here is how to change the switch settings:

The 8 bit dipswitch on the back of the front panel (A14S2) controls the combinations of filters which can be selected depending on mode. Setting of this switch affects the front panel display only. In order to change filters, you must physically change/add filters on the IF filter board, then change the firmware settings to match the new filters.

Bit 1 selects the presence of a filter in slot 7. Bit 2 selects the presence of a filter in slot 6. Bit 3 selects the presence of a filter in slot 5. The rest of the bits are as follows in this table:

The following table shows the filters displayed vs. HEX code for bits 4-8 of A14S2. Slots refer to filter positions on the 590 filter board. In the table, U indicates USB, L indicates LSB, C indicates CW, A indicates AM, FM indicates FM, F indicates FSK and N indicates blank. BWA, BWB and BWC will be displayed if this setting is selected. These are for filters with bandwidths not otherwise available in the settings.

HEX SLOT1 SLOT2 SLOT3 SLOT4 SLOT5 SLOT6 SLOT7 BYPASS - --- ------ ----- ----- ----- ----- ----- ----- ------ 00 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K N 16K A,FM 01 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K F 16K A,FM 02 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A 0.85K F 16K A,FM 03 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A BWB A 0.15K F 16K A,FM 04 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A BWB A 0.85K F 16K A,FM 05 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A BWA C 16K A,FM 06 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A BWA A 16K A,FM 07 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A BWB A BWA C 16K A,FM 08 3.2K L 3.2K U 0.3K C 1.0K C BWC C BWB A BWA A 16K A,FM 09 3.2K L 3.2K U 0.3K C 1.0K C BWC C BWB C BWA A 16K A,FM 0A 3.2K L 3.2K U 0.3K C 1.0K C BWC A 0.15K F 0.85K F 16K A,FM 0B 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A BWA A,F 16K A,FM 0C 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K F 20K A,FM 0D 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.0K A 0.85K F 20K A,FM 0E 3.2K L

3.2K U 0.15K C 0.25K C 0.75K C 1.0K C 3.2K A 16K A,FM 0F 3.2K L 3.2K U 0.15K C 0.25K C 0.75K C 1.0K C 8.0K A 16K A,FM 10 3.2K L 3.2K U 0.15K C 0.25K C 0.75K C 3.2K A 8.0K A 16K A,FM 11 3.2K L 3.2K U 0.15K C 0.25K C 1.0K C 3.2K A 8.0K A 16K A,FM 12 3.2K L 3.2K U 0.15K C 0.25K C 0.75K C 1.0K C 3.2K A 20K A,FM 13 3.2K L 3.2K U 0.15K C 0.25K C 0.75K C 1.0K C 8.0K A 20K A,FM 14 3.2K L 3.2K U 0.15K C 0.25K C 1.0K C 3.2K A 8.0K A 20K A,FM 15 3.2K L 3.2K U 0.25K C 1.0K C 3.2K A 8.0K A 0.15K F 20K A,FM 16 3.2K L 3.2K U 0.25K C 1.0K C 3.2K A 8.0K A 0.85K F 20K A,FM 17 6.0K L 6.0K U 0.3K C 1.0K C 3.2K A 6.0K A 0.85K F 16K A,FM 18 6.0K L 6.0K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K F 20K A,FM 19 6.0K L 6.0K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K F 16K A,FM 1A 6.0K L 6.0K U 0.3K C 1.0K C 3.2K A 6.0K A 0.85K F 20K A,FM 1B 2.7K L 2.7K U 0.3K C 1.0K C 3.2K A 6.0K A 0.15K F 16K A,FM 1C 2.7K L 2.7K U 0.3K C 1.0K C 3.2K A 6.0K A 0.85K F 16K A,FM 1D 3.2K L 3.2K U 0.3K C 1.0K C 2.0KC,A 4.0K A 8.0K A 16K A,FM 1E 2.8K L 2.8K U 0.3K C 1.0K C 3.2K A 6.8K A 8.0K A 16K A,FM 1F 3.2K L 3.2K U 0.3K C 1.0K C 3.2K A 6.8K A 8.0K A 20K A,FM

Now for a couple of examples to help you understand all this.

When I got my RF-590 it had the following Rockwell-Collins filters installed:

SLOT1 SLOT2 SLOT3 SLOT4 SLOT5 SLOT6 SLOT7 - ----- ----- ----- ----- ----- ----- ----- 3.2 L 3.2 U .3 C 1.0 C 3.2 A 6.0 A NONE

The dipswitch was set to 01100000. This dipswitch setting can be read as: No filter in slot7 (bit 1 = 0), filters in 6 and 5 and option HEX 00. The binary 00000 (last five bits) translates to HEX 00. As you can see from the table above, this gives the correct selections for these filters.

Later I installed a 75 Hz filter in slot 7. I wanted it to be selectable in CW mode and show up as 75 Hz. Since there's no option for 75 Hz, I decided to let it show as BWA CW. The option for this is HEX 05 in the table. The correct setting for the dipswitch for this setup is: 11100101 (filters in slots 7,6,5 and HEX 05 = binary 00101).

Some of you have already received a version of this. There was an ambiguity between FM and FSK, and I wasn't sure about the 590A. This version corrects both of these problems.

John Reed, KA5QEP

---

premium-rx-digest Thursday, August 12 1999 Volume 01 : Number 047

Date: Thu, 05 Aug 1999 09:42:15 -0700
From: Jerry Gardner <jgardner@peri.com>
Subject: Prem-Rx: WJ HF-1000A Firmware Version

Anyone know what the version number of the latest firmware for the WJ HF-1000A is?

- -- Jerry Gardner | Periphonics Corporation Senior Project Manager | email: jgardner@peri.com

---

Date: Thu, 05 Aug 1999 11:17:24 -0500
From: John Bryant <bjohn@provalue.net>
Subject: Re: Prem-Rx: Selling Items on the List

Fellas,

I missed the near real time discussion of selling/discussion of selling premium receivers and associated accessories on the list. I'd like to weigh in vigorously on the side of open discussion and listing of relevant sales items. Personally, my time for doing radio stuff (that I love dearly) is very restricted. I am also geographically isolated from ANY source of p-rx or accessories. I really don't have

time to follow the large number of multiple general radio sales areas on the net nor do I have time to check e-bay, much less using 20 or 30 key word searches routinely as do some of our list members.

On the otherhand, I'm am interested in the worth of my receivers, the opportunities to purchase others (someday) AND the opportunities to purchase accessories (now). Had we not been able to discuss the latter, I'd not even known about the W-J Ford CU-5069s, much less be the proud possessor of same. The same holds true for several others on this list.

Another more recent example: Jan Skirrow had a number of those VERY nifty 24 VDC very thin cooling fans that were in excess of his needs. They are perfect for cooling 5069s and the like (as well as 5020s). Due to the heart-felt and well thought-out comments of those few who are reluctant to have such notes on this list, he just mentioned them in passing when discussing the whole sales issue. I now know that they WERE available (then) and the price WAS very good. Not wanting to sully the water on this list, Jan advertised them the next day on one of the boatanchor things and the fans WENT like hotcakes. As of yesterday (when I contacted him), I think that he only had three left. I needed five! I'm VERY unhappy.

I appreciate the fact that the R-390 list, apparently, went to hell... I don't think that experience will necessarily transfer here, if in fact it was caused by sales, greed, etc, in the first place. I'd suggest that we establish rules which state that ALL notices of items for sale start out with the nomenclature "FS:" That way, if you are uninterested in looking at sale items, you can hit the delete key very easily. The free Eudora e-mail software doesn't even ask if you are sure you want things deleted. You hit the key, IT BE GONE! What could be easier for those few who have expressed negative feelings about this type listing?

I'd further suggest that items For Sale be limited by policy, enforced by our list master, to those things which MANY of the list members might find of interest due to their proven interest in premium communications receivers.

I'd suggest that we experiment with this approach during what those of us in academe would call "The Fall Semester." Over the holiday season, we could boot this issue around again... if things are going to hell, then we can close the experiment very easily.... as long as everyone realizes that the policy is currently an experiment in progress.

Further, I'd suggest that the list master specifically invite members to give the list a "heads up" quicky announcement when they note anything on other e-sales, e-auction or e-classified areas which would be of interest to a significant number of people on the list.

Those of you that know me know that I'm not a dealer, nor am I interested in the greed dimension of the hobby. I do really enjoy acquiring special receivers and using them for several years. I've noticed, though, that after a couple of years I am often ready for a new "pretty face" in my limited area radio shack. I fail to see why this list can't address and facilitate that dimension of my hobby, too.

Finally, since I've got my soap box well warmed up, I think this list is a bit too exclusive. The problem on this list is not "the riff-raff of the hobby" ... we are so exclusive, at this point, that the list has been damn near dead since the twenty or so of us acquired our 2050s and spent a very enjoyable two months on the list figuring out how to run them. I don't think that we should open the list to anyone who ever turned on a hand-held three transistor radio, but I sure don't think we are flooded with messages and info-QRM, either.

Whadda ya say Oh Great List Master, Greg Pasha, make a ruling!

John B.

Date: Thu, 05 Aug 1999 11:52:20 -0500
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: Receiver Sensitivity

I've enjoyed catching up with the discussion on receiver sensitivity that I've missed over my past ten days of being motly off line. Very well thought-out remarks all around. I'd like to address the statement that has been around radio for a long time that "If you connect your antenna and hear a rise in noise level, you have a radio with adequate sensitivity, since you are hearing the noise floor of the band and will hear any signal which rises above that floor."

As far as I can tell, that statement is true. However, the noise floor of the band (if that is an accepted term) varies quite radically. When I'm in my home in Oklahoma, I'd say that I'm in a normal North American rural RF environment.. far from powerhouse RF transmitters, outside a small town, but still subject to manmade noise from the region and natural QRN from as far away as the Caribbean, The Great Basin and New England. My personal DXing environment there is made considerably quieter because I use permanent Beverage antennas with excellent directivity which are also inherantly quiet. Still, except for mid-winter, my DX is likely not often limited by sensitivity.

However, when I DX in the Pacific Northwest (the DX that I really care about) the conditions at dawn, on the Pacific Coast, using a Beverage pointed out to sea, are astonoshingis asrthe bands are quieter than I ever experience elsewhere. QRN is washed away by the sun covering all of North America except where I am and the North Pacific, seemingly, never as thunderstorms. Both on medium wave (DXing the international stations which are on 9 kHz. splits) or the Tropical SWBC bands, I'm really convinced that the DX that I hear is limited by receiver sensitivity.

I guess that my point is that the old saw about connecting the antenna to test for adequate sensitivity is true but you better be sure and do that test in the quietest environment that you EVER expect to DX in, if you are making a comparative judgement about radios by that method.

For what I do and where I do it, I'd rank the importance of specs as:

1. Sensitivity 2. Audio recovery/Intelligibility 3. Selectivity 4. Dynamic Range

So... If they could just make the perfect receiver, built likka battleship but weighing only 5 lbs and costing less than $500. Oh well!

We are heading back to Oklahoma for one more academic year, so I'll be outta touch for the better part of the nex week

John Bryant

Date: Thu, 5 Aug 1999 13:16:29 EDT
From: Daiungoed@aol.com
Subject: Prem-Rx: E-BAY

Dear all, sorry for this trivial enquiry, but being Welsh, I have no ideas what this E-BAY I keep hearing about is. Would anyone care to enlighten me ? Thanks, Dave

---

Date: Thu, 05 Aug 1999 11:50:28 -0700
From: Al Klase <skywaves@bw.webex.net>
Subject: Prem-Rx: Racal RA.17 RX

Just posted an original article on the RA.17 to the communication receiver section of my web pages. (See sig. block.) Proof reading is probably appropriate at this juncture. (Non-abusive constructive criticism is always welcome.)

Regards, Al - -- Al Klase - N3FRQ skywaves@bw.webex.net Flemington, NJ 08822 Web Page: http://www.webex.net/~skywaves/home.htm

---

Date: Thu, 05 Aug 1999 21:45:47 -0400

From: "Kevin D. Murray" <murray@spybusters.com>
Subject: Prem-Rx: WJ-8718 battery question

<!doctype html public "-//w3c//dtd html 4.0 transitional//en"
> <html
> <body link="#0000FF" vlink="#800080"
> <font face="Helvetica"
>Dear group, <font face="Helvetica"
> <p
> <font face="Helvetica"
>While cleaning up my Watkins-Johnson WJ-8718 receiver, I noticed that the battery which (I presume holds the frequency readout in memory while off) was missing. <font face="Helvetica"
> <p
> <font face="Helvetica"
>Can anyone tell me what type of battery is used in this unit? <font face="Helvetica"
> <p
> <font face="Helvetica"
>Also, I have not yet been successful in finding a manual for this receiver. Any suggestions would certainly be appreciated. <font face="Helvetica"
> <p
> <font face="Helvetica"
>Thank you, <font face="Helvetica"
> <p
> <font face="Helvetica"
>Kevin <font face="Helvetica"
> <p
> <font face="Helvetica"
>Kevin D. Murray
 <font face="Helvetica"
>Oldwick, NJ </body
> </html
>

Date: Thu, 05 Aug 1999 23:03:55 -0400
From: Tom Vojtek <tomj@exis.net>
Subject: Re: Prem-Rx: WJ-8718 battery question

Kevin,

The battery was originally a GE Data Sentry (Model No. 525D) 2.4 V nickel-cadmium device. It had 4 pins that inserted into the PC board. I don't recall now if the pins were soldered or not but I soldered in a Radio Shack telephone battery rated at 2.4 V and 300 ma. It has been working well for about one year so far.

Fair Radio Sales Co. sells the radio with a manual copy. They would probably sell you a manual alone. I do have a copy of a manual but further copies of it might not look that great.

73, Tom

> > Dear group,
> > While cleaning up my Watkins-Johnson WJ-8718 receiver, I noticed that
> the battery which (I presume holds the frequency readout in memory
> while off) was missing.
> > Can anyone tell me what type of battery is used in this unit?
> > Also, I have not yet been successful in finding a manual for this
> receiver. Any suggestions would certainly be appreciated.
> > Thank you,
> > Kevin
> > Kevin D. Murray
> Oldwick, NJ

Date: Fri, 06 Aug 1999 02:11:17 -0400
From: David Clark <davidclark@home.com>
Subject: Re: Prem-Rx: Selling Items on the List

I would like to endorse alla John's comments and suggestions. Thanks to Greg's initial and continuing efforts, we are privileged to have the benefit of this quasi-exclusive List...let's get the maximum benefit out of it for the sake of our individual and collective hobby interests in premium rcvr's and related.

/dave clark

Date: Fri, 06 Aug 1999 10:03:44 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Announcing a Change in List Policy

Gentlemen:

Leave it to my friend and respected academic colleague John Bryant to attempt to 'flush me out' on the issue of commercializing the Premium-Rx List. His penultimate paragraph states he is on his "soap box", when in fact we know that those in the academic field (John is a Professor of Architecture) typically pontificate from an ivory tower. Hard to believe John cannot differentiate between a soapbox and an ivory tower (maybe John was standing on a box of Ivory). ;-)

In response to John's statement and request for a decision:

It is a fact, I have been "counting" the membership's votes and have not posted my personal thoughts on this issue as I feared it would bias others. I have, however, posted my philosophy in regards to List voting, specifically, I have but one vote like each member. In addition, I "count" the votes just like you can .... when a member posts his thoughts/vote to the List. Perhaps the only difference between my membership status and yours is that I am the one that must take the final tally, and initiate any changes based on the majority. Thus far, fourteen members have voiced their opinion on the issue and I think it is apparent the strong majority of those support some form of commercial announcements.

A related and interesting observation I recently made was that during the "real time" discussion of this issue, one of our members was in need of some schematics and posted a request on the Prem-rx List. This was a prime example of a "Want To Buy" notice, albeit it did not use the WTB header and was not hardware related. However, the point remains, it was posted real time right in the middle of the discussion period.... and not a single member made a pro or con comment.

Based on the postings, I see us moving toward some commercial notices. I share with others the fear that the List we have worked to assemble could end up in $hambles like others have. However, I point out that the average member of this List is not your typical "techie bottom feeder". I have faith that we will survive where others have failed. As I have mentioned to some of you, our membership requirements weed out about 40% of all those that initially contact me about joining. Perhaps John and others consider these requirements to high, but they were established by the membership ... and if desired, can be reviewed at another time. _____

Based on the response of our membership: Announcing a change in LIST policy on commercial announcements-

First, -there are three categories of announcements: (1) general informative statements (for example) 'Murphy's Surplus in CA has a good buy on CU-5069 antenna couplers', (2) Want To Buy (WTB) or purchase request of one member to the List, and (3) For Sale (FS) where a member is offering something to the List.

Second, -in regards to items 2 and 3 above, announcements will not include $ values. A member should make his announcement (WTB or FS) and then MOVE OFF LIST to discuss the fine print of the transaction.

Third, -I am the legally responsible party of this List, but not the List enforcer. Sooner or later a member will goof and state a $ amount, and guess what, his membership will continue and the world will not stop. Hopefully, one of us will remind him (off List) of his errors and life will continue. However, I would be remiss if I didn't add .... not even the dumbest bird poops twice in his own nest!

Fourth, -many of those voting (including John) mentioned a trial period for commercial announcements should be considered. Certainly this would allow us time to fine tune the procedure, or totally discontinue it. Since the List will cerebrate its first anniversary on December 1, I suggest we initiate the change in policy as of today and review the results on our first anniversary.

_____

As justified by the majority, and their suggestions in open posts, I have tried to formulate a minimal set of guidelines. Simply stated, I will be amazed if they work without fine tuning. In my estimation our list is reaching critical mass in membership. More members are posting and technical information is being exchanged. Yes, it has been "quiet" and perhaps we should revisit our membership criteria as suggested by John. However, I also agree with Chuck, posting is related to seasons, and Fall is coming. As an observation, we have enjoyed some excellent technical exchanges of information during the past 30 days.... just ask the 590 owner/members. And as they say, baby.... you ain't seen nothing yet!

Greg

Date: Fri, 06 Aug 1999 10:50:10 -0700
From: dma@islandnet.com

Subject: Re: Prem-Rx: Announcing a Change in List Policy

Hi Greg ... and all

Move over Solomon, you got a rival!

Good guidelines - let's see how it works.

Jan Skirrow, VE7DJX Duncan, British Columbia, Canada

Date: Fri, 06 Aug 1999 20:57:56 -0400
From: "Kevin D. Murray" <murray@spybusters.com>
Subject: Prem-Rx: Prem-RX: WJ-8718 replacement battery information (summary)

Thank you to all the list members who took a moment to answer my inquiry about the Watkins-Johnson memory backup battery (for the WJ-8718 and its cousins).

The following is a summary of answers for our Prem-RX archives...

"The battery is a 2.4 v 65 ma nicad. GE made the battery originally and it was called a dataguard. This battery has history of dying and corroding the board it's mounted on. A remote mounting scheme would be a good idea."

"The battery was originally a GE Data Sentry (Model No. 525D) 2.4 V nickel-cadmium device. It had 4 pins that inserted into the PC board. I don't recall now if the pins were soldered or not but I soldered in a Radio Shack telephone battery rated at 2.4 V and 300 ma. It has been working well for about one year so far. "

"The replacement is available from any distributor that sells Varta batteries. The P/N is: 55615-702-012. This is a 2.4 vdc battery with four pins and it plugs on to the A6A1 board." (my board only has two pins, + & -)

I bought a Radio Shack cordless phone battery (23-290) today, installed it, and it seems to work fine. It is about two times the size of the holder, so I mounted it on the rear of the board with foam tape.

Kevin WB2ZSD - --

Kevin D. Murray CPP, CFE, CCO, BCFE [Murray Associates] Counterespionage Consultants to Business & Government Eavesdropping Detection Specialists www.spybusters.com

----

Date: Fri, 6 Aug 1999 23:23:05 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: WJ HF-1000A Firmware Version

> Anyone know what the version number of the latest firmware for the WJ
> HF-1000A is?
>
Mine is 04.01.08

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Tue, 10 Aug 1999 17:25:55 EDT
From: Daiungoed@aol.com
Subject: Prem-Rx: RACAL MA2232 HF TUNING AID

Hi, list members, I have seen a RACAL MA2232 HF TUNING AID, which I am considering buying to go with my RA1792 receiver, from the picture, it looks like it displays a similar thing to a panadaptor, can anyone tell me the true purpose of this unit, and what I can use it for? Also, if it is not RACAL's answer to a panadaptor, can anyone give me the model number of a suitable one to match my RA1792? Any replies much appreciated, thanks, Dave

---

Date: Wed, 11 Aug 1999 20:37:45 -0500
From: John Bryant <bjohn@provalue.net>
Subject: Prem-Rx: RED ALERT: Great Buys on Stuff

Folks,

I just returned from 2 months in the Pacific Northwest to (102 deg. F) Oklahoma. While I was on the road, I got several notices from a source of parts (especially mil-spec BNCed 50 ohm coax) that is very unfortunately going out of business. Derek Yungling, K7FF, has circulated an extensive list of parts for sale, mostly new or used military surplus, for quite some time (several years at least.) His prices have always been good. I bought over $150 worth milspec or Techtronics BNCed cables from Derek, along with some other nifty things, late last spring... just before we left for the NW. I was blown away by the quality... the new milspec suff was all still in envelopes, etc... the used milspec cable was EXCELLENT. The prices were also EXCELLENT as was the service.

When I got home and saw the multiple sales notices, I was afraid that he had been totally bought out... his FINAL CLOSE-OUT has been going on a couple of weeks. Besides the GREAT prices, he is now offering $25 off your first $100 of goods, $30 off the second $100, etc...

Last night, I put together a quick $200 order and sent it to Derek. I also asked him if he still had enough stock to make it worth letting a "few special friends know," and he has just replied that he does.

Sample prices:

#237. 8 foot 50 ohm BNCed jumper cables from Tektronics @ $2.00 ea. #238. 6 foot milspec BNCed jumper cables @ $2.00 ea. I ORDERED 20 #278. 12 foot milspec BNCed jumper cables @ $2.00 ea. I ORDERED 20 #319. 70 foot slightly used milspec BNCed cables @ $8.00. ORDERED 10.

I had ordered each of these sizes from Derek before and was very pleased... the used 70 footers are VERY nice.

He has a bunch of other goodies... his fiberglass cases (at least thye one I got) are very nice, and the lights that he sez were pulls from Calif. Hiway Patrol Cars for $15 are the famous Little Lites.. the 12" variety. Mine still had a working bulb (that halogen bulb alone costs $9.00 retail)

Anyway, I've already broken Guru Greg's very reasonable rules about not quoting prices, but that is the point, here.

If you are at all interested, you better hop on this "Like a chicken on a June bug!" cause things are going fast.

If you would like the list and ordering info, you can either e-mail Derek at

<k7ff@inreach.com
>
and ask for his CLOSE OUT LIST or e-mail me at:

<bjohn@provalue.net

> and put SEND DEREK'S LIST as the subject.
Derek will probably respond more quickly, as I won't be back on line until Thursday PM.

John Bryant

Date: Thu, 12 Aug 1999 21:15:22 -0000
From: "Don" <ulformat@teleport.com>
Subject: Re: Prem-Rx: WJ HF-1000A Firmware Version

I have two HF1000A. 1837 was "built" in February of this year (test data package shows this is the test date. Who knows what the assy date was???) 1849 was in May of this year

Both are: Control Processor SW 04.01.10 Front Panel SW 1.21 DSP Processor SW 04.02.07

So who knows the differences between Chuck's version .08 and my .10????

Don Nelson

Please remove an x characters from the email line that were added to defeat the spammers - -----Original Message-----
From: Chuck Rippel <crippel@erols.com> To: Jerry Gardner <jgardner@peri.com> Cc: Premium-RX@kahuna.sdsu.edu <Premium-RX@kahuna.sdsu.edu> Date: Saturday, August 07, 1999 3:24 AM
Subject: Re: Prem-Rx: WJ HF-1000A Firmware Version

> Anyone know what the version number of the latest firmware for the WJ
> HF-1000A is?
>
Mine is 04.01.08

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

----

premium-rx-digest Tuesday, August 31 1999 Volume 01 : Number 048

Date: Fri, 13 Aug 1999 21:44:55 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Prem-Rx: SW Receiver Info and Pixs

Interesting web site with lots of info and pixs of various shortwave receivers

http://www.dxing.com/rx/rxindex.htm

Ben -- WB8HUR San Diego

Date: Sun, 15 Aug 1999 00:22:37 -0000
From: "W. Charles Alexander" <charlie@netset.com>
Subject: Prem-Rx: Need help with HF 2050 Fault problem

Hello: My HF 2050 has started shutting down and then starting back up with the fault ligth on as it restarts, but not after. The Power Supply seems to make a fairly loud buzz (Similar to a defective transformer). No noise comes through the audio. Any ideas?

It always did it but it does it more often now than when I got it a couple months ago.

Thanks in advance charlie@netset.com
= 73 de charlie W. Charles Alexander KC8IKG 39.951 N 83.124 W Monitoring the World from Columbus, Ohio USA Collins HF 2050, Kenwood TS-870, Drake R7, R8B Antennas: 33 Ft Off-Cneter Fed Dipoles, 45 Ft Longwires Slinky Dipole and a Dressler ARA 60 Active Antenna (All In Attic)
= =

Date: Sat, 14 Aug 1999 21:51:04 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: Need help with HF 2050 Fault problem

Hello all.... tonight I am in Phoenix (presently 22hr and 102 deg) on a seven day trip which will include a swing through the southern part of Colorado and end in Flagstaff on next Sunday.

_____

In answer to Chuck's question, I would immediately protect my receiver (and my electrical flank) by (1) removing the top and bottom covers, (2) find the powersupply output terminals, (3) and disconnect the regulated supply lines that carry voltage from the powersupply to the receiver (they are screw terminals).

I suggest this because if the (for example) 5 VDC reg. supply is in some way dumping say 8 VDC into the TTL logic, you will soon develop a "heater" versus a receiver.

With the powersupply electrically disconnected from the receiver, I would power up the supply and listen for the hum, and measure the supply voltage levels. This will give you some idea as to whether the problem is between the terminal strips and the wall socket (i.e. powersupply) or the terminal strips and the speaker (i.e. radio).

This is all the help I can offer without the convience of a cool brew, AC, and a schematic. But for sure, I don't think I would continue to operate the device until I heard from the others on the List that have worked on these.....

Greg

Date: Sat, 14 Aug 1999 23:31:37 -0000
From: "Don" <ulformat@teleport.com>
Subject: Re: Prem-Rx: Need help with HF 2050 Fault problem

When I first got my 2050 I made the mistake of plopping it on the bench and running it. (nothing on the top, sides, back, ...just sitting on the benchtop) In no time at all it was acting "funny" --- some of the controls would no longer operate properly. BITE on powerup passed, and so did the self test excepting the offending controls, yet it wasn't possible to control the frequency from the front dial (even with the correct selection for FREQ). It would shut down and restart. Other funny things were happening (it had a mind of its own with respect to tuning and features)

Apparently, not enough air flow.

Blocking it up on slotted Aluminum strips (3 x10 inch) that were cut to interlock (purchased by the pound from a local surplus dealer - Wacky Willy's) gave a nice heat sink and allowed air to circulate from the bottom of the receiver. This stopped the strange operation, but it still ran hotter than I desired.

The solution was a 120V muffin fan over the power supply region (Suggested I believe in one of John Bryants postings as I recall). I put little rubber feet to raise it just a bit so it does not scrape while rotating. Now it does not run hot. Guess I should one day put some sort of cover over this so as not to carve up offending fingers and mis-positioned wires...

YMMV

This may or may not apply to you. IF you have insufficient clearance or air flow from the bottom, then raise the receiver. IF this does not apply to your situation then just send this message to the bit bucket.

I presume you have purchased the manual when you bought the receiver? IF this does not work disconnect the power supply and replace it with other benchtop supplies to test. Yanking the wires on the power supply and measuring without a load may give good voltages that aren't there when the power supply is loaded.

Best of luck Don

PPS there is one more trick with th 2050 -- take off the covers and you will see that the coax connections between assemblies are all gold plated and pivot freely 360 degrees around the connection point. Sometimes a little corrosion builds up. I rotated each of these a couple of times and solved one other "non-working" dial after fixing the heat buildup problem. While these helped the manufacturer with the drop test and vibration test, they seem prone to failure according to the supplier of my receiver (per phone conversation)

PPPS I recall my power supply was also making funny noises (hum) when it was too hot.

Date: Mon, 16 Aug 1999 05:13:10 -0700
From: salmaniw <salmaniw@home.com>
Subject: Re: Prem-Rx: Need help with HF 2050 Fault problem

salmaniw wrote:
> > Beware, Charlie! I'm in touch with a technician who still works on
> these receivers in the Canadian Navy. From his perspective, the only
> problem he ever encounters relates to the power supply, and BY THE TIME
> THE FAULT LED COMES ON, IT IS OFTEN TOO LATE, ie, frequently the heat
> has caused some other massive failure, which can only be repaired at a
> depot level. Good advice from Greg. Investigate the power supply and
> until you are sure of the problem, don't run the receiver for any but
> brief periods with maximal cooling!
> > .....Walt (temporarilly on the beautiful, wet and wild
> Queen Charlotte Islands).

Date: Fri, 20 Aug 1999 08:11:36 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Prem-Rx: FS: HRO-500

I love my HRO-500 but am looking at another radio to replace it and will need to sell in order to purchase.

Please write if interested.

list policy refresher.

>Second, -in regards to items 2 and 3 above, announcements will not
>include $ values. A member should make his announcement (WTB or FS) and

>then MOVE OFF LIST to discuss the fine print of the transaction.
- -bob

Date: Tue, 31 Aug 1999 14:30:23 -0700
From: Jerry Gardner <jgardner@peri.com>
Subject: Prem-Rx: WJ HF-1000 Cabinets?

Anyone aware of a source of a cabinet for the WJ HF-1000? Mine isn't rack mounted so I'd like a cabinet to mount it in to make it a little better looking (to pass SO inspection ;-).

- -- Jerry Gardner | Periphonics Corporation Senior Project Manager | email: jgardner@peri.com

---

premium-rx-digest Saturday, September 11 1999 Volume 01 : Number 049

Date: Tue, 31 Aug 1999 17:26:37 -0000
From: "Don" <ulformat@teleport.com>
Subject: Re: Prem-Rx: WJ HF-1000 Cabinets?

Pay a visit to your local TAP Plastics (or other) and get some black acrylic (or whatever color) Have it cut to order (design yours in advance), router surfaced (sanded or flame surfaced edges will craze when you glue) ...glue it up keeping square. Insert the receiver and you will pass SO test. I used 1/2 for vertical on mine, and 1/4 inch for solid shelves (there are non-solid shelves as well on mine built out of 1/2. Back is open for wiring. Front and sides are clean.

Check out a photo of this at... http://surf.to/grayland99 - check "Photos - July 1" This one holds 2 HF1000A (lower 2) plus has an NRD 545 on the top shelf. Note that I have allowed clearance on the top of each for a Timewave 599X (wish I'd thought to leave room for the necessary SE-3 as well. These now reside on the top shelf). Leave out this accessories and you can scale the box back to the size of the hf1000A (allow room for some air circulation if you do this).

A second box I just completed has cubic 3030A, RF590A and 2050 on it. It stands 32" tall and has adequate ventilation for all receivers (although there is a fan for the 2050). (and there are 2 sony md recorders on the top of this one as well). Generally the unit is 19" wide (hole 18" wide)- the width of the receiver wings. Depth to suit. Vertical hole is approximately 8 inches for receiver and DSP.

Just an idea. Works well for my situation. Don

Of course wood is cheaper - but takes longer and looks like wood....cardboard would be even cheaper :-)

- -----Original Message-----
From: Jerry Gardner <jgardner@peri.com> To: Premium-Rx@kahuna.sdsu.edu <Premium-Rx@kahuna.sdsu.edu> Date: Tuesday, August 31, 1999 9:35 PM
Subject: Prem-Rx: WJ HF-1000 Cabinets?

>Anyone aware of a source of a cabinet for the WJ HF-1000? Mine isn't rack
>mounted so I'd like a cabinet to mount it in to make it a little better
>looking (to pass SO inspection ;-).
> >
>--
>Jerry Gardner | Periphonics Corporation
>Senior Project Manager | email: jgardner@peri.com
>

Date: Wed, 1 Sep 1999 09:59:10 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Prem-Rx: WJ HF-1000 Cabinets?

> Anyone aware of a source of a cabinet for the WJ HF-1000? Mine isn't rack
> mounted so I'd like a cabinet to mount it in to make it a little better
> looking (to pass SO inspection ;-).

I bought mine from Premier Metal Works. They are the original Mfg of cabinets for the SP-600 and a few other classics. The pertinant info is:

<color
> <param
>0100,0100,0100</param
>Premier Metal Products Company
381 Canal Place

Bronx, NY 10451

(718) 993-9200 (East Coast)

(909) 829-3089 (West Coast)

<nofill
>
- ---------- Chuck Rippel, WA4HHG R390A List Co-Administrator

Reply to: wa4hhg@amsat.org To Learn More About R390A's, Visit: http://www.avslvb.com/R390A/index.html

1968 Contract Dittmore-Friemuth R390A #38 1967 Contract EAC R390A #2808 with outboard Sherwood SE-3 Synchronous Detector 1967 Contract EAC R390A #9385 1967 Contract EAC R390A #9648 1967 Contract EAC R390A #1023

All in regular, daily use as premier Shortwave Broadcast DX Receivers Also in Amateur Vintage (AM) Communications

---

Date: Wed, 1 Sep 1999 10:18:51 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Re: Prem-Rx: WJ HF-1000 Cabinets?

Check your local fabrication shop. It is sometimes possible to have a custom cabinet built for less than an off the shelf. If the shop is busy, forget it. But if they are not working and have the materials, it's gravy to them and you can get something nice for cheap. - -bob

---

Date: Thu, 02 Sep 1999 10:30:12 -0400
From: Steve <sstut@world.std.com>
Subject: Prem-Rx: 590(?)x preselectors

Hi All,

Found Harris preselectors, aka 6 dB pads. And, they are in same ville as our fearless leader.

73,

http://209.239.34.153/murphyjunk/COMM_ITEMS

Date: Thu, 2 Sep 1999 13:04:43 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Prem-Rx: RF-590 preselector puzzle

The Murphy Surply web page lists a Harris part number of 10215-6600 for the $75 preselector they say fits the RF-590 receiver.

The preselector currently in my RF-590 bears a different part number, namely 10215-6650.

Anyone know the difference? Thanks.

= =
Bob Parnass, AJ9S parnass@bell-labs.com

Date: Thu, 2 Sep 1999 19:23:11 +0000
From: "Jim McVein" <jmcvein@mail1.tinet.ie>
Subject: Re: Prem-Rx: RF-590 preselector puzzle

>
From: parnass@lucent.com (Robert S Parnass) > Date: Thu, 2 Sep 1999 13:04:43 -0500 > To: premium-rx@kahuna.sdsu.edu >
Subject: Prem-Rx: RF-590 preselector puzzle

> The Murphy Surply web page lists a Harris part
> number of 10215-6600 for the $75 preselector they say
> fits the RF-590 receiver.
> > The preselector currently in my RF-590 bears a different
> part number, namely 10215-6650.
> > Anyone know the difference?
> Thanks.
> > =

> Bob Parnass, AJ9S parnass@bell-labs.com
> >
There were 2 types available, a half-octave setup as Murphy has, and a voltage tuned (D to A) that is a real bandpass preselector, continuously tunable. Make sure there are no firmware differences needed to run either, if you don't have one installed already. The unit that Murphy has appears to be simpler (cheaper to build?) than the half octave setup I have see in older 590's.

Anyone know how to hook a pair of RF-590's AGC's for diversity operation??

PS - A Maplin's store has opened up here in Dublin, much better parts finding prospects. Still no 2w metal oxide resistors tho.

Cheers,

Jim McVein

Date: Thu, 02 Sep 1999 13:45:30 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Re: Prem-Rx: RF-590 preselector puzzle

Gentlemen:

I don't have your answer, but within 15 minutes I can be at Murphy's with a digital camera and give you an idea of what the item looks like. In fact, this Saturday I will probably be in Murphy's barn.

Living in San Diego has its rewards, or should I say, having a member living in San Diego has its rewards?

Greg _____ Jim McVein wrote:

Date: Thu, 02 Sep 1999 18:25:52 -0700
From: John Reed <jtreed@poncacity.net>
Subject: Re: Prem-Rx: RF-590 preselector puzzle

There were 2 types available, a half-octave setup as Murphy has, and a voltage tuned (D to A) that is a real bandpass preselector, continuously tunable. Make sure there are no firmware differences needed to run either, if you don't have one installed already. The unit that Murphy has appears to be simpler (cheaper to build?) than the half octave setup I have see in older 590's.
The manual I have on Harris preselectors is for a digitally tuned model, and the circuit board shown in it matches what is on Murphy's page exactly. In the manual the functional features section gives the following description:

"The tunable bandpass filter contains two, highly-selective , double tuned series-resonant filter sections which provide greater than 20 dB oberall selectivity at +/- 10% from the tuned frequency. The bandpass filter is tuned by switching combinations of coils which make up the resonant circuit."

This is more than a 1/2 octave filter. It is the expensive digitally tuned filter. At $75, it's a steal, and probably about 1/50th of what Harris wants for one. I've ordered one even though I disconnected my older model to get better S/N. I may need it some day, and I don't have a manual on the older model, part number 10073-6550.

John Reed, KA5QEP

Date: Thu, 02 Sep 1999 16:37:14 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Murphy's WWW pictures

Gentlemen:

A number of you have pointed out that Mike Murphy has posted a photograph of the Harris item in question on his website.

Okay, so now you know, I have never taken the time to check out his webpage.... I mean, when you can see the real thing in person, why would one want to look at a low resolution digital recreation. :-)

I am still willing to help, in person, if needed.

Greg

Date: Thu, 02 Sep 1999 18:18:33 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Re: Prem-Rx: Murphy's WWW pictures

Here is a copy of the email I received from Mike Murphy on 29 August regarding the Harris preselectors: So.....my question is: Will these preselectors work/compatible with the RF-590 ? Ben

BEN:

OK, COME OUT AND TAKE A LOOK.

FROM FURTHER INFO I GOT, I THINK THEY MAY BE FOR THE 590A, NOT SURE ON THE 590 YET.

I HAVE TECH DATA DUE HERE APPX 8 SEP.

MIKE

MURPHY'S SURPLUS http://www.maxpages.com/murphyjunk

401 N. JOHNSON AVE. EL CAJON, CA. 92020 619 444 7717 FAX 444 6750

At 04:37 PM 9/2/99 -0700, Greg W. Bailey wrote:
> Gentlemen:
> > A number of you have pointed out that Mike Murphy has posted a
> photograph of the Harris item in question on his website.
> > Okay, so now you know, I have never taken the time to check out his
> webpage.... I mean, when you can see the real thing in person, why would
> one want to look at a low resolution digital recreation. :-)
> > I am still willing to help, in person, if needed.
> >
> Greg
>

Date: Thu, 2 Sep 1999 23:16:08 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Before Everyone Goes Preselector Wild....

I have the optional internal preselector which came in my RF-590 and I have bypassed it. I don't operate in a high RF enviroment so there is little need to have one.

Once I removed it, sensitivity went from about 1.0 to .3uv.

Good riddance.

- ---------- Chuck Rippel, WA4HHG R390A List Co-Administrator

Reply to: wa4hhg@amsat.org To Learn More About R390A's, Visit: http://www.avslvb.com/R390A/index.html

1968 Contract Dittmore-Friemuth R390A #38 1967 Contract EAC R390A #2808 with outboard Sherwood SE-3 Synchronous Detector 1967 Contract EAC R390A #9385 1967 Contract EAC R390A #9648 1967 Contract EAC R390A #1023

All in regular, daily use as premier Shortwave Broadcast DX Receivers Also in Amateur Vintage (AM) Communications

---

Date: Fri, 3 Sep 1999 08:48:24 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Murphy's WWW pictures

Gentlemen,

Thanks for the comments about the Harris preselector shown on Murphy Surplus web page. Murphy cites a part number of 10215-6600.

I printed out a computer enhanced copy (sounds impressive, eh?) of the photo on Murphy's page and compared it with the 10215-6650 preselector in my receiver. Both preselectors appear identical, though I cannot discern the component lettering in the photo.

It still remains a puzzle to me.

Greg, thanks for your offer of a trip to Murphy's. Please don't both on my account, though I do appreciate the thought.

= =
Bob Parnass, AJ9S parnass@bell-labs.com

Date: Fri, 03 Sep 1999 11:24:19 -0400
From: "Kevin D. Murray" <murray@spybusters.com>
Subject: Prem-Rx: Rohde / Schwarz HF Receiver - EK-071

Hi folks,

I recently looked into buying an EK-071 (10 kHz - 30 MHz) and decided against it. Nothing against the radio (it was presented as a 10/10), just needed something a little different.

In researching this, I obtained a copy of the original spec. sheet. If anyone needs a copy just let me know.

Kevin WB2ZSD - --

Kevin D. Murray CPP, CFE, CCO, BCFE [Image] Counterespionage Consultants to Business & Government Eavesdropping Detection Specialists www.spybusters.com

----

Date: Fri, 03 Sep 1999 09:27:21 -0700
From: Jerry Gardner <jgardner@peri.com>
Subject: Fwd: Prem-Rx: Before Everyone Goes Preselector Wild....

>I have the optional internal preselector which came in my RF-590
>and I have bypassed it. I don't operate in a high RF enviroment so
>there is little need to have one.
> >Once I removed it, sensitivity went from about 1.0 to .3uv.
> >Good riddance.
Anyone have any comments on the viability of the WJ preselector that's an option for the HF-1000? I have one in my receiver and have always wondered whether it does more harm than good.

Another HF-1000 question: I have firmware version 4.01.09 in mine. Someone on the list mentioned theirs was at version 4.01.10. Does anyone know what the differences are between 4.01.09 and 4.01.10? Is there added or improved functionality, or was 4.01.10 merely a bug fix release?

- -- Jerry Gardner | Periphonics Corporation Senior Project Manager | email: jgardner@peri.com

----

Date: Fri, 3 Sep 1999 15:32:29 -0400
From: "Chuck Rippel" <crippel@erols.com>
Subject: Re: Fwd: Prem-Rx: Before Everyone Goes Preselector Wild....

The question is, why is it needed ? The preselectors were made an option so that solid state front ends of these receivers could work in very high RF enviroments near multiple transimtter fields. Fred Osterman tells me that he sells most preselectors to listeners in Europe.

My HF-1000A has never given me a reason to opt to install the preselector. That said, I am in a very quiet RF area.

> Anyone have any comments on the viability of the WJ preselector that's an
> option for the HF-1000? I have one in my receiver and have always wondered
> whether it does more harm than good.

= Chuck Rippel

Cornland, VA (VA/NC State line 30KM Inland from coast) SWBC DX'er since 1971
Reply to: wa4hhg@amsat.org WJ HF-1000A, R390A/Sherwood SE-3, Harris RF-590, Collins HF-2050 www site: http://www.avslvb.com/R390A/index.html
= =

Date: Fri, 3 Sep 1999 15:31:01 -0400
From: "Tony Ward" <tonyward@home.com>
Subject: Prem-Rx: Information....

Kris came across our web site and sought my advice on contacting list = members re the following equipment. I append portions of his note. Much = of the rest indicates his sensitivity to the possibility of intruding. = Should anyone be interested in what Kris wants, or feels like offering = answers to his queries, please contact him directly at ...

USASwede1@aol.com

He has an ITT Mackay 3010 for sale (but has little idea of price) and = needs information... ******** I have come into possession and own the above radio, which for your = guidance, = 20 is a rack mountable, solid state, synthesized, thumbwheel comm. = receiver. I = 20 also have some harris ssb (RF-230M/RF-236) channelized equipment. (all = in = 20 very good shape - no discrepancies)

I am looking to trade or sell above unit(s) for a dedicated ham band = 20 transceiver, and would like to know if you would either: 1. help me to ascertain the value of this commercial gear; or 2. tell me who can help or would be interested in a fair value trade or = 20 outright purchase; ********** Respectfully .....

Tony (VE3NO) NYAA StarFest On-Line tonyward@home.com = 20 tward@spanit.com
< http://www.interlog.com/ ~ nyaa/
>
Now an Official Beta test site for the Chaos Theory ...

Date: Fri, 03 Sep 1999 12:45:41 -0700
From: Jerry Gardner <jgardner@peri.com>
Subject: Re: Fwd: Prem-Rx: Before Everyone Goes Preselector Wild....

At 03:32 PM 9/3/99 -0400, you wrote:
> The question is, why is it needed ? The preselectors were made an
> option so that solid state front ends of these receivers could work in
> very high RF enviroments near multiple transimtter fields. Fred
> Osterman tells me that he sells most preselectors to listeners in
> Europe.
> > My HF-1000A has never given me a reason to opt to install the
> preselector.
> That said, I am in a very quiet RF area.

I'm also in a very quiet RF area. The only reason I got the HF-1000 with the preselector is because Universal Radio had one with it in stock and I didn't want to wait 4-6 weeks until they got one that didn't. Sometimes impatience can be expensive ;-)

- -- Jerry Gardner | Periphonics Corporation Senior Project Manager | email: jgardner@peri.com

---

Date: Sat, 04 Sep 1999 12:32:19 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Report on Fieldtrip to Murphy's

Gentlemen:

Without getting into the technical justification of the pre selector, and even though SDSU doesn't operate a Harris 590, I accompanied List member Ben Wallace to Murphy's this morning to scope out the pile of pre selectors being offered.

First, I must report on Ben's demeanor while in the "surplus scrounge" mode of operation. His eyes glaze over, drool is visible, and he speaks in short sentences (probably because his forgets to breathe in his excitement). I found his olfactory sense operational as I followed him to Mike's pre selector stash. Once he got the unopened pre selector box in his possession, I noted his vise like grip on the package paralleled that of a Titanic passenger grabbing a life preserver as the great one started to settle.

Just for the record, I would estimate that Mike has an additional 25 pre selectors remaining in stock.

Having reported this, I must also state that Mike, the esteemed proprietor of this emporium, has just returned from a junket to Thailand. A byproduct of his trip is a gross hack that sounds like he may not make it to next weekend. However, between coughs Mike reported to Ben that he may be in possession of a "few" 2050's later in the week/month.

Greg

Here is Mike's address: murphy@cts.com - http://www.maxpages.com/murphyjunk/Home

---

Date: Sat, 04 Sep 1999 17:23:44 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Murphy's reply to last post

Gentlemen:

My post earlier today regarding our field trip to Murphy's Surplus was forwarded to Mike as a courtesy. The following is a partial reply sent to my attention by Mr. Murphy:

"AND I THINK I GOT THE STAFF INFECTION AT THE MAJESTIC HOTEL IN PHNOM PENN (JUST TO SET THE RECORD STRAIGHT)"

Sure Mike, what is the saying... something like, you can fool some of the people some of ..... time? ;-)

Mr. Murphy and I grew up in San Diego and frequented the same surplus yards. While we didn't know it then, we probably saw each other as we drove our bikes out University Ave. to Acro Sales and looked for goodies. Mike was smart, he directed his hobby-interest into a business, while I went to work for the State of California. I would be remiss if I did not acknowledge Mike's cooperative spirit toward working with our students.

Greg

Date: Sun, 5 Sep 1999 08:45:38 -0400

From: "Chuck Rippel" <crippel@erols.com>
Subject: Prem-Rx: Cubic RX For Sale

A friend of mine has a very nice Cubic receiver he would like to sell. I want to say its and R3080.

If anyone is interested, drop me a note and I'll put you in touch with him.

+ +
Chuck Rippel Cornland, VA SWBC DX'er since 1971 Located on NC/VA Line 30KM inland from the Atlantic Coast wa4hhg@amsat.org WJ-HF1000A, R8B, R390A/Sherwood SE-3, Harris RF590, Collins HF-2050

WWW Site: http://www.avslvb.com/R390A/index.html Be sure to check the SWBC DX/Listening Section
+ +

Date: Sun, 05 Sep 1999 07:31:02 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: Lost member: Fredric Einstein

Gentlemen:

When a person changes his E-mail service provider the Premium-Rx server at SDSU send me an error message (Returned mail: User unknown).

In addition, if your server is down at the time of a List transmission, I get an error message. In this case I usually bounce it back to you after a slight delay. FYI, the service "xxxx@home.com" seems to be the most prone to down time of the providers.

For the past two weeks I have been getting an "unknown" message for Fredric Einstein of the Detroit area. His E-Mail address was: feinstei@earthlink.net

If you know the new mailing address of Freddy, please forward same to me.

Txs

Greg

Date: Sun, 5 Sep 1999 13:52:51 -0700
From: "Gerald Caouette" <ve6nap@oanet.com>
Subject: Prem-Rx: HF20 50 for auction on EBay

Recent changes to my shack / radio room , have made another of my Collins receivers available for sale its presently in , its last day of listing on Ebay if any one is intrested URL is bellow

http://cgi.ebay.com/aw-cgi/eBayISAPI.dll?ViewItem&item=155100241

hope this is within the general guide lines of the list

regards Gerald Caouette de ve6nap@oanet.com

Date: Sun, 05 Sep 1999 21:31:45 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Mike Taylor

Gentlemen:

Our 70th member, is Mike Taylor. Mike calls Alpena, Michigan his home where he is an anesthesiologist. However, he also claims a BS in EE so be advised incoherent mumbling about

Premium Receivers while "under" his professional care may get you a justifiable and correct answer (and a consulting fee). The addition of Mike to the List should generate some interest on the part of Walt Salmaniw, our other MD type.

Mike's interest in receivers is a byproduct of his father, who was a USAF comm specialist. He worked on a ham ticket as early as 1955 but other time demands hampered his progress. Later, in the 70's, he worked as a computer engineer on the simulation of circuits. Only recently he has taken up the challenge of the license again and plans to generate some RF in the near future.

His primary area of interest is military communication equipment as evidenced by a R-390, and R-390A. Have no fear, he also includes a 590A, a Collins 2050 and 8054A as well as a Icom 9000.

Mike can be reached at
> mtaylor@freeway.net
Greg

Date: Sun, 05 Sep 1999 21:32:00 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Allan Langer

Gentlemen:

Weighing in as member number 71, Allan Langer operates G6EII in Warrington, a small town between Manchester and Liverpool, England.

His interest in electronics dates back from the age of 12. He has had a

number of receivers over the years, however, his second is of note... 51J4. His list of hardware would take up too much bandwidth, however, let's just say there aren't too many Collins and Racal products he doesn't have.

In the area of Premium-Rx devices, Allan has a Racal 1792, Redifon R500,

Watkins-Johnson WJ 8617A, WJ 8617B, WJ 8700, WJ 8711/12, and a HF-1000.

His current project is to control all the premium receivers from a PC in

one way or another. The fact that some operate on RS232 or IEEE adds a little excitement and challenge. Perhaps some of our present members can assist?

Editor Note: I played a little joke on Allan this morning. He E-mailed

his interest in becoming a member of the List. I happened to be using the computer at the time so I witnessed his message coming in. Instantly I noted he had included his Warrington telephone number in his mailing. So, reaching for Qualcomm's new Globalstar Satellite Telephone, I walked out on my patio, blasted some RF at an overhead satellite, and BINGO.... Allan come on the line.... somwhat dumbfounded I must add. Everything went smooth until the call got dropped and I had to call him back. The Satellite phone is part of a Globalstar Beta test in which my wife, as well as List member Ben Wallace, are involved. So, Allan, now you know the story :-)

Give Allan a blast at
> ALanger394@aol.com
Greg

Date: Mon, 06 Sep 1999 17:35:37 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- John Fallows

Gentlemen:

John Fallows, our 72 member, joins us from Calgary, Alberta.

John has been an active short-wave radio listener since 1964 and picked up an amateur radio license in 1967 (VE4IA, VE6MBA). He worked as an announcer, producer and manager in commercial broadcasting for fifteen years, before obtaining his graduate business degree and working as a management consultant in western Canada. Currently, John is a senior manager for a major computer outsourcing firm based in Calgary.

Perhaps of major interest to many in our List is his interests in computer control of short-wave receiving equipment and propagation evaluation. Recently, John has started a hobby business and published ERGO, an Windows program which integrates receiver control with database, propagation evaluation and other features. He has software for the following receivers: Drake R8A/B, NRD535/D, WJ HF-1000 and TEN-TEC RX-320. (http://members.home.net/creativexpress/).

Naturally, John has a number of receivers, as well as three sons.

Best to you John, and welcome to the List.

Greg

Date: Mon, 6 Sep 1999 21:40:45 -0400
From: John Fisher <76635.615@compuserve.com>
Subject: Prem-Rx: New Member- John Fallows

Good to see yet another Calgarian on the Premium list. It must be something about our long winter nights that draws the Calgarians to the receivers. Mister listmeister, Greg, how many does that make from our fair city?

John Fisher

Date: Mon, 06 Sep 1999 20:04:04 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: How many Calgarians does it take to....

John:

I don't know how many List members there are in Calgary, let alone in the whole of "Oak Leaf" country.

I say "Oak Leaf" knowing it will cause Jan on "Vicky Island" to go into thermal runaway. So, now that I have started an international incident I will just seek shelter behind my Premium-Rx..... where is that R-390 when you need it!

Greg

John Fisher wrote:

> Good to see yet another Calgarian on the Premium list. It must be something
> about our long winter nights that draws the Calgarians to the receivers.
> Mister listmeister, Greg, how many does that make from our fair city?
> > John Fisher

Date: Mon, 06 Sep 1999 20:37:21 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Mike Murphy

Gentlemen:

The subject line states it all, our 73rd member is Mike Murphy.

Like fellow List member Fred Osterman of Universal Radio, there are probably few members of this List that do not know the name of Mike Murphy, or his occupation. It is rather obvious he probably owns (and has been known to operate) a few Premium Radios.

So, after my scathing comments about my field trip to Mike Murphy's Surplus with fellow Listee Ben Wallace, the "kid" in the world famous junk store came up on line and accepted my invitation to join our List. Mike has promised me that he will not play "LET'S MAKE A DEAL" on the List.... but knowing this guy tells me he will probably slip now and then.

So, if by chance you have no idea who we are speaking about, you may want to try: (http://www.maxpages.com/murphyjunk/Home)

Mike, welcome to the List.

Greg

Date: Sat, 11 Sep 1999 13:34:42 -0600
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: Prem-Rx: Collins black box computer rx

While surfing through the Collins site I came across some information on the 95S-1A wideband surveillance receiver. 0.005-2000 Mhz, computer controlled DSP receiver.

http://www.collins.rockwell.com/government-systems/products/pdfs/comm/95s.pdf

I am sure other Premium-Rx readers will find this interesting.

Shaun Merrigan

- -- Shaun P. Merrigan Edmonton, AB, Canada 53.55 N 113.47 W

---

premium-rx-digest Sunday, September 19 1999 Volume 01 : Number 050

Date: Sat, 11 Sep 1999 13:38:18 -0600
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: Prem-Rx: Collins black box computer rx

While surfing through the Collins site I came across some information on the 95S-1A, a 0.005-2000 Mhz, computer controlled DSP receiver.

http://www.collins.rockwell.com/government-systems/products/pdfs/comm/95s.pdf

I am sure other Premium-Rx readers will find this interesting.

Shaun Merrigan

- -- Shaun P. Merrigan Edmonton, AB, Canada 53.55 N 113.47 W

Date: Sat, 11 Sep 1999 14:16:53 -0700
From: dma@islandnet.com
Subject: Re: Prem-Rx: Collins black box computer rx

At 01:34 PM 9/11/99 -0600, Shaun P. Merrigan wrote:
>While surfing through the Collins site I came across some
>information on the 95S-1A wideband surveillance receiver.

> 0.005-2000 Mhz, computer controlled DSP receiver.
> > http://www.collins.rockwell.com/government-systems/products/pdfs/comm/95s.pdf
> >
> I am sure other Premium-Rx readers will find this interesting.
My but radios have changed!

Jan Duncan, British Columbia, Canada

Date: Sat, 11 Sep 1999 19:25:19 +0100
From: "Bob Duckworth" <wb4mnf@atl.org>
Subject: Prem-Rx: R7 parts or parts radio sought. Lightening damaged may be OK.

Some time ago I purchased a low serial number (< 500) Drake R7 as a project. It came in pieces in a box :-) A copy of the service manual finally found it's way here along with a beautiful, late, R7.

First thing after playing a little with the new R7, I drag the basket case down from the attic and see what's there and what's missing.

Less was missing than I feared and there was some extra!

- ---------- - ---------- Need the following, in no particular order...

+10 +5 -5 +25 VDC regulator board. This is the small board that plugs in just in front of the power tranny and has a couple of components HS greased and screwed to the chassis.

meter

bandswitch assembly with or without filter boards. needing the entire assembly incl knob and all front and rear mounting hardware.

Audio/PTO buffer board.

two buttons :-)

- ---------- - ---------- I have duplicates of some parts but they will interest only the serious repair person as they are most likely as inop as the radio. DR7, translator, 2nd/3rdIF/AGC sans 2.3kHz filter, VCO board. - ---------- ---------- - ----------

Please be gentle. This is not going to be a 'swap the board project' and will probably consume more time than it would take at a minimum wage job to acrue the scratch to buy a HF1000. By all appearances either the regulator board failed or the DC power was connected in reverse. Could be lightning damage though.

- -bob

- -bob

Date: Sat, 11 Sep 1999 18:17:16 -0600
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: Collins black box computer rx

The 95S-1 is indeed cool -- I've had one for awhile, and have written some rudimentary control software for it. Don't have as much time to fool with such things as I'd like! As far as I'm aware it's the first DC-to-daylight all-digital-from-the-mixer-on-back receiver.

- -- jm http://www.qsl.net/ke5fx

Date: Sat, 11 Sep 1999 20:28:55 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New member- Pete Ferrand

Gentlemen:

Pete Ferrand checks in to the List driving a ITT/Mackay MSR-5050 as well as a 5050A, and their associated transmitter and transceiver. I believe he is one of the few, if not the only, Mackay premium-rx driver we have in the group?

First licensed as a ham in 1965 at age 12 in New York City, he lived in New Hampshire for more than 20 years and currently lives in Plainfield, which is near Lebanon. Presently, he transmits using the call WB2QLL. Pete works as a radio talk show host and has spent most of his career in broadcasting and writing.

Vintage gear is another sub hobby, including the ownership of a RCA CR-88A, RAL-7, and a Collins R-388. Restoration and tinkering to make things operate better or easier is a major interest as well as sw/mw program listening, and generating RF on the ham bands.

Pete's E-Mail is "Pete Ferrand" <pete@vermontel.net
>
Nice to have you join the List.

Greg

Date: Sat, 11 Sep 1999 22:00:21 -0600
From: "Shaun P. Merrigan" <smerriga@compusmart.ab.ca>
Subject: RE: Prem-Rx: Collins black box computer rx

There was a very interesting discussion of direct conversion receivers in the sci.electronics.design newsgroup. The 95S-1A is mentioned specifically, as are some of the principles of its operation. It makes fascinating reading.

The whole thread is too long to reproduce here (28 messages) but if you want to retrieve the thread, do a power search at www.deja.com for the term "superhet" under the forum "sci.electronics.design".

Shaun

- -- Shaun P. Merrigan Edmonton, AB, Canada 53.55 N 113.47 W

> At 01:34 PM 9/11/99 -0600, Shaun P. Merrigan wrote:
> > While surfing through the Collins site I came across some
> > information on the 95S-1A wideband surveillance receiver.
> > 0.005-2000 Mhz, computer controlled DSP receiver.
> >
>

Date: Sun, 12 Sep 1999 23:24:24 GMT
From: romill@csnet.net (Bob Milne)
Subject: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

Hi Everybody,

I'm the proud owner of the MSR 5050A that was just sold on e-Bay. It was love at first sight. This is one sweet-sounding, comfortable-to operate radio. And no dull-looking LCD displays either. It's got nice red LEDs and a real meter for signal strength/audio level. It looks really sexy in a dark room. If

you get a chance to get your hands on one -- Go For It! You won't be disappointed. Are there any more Mackay owners out there? Anybody know a source for a manual (or copy) other than directly from Mackay?

Regards.... ....Bob

Date: Sun, 12 Sep 1999 20:09:30 -0500 (CDT)
From: jeffa@ix.netcom.com
Subject: Prem-Rx: HF-2050 Tuning Rates

I've been playing around with a newly acquired HF-2050 receiver, and I'm a bit frustrated by the tuning rates. In the "medium" tuning rate, it seems to tune a bit too fast for casual band scanning (seems to be 20 KHz per dial revolution, or 100 Hz per "tick" of the knob - I figure there are 200 "ticks" per revolution). Whereas the "slow" tuning rate is frustratingly slow (seems to be about 40 Hz per knob rev, or 0.2 Hz per "tick").

As anyone looked into what would be required to modify these tuning rates? I assume it would be a firmware change, but I don't have a manual, so I'm in the dark on this one. (I'd love to change the rates to 10 KHz or so for the medium speed, for example).

Apart from this one small nit, I'm really enjoying the receiver.

73,

- - Jeff, WA6AHL

Date: Sun, 12 Sep 1999 20:12:58 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

romill@csnet.net (Bob Milne) asked:

> Are there any more Mackay owners out there?
Yes, I use an ITT Mackay Marine 3031A.

==
Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com Locate & identify transmitters in your area with a color RadioMap(tm) http://www.megsinet.com/~parnass

----

Date: Mon, 13 Sep 1999 02:11:17 GMT
From: romill@csnet.net (Bob Milne)
Subject: Re: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

Hi Bob, Glad to meet another ITT Mackay owner. Can you give me a short take on your impression of the 3031A? I know you've got some messages in the archives on Mackay radios, but all the interesting messages seem to comeback with that darned "Internal Server Error" message. Very frustrating. ....Bob

On Sun, 12 Sep 1999 20:12:58 -0500, you wrote:

>romill@csnet.net (Bob Milne) asked:
>>
> Are there any more Mackay owners out there?
>>Yes, I use an ITT Mackay Marine 3031A.
>>==

> Copyright 1999, Bob Parnass, AJ9S parnass@bell-labs.com
> Locate & identify transmitters in your area with a color RadioMap(tm)
> http://www.megsinet.com/~parnass

Date: Sun, 12 Sep 1999 19:39:56 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Re: Prem-Rx: HF-2050 Tuning Rates

At 08:09 PM 9/12/1999 -0500, jeffa@ix.netcom.com wrote:
> I've been playing around with a newly acquired HF-2050
> receiver, and I'm a bit frustrated by the tuning rates.
> In the "medium" tuning rate, it seems to tune a bit
> too fast for casual band scanning (seems to be 20 KHz
> per dial revolution, or 100 Hz per "tick" of the knob - I
> figure there are 200 "ticks" per revolution). Whereas the
> "slow" tuning rate is frustratingly slow (seems to be
> about 40 Hz per knob rev, or 0.2 Hz per "tick").
> > As anyone looked into what would be required to modify
> these tuning rates? I assume it would be a firmware change,
> but I don't have a manual, so I'm in the dark on this one.
> (I'd love to change the rates to 10 KHz or so for the medium
> speed, for example).
> Jeff, welcome to the club! A while back, in fact back at the beginning, when the group was the "2050 receiver list", a number of us made initial comments about this and several other gripes (no backlighting, skipping keys, etc). As I recall noone came up with an easy answer, though John Bryant's finger knob is a great help when spinning the dials. There was some talk about gathering a group of computer experts to examine this very question, but as yet, nothing has transpired. How about it, computer gurus, can we improve upon this already fantastic receiver? How about releasing all 100 memories?
One last thing, Jeff. Don't forget, run the receiver COOL. Very important.

.....Walt.

Walter R. Salmaniw, MD email: salmaniw@home.com Victoria, British Columbia DXING FROM CANADA'S WEST COAST, using CANADA premier radio receivers: Collins HF2050, (250) 592-1033 Collins R390A, JRC NRD535D, and the Kenwood R5000.

Date: Sun, 12 Sep 1999 20:43:15 -0600
From: John Miles <jmiles@pop.net>
Subject: RE: Prem-Rx: HF-2050 Tuning Rates

I would suggest inserting a flip-flop or two in the shaft encoder line to slow down the "fast" setting to a useful "normal" value, and the "medium" setting to "slow." I agree, whoever picked those tuning rates must've been out of the office when Collins screened their employees for drugs.

- -- jm

Date: Mon, 13 Sep 1999 00:01:31 -0400 (EDT)
From: Steve Stutman <sstut@world.std.com>

Subject: RE: Prem-Rx: HF-2050 Tuning Rates

On Sun, 12 Sep 1999, John Miles wrote:

> I would suggest inserting a flip-flop or two in the shaft encoder line to
> slow down the "fast" setting to a useful "normal" value, and the "medium"
> setting to "slow." I agree, whoever picked those tuning rates must've been
> out of the office when Collins screened their employees for drugs.

Hi All.

If you can't get or reverse (soon to be illegal) the firmware, it might be useful to expand on John's suggestion by going with a PIC. You end up with something more flexible because it contains code and might add features such as variable slew etc.

Easiest incarnation is a BASIC stamp.

73,

> > -- jm
>
-

Steve Stutman KL7JT

Cambridge, MA, USA

"Most people don't think about what they don't think about." -
---

Date: Sun, 12 Sep 1999 22:49:04 -0700
From: "Walter (Volodya) Salmaniw, MD" <salmaniw@home.com>
Subject: Prem-Rx: Noise Blanker HF-2050

Never impressed by noise blankers on other receivers, I was nothing but astounded by the value of the 2050's NB. Tonight, with very unfavourable propagation conditions, I was tuning across the X-band, with quite awful atmospheric noise. Lo and behold, I rotated the NB to about 3:00, and poof, away went the noise, revealling a weak X-bander under the noise. Upto now, I really haven't used this option, and after tonight, I'll definitely use it more often!

.....Walt.

Date: Mon, 13 Sep 1999 07:46:33 -0500 (CDT)
From: jeffa@ix.netcom.com
Subject: RE: Prem-Rx: HF-2050 Tuning Rates

Some interesting ideas! Hardware mods I can handle. This might even get me to open up the PIC evaluation kit I bought a couple of years back.

Looks like I need, at a minimum, the service manual. Anyone know where I can purchase one?

Thanks,

- - Jeff, WA6AHL

Date: Mon, 13 Sep 1999 20:03:50 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Joe Watson

Gentlemen:

Joe Watson is a newest member. Joe has a pair of Racal RA6790/GM's (Stereo?) at his QTH in Edmond, OK, a suburb of Oklahoma City. His principle hobby is restoring "BA" of which he has a stable full. His most recent BA acquisition is an Eddystone 730/4. When not tweaking on one of his restoration projects, he generates RF under the call of W5WBR. Joe has held his license for 50 years.

After working as an engineer for 30 years with Texas Instruments, Joe ENTERED A GREAT OCCUPATION (literary license from the editor) .... specifically, teaching electrical engineering at Oklahoma Christian University. Joe joins another member, John Bryant, also a Professor from the Sooner State.

Drop Joe an e-mail at WJoeW@aol.com

To my fellow colleague, welcome to the List.

Greg

Date: Tue, 14 Sep 1999 18:51:13 -0400
From: "Kevin D. Murray" <murray@spybusters.com>
Subject: Prem-Rx: Rohde & Schwarz EB-100

FYI,

I came across this unusual note in the "News" section of the Rohde & Schwarz web site.

"Frequency range 20 to 1000 MHz Clearance sale for Minport Receiver EB 100

01.07.99 - Our Miniport Receiver EB 100 has now been replaced by a worthy successor: EB200. For this reason we are clearing our demo pool and offer the last 20 units at a special price: 6,000.00 EURO. The associated Active Directional Antenna HE100 is also offered at the special price of 1,300.00 EURO."

Just a side note... This is $6206.94 USD and $1344.84 USD

I have no personal interest in this whatsoever, just passing along some interesting news for a point of reference.

Kevin - --

Kevin D. Murray CPP, CFE, CCO, BCFE [Murray Associates] Counterespionage Consultants to Business & Government Eavesdropping Detection Specialists www.spybusters.com

---

Date: Wed, 15 Sep 1999 08:22:11 -0500
From: parnass@lucent.com (Robert S Parnass)
Subject: Re: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

The ITT Mackay Marine 3031A is a solid, yet plain receiver. The red LED display is easy to read and the weighted flywheel tuning has a very good feel. There is no keypad nor memories, so band traversal takes effort, offset slightly by 3 tuning step sizes.

Technically, there is one memory which is backed up by a set of NiCd cells. This keeps the 3031A tuned to the same frequency if power is interrupted.

My 3031A has an RTTY position instead of LSB, though I suppose you could populate the IF filter board with a different filter.

There's a multiband preselector built in, with bypass position.

The modular construction is interesting. Each module is self contained within a metal box and the boxes are connected to each other using coax and ribbon cables. You can physically remove a module

from the main chassis, open it up, yet keep it connected electrically to the radio for servicing. The obviates the need for any extender cards.

I published a blurry photo and wrote a couple of paragraphs about the 3031A in Monitoring Times a few months ago.

= =
Bob Parnass, AJ9S parnass@bell-labs.com

Date: Wed, 15 Sep 1999 17:11:51 GMT
From: romill@csnet.net (Bob Milne)
Subject: Re: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

Hi Bob, That's a pretty good capsule description. Wish the 5050A had a tunable preselector, it does have suboctave filters, though. I just discovered what seems to be a strange tuning action on the part of the 5050A. If it is set for 10 Hz resolution and you slowly turn the tuning knob exactly one revolution, the frequency changes by 640 Hz. That would seem to indicate a 64-segment optical encoder. Now here's the kicker. When you turn the knob real fast for one revolution the frequency only changes by 220 Hz. So, the faster you turn the knob, the less frequency change you get. Now why would anybody want that kind of tuning action? As soon as I order the manual from Mackay, it may shed some light on this. Regards.... ....Bob

----

Date: Thu, 16 Sep 1999 10:03:56 -0700
From: "Greg W. Bailey" <gbailey@mail.sdsu.edu>
Subject: Prem-Rx: New Member- Bill Strangfeld

Gentlemen:

Our newest member, Bill Strangfeld, drives a Harris 590 in the high noise fields of Wyoming...... that is Wyoming, Ohio, a suburb of Cincinnati. He is very interested in hearing from other 590 operators that share the same parameters.... i.e. 590 and noisy QTHs. Bill's fascination with radio started in high school in northern New Jersey in the far-off days of 1959-63 but he didn't get licensed until 1972. Presently, he operates a Harris RF-1310 exciter and Linear under an advanced class license as W8FIX. Perhaps if other members of the List have a Harris 590 and a 1310 they could drop Bill an e-mail as he may have some data to share.?

The RF-590 is his first experience with a premium solid-state receivers, however, their has been a progression of receivers starting with a National SW-3, FB-7, and HRO, and many thereafter up to some good premium receivers of the past such as the SP-600, TMC GPR-90, R-388, R-390, and R-390-A, which he still has (this should make List member Rippel smile!)..

Due to his close proximity to Fair Radio, Bill has (are you ready for this) "a few field portable sets, clandestine/spy sets, and a German WW2 radar and radio equipment in his officially full basement". This long continued interest in radio has led him to become involved with the Gray History of Wireless Museum in Cincinnati (he is President of the Board of Trustees at the moment).

As a member of the Bar, Bill practices law when not tweaking the controls. However, he would rather spend his time listening to swl and ham bands, especially qrp cw, for which the 590 must be a great tool!!!.

In case you want to blast our newest member's mailbox..... he can be reached at: bstrang@iac.net

Greg

Date: Thu, 16 Sep 1999 23:05:08 -0600 (MDT)
From: Don Moman <ve6jy@freenet.edmonton.ab.ca>

Subject: Re: Prem-Rx: Another ITT Mackay MSR 5050A Driver Here

No 5050 or even a 3041/3031 here - but I do have several of the 3021A. Other than the nice dot LED readout and the smooth tuning knob, I can't find much good to say about the receiver. I checked maybe 3 units and they all seem to act the same, but I can't be certain they all are working correctly. Without the internal cooling fan running at an annoyingly loud speed, the radio starts to loose PLL as it heats up, making the rough AGC action and mediocre audio even worse. Perhaps having the Collins HF-2050 beside it didn't help.....

73 Don

VE6JY Don Moman email: ve6jy@freenet.edmonton.ab.ca Box 127 Lamont, Alberta email forwarding: ve6jy@rac.ca CANADA T0B 2R0 (780) 895-2925

Date: Sat, 18 Sep 1999 11:03:56 EDT
From: ALanger394@aol.com
Subject: Prem-Rx: WJ 8700

Hi All This is my first posting to the list

I have a WJ 8700 Receiver

This is a dual LF/HF unit

Is there any one out there who has one of these so we can compare notes on software versions and build states etc

If there is sufficient interest i can post its history and faults to date, also i would like to know if it possible to remotely control it as the general ergonomics of the small front panel could have been better

Thanks

Allan

Date: Sun, 19 Sep 1999 13:31:30 -0700
From: Ben Wallace <bwallace@sd.cts.com>
Subject: Prem-Rx: Strap for internal speaker/external speaker

I don't have my schematics here, nor a manual. I'm helping out a friend via the telephone with a problem on an HF-2050. He is using an external speaker and all works fine. The internal speaker and headphone jack seem to be disabled. Could someone please look in their manual and tell me the strapping to enable the internal speaker?

Thanks,

Ben -- WB8HUR
